

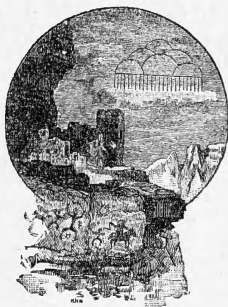


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LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., June 1, 1941.

SIR: I have the honor to submit the accompanying manuscripts, entitled: "A Search for Songs Among the Chitimacha Indians in Louisiana," by Frances Densmore; "Archeological Survey on the Northern Northwestern Coast," by Philip Drucker, with appendix, "Early Vertebrate Fauna of the British Columbia Coast," by Edna M. Fisher; "Some Notes on a Few Sites in Beaufort County, South Carolina," by Regina Flannery; "An Analysis and Interpretation of the Ceramic Remains from Two Sites Near Beaufort, South Carolina," by James B. Griffin; "The Eastern Cherokees," by William Harlen Gilbert, Jr.; "Aconite Poison Whaling in Asia and America: An Aleutian Transfer to the New World," by Robert F. Heizer; "The Carrier Indians of the Bulkley River: Their Social and Religious Life," by Diamond Jenness; and "The Quipu and Peruvian Civilization," by John R. Swanton, and to recommend that they be published as a bulletin of the Bureau of American Ethnology.

Very respectfully yours,

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,

Secretary of the Smithsonian Institution.

PUBLISHER'S NOTE

A separate edition is published of each paper in the series entitled "Anthropological Papers." Copies of Papers 1-26 are available at the Bureau of American Ethnology, Smithsonian Institution, and can be had free upon request.

LIST OF ANTHROPOLOGICAL PAPERS PUBLISHED PREVIOUSLY

- No. 1. A Preliminary Report on Archeological Explorations at Macon, Ga., by A. R. Kelly. Bull. 119, pp. v-ix, 1-68, pls. 1-12, figs. 1-7. 1938.
- No. 2. The Northern Arapaho Flat Pipe and the Ceremony of Covering the Pipe, by John G. Carter. Bull. 119, pp. 69-102, figs. 8-10. 1938.
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- No. 18. Archeological Reconnaissance of Southern Utah, by Julian H. Steward. Bull. 128, pp. 275-356, pls. 43-52, figs. 26-77. 1941.

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Anthropological Papers, No. 19

A Search for Songs Among the Chitimacha Indians in Louisiana

By FRANCES DENSMORE

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A SEARCH FOR SONGS AMONG THE CHITIMACHA INDIANS IN LOUISIANA

By FRANCES DENSMORE

THE CHITIMACHA TRIBE

Two derivations are suggested for the name of this tribe. Dr. J. R. Swanton states (in correspondence) that the name may be derived from sheti, their name for Grand River, and imasha, "it is theirs," or "they possess," transmitted through the Choctaw. Gatschet attributes the origin of the term to Choctaw, chuti, "cooking pot," and imasha, "they possess," the name meaning "they have cooking vessels" (Handbook, 1907, pt. 1, p. 286). "At the present day they call themselves Pantc pinanka'nc, 'men altogether red'" (Swanton, 1911, p. 337).

Dr. Albert S. Gatschet says:

The Chitimacha came into notice soon after the French settled Louisiana, through the murder by one of their men of the missionary St. Cosme on the Mississippi in 1706. This was followed by protracted war with the French, who compelled them to sue for peace, which was granted by Bienville on condition that the head of the murderer be brought to him; this done, peace was concluded. [Gatschet *in* Handbook, 1907, pt. 1, p. 286.]

Swanton states:

This peace was concluded late in 1718. . . . When we first get a clear view of the whole Chitimacha territory we find them divided into two sections, one living on the Mississippi or the upper part of Bayou La Fourche, the other on Bayou Teche and Grand Lake. It is possible, of course, that this second division was the result of a reflux from the Mississippi in later times, but the Chitimacha themselves maintain that they have lived there always. . . . In 1784 we learn that there was a village of about 27 warriors on the La Fourche and two others on the Teche. One of the latter was under Fire Chief, . . . and was 10 leagues from the sea, while the other, under Red Shoes, was a league and a half higher up. . . . The La Fourche band is probably the same that settled later at Plaquemine and of which one girl is said [1907]¹ to be the sole survivor. The remnants of the Teche band are located at Charenton, where they are still to be found.

This tribe was officially recognized by French and Spanish governors of Louisiana and its territorial integrity guaranteed. An act of June 19, 1767, signed by Gov. W. Aubry, recognizes the Chitimacha nation and orders the commandant at

¹ Swanton, John R., in correspondence.

Manchac to treat their chief with respect. Another act, under signature of Gov. Galvez, at New Orleans, September 14, 1777, commands the commandant and other subjects of the Spanish Government to respect the rights of these Indians in the lands they occupy and to protect them in the possession thereof. . . .

The material culture of this tribe was similar in most respects to that of the Indians along the lower Mississippi. It was distinguished from them principally by the increased importance of food obtained from the waters and the decreased importance of food from land animals. If we may trust the early French writers, the Chitimacha and other coastal tribes were less warlike and more cowardly than the tribes higher up the Mississippi.

Their houses were like those of their neighbors, i. e., they consisted mainly of palmetto leaves over a framework of poles, and like them, the houses of the chiefs were larger than those of the common people. According to Benjamin Paul, there was a smoke hole, which could be closed when the weather was bad, but, if this feature was ancient, it constituted a distinct advance on the Mississippi houses usually represented, which are generally without any opening other than the door. [Swanton, 1911, pp. 342-345. An extended consideration of the history, mythology, and customs of the Chitimacha is presented in pp. 337-361, and pls. 22-31. A comparison of the language with that of certain other tribes is presented in Swanton, 1919.]

Gatschet states:

In their aboriginal state the [Chitimacha] tribe supported themselves mainly by vegetable food; but they also ate the products of the hunt, which consisted of deer and other smaller animals. The women had to provide for the household by collecting pistaches, wild beans, a plant called kúpinu (kántak in Chá'hta), and another called woman's potatoes, the seed of the pond-lily (áktā), grains of the palmetto, the rhizoma of the common Sagittaria, and that of the Sagittaria with the large leaf, persimmons (plaquemine in Creole, nánu in Shetimasha), wild grapes, cane seed, and súcú [soco] (guspi in Shetimasha) [the muscadine]. They also planted, to some extent, maize, sweetpotatoes, and, after the arrival of the whites, wheat; or procured these articles by exchanging their home-made baskets for them.

The fishing in the lakes and bayous was done by the women, men, and boys; not with nets, but only with hook and line. They fished at night just as often as during daytime. [Gatschet, 1883, p. 152.]

The Chitimacha have intermarried with the Acadian French until small trace of Indian ancestry remains in their appearance. They take pride in the fact that they have never married among the Negroes.

DETAILS OF FIELD WORK

In January 1933 the writer visited the Chitimacha to ascertain whether any songs remained among them. This was part of a survey of Indian music in the Gulf States, made possible by a grant from the National Research Council, whose aid is gratefully acknowledged.

About 50 Chitimacha live in or near Charenton, La., a village in St. Mary's Parish about 17 miles from Franklin and a similar distance from Baldwin. This is the region known as the Evangeline country and the Indians, as stated, have intermarried with the Acadian French. The village is located on Bayou Teche and is

picturesque with old live oak trees from which the moss hangs in long festoons (pl. 1).

The study of the Chitimacha continued about a week, the writer and her sister, Margaret Densmore, staying in Franklin and going out to Charenton by automobile.

On arriving at Charenton, an inquiry was made for the home of Benjamin Paul, recognized as chief of the Chitimacha.² His house (pl. 3, fig. 1) was not far from the center of the village and was of cypress, unpainted and weathered to a soft gray. A large yard was between the house and the road. The fence was unpainted, like the house, and the gate hung by leathern hinges. Benjamin Paul (pl. 2, fig. 1) was found sitting in a comfortable chair on the porch of his house with his hat on and his hands folded on top of his cane, looking toward the gate as though expecting visitors. He showed no surprise, and said that a little bird had told of our coming. He said the bird was "a kind of canary" and always foretold the approach of strangers. The bird had predicted our coming several weeks before and Paul had mentioned it to his wife, saying that someone was coming from the west to see him. His wife said that the previous day he told her that the bird had given its peculiar note again, facing toward the west. The bird always faced in the direction from which the strangers would come, and we approached from Texas, where the music of the Alabama had been studied.

Benjamin Paul was about 64 years of age, gentle in manner and frail in health. His eyesight was almost gone. Other students have visited him, desiring to know more of the history and language of this interesting and disappearing tribe. He was said to be the only person surviving who could speak the language fluently. He pointed to a huge live oak tree beside his house and said that he had lived in the house since the tree was a sapling. Wild pecan and other trees were in the yard. Back of the house was the bayou, the ground sloping down to the water's edge. The interior of the house was of wide cypress boards, beautiful in their grain and mellowed to a soft color. A fire was burning in the wide fireplace in the front room, and there our conversations were generally held.

Benjamin Paul's wife, Christine Paul (pl. 2, fig. 2), and his niece Delphine Decloux (pl. 4, fig. 1), assisted him in giving information.³ Delphine lived on adjoining land and her house (pl. 3, fig. 2) resembled Paul's, with a large live oak in the yard (pl. 4, fig. 2). Beyond Delphine's was the home of her brother Ernest Dardin, who had taken the

² Benjamin Paul was recognized unofficially as the chief of the remnant of the band, although Gatschet stated that the Chitimacha "have abandoned the tribal organization since the death of their chief, Alexander Dardin, in April 1879" (Gatschet, 1883, p. 149).

³ Pauline Paul, of Charenton, La., stated in December 1940 that Benjamin Paul died October 15, 1934; Delphine Decloux died January 27, 1940; and Christine Paul died June 19, 1940.

responsibility of tribal affairs since the old chief had been in failing health. Ernest Dardin was deeply interested in the education of the children and a room in his house was fitted as a schoolroom. These three families were the nucleus of the band. They were nearest to the old customs yet they wanted the younger generation to progress in the white man's way. Others, though known as Chitimacha, were more French than Indian and it was considered useless to question them. The basketry of the Chitimacha has been encouraged and made profitable through the interest of white friends in the vicinity, and the best basketmakers were in the little group of Benjamin Paul's relatives. (Concerning the basketry of the Chitimacha, see Swanton, 1911, pp. 347, 348, and pls. 23-30.)

Benjamin Paul remembered customs that pertained to music but said that he "never was a singer and did not learn the songs." The women of his household were questioned, and they, too, did not know any of the old songs. Mrs. Dardin, a relative who was at Benjamin Paul's house during the inquiry, recalled that her grandmother used to sing to the children but they "just laughed at her." Thus, the old songs of the Chitimacha have disappeared forever. This is the first locality visited by the writer in which this condition has been found. (The research has continued from 1907 to the present time.) From the information given by Paul, however, it was possible to reconstruct some of the musical customs of the Chitimacha which were similar to the customs in other tribes. He related legends and indicated the points at which songs were formerly sung.

REMINISCENSES BY BENJAMIN PAUL

CONCERNING HIS GRANDMOTHER, WHO WAS A MEDICINE WOMAN

The paternal grandmother of Benjamin Paul was a medicine woman and skilled in the use of herbal remedies. She wanted to transfer this knowledge to him but died before he was old enough to receive it. As a child he sometimes went with her when she gathered herbs but was not allowed to watch her. It is a custom of medicine men or women to sing when gathering their herbs and he could hear her singing softly at her work. (Concerning this custom among the Menominee, see Densmore, 1932, p. 119.)

Swanton, in his extended consideration of the Chitimacha states:

Medicines were owned by certain individuals reputed to be skillful in the cure of this, that, or the other ailment—being native specialists, in other words. These might be men or women, and it is said to have been customary for them to keep their methods of treatment a profound secret until they were ready to die or give up practice, when they confided them to whoever was to succeed them. Thus Benjamin Paul's grandmother was a snake doctor, and claimed to cure snake bites of all kinds. She had communicated to Benjamin Paul her manner of treat-

ing rattlesnake bites, but he did not feel at liberty to reveal it. All knowledge of her other remedies had died with her. She also had a reputation in cases of blindness, and was reputed to have cured patients given up by white physicians. [Swanton, 1911, p. 351.]

Benjamin Paul said that on one occasion he went with his grandmother to get a certain root for a very sick person.⁴ This root was used only as a last resort, and in order to be effective it must be pulled from the ground, not dug, and it must not be broken. The medicinal part of the root grows horizontally from the main root and is about 14 inches long. His grandmother pulled the root and it broke so suddenly that she fell on her back. Weeping she said, "There is no hope." Paul said, "Let me dig it," and she replied, "It is no use. The root broke." Paul begged to be allowed to try, so she let him take her knife and he dug some of the root. His grandmother treated the patient with this root and he began to improve. Thus encouraged, she gathered more of the root and the patient recovered.

POSTIYU, THE MEDICINE MAN

One of the last medicine men among the Chitimacha was Postiyu, who lived in the Indian village at Plaquemine Bayou. Benjamin Paul was about 10 years old when Postiyu used to come to his father's house to visit. Sometimes he stayed around the village for 6 weeks. The people gave him food, and sometimes he prepared his own food, parching corn in the ashes and pounding it in a mortar until he had fine meal for his sofki. All the children liked him and ran to him. He told them stories and they would do anything for him. The parents said, "Get him anything he wants." Postiyu had a drum and used to sing war songs, corn harvest songs, and all sorts of songs, but the people only laughed at his singing. Paul remembered this distinctly.

Only one form of Postiyu's magic is remembered. Paul said that Postiyu could make any horse win or lose a race. If he was bribed with whisky when a race was in progress, he would do anything. For that reason many men would not enter their horses in a race if he was around. His method of making a horse win a race was not described but he often made horses lose by the following procedure: He strewed crumbs of dry wood, like hackberry wood, across the track. The horse saw the fragments of wood and mistook them for a log that he must jump over, so he lost time and lost the race.

Postiyu had a nephew and he used to tell the boy to do this or that. One day the boy refused, saying "That's a humbug." So Postiyu took his nephew over to the bayou and said, "Take a good gun for I am going to send you to get a bear." Together they crossed

⁴ Narratives by Benjamin Paul are presented as nearly as possible in his own words, except for changes from the first to the third person.

the bayou. Postiyu made a rotten hackberry tree look like a bear and the boy was so frightened that he climbed a tree. Then Postiyu shot the rotten tree with his old rifle and said to the boy, "You see that you can't kill even a rotten tree. What would you do if a real bear came along?"

FORETELLING THE HIGH WATER IN 1882

At the age of about 13, Benjamin Paul went into the woods and cooked for a logging camp. The men were getting logs ready to "float." One day he saw some ants working in the trunk of a tree about 10 feet above the water. A bug came out of the bog and went up as high as the ants. At noon Paul showed this to his uncle, saying, "Hurry and fix a way to take out the timber for we will have high water." His uncle said, "How can that be? The paper did not say we would have high water." Paul said, "The water will be *so high*," indicating the height of the ants in the tree. "How do you know?" asked his uncle, and Paul replied, "I saw the sign in Red River." The water rose so high that it came into his house, high on the bank of Bayou Teche. This was the earliest high water remembered in the region, and there was no high water again until 1927. Paul still lives in the house, which shows the mark of the high water on both the outer and inner walls. The mark inside the house is about level with the windowsill.

THE CUSTOM OF BLESSING THE SEED CORN

In old times each family kept its own seed corn, which was "blessed" by the chief before being planted. Alex Dardin was the last chief who followed this custom and he died the year that Benjamin Paul was born, but the old people showed Paul the motion of the "blessing" and the dance connected with it. The chief also blessed the harvest before any of the grain was eaten. The same custom was observed with the first fish or game of the year. A boy was not allowed to taste the first fish or game he secured until it had been "blessed."

THE MEDICINE MAN WHO BROUGHT SNOW AND ICE

A Chitimacha medicine man, long ago, knew how to "make magic" and destroy the crops in the fields. The "beard" of the wild turkey was used in this magic which brought snow and ice. The turkey, like the eagle, was believed to have magic power and neither bird was killed by the Chitimacha. Benjamin Paul related an instance of this man's power. After the white people came among the Indians they had a fine crop. The medicine man said, "I will freeze the

white people's crop." The white missionary said, "No; that will make it hard for everybody."

The medicine man took the beard of a wild turkey, "did something with it," and next day the crops were frozen. This happened in June. The missionary went to that medicine man and said, "See; everybody is having a bad time." The medicine man replied, "Well, I have *done* it *now*."

The conditions were so bad that the white people had to send to the "old country" for food, and help the Indians. Paul added, "So the old Indians did not teach those tricks to the half-breeds."

BELIEFS CONCERNING THE WILD CANARY AND THE WOODPECKER

Benjamin Paul said, "Those who know our language can understand what the birds say. They are very tame." He understands the notes of two birds and "talks with them." One is "a kind of wild canary"⁵ that foretold the arrival of the writer. (See p. 7.) The other is a large woodpecker that foretells rain or approaching danger, especially danger from a snake. At such times its warning note is "chuee', chuee'." Before a rain this bird often makes a sound like "keriŋ' keriŋ'." This sounds like pounding on a board. Long ago the woodpecker used to make its nest in the houses and the children were forbidden to touch the nests. When the bird made its sound "keriŋ', keriŋ'," the old people said, "The bird is building a house." Another of its notes is like pulling out a nail, and as a sign of good luck or approval it says, "keee' suya."

The chief function of the woodpecker is to warn of rain. In explanation it was said that the big woodpecker "would not go into the barge, or houseboat, at the time of the flood." He stayed up in the sky and his feet became very cold. As a result, his feet ache in cold, wet weather. When rain is coming he gives a call like "kwik-këkë'." "If you are on the water and hear this call you had better land and camp for there will be rain the next day."

As an example of a warning by the woodpecker, Paul said that once he went with his aunt and grandmother to gather berries. After picking some they saw a tempting berry on the top of a high bush. The woodpecker warned Paul of danger. His aunt approached from

⁵ "A small yellow bird, called *tcinto*, said to be the wild canary, was able to talk with human beings and foretell the weather. Another bird able to converse with men is a bird called *kū'nsnu*, which appears as cold weather approaches. [Paul stated further that] "While the flood prevailed the redheaded woodpecker (*cuo-kā'kōñsmōñ*) hooked his claws into the sky and hung there. The water rose so high that his tail was partly submerged and sediment deposited upon it by the disturbed waters marked it off sharply from the rest of the body as it is today. After the sea had subsided considerably this bird was sent to find land, but after a long search he came back empty-handed. Then the dove was sent and returned with a single grain of sand" (Swanton, 1911, pp. 354, 357-358).

the other side and he told her of the bird's warning but she said, "Ha! You and your bird!" As she touched the berry, a snake bit her. The grandmother came but was so frightened that she could not see the herb to apply. This is a plant with a white root that resembles the rattles of a snake.⁶ Although Paul was young, he knew this herb and said, "Here it is." He took the fresh plant down to a lake, crushed and moistened it, and put it in his handkerchief. He took it to his grandmother who applied it to the snake bite, covering it with a bandage. This was in the nature of first aid. A white doctor was consulted and said the treatment could not be improved. Then the woman was treated by an Indian doctor and completely recovered.

LEGENDS RELATED BY BENJAMIN PAUL

THE ORIGIN OF THE FLUTE

A boy sat wishing that he could make music on a piece of cane, when the supreme deity⁷ came by, disguised as a traveler. The boy gave deer meat to the deity, who showed him how to make a flute of cane and burn the holes with sharp pieces of hot wood. The flute had four holes on top and one underneath. Later he came by again and the boy had made the flute but did not know how to play on it. The deity showed him how to make music on it.

Concerning the musical instruments of the Chitimacha, Swanton writes as follows:

For musical instruments they used a horn made of cane or reed, a drum, and an alligator skin. The drum was made in ancient times by stretching a deerskin over the top of a large clay pot, but later the end of a hollow log took the place of the pot. Alligator skins were prepared by first exposing the [dead] alligator to ants until all of the softer parts had been eaten out and then drying the skin. Music was made by scratching this with a stick. [Swanton, 1911, p. 350.]

THE MAKING OF THE FIRST PIROGUE

The canoe used by the Chitimacha was a dugout, commonly called a pirogue. It is said that the knowledge of how to make the pirogue was given to the Chitimacha by their supreme deity (designated as God by the informant), who took six Indians into the woods and showed them how to fell a cypress tree by burning the trunk. After the tree had fallen he showed them how to secure a section of the right length by lighting fires under the log, and how to shape the

⁶ A connection between the appearance of a plant and its power or medicinal use was noted among the Chippewa. "A class of plants highly valued as medicines are those having a divided tap root supposed to resemble the legs of a man" (Densmore, 1928, p. 325).

⁷ Chitimacha equivalents: The supreme deity, *ku'tnahin*; the supreme deity when disguised as a traveler, *ohcuma'*; cane of which a flute was made, *pilya'*; a flute, or the sound of a flute or any wind instrument, *ha'hpkopig'*; singing or any music except that of a flute, *te'kashonkent*.

bottom and ends of the canoe by burning the surface of the log and scraping off the charred wood with a clam shell. A fire was made on top of the log for its entire length in order to make the inside of the canoe, the wood being charred and scraped so the opening would be the right depth and width. A mold of mud was laid along the upper edge of the partly finished canoe so the burning would not go too far down on the side, and the upper edge of the opening was made smooth by careful scraping. The supreme deity showed them how to do all this, so the pirogue "would be useful to the Indians in going from place to place." It was propelled by a paddle, like that used in other tribes.

The pirogue was commonly used by the Chitimacha in 1933, one being seen and photographed on Bayou Teche, back of Delphine Decloux' house. Her son demonstrated its use by paddling it up and down the bayou. This pirogue (pl. 1, fig. 2) was 14 feet long and about 18 inches wide in the middle, this being the usual size for two people. It was pointed at both ends and sharper at the stern, with a little keel. Larger pirogues would hold 8 or 10 persons.

THE OLD COUPLE THAT TURNED INTO BEARS

Long ago an old couple raised two nephews. When the boys could talk they called the old people their grandparents. One day the old woman said that she was going into the woods to get some firewood, and she went away. The children were about half grown at that time.

Late that evening the boys went to look for their grandmother and instead they saw a bear. The younger boy said, "That is not a bear. That is grandmother." He wanted to go to her but the older boy said, "No, let her alone." The children went home and said to the old man, "We saw grandmother but she was hairy. The face and ears were grandmother's but her body was hairy."

Soon afterwood the old man went for wood. Next morning the children went for wood and saw a bear that ran from them.

Later the old woman came back, and again she went for wood. The children sought her a second time and saw only a bear. Both children cried, and the older boy began to sing a song so they would forget the change in their grandmother. It was said that each song occurring in the stories had a different melody, though none was remembered.

Three times the grandparents went away, returned and found that the children had been all right without them. Then they went away a fourth time and never came back. They did this so the children would become self-reliant and able to make their own living.

Benjamin Paul said that a family called He'kaäton cannot eat bear meat because their ancestors turned into bears, and Swanton (1911, p. 354) states that some of the old-time Indians "would not eat bear meat because they thought the bear was related to human beings." Swanton also states (in correspondence) that he'kx-atxkôn was a name for the medicine man or shaman." Two names were applied to these men, as it is said that:

Duties connected with the supernatural were performed by a class of priests or shamans called kätcmi'c in the language of the common people, but he'kx-atxkôn by the nobility. There was at least one in every village, each of whom was accompanied by an apprentice who took his place when he died. A very famous he'kx-atxkôn lived at Graine à Volée cove, but after his death the institution was abandoned. [Swanton, 1911, pp. 351, 352.]

THE OLD COUPLE THAT TURNED INTO DEER

An old couple lived in the woods, as in the preceding story, and the old woman went away every evening. Once she did not come back and the man said, "What has become of my wife?" It was too late for him to search for her that night so he waited until morning. Then he saw something in the woods and said, "That looks like my wife. The nose and ears are hers." But when she saw that he recognized her, she ran away. The man sang a sad song with the words, "My wife went away like a deer." (Here occurred a song.)

The next spring he did as his wife had done, going into the woods and changing into a deer. Then the oldest daughter sang a sad song which no one remembers at the present day.

A few months afterward the old couple returned and they were hairy, like deer. One of the children asked, "How did this happen?" They replied, "We had to have deer hair on our bodies." The oldest daughter said, "That is queer." Then she sang a sad song which, like the others, is now forgotten. Each of these songs has its own words and melody.

When the old couple went back into the woods they never returned. Their descendants cannot eat the meat of the deer.

MISCELLANEOUS NOTES

If a man kills a snake "a big snake will fight him all night." Such a man cannot treat those who have been bitten by snakes.

If an infant holds its hands to the fire to warm them, it is a sign of cold weather.

If you had a watermelon patch, an Indian would imitate a crippled dog and go into the melon patch. You would see the motion among the vines and say, "What is that dog doing in my yard?" In this way the Indian would locate the best melons in the daytime, then he would hide in the vines and carry away the melons at night.

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1. BAYOU TECHE.



2. PIROGUE BESIDE BAYOU TECHE.



1. BENJAMIN PAUL.



2. CHRISTINE PAUL, WIFE OF BENJAMIN PAUL.



1. BENJAMIN PAUL'S HOUSE.



2. DELPHINE DECLOUX'S HOUSE.



1. DELPHINE DECLOUX.



2. LIVE OAK IN DELPHINE DECLOUX'S YARD.

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Archeological Survey on the Northern Northwest Coast

By PHILIP DRUCKER

With Appendix

Early Vertebrate Fauna of the British Columbia Coast

By EDNA M. FISHER

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ARCHEOLOGICAL SURVEY ON THE NORTHERN NORTHWEST COAST¹

By PHILIP DRUCKER

INTRODUCTION

This paper has a twofold aim, first to present the results of an archeological survey in the northern British Columbia coast in 1938, and second to attempt to integrate the various materials, published accounts, and museum collections, relating to Northwest Coast archeology. The Northwest Coast, so well studied by ethnographers and linguists, has been grievously neglected as a field for archeological research, despite the fact that numerous features of custom and myth point to strong relationships with Eskimo cultures on the one hand and those of northeast Asia on the other, and raise intriguing problems of historical development. The reasons for this neglect stem from the belief that the coastal sites are small and few, that they are poor in artifactual material, and that much of what material they contain is so poorly preserved owing to climatic conditions as to be irrecoverable. Actually, along the entire coast, sites, consisting of middens of occupational debris on which the villages stood, are both numerous and large. Their artifact content is not high, compared, for example, to that of Eskimo sites, and the lack of pottery is a handicap to survey and stratigraphic testing, but the fact remains that they do contain a moderate per-yard quantity of artifacts, and that objects of bone and horn, and even pieces of wood, are well preserved even in the deepest of the perpetually damp levels. Human skeletal material, too, can be recovered. Archeological research in the area is not only desirable but entirely practicable. It is hoped that this summary of available data, incomplete as it must necessarily be, will stimulate further investigations on the Northwest Coast and thus lead to an understanding of the historical processes involved in the development of

¹ The research on which this study is based was made possible by a fellowship from the National Research Council. Typing and drafting for this paper was done by personnel of Works Projects Administration Official Project No. 65-08-3-30, Unit A-15.

the complex, and in many respects unique, civilization found by the first European explorers to touch on these shores.

It may be well to make clear that the present work deals primarily with the northern portions of the Northwest Coast culture area, which in its entirety extended from Yakutat Bay in Alaska to the vicinity of Mad River in northern California. Some data from the lower Columbia River are drawn on for comparative purposes. This is a somewhat arbitrary division, although ethnographic data indicate that this northern section was a unit distinguishable at a considerable series of points from the southern province or subarea composed of the Oregon and northern Californian coasts. So little is known of this southern province archeologically, however, that it is next to impossible to deal with it in conjunction with the distant northern regions.² It is highly desirable that investigations be made throughout the Oregon-California coast, to establish the relationships of the cultures of this district with the northern ones on the one hand, and those of central California on the other.

The survey here described was made during the fall of 1938. Accompanied by R. K. Beardsley, an undergraduate anthropology student of the University of California, I located and tested a series of midden sites from Prince Rupert to Rivers Inlet (Coast Tsimshian and Northern Kwakiutl territories) and located a number in Southern Kwakiutl territory. The aim of the survey was to apply the direct historical approach to the regional archeology, testing sites which on historic or other evidence were known to have been inhabited during historic times, to define if possible the historic and protohistoric horizons, and to set the stage for linking them with, or distinguishing them from, the prehistoric cultures of the area. It was found that the coast sites lend themselves exceptionally well to this method, for because of their considerable size many of them reveal a series of levels underlying the historic ones (identifiable through the occurrence of contact goods of various sorts) which by reason of their depth must have been laid down in prehistoric times. Conditions are thus extremely favorable for checking possibilities of culture stratigraphy or change.

It is only fair to state that in the light of the ethnographically determinable diversity of the coastal cultures, and evidence of populational changes (Smith, 1903, p. 190), I feel that the probabilities are quite high that culture change should be manifested in these archeological deposits. While definitive evidence of such change was not found, suggestions of it were noted, as will be brought out in a subsequent section. The failure to get conclusive evidence pro or con stratigraphy

² Such investigations as have been made (see Schumacher, 1877; Loud, 1918, Cressman, 1933) have been at the southern end of the province.

is attributable to the relatively small sampling it was possible to get with a small party on a program that entailed covering a large region. Nonetheless, I am thoroughly convinced that the results obtained justify themselves by proving the possibility of archeological research in the area. More important still, they form a nucleus of carefully collected data around which more intensive operations may be built, and with which the scattered, illy documented, but surprisingly numerous lots of specimens in museum collections can be coordinated and evaluated. Typologies based on the museum materials as well as those collected on the 1938 survey, and distributions of some of the more common types, have, therefore, been included in this paper with the aim of making these materials more easily available to future investigators in Northwest Coast prehistory.

THE HISTORIC PERIOD

An attempt to apply the direct historical approach to a new archeological field ordinarily must be based on the records of the period of early European contacts, utilizing them to determine tribal distributions and to identify sites. For the Northwest Coast, however, historic records are less essential, though of unquestionable value as a check and guide, because of the fact that the native cultures there persisted little modified much longer than in many other parts of the New World. The nature and effects of European contacts on the Northwest Coast differed markedly from those in other areas. The chief difference rests in the fact that there have been no major population movements, voluntary or enforced, since earliest historic times. Even despite the steady numerical decrease of population, and the tendency for survivors of decimated groups to assemble in central or stronger villages, the sites of early historic times (and many of them go well back into the prehistoric period) are not only still known and occasionally utilized, but are also considered the property of the rightful heirs of the past occupants. Most of these sites in British Columbia have been set aside by the Canadian Government as Indian Reserves. Consequently, the identification of historic horizons with ethnically known groups does not constitute anywhere near as difficult a problem as in the Plains or the Southeast. Any tolerably well-informed modern native can tell to what ethnic group, and what division within the group, a given site belongs; indeed, he can ordinarily point out a number of the older people who were born there.

The first important date in Northwest Coast history is that of Cook's voyage in 1778. Bering and Chirikoff had made landfall on the southeast Alaskan Coast in 1741. In 1774 Perez, and Heceta in 1775, had sailed up from the south and put in at a few places, but the cultural effects of these early voyages could have been only

infinitesimal. Even Cook's visit was indirectly rather than directly influential on native life, for it was the sale in Canton of the sea-otter furs his men bought at Nootka Sound that drew the fleets of adventurers to the coast—Hanna in 1785, Dixon, Portlock, Meares, and the rest in 1786, and after them a veritable multitude. In the course of a few years, the seafaring traders had pretty thoroughly combed the coast from the mouth of the Columbia to Prince William Sound. Real exploration culminated in the painstaking surveys of Vancouver, 1792-95. The sailing trade continued for some years, until the golden harvest of sea-otter pelts was exhausted. 1835 may be set as the final date of this first contact era on the coast.³

So far as native life is concerned, the sailing trade era affected it but little. True, the people acquired quantities of new material objects—knives, copper kettles, guns, red silk parasols, and the like—and the hunting of fur-bearers undoubtedly came to have a greater importance than formerly, but the ancient patterns of life prevailed with little change. The fact is that these first contacts were of an ephemeral sort. A ship would anchor off a native village, waiting until the people came out with their furs. Often the traders did not go ashore at all; at most they spent but a few days in the vicinity, making sail for another village as soon as it appeared there were no more pelts to be bought. Relations were not always pleasant, of course. The traders were a hard-bitten lot, and some did not scruple to take by force or stratagem furs they thought were priced too dear. On the whole, however, the numbers and warlike proclivities of the natives were a constant enough threat to ensure them reasonably good treatment at the traders' hands. The Northwest Coast was never the scene of long and bitter wars of the kind that climaxed Indian-White relationships in most other areas.

From the historical ethnologist's viewpoint, the sailing trade era is tantalizingly sterile. Not only were the trader's opportunities for observing anything but the most obvious features of native life quite limited, owing to the short and casual nature of the contacts, but only a few of the journals kept are known. Much more valuable are the journals of the two scientific observers, Vancouver and Caamaño, who explored the region with which the present paper is immediately concerned. For our purposes it will suffice to point out that in addition to village-site locations, both accounts show that the tribal distributions at the end of the eighteenth century were the same as those of the more recent ethnographically documented era. Caamaño (1938, pp. 273, 278; compare Garfield, 1939, p. 336) speaks of a "Samoquet" (Tsimshian; sam-ó get, "chief") in the Nepean

³ For a summary of voyages of the early period, see Wagner, 1938, and Howay, 1928.

Sound region, called Gitejon (probably a tribal, not a personal, name), and Vancouver (1798, vol. 2, pp. 276, 278) mentions a number of chiefs of the Restoration Cove and Roscoe Inlet vicinity: Keyet (qai'd), Comockshulah, Whacosh (wokas), Amzeet (hãmtzid), Nestaw Daws, Moclah (mãLo), all good Heiltsuk names.

The sailing-ship traders were finally driven off the coast by the Hudson's Bay Company which, under Simpson, began a vigorous campaign for a monopoly of trade in the region. By 1835 the Company had established Fort Nass (later moved to modern Port Simpson) in Tsimshian territory, Fort McLoughlin, near the site of the modern village of Bella Bella, and Fort Langley on the Fraser, and was in complete control of the coast from the Columbia north to the Russian-held Alaska. With the leasing of the Russian post on the Stikine in 1840, and the building of another on the Taku, the entire area came into Hudson's Bay Company's hands. Under Company rule, a new era came into being. The natives for the first time—save for a few localities such as Nootka, the lower Columbia, and Sitka, where there had been permanent stations for some time—were subjected to sustained contacts with Europeans. The increasing importance of European goods is reflected in the tendency of the people to move in close to the posts. Important Indian villages grew up at Fort Rupert, Fort McLoughlin, Port Simpson, Massett, etc. At the same time, the Company under its *laissez-faire* policy did little to interfere with native life. What changes came about were voluntary adjustments to new materials and new values offered at the trading posts. There appears to have been an actual florescence of native culture. Well supplied with tools, with a new and unlimited source of luxury, or wealth goods, native art reached a new peak, and elaborate rituals and festivals came to be everyday rather than occasional occurrences. Even despite the steady shrinking of population, this was a Golden Age. It has only been in recent times, with the coming of the salmon cannery and the missionary, that native culture has been drastically and more or less forcibly altered. Yet through it all, the fact that the Indian has not been torn from his ancestral homeland but has remained in close contact with it has aided him in the difficult period of reassortment of culture patterns.

For present purposes, the chief significance of the modern condition of the natives is that it so markedly simplifies the task of identifying historic horizons, as previously remarked. There can be little question regarding the exact group to which an historic site is to be referred. Even in the case of places of which we have no documentary notice, reliable ethnographic identifications can be made.

TRIBAL DISTRIBUTIONS ON THE NORTHERN BRITISH COLUMBIA
COASTS ⁴

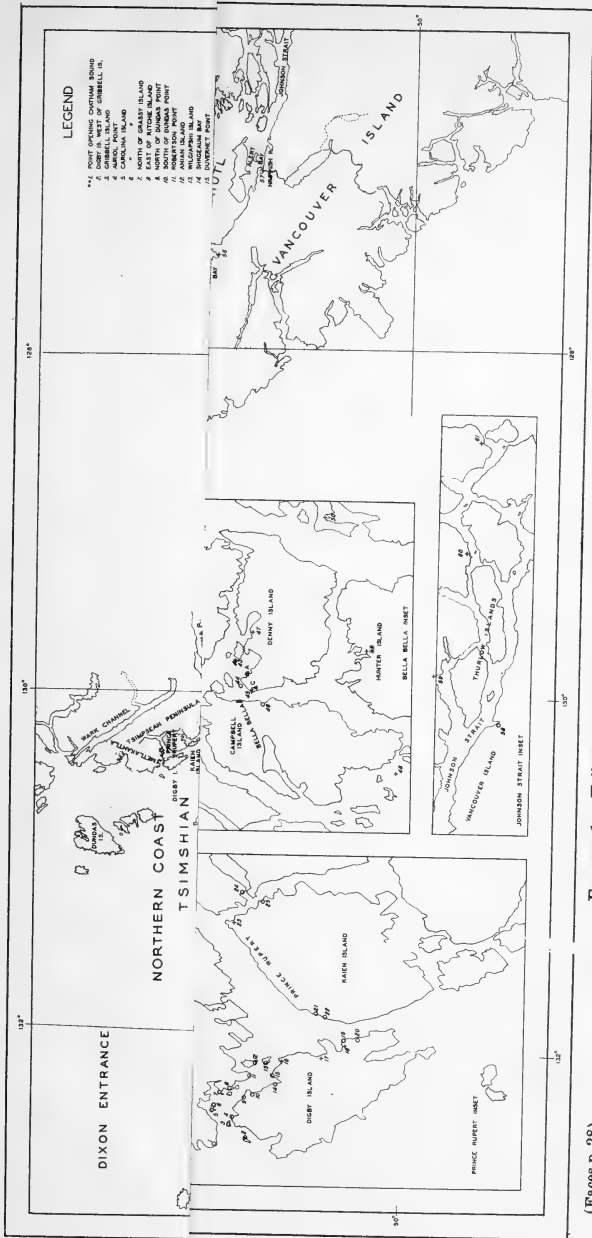
From ethnographic and historical sources, the following divisions can be mapped out (fig. 1). The Coast Tsimshian held the outer seaboard from the mouth of the Nass to the northern shores of Milbanke Sound. There were several major divisions of these people: The Northern Coast Tsimshian, consisting of nine "tribes" (really local groups), who fished on the lower Skeena as far up as the cañon in summer and fall, wintered in separate tribal villages along Venn Passage, and held olachon fishing rights at the mouth of the Nass where they went in the spring. There were three southern groups: The Kitkahtla, whose main village is on Porcher Island; the Kitqata (or Hartley Bay) group, of lower Douglas Channel and Nepean Sound; and the Kitasu tribe, of the Laredo Sound vicinity. The inner waterways adjacent to Southern Tsimshian territory were held by Northern Kwakiutl groups; the Xaisla at the heads of Douglas and Gardner Channels, and the Xaihais ("China Hat") of Poison Cove and Kynoch Inlet. From Milbanke Sound south, the outer coasts were held by groups speaking the Heiltsuk variety of Kwakiutl (also spoken by the Xaihais). These groups cut the Salishan-speaking Bella Coola off from the sea. The southernmost Heiltsuk were those of Rivers Inlet. From Smith Sound south to Cape Mudge, lived the Southern Kwakwaka'wakw tribes, on both the mainland and Vancouver Island shores.

THE LAND AND THE PEOPLE

As an introduction to the regional archeology, the salient features of the natural landscape and of the civilization of its native inhabitants, at least those features likely to be reflected in archeological findings, may be summarized. The northern British Columbia coasts are extremely rugged. Great mountain ranges rise boldly from the water's edge to barren crests 2,000, 3,000, and even more thousands of feet above. The coast line is cut by a network of channels and fiords, and dotted with islands, large and small. Heavy glaciation, followed by general subsidence, is responsible for a great part of this irregularity. Tortuous ironbound coasts are typical of the region. Here and there, one sees a level terrace, a shallow beach, or an alluvial fan at a river mouth, but such places are not frequent. There are hundreds of miles of shoreline but few places to land.

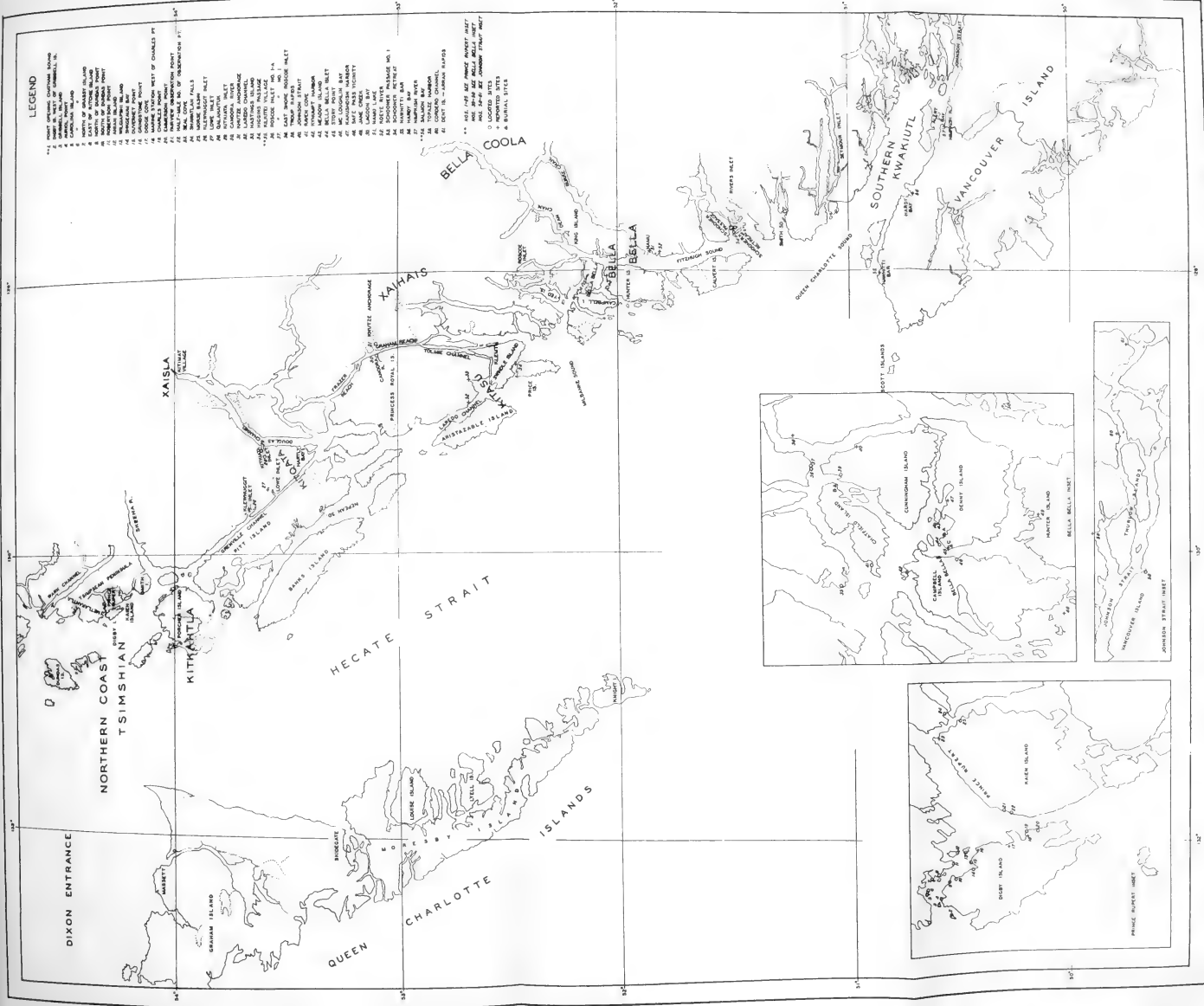
The coast ranges have an important climatic effect, acting as a barrier to the sea winds, which are saturated with moisture after

⁴ The allocations of tribal territories are based on : Garfield, 1939, pp. 175-177 ; Boas, 1897, pp. 328 ff ; and supplementary information obtained by the present writer.



(Faces p. 28)

FIGURE 1.—Tribal distribution on the northern Northwest Coast.



(Faces p. 28) **Figure 1.—Tribal distribution on the northern Northwest Coast.** U. S. GOVERNMENT PRINTING OFFICE: 1941—O-402840

passing over the warm Japanese current offshore. As a consequence, the coast is a region of heavy rainfall and moderate if not warm climate, while just across the mountains, a hundred miles from the outer coasts as a crow flies, dry sub-Arctic conditions prevail. Even at the heads of some of the longer inlets, such as Dean and Douglas Channels, a marked difference may be noted—less rain than on the outer coasts, colder winters and warmer summers, and very obvious floral changes.⁵

Temperature correlates of the prevailing winds emphasize the difference between coast and interior. A southeaster, the storm wind, often of gale intensity, is always accompanied by heavy rain, as are the westerly winds which are common in summer. Offshore winds (north or northeast) are in winter accompanied by clear skies and dry cold.

The typical portions of the coast are covered with a dense tangle of forest. Conifers dominate—Douglas fir (*Pseudotsuga taxifolia*), Sitka spruce (*Picea sitchensis*), hemlock (*Tsuga heterophylla*), red cedar (*Thuja gigantea*, or *plicata*), and yellow cypress (*Chamaecyparis nootkatensis*). Aside from alders (*Alnus oregona*, *A. sitchensis*), most of the deciduous forms are bushes, many of which are berry producing. Salmonberry, wild currant, red and black huckleberry, and salal are among the more common varieties. They form well nigh impenetrable thickets at the edge of the timber along the shores and stream courses. Once through them, one enters a silent gray realm of moss-covered ground and tree trunks, and jutting rocky slopes. The woods are relatively open, for the trees branch high, but are dank and sunless. So abrupt are the slopes that the precipitation runs off nearly as fast as it falls. Perhaps because of this, there is very little soil. The thick layer of needles and leaves remains half rotted and half leached out, and seems never to form good black earth. Occasional blocked basins contain black icy lakes if they are large, muskeg swamps if they are small. All in all, the woods are grim, forbidding.

One need not wonder that the natives were beach dwellers who penetrated the woods but rarely. Dwelling along the shore, they were conveniently situated to exploit the vast aquatic food resources of the area—fish (salmon of five species, herring, olachon, halibut, cod, etc.), mollusks, and, for variety, various marine mammals, and birds. Such land game as was used was “hunted” chiefly by means of traps set along the river banks. The sea even provided some vegetable foods: Several kinds of edible sea weeds were utilized. The important vegetable products, such as berries and roots of one kind and another, could, however, be obtained close to the beach or

⁵ Data on precipitation, etc., in the area can be found in Koeppel (1931).

river. Thus it was that the people lived at the water's edge, derived most of their livelihood from the water, traveled waterways in preference to trails, and regulated their activities by the tides quite as much as by daylight and dark.

Though there were numerous minor differences of culture between the various groups, a few major trends and patterns were common to all. Economically, dependence was not only on fish, but on species—particularly salmon—seasonally available. This brought about a series of annual movements of each group, for a settlement adjacent to a salmon stream might not be conveniently located for digging clams when the salmon run was over or for the herring fishery, or, in late spring and summer, for halibut fishing and sea-mammal hunting. Each tribe, and often each lineage within the tribe, had a series of sites used at different times during the year. Some ranked as important settlements, while others were little more than camps in use but a short season. Within the territory claimed by each tribe there would, therefore, normally be a considerable number of sites, large and small.

Of no little importance is the fact that the chief staple, salmon, could be obtained in great quantity, and was fairly easy to preserve. A surplus could be put up at the fall fishing that would last well through the winter, or to the time of the herring or olachon run. Not only did this almost inexhaustible food source support a dense population, and allow for leisure time in which the native arts could be developed to the peak for which Northwest Coast culture is justly famous, but it permitted the assembling of large groups in the winter villages. In each tribe, lineages returned from their several fishing places to congregate in the winter village for a season of festivity and ceremonial. It was here that carved ornaments and masks and the like were made and used, and here that the great potlatch houses stood.

The dwellings of both Tsimshian and Northern Kwakiutl conformed to the general areal pattern: they were large rectangular structures of split planks. Specifically, they were of the northern type, nearly square in plan with the side planking morticed into slotted plates between the corner posts, and gabled roofs. Southern Kwakiutl houses are known to have changed in type during the late historic period. The old type was long and narrow, the roof, gabled or occasionally of "shed" type,⁶ supported by massive posts and beams against which the planking was laid up. These southern houses were usually stripped of their planking when time came to move to fishing stations, the planks being taken along to be used

⁶ The occurrence of shed-roof houses in this region is reported on the basis of a photograph taken in the 1870's, in the possession of W. A. Newcombe, which shows both shed and gabled roofs at Alert Bay.

there. All the groups constructed houses at important fishing places similar in plan to those at the winter village, although sometimes smaller and usually less carefully built. Among minor patterns, we may note frequent use of pile dwellings, use of cribwork foundations to compensate for inequalities in ground level, and sporadic occurrence of central pits (often "stepped," having four levels) throughout our region.

Like all Northwest Coast groups, Tsimshian and Kwakiutl emphasized woodworking in their manufactures. The presence of a variety of trees—straight-splitting, easily worked red cedar, the finer-grained yellow cypress and alder, and the tough elastic yew—made possible the use of wood for a great number of purposes, and permitted the development of a trend toward woodworking unique in western North America. Not only were there dwellings of wood, but the all-essential canoes that made possible efficient exploitation of the country were cedar dugouts, and food vessels and spoons, storage containers, quivers, and a great deal of the ceremonial paraphernalia—rattles, drums, masks, and headdresses—were made of wood. A variety of tools served the native craftsman. Stone mauls, hand-held among Southern Kwakiutl, both hand-held and hafted among their northern kin and the Tsimshian, served to drive wooden or whale-bone wedges; stone-bladed splitting and planing adzes (the former a Tsimshian tool), and hafted stone chisels were for cutting and planing. Drills with bone points were used to make holes for lashings or dowels at joints. For fine carving, it is probable that knives of beaver teeth were used, although steel blades were adopted so early that no modern natives are sure of the ancient implement.⁷ Sandstone and shark or dogfish skin gave smooth finish. With these tools, and a few simple techniques, the natives were able to make neatly and often beautifully finished objects for whatever purpose they required.

A glance at a collection of tools and weapons from the region makes apparent the pattern of preference for bone, horn, and shell for cutting edges. Arrow, harpoon, and spear points were made most often of these materials. Women's knives were usually the sharpened shells of the large mussel *Mytilus californianus*. Most noteworthy is the dearth of chipped stone. The stone projectile points, and occasional stone knives, were of ground slate. Stone mauls, adzes, and celts were pecked to shape and polished. That the absence of chipped stone was a matter of cultural preference, not environmentally con-

⁷ The pre-European occurrence of iron tools on the coast has been noted by Barbeau (1929) and has been critically analyzed by Rickard (1939). It is worth noting here that presence of small amounts of iron in an archeologic horizon is not of itself diagnostic of the historic period.

ditioned, is indicated by the fact that stone suitable for flaking occurs in the region, although perhaps not in vast quantities.

The trees that furnished material for so many articles of manufacture were the source of another product, textiles. Dress consisted of furs and woven robes and capes. In such a humid climate native leathers are of little service. Neither Tsimshian nor Kwakiutl equalled the Tlingit or Coast Salish in excellence of their woven goods (though traditionally the Tsimshian are supposed to have invented the Chilkat blanket), but they were able to make technologically rather simple robes of shredded cypress bark. The inner layers of the bark were stripped off, soaked, beaten with a heavy grooved mallet, loosely spun, then twined together on a suspended warp loom. Sometimes mountain-goat wool was woven, but less was used than by Coast Salish or the Chilkat Tlingit. The bark of the red cedar was utilized for making the ubiquitous checkerwork mats, used for a thousand purposes—to sleep and sit on, to cover canoes, to gamble or cut fish on, to wear as a rain cape. Checkerwork baskets of red-cedar bark met nearly as many needs.⁸ The same bark was hackled with a whalebone “shredder” to make ceremonial insignia, bandages, cradle padding, and, in the days of muzzleloaders, gun wadding.

The Kwakiutl and Tsimshian were important centers of ceremonialism on the Northwest Coast. Their rituals were for the most part dramatic performances at which supernatural beings and deeds were represented realistically. Deities, spirits, and other beings were personified by masked dancers, who performed to an accompaniment of carved rattles, wooden drums, and wooden whistles. Elaborate and ingenious devices were made to reproduce supernatural events. Great wooden birds flew from one end of the house to the other, a supernatural mink might come up through the floor, run across the room, and disappear, a human dancer would be dragged down into the ground by a spirit from the underworld. Shamanism, too, had a wealth of regalia and tricks that depended on mechanical contrivances.

The social system of our region is of interest on several counts. First of all, the area was heavily populated. Estimates in terms of number of persons per square mile mean little in a region where just the shoreline was habitable, but even such figures indicate a large population. Kroeber (1934, p. 12) has calculated the prehistoric density of the Northwest Coast from the Straits of Georgia north to be 26.3 per 100 square kilometers. At the winter villages, where numbers of clans or lineages assembled, large groups were the rule. Within the group, individuals occupied fixed statuses of graduated rank, the system of grading closely linked with heritage and wealth. Token

⁸ Some spruce root, cedar withe, etc., twined basketry was made, but less, and of poorer quality, than by Tlingit and Haida.

wealth consisted of "coppers" and copper ornaments, *Dentalium* shells, furs, and slaves, all of which were articles of trade. The chief source of copper was far to the north (though there appear to have been several places in the interior from which placer copper was obtained); the dentalia came from the west coast of Vancouver Island. The wide occurrence of these articles throughout the area and in neighboring regions points to a network of trade routes—channels by which not only token wealth but other culture items could be transmitted.

Along with the system of graduated status in part based on ancestry was a marked interest in historical tradition. Genealogies were systematically remembered, to be recited on formal occasions. These family legends, which purport to cover the family's history from the time of its earliest ancestors, are far more than a recital of personal names and relationships—they tell also of war and conquest, and of movements of families from one place to another. The places referred to are actually long-abandoned village sites. So matter-of-fact and internally consistent are these relations, and above all, so consistent are those of one family line with the traditions of their neighbors, that no ethnographer who has worked in the area has denied their historic value. Coast Tsimshian traditions trace the spread of the several tribes coastward and north and south along the seaboard from an ancient site above the cañon of the Skeena—Temlaxam. Heiltsukan folk-history brings these people from the landlocked heads of long inlets, Rivers Inlet, Dean and Burke Channels, through a series of movements down to the outer coasts and northward. One of the most fascinating possibilities of archeological research in the area is that of checking these traditions once the various archeological components have been defined. Nor should it be hard to do, for, as previously remarked, the sites of villages founded during the process of pushing out to the open sea coast are well known by name to modern natives. Archeology may thus be the means of determining the actual historical worth of these traditions; should they prove reasonably sound they could become an aid to research in the regional prehistory.

Differences in social position were reflected in the treatment accorded the dead. Men of standing were accorded great honor; the bodies of the aged, and of slaves, were disposed of with a minimum of formality. The Northwest Coast as an area is one in which there was great diversity in mortuary customs. Among the Tsimshian, bodies of chiefs were sometimes put in caves in cedar boxes, but most people were cremated; while "the body of a slave was thrown out on the beach." Interment is reported by some informants, denied by others. Kwakiutl did not practice cremation. Among the northern groups, small gravehouses were built, and bodies of relatives were put in them from time to time. Among Southern Kwakiutl, a common

mode was to put the cedar box containing the body in the branches of a tree. Cave (or better, rock shelter) burials were also common. All the groups destroyed quantities of property, at least at the death of a person of note. Much of it was burned, although in late historic times valuables were placed at or near the grave. Graniteware dishes, Hudson's Bay blankets, and even sewing machines and gramophones may be seen scattered about near recent graves. Mortuary potlatches, often involving the setting up of a memorial pole, may be construed as another form of the prevalent property destruction. More recently, erection of an expensive tombstone has been equated with the mortuary potlatch and memorial column.

The foregoing all-too-brief résumé of Tsimshian and Kwakiutl culture may serve to preface an attempt to link the ethnologic and archeologic data at hand. The major trends of native life, as we know it ethnographically, should be expressed in material remains from historic archeologic horizons, enabling us to identify and define the culture of the upper levels so that with some surety we may trace it back in time.

ARTIFACTS FROM THE NORTHWEST COAST

As a part of the survey of Northwest Coast archeology, a number of museum collections from the area were examined, with the twofold aim of placing comparatively the materials recovered from the sites tested, and of assembling as many of the scattered data as possible for the convenience of future workers in the area. Collections in the following museums were utilized: American Museum of Natural History (AMNH)⁹, Field Museum of Natural History (FMNH), National Museum of Canada (NMC), Peabody Museum of American Archaeology and Ethnology (Cambridge) (PMAAE), Prince Rupert City Museum (PRCM), Provincial Museum of British Columbia (PMBC), United States National Museum (USNM), and the Vancouver (British Columbia) City Museum (VCM). Since so little archeology has been done on the northern coasts previously, ethnologic materials were drawn upon to fill out the comparative picture. Their inclusion seems quite compatible with the direct historical approach, which aims first of all at a definition of historically identifiable archeologic components. It must be granted that, quantitatively, the sampling error introduced by use of ethnologic specimens is considerable. These collections ordinarily contain many more masks than harpoon points and celts put together. The material, therefore, can be expected to show only gross patterns, not refined regional differentiations and linkages. Nonetheless, it seems

⁹ Abbreviations in parentheses are those used in the following sections to indicate provenience of specimens.

worth while to set up some preliminary classifications of materials found or likely to be found archeologically, and the following paragraphs are concerned with the problem of typology.

A heterogeneous lot of material objects may be classified in various ways. Theoretically, it should be advantageous to group them primarily according to a single one of the several possible criteria—form, material, or function. To follow this procedure consistently would mean that it would be possible to compare components widely separated in time and/or space. In practice, any single criterion is insufficient for specific and detailed classification. The present body of material has been classified according to whichever of the three aspects—material, form, or function—seemed to meet immediate demands. In some cases, material seemed the primary factor of classification; in others, function or form played this role. This procedure has the advantage of flexibility, which outweighs its theoretically objectionable inconsistency.

The ultimate test of any classification of cultural material, of course, is whether or not it is meaningful. Basic to classification is the assumption that the traits differentiating types reflect not random variations of pattern but real cultural differences—differences of manufacturing methods, of motor habits, of use of the finished objects. Thus sometimes no particular significance can be attached to what first appear rather wide differences in form, while certain minute variations are the critical ones. In other words, the validity of any typology must be determined empirically. The best testing ground for material such as the present is that of distribution, vertical or horizontal. Traits that can be shown to occur consistently within a certain archeologic horizon, or throughout a certain region, may be considered valid criteria of culture. Features of sporadic distribution cannot be considered significant. I have attempted to put the present typologies to the proof (tables 1, 2). Many variations of form and material noted in comparing a series of objects without regard as to provenience turned out to have no demonstrable meaning, and, consequently, have been lumped together, so that certain "types" cover a wide range of variants. As fuller and more precise data are recovered from the Northwest Coast, and our knowledge of its prehistory grows, it is probable that we shall be able to discover cultural significances in some of these variations. For the present, however, it is preferable to simplify the classifications as much as possible. Refinement of the typologies will keep pace with the accumulation of information.

Harpoon points.—Harpoon points constitute a class of artifacts easily recognizable in any collection. They may be defined as detachable projectile points usually of bone or horn (metal forms are known only from postcontact collections), equipped for the attachment of a

retrieving line. The harpoon points from the Northwest Coast fall into one or the other of two major categories: one-piece heads with lateral barbs, and composite forms.¹⁰ One-piece toggling heads, the common Eskimo variety, do not occur in the collections from the area except for some late metal types which approximate the more northerly implements.¹¹

The one-piece laterally barbed points at first glance present a confusing range of variation of several form criteria, which may be variously combined in a single specimen: Type of barbs (isolated or enclosed; high or low);¹² application of barbs (unilateral, bilateral, trilateral; in case of bilateral or trilateral: opposed, staggered); cross section of head (heavy rectanguloid, heavy cylindrical, heavy elliptical, thin elliptical, thin ovate); type of tip (simple sharp, wide spatulate, slotted); type of attachment (drilled, slotted, or crescentic line hole; unilateral or bilateral line guard; notch or groove; line shoulder); type of butt (conical, spatulate, truncated, pyramidal, wide flat squared).

Despite the apparent great range of form, however, the barbed harpoon points from the area fall into a fairly small number of types and subtypes. These types are as follows:

Type I. Point of moderate length, 4 to 6 inches), relatively heavy (cylindrical to rectanguloid) in cross section, 1 to 3 high isolated unilateral barbs, simple (unslotted) point, bilateral projectiles for line guard, heavy truncated-conical butt. (See fig. 3, *a, b*.)

Variants of this basic type, which may eventually prove to be distinct subtypes but which for the present had best be lumped into the major group, are as follows: Ia, same as type I, with drilled line hole in addition to line guards (fig. 3, *c*); Ib, same as type I, but with unilateral instead of bilateral projection for line guard; Ic, same as type I, with wide rectanguloid butt with line shoulder instead of conical butt with guards; Id, same as Ic, with drilled line hole in addition to shoulder.

Type II. Short heavy point (length usually 2 to 4 inches), heavy elliptical cross section, 1 or 2 low enclosed unilateral barbs, simple point, rounded laterally tapered spatulate butt, slotted line hole. (See fig. 3, *g, h*.) Frequently the line of the under side of the barb is continued along the shaft by carving or incising.

¹⁰ "One-piece" and "composite" refer to the structure of the body of the harpoon point, not to the presence of inserted end or side blades. Thus, one type of one-piece heads is frequently slotted for insertion of a cutting point of stone (or in recent times of metal).

¹¹ See Niblack, 1890, figs. 137, 137e.

¹² While barb types are quite varied, basically they fall into two major classes: Enclosed and isolated, within each of which there are two or three subtypes. The critical feature is whether or not the barbs are enclosed within the silhouette of the specimen or stand out detached from the shaft. This actually depends on the relative areas of the barbs as compared with the spaces between them. If the barbs are larger than the intervening spaces, the silhouette will be of the enclosed type. (See fig. 2, *a, b*.) The backs of enclosed barbs necessarily are convex (either curved or rectanguloid), those of isolated barbs may be concave or convex. (See fig. 2, *c, d*.) The terms "high" and "low" refer to the relative proportions of length of the barbs and thickness of the shaft. Occasional specimens may be found in which the barbs are intermediate as to type, and cannot be classified on this basis, but for the present these may be disregarded.

Type II variants include: IIa, same as type II, with crescentic line slot (fig. 3, *i*); IIb, same as type II, with drilled line hole instead of slot; IIc, same as type II, but with low enclosed bilateral barbs (fig. 3, *j*).

Type III. Medium to long point (6 to 9 inches) with heavy cylindrical cross section, 2, 3, or 4 staggered rows of low enclosed barbs, slotted point, wide laterally tapered spatulate butt, drilled or slotted line hole (see fig. 3, *k*). The underlines of the barbs are often continued as in type II.

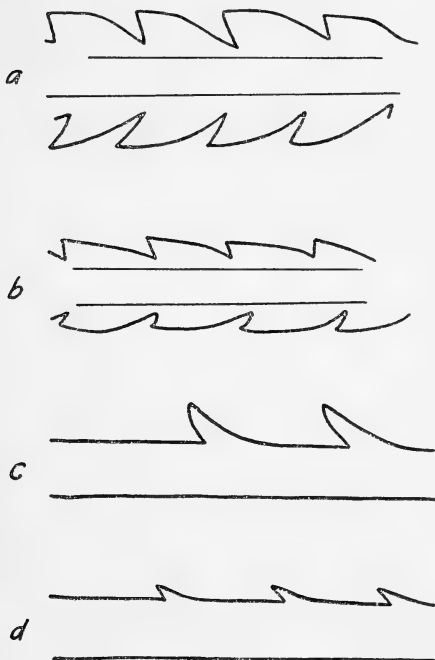


FIGURE 2.—Types of harpoon barbs.

a, High, enclosed. *b*, Low, enclosed. *c*, High, isolated. *d*, Low, isolated.

Type III variants are: IIIa, same as type III, with low isolated barbs (fig. 3, *l*); IIIb, same as type III, with simple point.

Type IV. Harpoon-arrow points (usually under 5 inches long), thin elliptical cross section, low enclosed or isolated barbs, rounded base, drilled line hole (fig. 3, *m*).

Type V. Medium to long point (6 to 10 inches), thin elliptical to lozenge-shaped cross section, 3 or more high isolated (occasionally enclosed) unilateral barbs, simple point, spatulate butt, drilled line hole (fig. 3, *n*). This appears to be a simple unspecialized form, which can be duplicated in collections from many other areas.

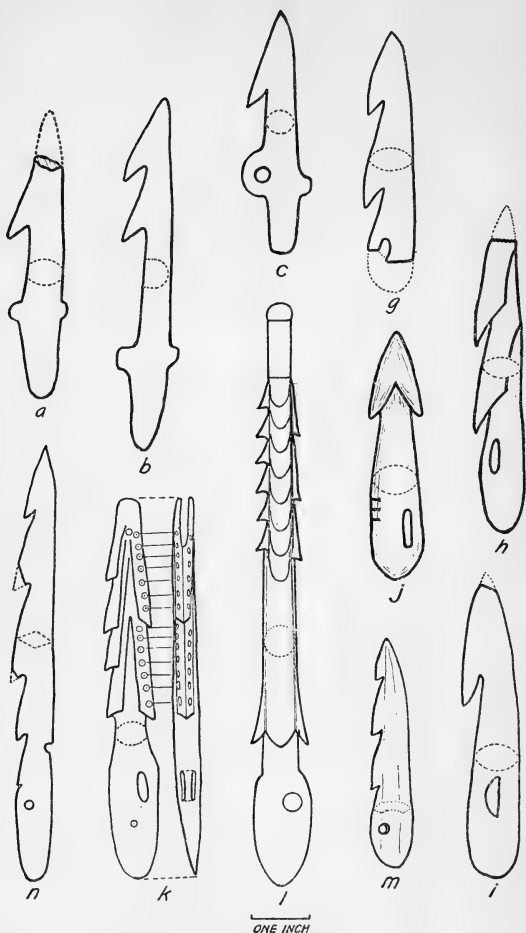


FIGURE 3.—Harpoon points.

a, Type I (VCM, no number). *b*, Type I (AMNH 16/5055). *c*, Type Ia (AMNH 16/5054). *d*, Type II (AMNH E/836). *e*, Type II (NMC XII-B-268). *f*, Type IIa (AMNH E/1983). *g*, Type IIc (FMNH-18045), Tsimshian. (Sketch, scale approx.) *h*, Type III (NMC XII-B-272). *i*, Type IIIa (AMNH 16/8476). (Sketch, scale approx.) *j*, Type IV (NMC XII-B-861). Massett. *k*, Type V (1938/14).

It would be possible to alter the present classification to make it more elastic, indicating the various diagnostic features by factors or symbols as Gillin (1938) has suggested might be done with Southwestern potsherds, so that any combination of elements can be represented by a compact formula. Until a larger series of Northwest Coast specimens is assembled, however, the foregoing classification will serve. Occasional specimens which fit no single category may be regarded as typological sports until the particular combination of traits occurs often enough to warrant designation as an additional type.

Composite harpoons.—A type of implement in fairly common use, though not well represented in archeological collections, is the compound harpoon, made of two proximally diverging barbs fitted to form a basal socket, and at their outer ends to hold a point or blade. Two types may be distinguished:

- Type I. Barbs channeled for tip (i. e., for a tip with a stem or slender base) (fig. 4, *a*).
- Type II. Barbs scarfed to form a blade slot (i. e., for a wide cutting blade). Many of these barbs have lashing grooves as well (fig. 4, *b*).

Ethnologically collected specimens unfortunately can be used but seldom, as a rule, because the lashing and pitch conceals the structural features.

Fixed bone (or horn) projectile points.—From ethnographic sources we know that bone and horn were often utilized as materials for arrow and dart points. Such objects may be recognized by the following features: Sharp tip, more or less symmetrical outline, and base modified for mounting or hafting. It must be admitted that all the objects classed as "points" may not have been made for tipping arrows—some may have been tips for composite harpoons or even halibut hook barbs (although the mounted hook barbs of bone that I have seen are more slender than the objects in the present category).

The bone points present a considerable range of form. The most obvious division is that between those with, and those without lateral barbs. These two major classes designated as: (A) Fixed points with lateral barbs, and (B) fixed points without lateral barbs, may be treated separately.

Class A.—Fixed bone points with lateral barbs: Several types of laterally barbed points are distinguishable according to type of cross section, placement, and type of barbs, and form of butt. Some of these points which are very long may have been end prongs for multipoint bird darts. The barbs of this class of points are more variable than those of the barbed harpoons, many being very elaborate and delicate. Presumably strength was less of a consideration than in the harpoon points where the barbs had to be strong

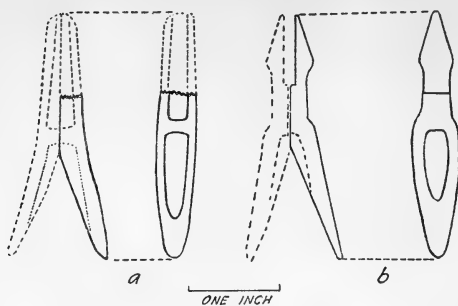


FIGURE 4.—Composite harpoons.

a, Type (NMC XII-B-425. N. S.) *b*, Type II (AMNH 16/6210). Comox.

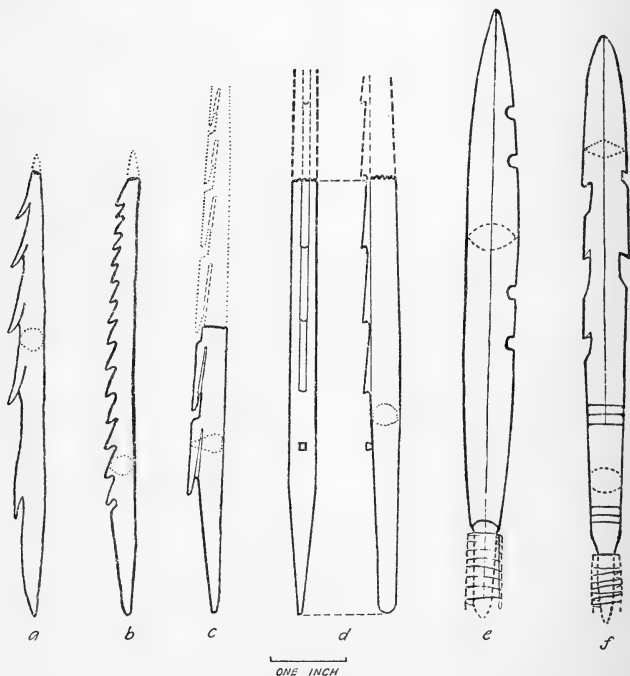


FIGURE 5.—Fixed bone (or horn) projectile points. (Class A.)

a, Type AI, low isolated barbs (AMNH 16/5131). Eburne. *b*, Type AI, low enclosed barbs (VCM, no number). (Sketch, scale approx.) *c*, Type AI, long angular enclosed barbs (AMNH 16/4536). Port Hammond. *d*, Type AI, low ridged barbs (AMNH 16/5125). Eburne. *e*, Type AII (FMNH 19900). S. Tlingit. (Sketch, scale approx.) *f*, Type AII (FMNH A 78725). Chilkat Tlingit.

enough to hold a drag or float. The following barb varieties may be distinguished (see fig. 5): Isolated (fig. 5, *a*), enclosed (fig. 5, *b*), long angular enclosed (fig. 5, *c*), low ridged (fig. 5, *d*), and notched (fig. 5, *e*). Heavy high barbs are rare. The following types may be distinguished among the complete specimens:

- AI. Rounded cross section (flattened to heavy ellipsoid or ovoid); unilateral barbs, ridged, isolated, enclosed, or long angular enclosed; spatulate or conical butt (fig. 5, *a-d*).
- AII. Thin lozenge or lenticular cross section (i. e., 2 cutting edges); unilateral or bilateral barbs, notched, often irregularly spaced; stemmed butt (fig. 5, *e, f*).

In addition to the foregoing, collections from some regions, particularly northern Tlingit territory, contain points of obvious Eskimo or Aleut type—heavy cylindrical pieces, with rows of long enclosed, or low isolated barbs, and reduced tang.¹³ These indicate alien influences, if the specimens themselves are not trade pieces of Eskimo manufacture.

Class B.—Fixed bone points without lateral barbs: A series of formal features relating to outline, hafting, base form, and cross section occur in various combinations in these points. Type of hafting and silhouette seem at present the most significant criteria for definition of types:

- BI. Points with thin squared or rounded bases, produced by convergence of the faces. Such points were made to be inserted in the cleft end of a shaft. Two subtypes may be distinguished:

A. Full (unconstricted) silhouette. Four variants within this form have been noted, but as yet do not appear to have diagnostic significance: (a) parallel sides, abrupt tip (fig. 6, *a*); (b) parallel sides, gradually tapering tip (fig. 6, *b*); (c) gradually tapering sides, abrupt tip (fig. 6, *c*); (d) gradually tapering sides and tip (fig. 6, *d*).

B. Constricted sides (fig. 6, *e*).

- BII. Points with shaft bed and basal barb(s). These points were meant to be lashed against a scaffold or beveled shaft end. Informants probably have reference to this type when they tell of arrow points which detached from the shaft, and "worked around" in the quarry's body. Subtypes are based on silhouettes like those of the preceding type:

A. Full (unconstricted) silhouette (fig. 6, *f*).

B. Constricted sides (fig. 6, *g*).

Chipped stone points.—Chipped stone is of peculiarly restricted distribution on the Northwest Coast, occurring only in certain localities. In the collected materials, a fair range of point types are found: NAA, NAb1, NAb2, NBa, NBa1, NBb, NE, SAa, SAb, SBa, SBc, SCb2, SCb3.¹⁴ In order of frequency, NAb1, NBa, SAa, and SBa

¹³ Collins figures a variety of points of this general type (Collins, 1937, pl. 34, figs. 1-13, pl. 74, figs. 5-10).

¹⁴ Classification following Strong, 1935, pp. 89-90.

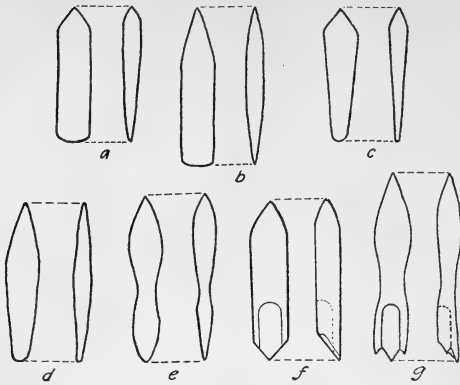


FIGURE 6.—Fixed bone (or horn) projectile points. (Class B.)

a, Type BIA. b, Type BIA. c, Type BIA. d, Type BIA. e, Type BIB. f, Type BIIA. g, Type BIIB.

types predominate, the others being represented by a few specimens only. Basalt and slate figure prominently as the materials for chipped points in most localities.

Ground slate points.—Points made of ground slate are common along the coast as also in the regions farther north. They run for the most part to elongate triangular and leaf shapes (NBa, NAb1, NAb2) proportionately much longer than chipped points, some in fact suggesting ND forms, though with long tapering tips. Stemmed forms (SBa, SBc) also occur, though rather infrequently (these seem to be the commonest forms in southwest Alaska) (de Laguna, 1934, pp. 70 ff., pls. 31, 32). In cross section the points range from elongate hexagonal (flat sided with bevelled edges), lozenge shaped, to lenticular. No significant correlations of outline and cross section have been noted as yet. A distinctive form is represented by a few species only: This is a very wide point, vaguely suggesting in its proportions the shell cutting blade of the recent Nootkan whaling harpoon. Two such points from Tlingit territory had drilled lashing holes near the base (fig. 7, *d*). The very long heavy "bayonet" points should be classed separately. A number of such objects have blunt or even rounded lateral edges, so that they must have been made for a purpose rather different from that of the small points. The function of these objects on the coast is unknown; they would have made serviceable lance or dagger points.

Type I. Slate points, variable cross section, usually unstemmed (fig. 7, *a, b*).

IA. Very wide short points (fig. 7, *c, d*).

Type II. Long "bayonet" points (or blades) (fig. 7, *e, f*).

Splitting adzes.—The designation of heavy adze blades modified (usually by a one-quarter groove) for hafting to a T-shaped handle

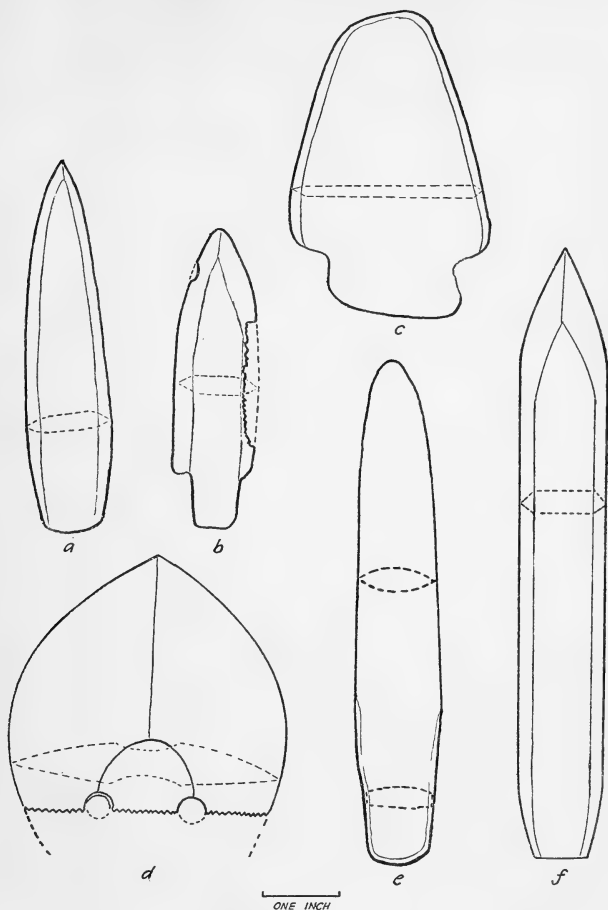


FIGURE 7.—Ground slate points.

a, Type I (AMNH E/122). Angoon, Alaska. b, Type I (AMNH E/1803). Sitka. c, Type IA (NMC VII-B-207). N. Saanich. d, Type IA (USNM). SE. Alaska. (Sketch, scale approx.) e, Type II (AMNH E/122). Angoon, Alaska. f, Type II (PMBC 983). N. Saanich.

as "splitting adzes," in accordance with de Laguna's suggestion (1934, p. 57), is a convenient one for typological purposes. It should be

noted, however, that large flat celts sometimes served the same purpose.¹⁵ The Northwest Coast splitting adzes¹⁶ are of various materials, tough igneous stones being preferred, and vary in size from 4.6 inches long, 1.8 inches wide, and 1.2 inches high¹⁷ to huge unwieldy-appearing blades, the approximate measurements of one of which are: Length, 11 inches; width, 1.5 inches; height, 5 inches.¹⁸ Most adzes are from 6 to 8 inches long, with width-height measurements from 2 to 3 inches (though width-height ratios vary considerably). It is interesting to note that the polls of many of the adzes

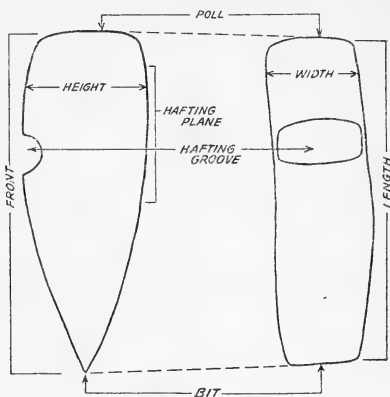


FIGURE 8.—Nomenclature of splitting adzes.

from Tlingit territory are rough and battered; some apparently were never completely trimmed and polished.

The splitting adzes are rather difficult to classify, for they present considerable variation of form, and the several traits which might have had typologic value—type of poll, type of cross section, number of grooves, fluting, etc.—seem to occur in all possible combinations with little tendency to cluster. Nonetheless, a few major divisions may be made based on examples which are extremes in one or another respect, with intermediate groups for the in-between specimens. When further examples have been collected, it should be possible to refine, or entirely revamp, the present classification.

Type I. Elliptical cross section, flat (i. e., wider than high), rounded poll (fig. 9, *a*). (I have seen but few of this type; they are quite distinct from the other forms, and may, indeed, be cultural sports.)

¹⁵ AMNH No. 16.1/297, 19/106.

¹⁶ See fig. 8 for nomenclature of splitting adzes.

¹⁷ AMNH 19/133.

¹⁸ PRCM (no number).

- Type II.** Rectanguloid cross section, much higher than wide; heavy squared poll, height as great or greater than at shoulder, giving the adze a more or less triangular profile (fig. 9, *b*).
- Type III.** (Transitional.) Cross section like type II; poll laterally narrowed, and rounded from front to back (fig. 9, *c*).

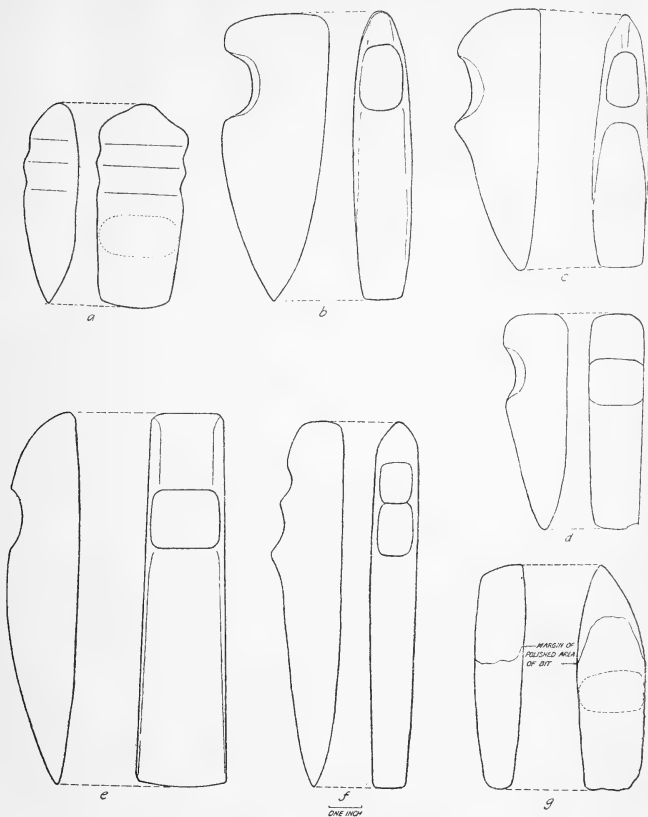


FIGURE 9.—Splitting adzes.

a, Type I (AMNH E/1265). *b*, Type II (PRM-32). *c*, Type III (PRM-33). *d*, Type IV (PRM-14). *e*, Type V. *f*, Type VI. *g*, Type VII.

Type IV. (Transitional.) Rectanguloid cross section, width and height nearly equal, poll as in type II (fig. 9, *d*).

Type V. Rectanguloid cross section, width and height nearly equal, poll rounded from front to back (fig. 9, *e*).

Type VI. Long slender adzes, rectangular with rounded corners to cylindrical in cross section (fig. 9, *f*).

In addition to the foregoing, a group of adzes from southeast Alaska¹⁹ appear to form another type, distinguished chiefly by their rudeness. On these pieces only the bit ends are well worked, the remainder being only rudely pecked to form, and not too symmetrically. Only two of the dozen had good deep hafting grooves. (See fig. 9, *g*.) The high polish and signs of use of the bits indicates these are not unfinished blanks, but finished pieces. As will be pointed out later, other

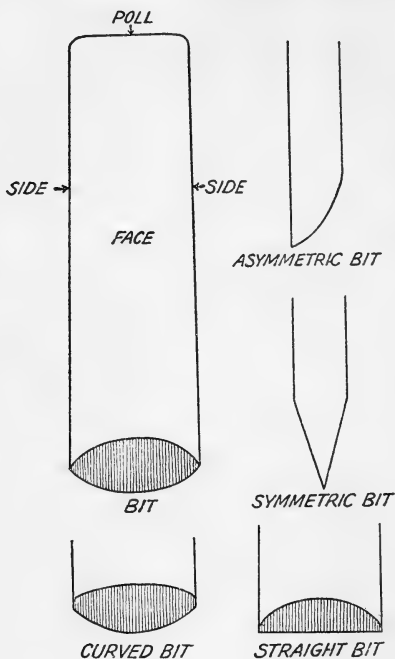


FIGURE 10.—Celt nomenclature.

utilitarian objects from Tlingit territory—celts—characteristically show the same sort of roughly blocked out asymetric polls. These rough-pollad adzes will be listed as type VII.

Celts.—Northwest Coast celts were an important part of the wood-working complex. A series of typologic differences to be seen in them probably reflect different modes of use. Some were hafted as adze blades, on either the “V-shaped” or the “elbow” adzes, others served as chisels, being mounted in socketed antler hafts in the Georgia Straits

¹⁹ USNM Nos. 150075-76, 150080-81, 150083-84, 150088, 150091-92, 150094-95, 287515.

region (Smith, 1903, fig. 29, *d*), in scarfed or bedded wooden handles (Boas, 1909, fig. 45, *a, b*, and pp. 319-320), or, as the battered polls of some specimens indicate, struck directly without a haft to absorb the blow. The most common materials of which the implements were made are jadeites in the Straits of Georgia and southeast Alaskan regions, and serpentines in the intervening districts. A fairly high percentage of the jadeite specimens show traces of sawing on one or both sides.

A preliminary classification of celt types is as follows:²⁰

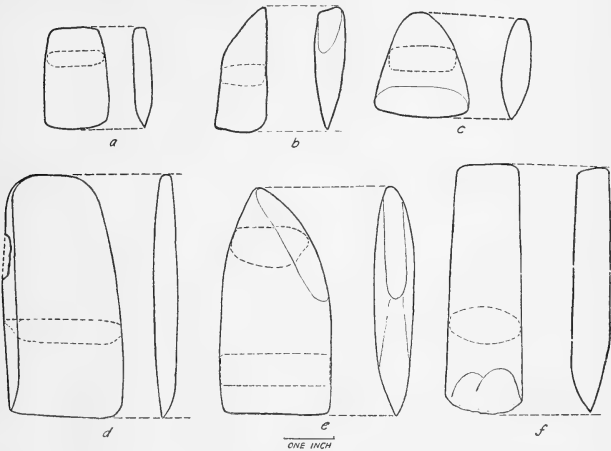


FIGURE 11.—Celts.

a, Type IA (NMC XII-B-425). N. Saanich. *b*, Type IB (AMNH 19/142). Chilkat. *c*, Type IC (NMC XII-549). Lower Fraser. *d*, Type IC (AMNH 16.1/1529). *e*, Type IIA (AMNH E/2627). (Not to scale.) *f*, Type IIA (PRCM, no number).

I. Celts with symmetrical outlines, sides parallel or tapering very slightly toward the poll. A number of variations in form set off the subtypes of this group.

IA. Small, very thin celts, with flat faces, usually flat or square-cut poll, slightly curved symmetrical bit (fig. 11, *a*).

IB. Larger celts, with square-cut poll, cross section elliptical to rectangular, bit symmetrical, usually curved (fig. 11, *b*).

IC. Celts with rounded poll, elliptical to rectangular cross section, bit usually asymmetric, straight (fig. 11, *c, d*).

IIA. Celts with asymmetric outline, sides tapering strongly to poll, poll rounded or coming to round point, cross section elliptical, bit straight, usually asymmetric (fig. 11, *e, f*).

IIB. Same, but with roughly finished (unpolished) faces and poll.

²⁰ See fig. 10 for nomenclature of celts.

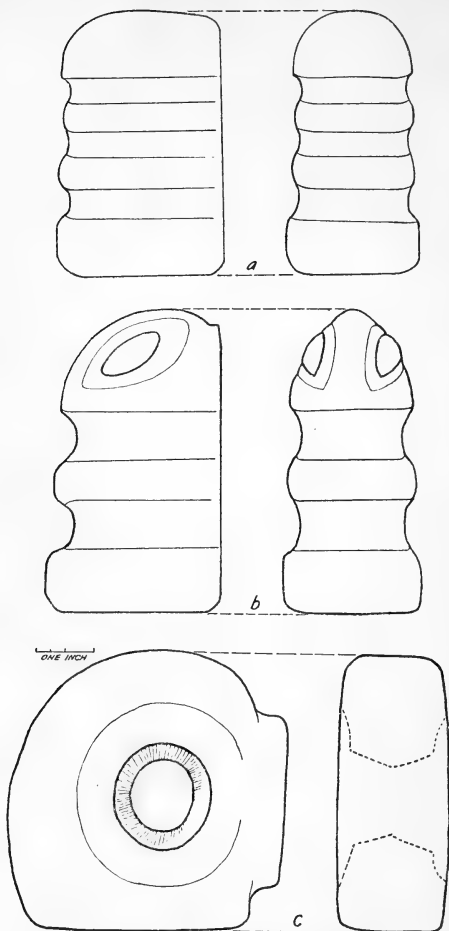


FIGURE 12.—Stone mauls, hafted.

a, Type I, plain (FMNH-A/18611). (Sketch, scale approx.) *b*, Type I, zoomorphic (FMNH-A/18607). (Sketch, scale approx.) *c*, Type II (FMNH A/18617). (Sketch, scale approx.)

Occasionally, one sees a double-bitted celt in a lot of material from the area. These are variants of the widespread type IB.²¹ They may have been hafted to T-hafts as adzes.

Hafted mauls.—Stone mauls, intended for hafting, to be used like our sledge hammers, show few significant typological differences. The chief point of difference is mode of hafting, that is (three-quarter) grooved (type I) (fig. 12, *a, b*), and perforated (type II) (fig. 12, *c*)

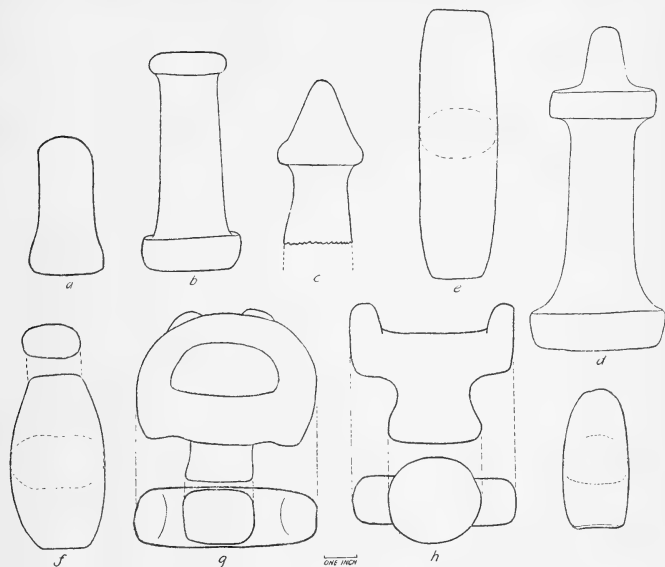


FIGURE 13.—Hand mauls, stone.

a, Type IA (FMNH-A-18562). Bella Coola. (Sketch, scale approx.) *b*, Type IB (FMNH-A/23318). Bella Coola. (Sketch, scale approx.) *c*, Type 1B1 (PRCM-H-114), *d*, Type 1B1 (PRCM, no number). *e*, Type IC1 (PRCM, no number). *f*, Type IC2 (AMNH 16/6276). Nimkish River. *g*, Type II (NMC-XII-B-365). Port Simpson. *h*, Type II (NMC-XII-B-365). Port Simpson. *i*, Type III. 1938/307.

forms. The latter are usually higher (the same nomenclature is applied to these implements as to the splitting adzes, q. v.), and more nearly elliptical in cross section (parallel to the striking surface) than the former, which tend to be more nearly equal in height-width dimensions, and D-shaped. Grooved mauls vary chiefly in type of poll (round, pointed, or carved zoomorphic), and in number of grooves (one, two, or three), but no clearly defined subtypes appear.

²¹ AMNH E/2663 (Angoon, Alaska), CNM-XII-B-1630 (Bella Coola).

The dimensions of the hafted mauls range as follows: Length, 4 to 7 inches; height (type I), 2.5 to 3.6 inches; (type II) 3.5 to 5 inches; width 2 to 3.5 inches.

Hand mauls.—A considerable variety of stone mauls or hammers meant to be used without hafts occur in collections from the coast. They fall into a number of types, as outlined below.

- I. Mauls cylindrical to elliptical in cross section, striking surface(s), with
 - IA. Plain to slightly expanded ends (fig. 13, *a*).
 - IB. Flanged end(s)²² (fig. 13, *b*).
 - IB1. Cone or nipple top (fig. 13, *c, d*).
 - IC. Elliptical cross section, longitudinally tapering, square-cut ends, both ends used, occasional traces of lateral wear, with or without the following:
 - IC1. Very slight longitudinal taper, long (fig. 13, *e*).
 - IC2. Pronounced longitudinal taper, short, markedly elliptical (fig. 13, *f*).
- II. Mauls with T- or stirrup-shaped handle (fig. 13, *g, h*). All mauls of this type are grouped together because the T-handled specimens seem mostly to be broken and reworked variants of stirrup-handled forms.²³
- III. Rectanguloid mauls (rectangular with rounded corners), D-shaped cross section, striking surface at one end (often concave), other end rounded (fig. 13, *i*). These implements may have been hafted, the one flat surface being a hafting plane; however, there are no definite modifications for hafting, and most of these implements are much smaller and lighter than the usual hafted stone mauls.
- IV. Battered cobbles. Beach cobbles of convenient size were often used for pounding. Either or both end or lateral battering indicates such use. They are probably much more common in the area than number of examples in collections indicates.
- V. One-piece handled mauls with lateral striking surfaces. (See Boas, 1909, fig. 44, *a, b*.)

Pile drivers.—Large flat stones, often 20 to 30 pounds in weight, were used for driving stakes for fish weirs, etc. They ordinarily have grooves cut near the ends for grips; some have the grips cut in the form of hands, to fit the thumbs and fingers of the user. Occasionally one sees an object of this class with low-relief decorative carving. Boas has distinguished the main types:

- I. Circular (Boas, 1909, fig. 42).
- II. D-shaped to rectanguloid (Boas, 1909, fig. 43).

Stone bark shredders (?).—These objects, whose identification is quite speculative, resemble in form the IB type of bone cedar-bark shredders, though the latter are generally thinner, longer, and wider. The stone implements have a perforated grip a little above the

²² Hand mauls with flanged end(s) exhibit a complete range of all possible combinations: flanged striking end with plain poll, flanged poll with plain (slightly expanded) striking end, both ends flanged. Those with flanged polls may or may not have cone or nipple tops. So far no distributional significance appears to attach to any particular combination of features, so all flanged forms are lumped together.

²³ Niblack refers to these mauls as "paint-pestles" (Niblack, 1890, p. 281).

middle, and taper rapidly to a rather dull, often slightly battered, edge; they were certainly pounders or choppers of some sort (fig. 14). A typical example (FMNH-A 18981) is roughly D-shaped, 6.3 inches long, 4.7 inches wide, and 1.3 inches thick. The objects are usually of rather coarse material; I have not seen any well-finished and polished pieces of this kind.

Slate blades.—Wide flat blades of ground slate are common in some regions. Complete specimens are usually rectanguloid in form, with slightly curved edge and back, and vertical sides. Numerous pieces occur, however, which appear to be reworked or modified fragments of the large blades. These are irregular in outline, though the backs are polished from use. The cutting edges are often straight. Occasional examples of a third type of blade are found: small, el-

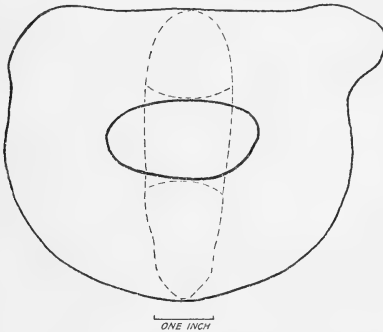


FIGURE 14.—Stone bark shredder (PRCM, no number).

liptical blades, notched or tanged for hafting, similar to certain types of Eskimo ulos. Narrow parallel-sided blades, similar in form to the Eskimo man's knife, also occur, though infrequently; they may be a subvariety of the second type—the reworked, straight-edged fragments of large blades. The use of these various types of slate blades is not known. Smith (1903, p. 159) has assumed that those he found were all knives for cutting fish, drawing attention to their similarity in form to present-day fish knives of metal.²⁴ As a matter of fact, however, while such knives were in use in recent times, they were far less common than blades of the shell of the large mussel (*Mytilus californianus*). I believe that many of the blades, particularly the reused fragmentary forms with straight edges, were used as saws for cutting stone and bone. The regions in which these implements occur commonly are just those in which sawing

²⁴ Smith has pointed out other types of objects as well which may have served as saws (1903, p. 167).

was a common cutting technique. The wide blades with curved edges and the hafted forms may have been knives, of course.

- I. Wide rectanguloid blade, no modifications for hafting, cutting edge usually slightly curved (fig. 15, *a*).
- II. Small irregularly shaped blade, wear-polished back, straight edge (fig. 15, *b*). (Distinguished from fragments of type I by wear on back.)
- III. Small, elliptical blade, hafted (or modified for hafting) (fig. 15, *c*).

Bone awls and awllike forms.—Kidder's classification of bone awls,²⁵ with some modifications and additions, serves very well for our Northwest Coast material. Many of the pieces in collections unfortunately are unclassifiable because of their fragmentary condition. The types found on the coast are as follows:

1. Mammal leg bone.
 - a. Head of bone intact.
 1. Ulna.
 - b. Head unworked except by original splitting.
 - c. Head partly worked down.
 1. Square-cut head.
 - d. Head wholly removed.
 - e. Splinter awls.
2. Mammal rib.
 - a. Whole rib.
3. Bird bone.
 - a. Whole bone.
 - b. Splinter.
 - c. Hafted in another bone.

Bone needles.—Eyed needles, similar to those used in recent times for making sewn tule mats, are found in some sites. Typically, they are long, flat, and thin. Very fine needles like those of the Eskimo do not seem to occur, although moderately small forms are sometimes found. The criterion of size suggests a basis for a primary division. Such traits as type (drilled or ground) and location (distal or proximal) of the eye may be serviceable characters when we have enough specimens to have use for detailed classifications.

- I. Long flat thin needles (mat needles).
- II. Small needles.
 - A. Mammal bone.
 - B. Bird bone.

Bone (and horn) knives.—Several kinds of bone implements identifiable as knives occur in the collections. The most easily recognized are the ulnae pointed and sharpened for slitting herring and other small fish for drying. Knives of this type may have either intact or trimmed heads. Blades of similar form were made of mammal leg bone. Another type consists of the "bark splitters," blades used for prying loose the inner layers of cedar bark used in matting and basketry. These have rounded sharpened tips and edges. Two sub-

²⁵ Kidder, 1932, pp. 202, 203-220. For convenience in making comparisons, Kidder's order of types and numerical designations have been retained, new forms or subforms being added on at the end of each series.

types—one short, wide, and flat; the other long and curved, with a perforation at the butt—may be distinguished.

I. Ulna knife.

II. "Bark splitting knives."

A. Short, flat, side.

B. Long curved (often of sea mammal rib), perforated.

Bone scrapers and gouges.—Two major and several minor categories of bone implements which may have served for scraping hides, re-

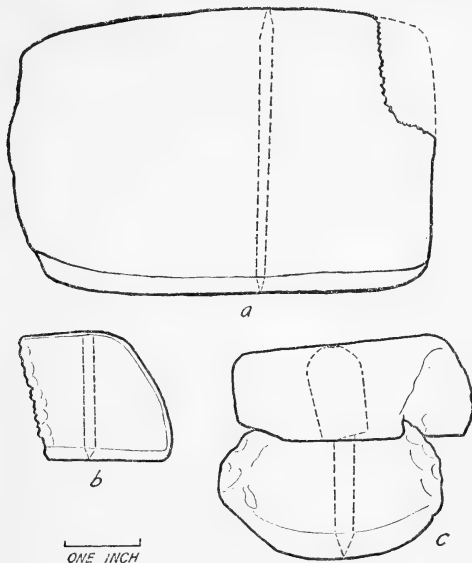


FIGURE 15.—Slate blades.

a, Type I (AMNH 16/6686). Comox. *b*, Type II (AMNH 16/4070). Port Hammond. *c*, Type III, horn-hafted chipped and ground ulo (PRCM, no number). Marine Station site, Digby Island.

moving the edible inner layers of spruce and hemlock bark, etc., can be recognized. These tools seem fairly widespread, but are by no means numerous.

I. End scrapers (characterized by a flat, square-cut to spatulate working end, which may be wide or laterally tapering).

A. Mammal bone (usually leg), head intact, one end cut away in a long bevel to produce rounded tip. Wear usually on back of tip.

B. Mammal leg bone, split, part of head remaining tip as in IA.

C. Mammal leg bone, split, head entirely removed, blade wide rounded, dentate.

1. Same as C, blade at both ends.

D. Ulna with spatulate tip.

II. Sidescrapers (usually split mammal leg bone).

Bone drills (?).—Several objects which may have been drills were noted. The identification of the first type, hand drills, seems fairly sure because of the wear on the points; that of the shafted drill points less certain, because no complete specimens, or specimens with recognizable wear, were seen. (Boas (1909, fig. 50 and pp. 321, 323) describes one form of shafted drill point of bone.)

I. Hand drill of bone, sharply reduced (shouldered) cylindrical tip.

A. Of ulna.

B. Of mammal leg bone.

II. Hafted drill of bone, cylindrical, square to rectangular butt (cf. Boas, loc. cit.).

Flaking tools (?).—Tools which may have served for flaking stone occur in the districts in which this technique was in use. Of course, some of the heavier, blunter "awls" may have served this purpose; there are, however, a few distinctive types which may be designated as flakers. Some are of antler tines, usually hacked or whittled off, some with unworked (but worn) points, others with reduced, but heavy, shouldered tips. Bone implements of this class are usually short heavy rods of dense bone.

I. Antler flakers.

A. Plain tip.

B. Reduced tip.

II. Bone flakers.

Stone vessels.—Stone vessels occur practically throughout the entire area. They vary considerably in size and form, and probably also in use. The northernmost groups, Tlingit, Haida, and Tsimshian, are known to have used small stone vessels as mortars for grinding the native "tobacco," and the larger ones served occasionally for smashing berries (presumably for drying) (Krause, 1885, p. 206). This use seems hardly important enough to account for the many vessels one finds. Northwest Coast foods (save in the southern periphery of the area) were not of the sort that had to be pulverized, nor is grinding reported as an important culinary technique. Some of the vessels, particularly the decorated ones, were very likely dishes used on special occasions. Birket-Smith has argued that some may have been lamps,²⁶ although they are not quite similar to any known Eskimo form.

A preliminary classification may be made as follows:

²⁶ Birket-Smith, 1929, vol. 2, pp. 189ff, esp. p. 190. His view is lent some substance by Krause's mention of use of shallow oval stone lamps among the Tlingit (Krause, 1885, p. 206). However, in the absence of any evidence (ethnographic reports, indications of burning on collected specimens), his interpretation of all shallow stone vessels along the coast as lamps seems dubious. Further, the use to which he puts this view—linking Eskimo lamps, Northwest Coast dishes and/or mortars, and Californian mortars, thus proposing a genetic relationship of objects differing in both form and function—is logically unsound.

I. Vessels with unshaped (or slightly shaped) exteriors (usually round to elliptical boulders), cavity usually shallow.²⁷

1. Plain.

2. Decorated (usually by incising. Sometimes irregularities have been accentuated or modified to produce a representative form).

II. Vessels of completely modified forms.

A. Relatively high straight sides, usually wider at top than bottom, flat bottom.²⁸

1. Plain.

2. Decorated.

B. Low, round to oval forms, sides straight to convex. (Such vessels, when decorated, are often completely carved into zoomorphic forms, which consequently cannot easily be differentiated as a class).

1. Plain.

2. Decorated (including zoomorphs).

C. Vessels "with seated human figures." (See Smith, 1907, pp. 420-424.)

III. Paint dishes. These are small vessels, with shallow elliptical cavities with traces of wear indicating that paints were ground in them by rubbing, metate-fashion, rather than by pounding.

Wedges.—Splitting wedges of bone and horn are common Northwest Coast tools. They vary considerably in size, from small forms for fine work to great heavy implements for splitting logs. (In some parts of the coast wooden wedges, of yew or seasoned spruce knots, were preferred for heavy work.) Typological distinctions can best be made according to material.

I. Wedges of mammal bone.

II. Wedges of antler.

Long bone rods.—Long slender cylindrical or rectanguloid rods of bone, usually of sea mammal bone, are of rather wide occurrence. Most of them are broken, so it is difficult to tell how they were finished. Some, however, had one rounded or subconical end, and at the other a tapered though not very sharp tip. Cross section varies from round to rectanguloid. The purpose of these objects is unknown. Some may have been fixed foreshafts of harpoons, though one would expect to find the butts modified for hafting in this case. They may have been points for killing lances (the Nootkans describe using very long slender bone points on lances for finishing off harpooned whales). One unusual specimen from Digby Island²⁹

²⁷ These vessels correspond in form to Lillard, Heizer, and Fenenga's B.2, B.4, and B.3 mortar types (Lillard, Heizer, and Fenenga, 1939, pp. 8-9).

²⁸ This type corresponds in external form to Lillard, Heizer, and Fenenga's A.1 to A.5, B.1 mortar types (1939, pp. 8-9). I have not noted such marked differences in cavity shape (wear-produced in the California mortars), which suggests the Northwest Coast vessels were used chiefly as receptacles rather than for heavy grinding. Reexamination of the Coast specimens, however, may reveal some distinctive features of wear.

²⁹ PMBC 1830.

has a projection on one side like the unilateral line guards of certain barbed harpoons.

Bone mallets.—Heavy mallets of whale bone, with a longitudinally grooved lateral striking surface, shouldered and reduced handle, are known to have been used in preparing cypress bark for weaving into garments. They all seem to conform fairly closely to a single type, although variant forms may eventually be found.

Cedar-bark shredders.—For shredding or hackling the bark of the red cedar, wide whale-bone blades, with a perforated grip, were used. Two types of these may be distinguished.

I. Short, rather heavy choppers.

A. Rectanguloid form, straight edge.

B. Round to ovate form.

II. Long, thin choppers.

Small slender pointed bone objects.—Almost any collection of archeological materials from the area contains numbers of small pointed bone artifacts, which may have served various purposes: hook barbs, herring rake teeth, hafted drill points, pins or skewers, etc. Worked and/or polished butts show them not to be fortuitous scraps, broken awls, needles, etc., but purposefully designed implements. The following classification is tentative; further information may enable us to distinguish at least some of the types according to function.

I. Bipointed forms.

II. Single pointed forms.

A. Sharpened mammal bone splinter.

B. All-over worked mammal bone.

C. Bird bone splinter.

D. Fish spine "pins."

Stone disks (rolling targets ?).—A distinctive group of objects is that consisting of well-worked thick stone disks, usually of lava, which are supposed to have been targets for a local version of the widespread hoop and pole game (Culin, 1907, pp. 490, 521-522). The disks range in size from 2.5 inches in diameter by 0.6 inches thick to 8 inches in diameter by 3 inches thick; most are from 4 to 5 inches in diameter and 1.5 to 2 inches thick. Slightly more than half of them are perforated; some imperforate specimens have pits pecked into the two faces. Some have a wide groove concentric to the perforation or pit. Similarly placed grooves occur on unpitted imperforate specimens. In general, the objects are so similar that these variations are probably not significant, and the disks may be considered essentially of a single type. The lava of which most of the disks are made may be identifiable; it is possible that most of them are trade pieces, coming from certain localities only.

Slate "pencils."—Slender rods of ground slate, usually hexagonal or octagonal in form, are classed separately at present. Some appear to have been bevelled or pointed at the ends, and may have been projectile points. Most of those in collections, however, are fragmentary, so that it would be quite hazardous to speculate on their function.

Chipped stone (except points).—A few pieces of chipped stonework, other than the previously mentioned points and blades, occur in the collections. Of these, small discoidal "scrapers" constitute a fair proportion; the remainder are miscellaneous blades and fragments.

Biconical stones.—From several sites elliptical stones with conical ends have been obtained. They are usually of limestone or sandstone, show few signs of battering, and no modification for attachment or hafting. Their use is unknown; I would suggest that they may have been grindstones, for sanding down large pieces of worked wood. A typical example is 6.8 inches long and 3.5 inches in greatest diameter.

Grooved, notched, and perforated stones.—The objects in this class are stones unworked except for modifications for the purposes of suspension. Most of them were probably sinkers, e. g., for fish lines, nets, anchor lines, etc. These objects are not common in Northwest Coast collections, not occurring in anywhere near the quantities that de Laguna (1934, pp. 51-56) found in Cook Inlet. For that reason elaborately divided classifications will not be necessary.

I. Elliptical grooved stones.

A. Grooved about middle.

B. Grooved about middle and over one end.

1. Small stones.

2. Large (10 lbs. and over). (These are presumably anchor stones, or sinkers for deep-water angling.)

II. Notched stones; small flat beach pebble with lateral notches made by percussion.

III. Perforated stones.

Whetstones.—Small stones used for sharpening various cutting implements, or perhaps for bringing them to their proper shape, have been recovered from some sites. They vary from neatly finished flat rectangular blocks to irregularly shaped fragments with a central depression produced by the grinding. The former can be set off as a well defined type, the latter form a rather loose and heterogeneous group.

Stone polishers (?).—Numbers of small round to elliptical beach pebbles of various materials averaging 2 or 2.5 inches in diameter, occur at certain sites, sometimes in considerable quantities. None show any evidences of working, but a number show wear facets,

indicating that they have been used as polishers or rubbing stones for some purpose. Whether this was their only use, or whether some were collected for other purposes (e. g., for sling stones, or for throwing) is impossible to decide. They certainly have been selected for size, and are much smaller than the stones used for cooking.

Drinking tubes and whistles.—Tubes formed by cutting off the ends of large bird bones occur in some sites, as do bird-bone whistles (tubes with a single stop). Fragmentary specimens cannot always be determined as one or the other, of course. Drinking tubes are known from ethnographic evidence to have been used at various life-crisis observances, and by the Southern Kwakiutl for drinking from the covered wooden water "buckets" taken in canoes.³⁰ Bone whistles are very rare, so far as I know, perhaps having been supplanted by the various wooden whistles associated with the widely diffused Kwakiutl ceremonial patterns.

Stone and bone clubs.—Boas (*in* Smith, 1907, pp. 403-420) has discussed the more common varieties of these implements in Northwest Coast collections; there is little that can be added to his summary at present. The major categories are:

I. Bone clubs.

A. Whale bone, flat, spatulate, decorated (Boas, 1909, 165-171).

II. Stone clubs.

A. Flat, edged or spiked, "zoomorphic" (Boas, 1909, figs. 179-180).

B. Heavy, pointed, square to cylindrical, daggerlike outline. (Boas, 1909, figs. 175-176).

1. With ringed top and guard.

Spindle whorls.—Boas (1909, p. 373) has summarized most of the available information of these objects. A simple classification would be the following:

I. Large (5 inches in diameter or more) (of bone).³¹

A. Plain.

B. Decorated.

II. Small (bone or stone).

A. Plain.

B. Decorated.

Ornaments.—Inspection of ethnographic collections from the area impress one by the profusion of ornaments of various materials made by natives. Such objects are relatively less numerous in archeological collections, but whether this is to be attributed to lack of investigation in the centers of manufacture, to increased interest in ornamentation in historic times, or simply to unequal sampling of the two types

³⁰ Boas, 1909, p. 447 (tubes of elderberry twigs; my informants have described bone tubes also, however).

³¹ Wooden examples of both types were made, but since they are less likely to be found archeologically, they are omitted from the classification.

of material, it is impossible to say. At any rate, eventually these objects should have some significance in both vertical and horizontal distributions, and for this reason an outline of the more common classes and types of them will be given. Future work will doubtless require more refined classifications of most of the types.

- I. Shell beads.
 - A. Dentalia.
 - B. Clamshell disk beads.
- II. Bone beads.
 - A. Bird bone.
 - B. Narrow (0.4–0.5 inches), of mammal bone.
- III. Cannel-coal beads (asymmetric polished lumps).
- IV. Pendants.
 - A. Animal tooth or claw.
 - 1. Grooved about end.
 - 2. Perforated.
 - B. Bone or horn.
 - 1. Long cylindrical rods.
 - a. Plain.
 - b. Decorated.
 - 2. Representative carvings on flat pieces of bone.
 - C. *Haliotis* (historic only?).
 - D. (Native) copper.
 - 1. Flat crescents or rings (Smith, 1907, p. 178).
 - 2. Conical rolled tubes (historic only?).
 - E. Deer and/or goat hoof pendants.
 - 1. Plain.
 - 2. Carved.
 - F. Stone, carved.
- V. Labrets.
 - A. Elliptical, grooved around circumference, of wood, stone, or bone.
 - B. T-shaped, of stone.
- VI. Flat curved bone bands (brow bands?).
 - A. Plain.
 - B. Decorated.
 - 1. Geometric design.
 - 2. Realistic design.

Miscellaneous objects recovered in 1938.—In addition to the several classes of artifacts described in the preceding section, a few unique or unidentifiable forms, not duplicated in the collections examined, were recovered from the site tests in 1938. Some of them may prove to be of significance when further work has been done in the area, and therefore they will be described briefly.

37.³² Bone handle (?) with carved bird head. A well polished bone fragment with a somewhat impressionistic bird head (raven?) at the unbroken end. The object may have been the handle of a sopallalli-berry spoon, or part of an ornament. Length, 3.6 (+) inches; width of shaft, 0.42 inch; thickness, 0.1 inch.

³² Numbers preceding the descriptions are field catalog numbers of the 1938 expedition.

78. Antler pendant (?). An unfinished object of antler with a drilled hole near one end may have been intended for a pendant. The horn was sawed longitudinally from both sides, broken off, and the cancellous material partly ground down. Two transverse cuts were made opposite each other, and the piece was broken off to length. The perforation is parallel sided, though somewhat irregular, perhaps from reaming out after drilling. A shallow pit was cut or gouged in one side to start the drill.

122. Heavy whittled wooden point. A fragment of rather dense wood whittled to taper to a sharp four-sided point. The object could have served as a heavy awl, a marlinspike, or it may have been an unfinished foreshaft for a (composite point) salmon harpoon.

124. Bird bunt (?) fragment. A whittled stick fragment, cylindrical, with a sharply shouldered expanded end roughly cut off to a blunt point, suggests in form the head of a bird bunt, or the end of a float plug.

128. Small whittled wooden object. A small piece of carved wood, with a blunt point and a lateral projection near the point, an expanded base reduced by a square shoulder to a cylindrical peg; it resembles an antler of a forked-horn buck, and may have been attached to a mask or other carving. Length, 2.5 inches; average width, 0.3 inch; width of base, 0.6 inch; diameter of peg, 0.4 inch.

183. Worked deer parietal. A fragmentary object made of the right parietal bone of a deer, with part of the "burr" remaining; it may have been a scraper, or a spoon. The anterior portion of the bone has been cut to a neat rounded corner and straight edge; the corners are sharp, indicating polish rather than wear. The posterior portion has been cut irregularly anterior to the suture line, the unbroken portions of this side are rounded off; the end is missing.

210. Heavy wedgelike bone object. A whale-bone object with tapering squared off ends and elliptical cross section; it resembles a symmetrical wedge in outline, but the head is not battered, the tip is square cut and blunt, and a wide groove, perhaps for lashing, runs across the cancellous side of the object at right angles to its long axis. Length, 7.95 inches; maximum width, 1.6 inches; width at head, 1.18 inches; width at tip, 0.74 inch; maximum thickness, 0.78 inch; thickness at head, 0.64 inch; thickness at tip, 0.12 inch.

269. Bird head ornament (?) of bone. A small fragmentary carving representing the head of a long-billed bird is made of whale bone. The tip of the bill is laterally tapered and cut off by a bevel from the under side. Eyes are incised on either side of the head. The object is broken just back of the head, but traces of a groove or perforation remain. It appears too fragile for any utilitarian purpose, and was probably an ornament of some sort. Length, 2.2 (+) inches; diameter of the bill, 0.24 inch.

277. Notched or perforated long flat bone (needle?). A long flat pointed bone, with a laterally expanded head with what appears to be part of a slotted eye remaining, may have been a bone needle type I. However, the V-shaped notches along the sides of the head would seem awkward for any sort of sewing. The object apparently broke in manufacture, for it shows numerous work marks (was not well polished like most bone objects) and shows no wear. Length, 6.6 (+) inches; width of tip, 0.48 inch; width of head, 0.76 inch; thickness, 0.14 inch.

334. Bone peg with expanded head. A small bone peg with cylindrical shaft, rounded tip, and flat laterally expanding head (not the original head of the bone) might have been meant for any one of a number of purposes: a peg or pin, a float plug, a fine drill point (though it shows no wear indicating use as a drill, and seems fragile for this use), or a novice's labret. Length, 1.54 inches; width of head, 0.26 inch; diameter of shaft, 0.12 inch.

336. Socketed harpoon (?) fragment. A bone fragment which appears to

have been the butt of a small socketed harpoon is made by cutting the proximal end of a humerus off diagonally, then making a deep notch in from one side to accommodate a rather wide spatulate-tipped foreshaft. A triangular line hole has been cut through close to the socket. The shaft of the bone was left unaltered to the point of the break; if the object was to be a serviceable harpoon, it must have been slotted for an inserted blade with barbs. It has a superficial resemblance to certain types of Eskimo toggling harpoon heads, but the similarity is more apparent than real.

374. Whale-bone object (fragmentary). A piece of whale bone split and rounded off to an elliptical cross section, tapers rapidly to a blunt, apparently rounded end. The object was fairly carefully made, but is too fragmentary at present for us to determine its use.

397. Cut deer mandible. A fragment of a deer mandible cut 1.06 inches anterior to the premolar. One of the molars is in place, the others are missing. The edges of the cut are rounded and suggest wear, though what purpose such an object could have served is not known.

Manufacturing techniques.—There are a number of important technological processes manifested in the specimens examined. They may be described briefly according to material to which they were applied.

Work in stone.—Stone was worked by pecking, grinding, chipping, and sawing. Tough rocks, used for splitting-adze blades, mauls, and the like, were pecked to shape, and then polished, the latter probably with fine-grained sandstone grinders. Slate points and blades were ground to form from thin sheets of the stone; some pieces, however, appear to have been roughed into shape by chipping before being ground down. Stone chipping (as mentioned elsewhere, p. 41) is restricted to certain regions. Some of the materials (obsidian, etc.) may have been imported,³³ but chipped objects in local rock, such as the coarse basalts of the Georgia Straits and Puget Sound districts, attest to no little ability in this craft. That sawing of stone was an important technique was pointed out by Smith (1903, pp. 164, 167). In both the interior and Straits of Georgia regions, he notes many instances of its application. Jadeite (used for celts) was the material most often so treated. The jadeite tools of southeast Alaska were similarly worked. The possibility that the common slate blades may have been used for cutting out celt blanks and the like has been mentioned elsewhere (p. 51).

Work in bone.—Bone, of course, lends itself very well to shaping by grinding-polishing techniques, and an emphasis on ground bone characterizes Northwest Coast tool and weapon patterns. Large bone, such as that of whale and other sea mammals, must be worked into blanks before the finer techniques can be applied efficiently. Several methods were in use. A piece of whale bone was sometimes reduced to workable size by hacking along the grain of the bone with a jagged cobble until it split. In other instances unfinished speci-

³³ Obsidian occurs only in the interior, not on the coast, and the occasional worked pieces one sees were doubtless traded in.

mens show clear traces of an initial sawing, probably with the common slate blades. Small bone objects were sometimes given a preliminary shaping by battering to crack and chip them to approximate form; others were sawed out.

Perforations in bone were made in a variety of ways. Biconical holes were rather common. Cylindrical perforations, drilled from one side only, were also made. The type of drill used for this operation is not well known, even from the better ethnographic reports; it must have been a very efficient one. In addition, slotted holes were put through, for example, in certain types of barbed harpoon points, and some bone needles, by sawing or gouging. The method by which the crescentic slots of some type II harpoons were made is not clear.

Little data are available on woodworking techniques, except as these may be inferred from the tool complex. Adzes, celts, wedges, hafted and hand mauls, grinding stones, and the rest, represent the same woodworking methods that have been described ethnographically for the area (cf. Boas, 1909, pp. 327 ff.).

SURVEY IN 1938

In the following pages, archeologic sites located during the survey of Coast Tsimshian and Kwakiutl territory in 1938 are described. The methods used in the reconnaissance were as follows: Each site found was located on a chart of the district, and a site-card was made out for it, recording the following information: Site designation, chart reference, location, water supply, type of deposit, length, width, height, house remains visible, burials, cover, owned by, mapped, photo, remarks, date.

Sites to be tested were trenched, laying out the test pits to cut across the edge of an historic house, where traces of these could be seen. Artifacts recovered from the tests were located as to vertical position, and in the case of cuts made partly in the sloping face of the midden (for drainage) the horizontal distance from a fixed datum was also recorded. During the latter part of the survey it was found very helpful to note also the matrix in which the artifact lay, as a check on depth measurements, which are sometimes difficult to make accurately in deep pits and ones put down from sloping or uneven surfaces. This makes it possible to locate every artifact precisely on the trench profiles. All these data were recorded by means of artifact slips of the type used by the University of California archeologic surveys. Most of the digging was done with shovels, scraping the bottom of the trench, then shoveling out the dirt thus piled up. It was thus possible to uncover most of the artifacts without disturbing them. Want of time and somewhat low artifact yield prevented use of trowels as the chief tools. Faunal remains

recovered were kept in foot-level bags. After completion of each cut, profiles were drawn, vertical measurements from top to bottom being taken at 3- or 4-foot intervals. The dip of various layers was read off with a Brunton compass. Samples were taken of the various layers. The point at which each sample was taken was noted on the profile, as a check. A sketch map was then made of the site with a Brunton and tape. Large measurements are in whole feet and tenths (as: "36.8 feet" means 36 whole feet and 8/10); small measurements are in inches and tenths of inches (as: "7.5 inches" means 7 whole inches and 5/10).³⁴

Method of designating sites.—The designations given the sites refer to the island, headland, or bay on which they are situated, and have been taken from the standard marine charts of the region.³⁵ Following the site designation, the chart reference is given. Canadian Hydrographic Office charts are indicated by "Can." followed by the chart number; United States Hydrographic Service charts by "U. S." and the chart number; British Admiralty charts by "B. A." and the number. This procedure should facilitate the recording of additional sites as they are reported from the area.

COAST TSIMSHIAN SITES: PRINCE RUPERT DISTRICT

ANIAN ISLAND (Can. 301)

A large midden on Anian Island, on the north side of the inner end of Venn Passage, was located and tested. (See pl. 5, *a.*) Entirely surrounding the island are sand and mud shoals which dry at low water. These shoals, which extend most of the way along Venn Passage, are rich clam beds, and are probably the source of the shell material of the Anian Island and other middens of the vicinity. Near the beach, on the south side of the midden, is a spring which is said to flow constantly, even in rainless periods.

The site consists of a large mass capping the southern promontory of the island, with a lower terrace along the southern face. (See fig. 16.) The terrace is relatively narrow (about 50 feet in width) and somewhat longer than the main upper midden; since it was in cultivation, testing was confined to the main portion. The latter extends 350 feet (measured along the crest) in a northwest-southeast direction; the greatest width is 180 feet. On the southwest side, the deposit rises gradually from the terrace, falling away sharply (30°–40°) on the northeast face. The crest is about 30 feet above the high-tide line (the terrace is about 10 feet lower). The subsoil on which the deposit rests rises to the northwest, so that the deposit, with little

³⁴ 1 foot = 0.3048 meter; 1 inch = 2.54 centimeters.

³⁵ Native designations have not been used, except in one instance (Qalahaituk) in which the locality is not indicated on any published chart.

change in altitude becomes progressively shallower, until it dwindles away entirely. To southeast the deposit slopes away gently to merge with the lower terrace. In form, the midden is irregular, tending to parallel the south beach frontage. Owing to clearing, the natural cover could not be determined. Mr. Wearmouth, the owner, informed us that formerly there were several large shallow depressions visible

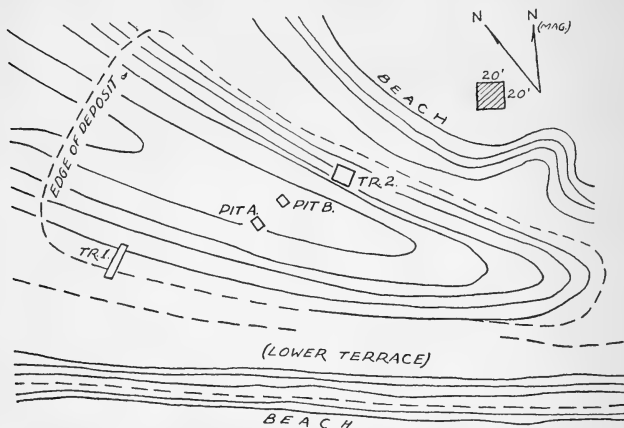


FIGURE 16.—Anian Island midden. (Sketch, contours only approx.)

(which he had filled in), which may have been house pits. It was not possible for us to test these pits, however, to determine if they were houses or not.

Two trenches and two test pits were dug in the main midden. Trench 1, at the western corner of the deposit, was 20 feet long (northeast-southwest) by 4 feet wide. The deposit at this point proved to be quite shallow, 31 inches deep at the inner northeast end of the cut, while a rock outcrop rose nearly to the surface at the outer end. Trench 2 was cut into the northern face of the midden at about the midpoint. When completed, it was 13.5 feet long by 9 feet wide. At the outer end of the trench the midden material was 35 inches deep; at the inner, where the upper edge was approximately 48 inches below the highest portion of the midden, 103 inches. Pit A, sunk near the crest of the deposit, was 6 feet by 4 feet by 110 inches; pit B, nearby, was 6 feet by 4 feet, and discontinued at a depth of 60 inches. Human skeletal remains, occurring near the surface 6 to 10 feet east of pit B, were exposed and excavated.

The composition of the midden material exposed by the four cuts was essentially uniform. A layer of black earth with broken shell varying in thickness from 4 inches (pit A) to 16–27 inches (trench 2)

capped the midden. Below this mantle was a mass, chiefly of shell, with small quantities of dirt, charcoal and ash, stones, animal bone, and occasional artifacts, overlying a thin layer of finely divided black-dark brown material (organic ?) which overlay the clay subsoil. In the shell which composed most of the deposit a variety of species were represented in varying proportions.³⁶ There were pockets or thin horizons in which one species noticeably predominated, but no well-defined and significant horizons could be noted. In every cut the lay of the shell lenses, etc., conformed roughly to the surface slope. A good deal of the unworked stone encountered had been burned; particularly common were chunks of a rather coarse laminated slate which acquires a vivid red color on oxidation. Ledges of this slate are common along the beach in this locality. Nothing determinable as a house-floor or habitation level was encountered, with the possible exception of the black dirt with sand and yellow sand with charcoal layer noted at a depth of 90 inches in pit A and the dark organic (?) layer at the base of the midden. (See fig. 17.)

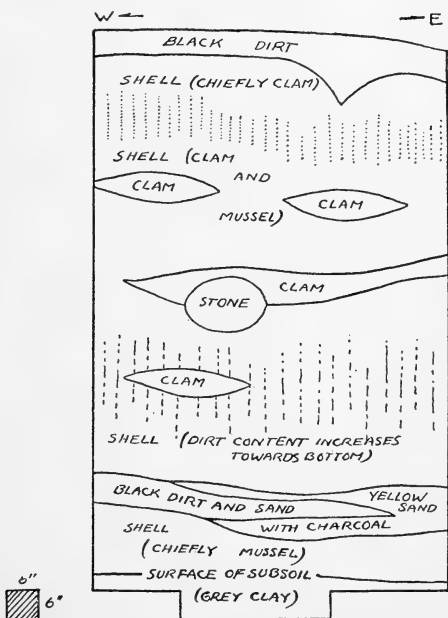


FIGURE 17.—North face of Pit A, Anian Island.

³⁶ The most common forms were: *Saxodomis nuttali* Conr., *Venerupis staminea* Conr., and *Cardium clinocardium nuttali* Conr. *Strongolo centrotis* spines were plentiful in restricted areas.

The most noteworthy feature of trench 2 was the apparent indication of wave-cutting at the edge of the midden, at the juncture of the shell material and the dirt-with-shell layer; this point is at present 10 to 12 feet above highest tides.

The artifact yield of the tests was disappointingly low. Pit A yielded most; from it 20 worked pieces, chiefly bone, were recovered. Subsequent operations at other sites suggest a possible reason for the dearth of cultural remains, as will be brought out later.

One complete burial and portions of a number of fragmentary burials were found. Burial 1 lay in the shell material just below the black dirt, 13 inches below the present surface, near pit B. The remains were those of an adult male, laid on the back, head to the west, and legs semiflexed to the left. (See pl. 8, *a*). A worked bone fragment and a ground slate point were found near the burial, but not in definite association. A few dissociated human bones occurred near the burial, and 2 feet to the east, in an irregular shallow pit penetrating the shell for a foot or so and filled with black dirt, were disturbed and fragmentary remains of a small adult and an infant. Of the adult, only the leg bones, more or less articulated, a lower arm with the hand, and a fragmentary innominate remained. The legs were loosely flexed. Enough remained of the infant to indicate a semiflexed position with the head to the east. There were no associated artifacts. Mr. Wearmouth, the owner of the site, states that in clearing and leveling he has encountered a considerable number of skeletons, consistently at shallow depth—either in the black dirt or immediately below it. Two human metapodials were noted at a depth of 32 inches in pit A.

TABLE 1.—*Artifacts from Anian Island*

PIT A

No.	Description	Measurements ¹ (inches)			Depth in inches	Levels by inches	
		Length	Width	Thickness			
11	Bone gouge tip fragment, type IB (?)				5	0-12	
3	Bone gouge tip fragment, type IB (?)				20		
4	Bone awl, type Ie	4.2			22	12-24	
10	Hand maul, type IV				24-36		
12	Bone point, class B (or awl fragment?) parallel sides, abrupt tip				60	60-62	
17	Chipped bone fragment (point blank?)				66		
14	Barbed harpoon head, type V	7.5	0.7	0.3	73	72-84	
19	Sawed bone fragment (awl tip?)				77		
15	Serpentine celt tip, fragment				74	72-84	
20	Bone point, type B-IA	2.8	.46	.18	78		
21	Bone point, type B-IA	3.7	.45	.16	78	72-84	
26a	Hand maul, type IV				60-84		
26b	Stone polishers				60-84	84-96	
16	Chipped and ground slate point (medial), fragment		.9	.38	85		
23	Bone gouge tip fragment (type IB?)				92	84-96	
28	Stone polishers				84-110		
24	Bone awl (?), type Ie				98	96-110	
	Total artifacts	17	(+3 indeterminate worked fragments).				
	Total yardage	8.2 cu. yards.					
	Artifact yield	2. (+) per yard (excluding indeterminables).					

TABLE 1.—*Artifacts from Anian Island—Continued*

PIT B

No.	Description	Measurements ¹ (inches)			Depth in inches	Remarks
		Length	Width	Thick- ness		
5	Small bone awl (tip missing), type 1b.....	-----	-----	-----	42	

TRENCH

37	Bone handle (?) with carved head.....	-----	-----	-----	48-60	See p. 59.
39	(2) Stone maul chips, type indeterminate.....	-----	-----	-----	48-60	

 VICINITY OF BURIAL ¹

9	Bone awl, type 1cl.....	3.8	-----	-----	8	
7	Ground slate point, type I, sharp beveled sides, unworked faces, tapered squared base.....	-----	-----	-----	11	
8	Bone awl, type 1e.....	-----	-----	-----	11	

¹ See p. 63.

In addition to the foregoing, through the kindness of the owner of the site, Mr. Wearmouth, the expedition acquired a number of stone artifacts, most of which had been found in leveling some of the higher portions of the midden, i. e., apparently the later levels. The implements are: Splitting adze (poll broken), height 2.6 inches, width 1.5 inches, type II or III; splitting adze, length 6.5 inches, height 1.8 inches, width 1.9 inches, poll broken and reworked, originally type IV or V; hand maul, top broken, diameter of shaft 2.2 inches, diameter of striking face 3.5 inches, type IBb1 (the sharp edge at the break has been roughly trimmed by percussion-chipping); three battered cobble (type IV) hand mauls; two squared whetstones, one rectanguloid, with rounded corners and bevelled edges, length 6.4 inches, width 2 inches, thickness 0.7 inch; the other fragmentary, with two worn troughs on one side, the other side fairly smooth, 2.55 inches wide, 0.55 inch thick (length 2.2 inches +); one stone polisher (?) with wear facet, and two stones of same size without wear facet; a decorated (?) stone—a small crescentic stone, waterworn to that shape, slightly trimmed along the concave surface, and roughly grooved near the thick end, apparently to suggest the gill opening of a fish.

CHARLES POINT

(Can. 301)

A small midden site on the north shore of Charles Point, just east of the Department of Marine Station on Digby Island, was tested. The size of the site indicates that it was probably a camp rather than a main village. Though documentary evidence is lacking, the

occurrence of a few articles of Caucasian make in the deposit indicates use in historic times. The site is in a relatively sheltered situation, the high ground and timber behind it breaking the force of the southeast winds. A wide though somewhat rocky beach fronts the site; on the end of the point, directly east of the fog bell, a number of parallel rows of sizeable rocks, apparently canoe runways, are exposed by low tides. Several ephemeral springs occur just west of the midden.

The midden extends 120 feet in an east-west direction, following the contour of the beach (see fig. 18). The natural subsoil, on which the deposit rests, rises, forming a 5-foot bank at the eastern end of the site; to the west, the lower edge of the midden is only slightly above

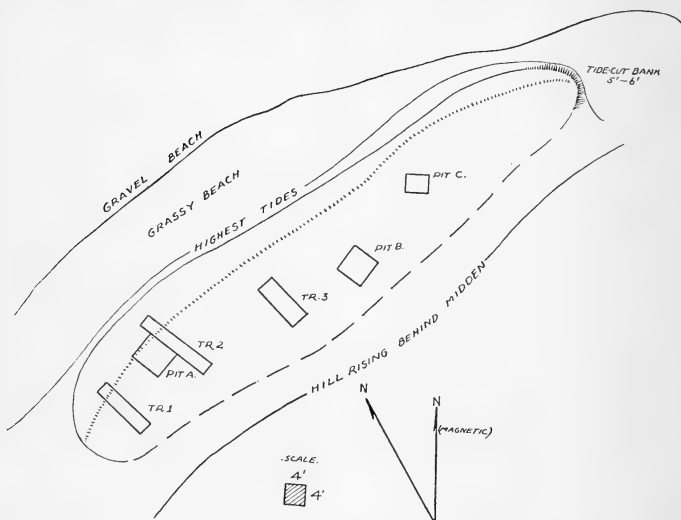


FIGURE 18.—Plan, Charles Point.

average high water. The front of the midden consists of a rather steep face, 5 or 6 feet in width, the top is fairly level for the most part, running back to merge with the rising ground of the hill behind the site. The average width of the deposit is in the neighborhood of 25 feet. A dense thicket, chiefly wild currant and salmonberry bushes, covers the surface. No indications of house pits, posts, etc., could be seen on the surface.

Three trenches and three test pits were put down (see fig. 18). Trench 1 was 12 feet by 3 feet, with a maximum depth of 48 inches; trench 2 was 15.5 feet by 2.5 feet by 52 inches; trench 3 was 10 feet by 4 feet with a maximum depth of 70 inches. Pit A, adjoining trench

2, was 6 feet square with a maximum depth of 50 inches. Pits B and C were both 3 feet by 4.5 feet, and were put down to a depth of 48 inches.

The nature and structure of the deposit at this site differed considerably from that of the Anian Island midden. Although shell (of the same species represented at Anian Island) formed the chief constituent of the deposit, there was a considerably greater proportion of dirt in the Charles Point midden, and in addition the profiles showed very well defined horizons separated by dark layers 1 to 2 inches thick (see fig. 19). Determination of the nature of these

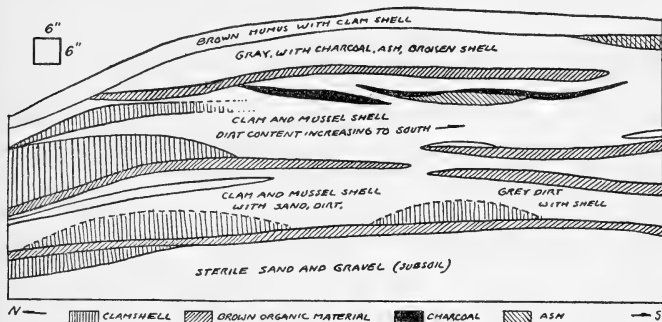


FIGURE 19.—Profile of east face of trench 1, Charles Point.

dark layers appears to be of importance. They consisted of finely divided material, varying in color from a dark reddish brown to black, apparently being decomposed wood with varying amounts of charcoal and ash (the decomposed outer portions of pieces of wood in the deposit had the same color and texture; a number of such pieces of wood, still relatively sound at the center, occurred in these layers). One firepit was found directly connected with such a layer at the Charles Point site, and such associations were noted at sites tested elsewhere. The layers were noticeably more compact than the shell-and-dirt horizons on which they rested. It seems fairly clear that the dark layers represent habitation levels, and are the equivalents of the floors found in other areas. These levels would likely yield information on house types if they were traced out.

A number of minor features of the Charles Point midden must be noted. A very large (6 feet in east-west diameter, 5 feet in north-south diameter, 6 to 8 inches deep) rock-filled fireplace was found in the area of trench 3, in the uppermost layer (of brown mold with fresh-looking clamshell). (See pl. 7, *a*.) This was the type of fireplace commonly described in ethnographic accounts, in which a large quantity of stones were kept in the fire to be used for stone-boiling as required. This same upper level was the one from which

the European articles—sail grommets, and a small piece of glass—were obtained. Burned stones were found at all levels in the cuts, but not in concentration. Some burned slate occurred, but infrequently as compared with Anian Island; most of the stones appeared to be ordinary beach cobbles. Relatively little animal bone was found in the cuts. No burials were encountered.

TABLE 2.—*Artifacts from Charles Point*

TRENCH 1 ¹						
No.	Description	Measurements			Depth	Remarks
		Length	Width	Thick-ness		
62	Irregular elliptoidal stone vessel, with elliptical depression, containing red-brown stain (pigment?)-----	<i>Inches</i> 10	<i>Inches</i> 5.5	<i>Inches</i> 3.5	<i>Inches</i> 10	Depression. 6×2.6 ×1.3 inches.
63	Bone point blank (?)-----	1.9	.6	.25	36-48	
64	Bone hand drill (?) of ulna with unmodified head, reduced tip-----				34	Diameter of tip, 0.15 inch.
66	(Several) elliptoidal stones, like "polishers" but lacking wear facets-----				12-24	
73	Slate blade fragment, with strongly curved beveled edge-----				24-36	
TRENCH 2						
67	Contact goods (2 brass sail grommets)-----				1-3	Very slender sharp tip.
68	Stone hand maul fragment, type IV-----				0-12	
69	Elliptoidal stone, like "polisher" but lacking wear facets-----				0-12	
70	Bone awl or flaker (?) of sea mammal bone (butt fragment), rectanguloid cross section, round base-----		0.55	0.35	12-24	
77	Bone awl fragment, type 1e-----				38	
78	Sawed and perforated piece of antler (unfinished pendant?)-----				45	
80	Splitting adze, tip fragment-----				30	
81	Stone hand maul, type IV-----				36	
82	Elliptoidal cut whalebone object, smoothed rounded end-----		6	2.2	34-36	
TRENCH 3						
99	Contact goods (glass fragment, one end opaque [due to heat?])-----				2-6	From close to fire- place area.
102	Stone hand maul, type IV-----				24-36	
103	Bone awl fragment, probably type 1d-----				43	
104	Bone awl, type 1c1-----	2.75			36-48	
PIT A						
84	Stone hand maul, type IV-----				12	
87	Pin (?) of fish spine-----	5.7			12-36	
106	Stone hand maul, type IV-----				24-36	
PIT C						
90	Splitting adze tip fragment-----				18	
	Total yardage-----	29cu. yds.				
	Artifacts per yard-----	.75				

¹ Two feet from the end of trench 1 were found a rectanguloid knife blade of schistose material with a curved cutting edge, 3.5 by 3.1 by 0.2 inches, at a depth of 6 inches; and a crude (incomplete?) stone vessel of unmodified rectanguloid form 7.4 by 4 inches, with a depression 3.1 by 3.3 by 0.6 inches at depth of 6 inches. A biconical sandstone "grinder," found on the beach near the site, was acquired by the expedition.

OTHER SITES IN THE PRINCE RUPERT DISTRICT

In addition to the Anian Island and Charles Point sites, a number of other middens in this same region were located. They will be listed and described briefly.

Wilgiapshi Island (Can. 301).—A large midden is situated on the west side of Wilgiapshi Island, at the east entry to Venn Passage. (See pl. 5, *c.*) The dimensions of the midden were estimated as follows: Length, 400 feet; width, 80 feet; external height (i. e., from the lower edge, at high-tide line, to the highest adjacent point), 18 feet at the southern end, 22 feet at the northern. The front slopes very steeply from the water's edge to a sharp crest, the top is relatively level. The shape of the midden conforms to the beach line, swinging around a little cove on the south end. A dense stand of salmonberry, bracken, fireweed, and nettle covers the site.

Robertson Point (Can. 301).—Another large midden stands on the south side of Robertson Point, fronting on Venn Passage. (See pl. 5, *b.*) As in the previous instances, the midden is irregular in plan, following the beach line around a little point and bight, making the dimensions difficult to estimate. The length along the beach is in the neighborhood of 800 feet, the average width probably 100 feet. The external height of the midden is about 15 feet. The front of the midden is rather steep, the top fairly level, merging into the rising timbered ground behind the site. Salmonberry bushes, bracken, nettle, and tall grasses dominate in the cover. A few small areas have been cleared and planted to potatoes by Metlakahtla people. A muskeg swamp, drained by a small stream, lies at the west end.

Emerson Point (Can. 301).—A midden of roughly triangular shape, fronting on the beach on either side of the point, is situated on Emerson Point, on the east shore of Digby Island, about 7 (nautical) miles south of Charles Point. The length along the northeast beach is about 700 feet, along the opposite beach, about 300 feet. The midden rises in three terraces (probably conforming to rising of the natural subsoil), so that the highest point is about 30 feet above tide line. Most of the site is under cultivation at present; around the edges of the garden plots salmonberry bushes grow, and may have dominated in the former cover. Some timber is said to have stood on the midden; if this is so, it was probably along the back (inland) edge. The present occupant, in the course of cultivation, has recovered a number of artifacts, chiefly worked stone, and also a few glass trade beads and bits of iron, indicating the presence of a historic horizon. He reported that he had encountered no burials.

Shawatlan Falls (U. S. 1584).—A small site, apparently a fishing station, is located on the north shore of the inlet a quarter mile from the falls draining Shawatlan Lake. (See pl. 5, *d.*) The midden is 165 feet long by 20 feet wide, with an average external height of about 6 feet. Mosses, ferns, and grasses form the cover. The place is still used when the sockeye salmon run. The beach is rocky and abrupt.

Morse Basin (U. S. 1584).—Another small site is situated in a cove with a wide sloping beach on the south side of the channel nearly due south of the preceding one. The high cone behind the city of Prince Rupert bears 223° (true) from the site. The dimensions of the deposit were estimated as 100 feet by 40 feet, the external height, 7 feet. There is a small stream just to the south. A depth test near the middle of the site showed the deposit to consist of a thick layer of gravel, dirt, and ash overlying material consisting chiefly of mussel shell. The depth of deposit at the point tested was 48 inches. The vegetation is the same as that of the Shawatlan Falls site.

Due to the distinctive features of middens in this region—the plant cover (which, though differing somewhat from one site to the next, invariably differs from the surrounding woods, and has a characteristic light green color), and the typical midden form; a steep front rising from the beach giving way to a fairly level top—a number of sites were located by cruising, marked on the chart, and not further investigated. Most of these are on Venn Passage, at or near the following points, beginning at the eastern entry (Can. 301): DuVernet Point; on the west side of Shkgeaum Bay; directly across from the preceding, in the cove south of Dundas Point; in the cove west of Dundas Point; on the north shore due east of Ritchie Island; on the next point north (north of Grassy Island); two sites on Carolina Island; one on Auriol Point; on Gribbell Islet (U. S. 1584); a point on Digby Island west of the preceding; a point opening on Chatham Sound; west of Modern Metlakhtla (the last mentioned is probably also a site). Most of these are quite large. The total number of sites along this one short stretch of water (including those previously discussed) is thus 16. Two small sites were noted on the west shore of Kaien Island not far from Prince Rupert; one at Fairview Observation point, and the other about a half mile farther south.

Reported sites.—Several sites were reported which were not investigated.

Marine Station site.—There was a very large site at the place where the present Marine Station stands, on the east side of Digby Island (west of Charles Point). The site is well-sheltered from most storm winds, and is fronted by a moderate beach of fine gravel. The

cover of the remaining portions of the midden at the west end, appears about the same as that of the Charles Point site. Most of the deposit has been disturbed in excavating and leveling for the station. The deposit consisted of shell and dirt. In addition to a considerable number of artifacts, numerous burials were encountered. According to modern Tsimshian, the site was not occupied by any of the known divisions, but is attributed to a long extinct tribe in the traditions.

Other sites were reported at Dodge Cove and Grindstone Point, on the northeast shore of Digby Island (Can. 301), and at Seal Cove, at the north end of the city of Prince Rupert. The Tsimshian fishing stations on the lower course of the Skeena were not visited but are probably easy enough to find; one should have local pilotage to survey on the river, however, because of the numerous sandbars.

SOUTHERN COAST TSIMSHIAN

One site in Southern Coast Tsimshian territory (i. e., territory of groups who did not winter in the Prince Rupert district) was tested, a number of others located and reported.

QALAHAITUK ³⁷

An interesting small site, belonging to the Kitkiata (Hartley Bay) Tsimshian, was tested. The site is situated on a low island a mile up the main river flowing into Kitkiata Inlet, on the north side of Douglas Channel (U. S. 1584). (See pl. 5, *e.*) The head of tide-water lies several miles farther upstream; at low water only the natural stream-flow covers the bottom of the channel around the island, while at the bimensal spring high tides most of the island is awash. There is no fresh water close at hand (the river, of course, is brackish). We were informed that, when occupying the site, the people had to go more than a mile up river by canoe to get drinking water. The site was used regularly as a fishing station and as a refuge in time of war (being protected by the numerous bars too shoal after half tide for a war canoe) until the time that Duncan assembled the people at Metlakahtla (1862), but only occasionally since.³⁸ Some house posts still stand (see pl. 7, *c*), and the remains of timbers are to be seen at the location of each of the 10 house remains. House 1, in fact, was said to have been standing more or less intact up to about 30 years ago. The vegetation is somewhat varied; wild rose, nettle, wild currant, and salmonberry, in mixed stands, are most common. A few "crabapple" trees occur on the center of the island,

³⁷ This site is designated by its native name because its location does not appear on the coastal charts.

³⁸ The Kitkiata people went to Metlakahtla, but most of them returned to their old territory at the time of the removal to New Metlakahtla in Alaska (1887).

and a few large spruce and hemlock grow over the ends of the timbers of some of the houses.

The Qalahaituk site was of special interest because of its peculiar situation. Owing to tidal flooding, the houses had to be built on

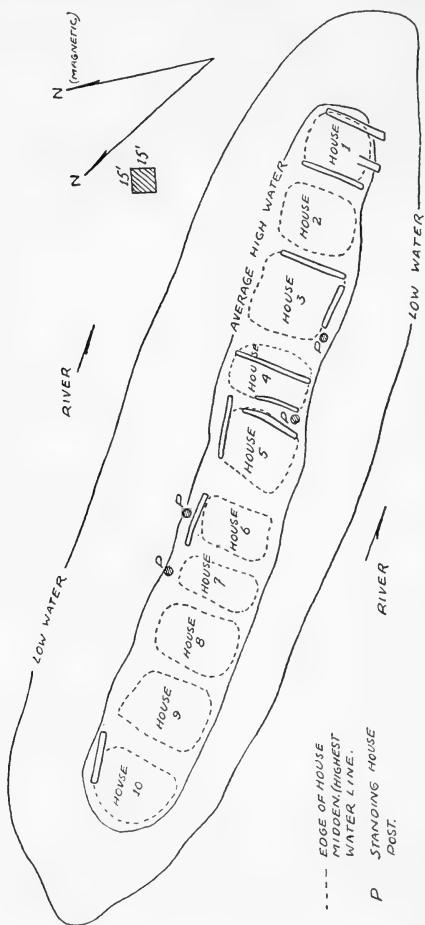


FIGURE 20.—Plan, Qalahaituk.

raised foundations. The deposit is not continuous, but consists of 10 separate house middens, each containing the timber foundation and refuse of its house (see fig. 20). The 22.0-foot tide of October 11,

1938,³⁹ came close to the upper edges of most of the visible foundation timbers of the houses. The single row of house middens extends 400 feet northwest-southeast, and averages about 50 feet wide. The subsoil rises slightly toward the northwest end. The maximum depth of deposit encountered was 52 inches.

Work done at this site was as follows: To investigate the structural details of the houses a section 12 feet by 6 feet by 50 inches was taken out of the northwest quadrant of house 1, a cross trench

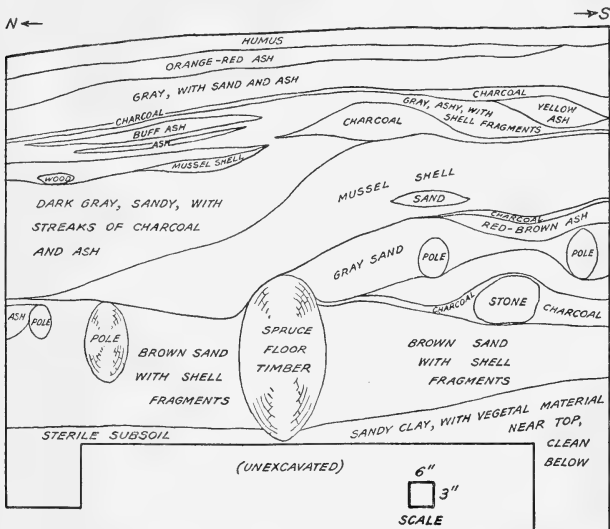


FIGURE 21.—Profile of east face of trench 1, house 9, Qalahaituk.

20 feet by 3 feet was driven across the middle of the house, and a test pit 3 feet by 3 feet by 56 inches was dug at the center of the house just off the cross trench. In house 9, two stratigraphic trenches, each 12 feet by 3 feet by 40 to 44 inches, were dug longitudinally in the central portion of the midden.

The stratigraphic trenches in house 9 will be described first. Both trenches revealed a series of horizons, in each of which ash, shell,⁴⁰ or ash-and-charcoal-stained sand predominated, making the layers immediately discernible. The contact lines were brought into further prominence in several cases by the occurrence of a black charcoal layer, 0.5 to 2 inches thick (see fig. 21). The dip of all the horizons

³⁹ Height at Prince Rupert, B. C., port of reference for the locality; the mean rise of springs at Hartley Bay is about 2 feet less than at Prince Rupert. Tide Tables, 1937, p. 7.

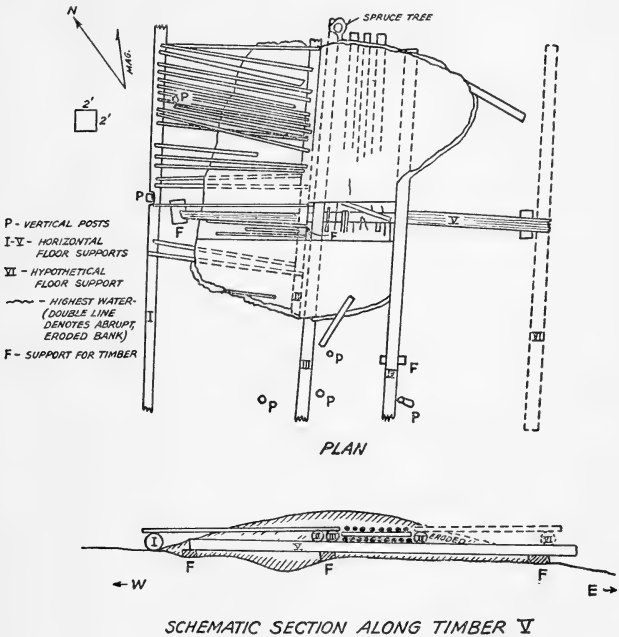
⁴⁰ Shell horizons were chiefly of mussel; both *Mytilus edulis* and *M. californianus* were represented. The "clam" shell which occurred was so broken up that it could not be identified.

was in general to the north-northeast and west-northwest across the trenches, i. e., from the center to the outer walls. A number of foundation timbers and poles were encountered in positions indicating that the mode of construction was essentially the same as that of house 1 (q. v.), though structural details of house 9 were not worked out. A considerable amount of stone, mostly unworked river cobbles which had been subjected to fire, occurred in the deposit, with a definite concentration in trench 2 in the 12- to 24-inch level from 3 to 8.5 feet from the south-southwest end of the trench, presumably a fireplace. Just beneath and in contact with this stone concentration was an extensive charcoal area in which pieces of bark matting and textile were preserved. At the 18- to 24-inch level in the same trench, north of the burnt stone area, a pair of juvenile human parietals were recovered. The maximum depth of occupational debris in either trench was 41.5 inches. There was little significant difference in the profiles of the two trenches. Underlying the midden material was a sandy clay, brownish in color owing to the presence of vegetal fibers, apparently the roots or decayed stems of the coarse beach grasses growing outside the deposit. The sandy clay became progressively freer of these brown fibers downward, assuming a gray color.

The most important feature of the profiles is the sorting of the midden constituents, ash, shell, etc., into well defined and extensive horizons (the length and combined breadth of the trenches, and up to 12 inches thick), just as occurred in the Charles Point site.

Investigation of house 1 resulted as follows: The house appears to have been approximately square, about 38 by 38 feet (exact dimensions could not be determined because of the washing away of most of the timbers on the southeast side). Nearly all the superstructure was gone, only a few stubs of posts, stray poles, and large stones (probably roofing weights) atop the midden mass remaining. The subsoil over which the house was built rose somewhat to the north and west. The foundation consisted of a series of heavy timbers, mostly cedar (see fig. 22, and pl. 7, *d*). The main central support was an 18-inch log lying northwest-southeast across the middle of the house. At either end, and at least at one point near the middle, it rested on large cedar blocks. It was not possible to determine if these blocks were shaped to fit the log; their function was clearly to steady and level it. At right angles to this cross timber were four longitudinal timbers, three of which rested on the cross support. These ranged from an average of 13 to 19 inches in diameter. Presumably there was at least one more of these on the southeast side. These timbers had not been adzed; some had stubs of branches remaining. Their ends, where preserved, showed both charring and adze-marks, indi-

cating the manner in which they had been trimmed to length. The timber along the northwest side lay directly on the ground, not on the cross log. The longitudinal timbers in the central portion of the house were covered with unbroken strata of midden material. The southwest ends of these timbers, extending out over lower ground, seem to have been supported by short vertical posts. Across the longitudinal timbers, poles averaging 5 to 8 inches in diameter were laid fairly close together. (See pl. 7, *b*.) Traces of strips



SCHEMATIC SECTION ALONG TIMBER V

FIGURE 22.—House 1, Qalahaituk.

of spruce bark running at right angles to the poles were noted in a number of places, and perhaps represented the final layer of flooring. In the central section the floor poles were laid parallel to the set of innermost timbers, resting on subsidiary cross braces.

The foundation timbers enclosed a small midden, the outer edges of which had been washed away by the tides. The highest (central)

portions of the deposit covered the longitudinal timbers to a depth of 7 to 8 inches, thin unbroken layers of ash and charcoal running across the central timbers. Ash, charcoal, shell, and sand, for the most part separated into thin strata and lenses, composed the midden mass. Contact goods (iron fragments, trade beads, etc.) were found in quantities in the upper levels.

Trenching below the floor poles in the north quadrant next to the inner longitudinal timbers showed the midden material to dwindle away fairly rapidly toward the north and west. Some fine gray beach sand had been washed in and overlay the floor poles and midden material. Below the sand, ash, and charcoal layers was a layer of decomposed shell, containing some charcoal and sand. Under this was an area of brown sandy clay, apparently the same as that on the flooded margins of the island, but containing a great quantity of wood chips, cedar bark fragments, pieces of bark matting, withes, rope, etc. The general appearance of the material was that of carpentering debris. This layer, which, though its full extent was not traced, appeared to be a sort of pocket, began suddenly 2 to 3 feet from the edge of the central cross timber (no pit outline could be noted there, however; the soil—a brown sandy clay—seemed identical with the matrix of the wood chips, etc.). Below this pocket, a layer of gravel and cobbles apparently indicated the original beach surface.

It seemed probable that the pocket of carpentering debris dates from the time of building the house, particularly since it rests on the sterile subsoil underlying house and deposit. That it does not represent an earlier structure is indicated by the fact that no traces of habitation levels or of timbers, etc., unrelated to the house 1 remains were encountered. Since we have a terminal date, 1862, for regular seasonal use of the site, it is of interest to note evidences of time required for the formation of the small house midden. No datable contact objects were recovered from the pocket of wood-working debris. However, the appearance of the chips, their rather large size, and cleanly cut surfaces, indicates that they must have been cut with metal tools—if not axes, steel-bladed adzes. House 1, then, must be placed entirely within the historic period, and probably was built at most no more than a couple of generations before its abandonment.⁴¹ The state of preservation of the foundation timbers bears out this dating.

⁴¹ Despite the pre-European acquisition of iron on the coast, metal axes and/or adzes indicate a postcontact date. The early iron tools seem to have been reserved for carving, etc.; heavy chopping was done with stone blades until trade times.

TABLE 3.—Artifacts from Qalahaituk

HOUSE 1

No.	Description	Measurements			Depth (inches)	Remarks
		Length (or diameter)	Width	Thick- ness		
		<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		
109	Contact goods (glass bead, clay pipe fragment, etc.).				Surface.....	
109a	Imperforate ground disk of schistose material.	2.5		0.22	.....do.....	
110	Contact goods (glass beads; lead shot; copper bracelet; glass, iron, and copper fragments).				Layers above flooring.	
111						
114	Diorite sinker, grooved about middle and over one end.	8	6.5	3.7	Surface.....	
116	Contact goods (glass beads, glass and iron fragments, clay pipe fragments, ax-cut wood chips).				Sand and shell layers below floor.	
117						
122	Heavy wooden point (fore-shaft fragment?).			.7	Pocket of carpentering debris.	See p. 60.
124	Wooden bird bunt (?) fragment.					See p. 60.
125 133	(4) pieces fine matting.....					
125a	Large piece coarse checker-work matting of cedar bark. (2) pieces 3-strand plaited bark rope. 2-ply twisted bark rope (fragment). Carved wooden "antler"..... (5) pieces twisted withes..... 2-ply twisted bark rope (fragment). Metal-cut (?) wood chips.....				Pocket of carpentering debris.	Elements 0.28 to 0.3 inch and 0.18 to 0.22 inch. See p. 60. Longest piece 30 inch.
126						
127				.25		
128		2.5		.3		
129 131 136 130				.35		

House 9, Trenches 1 and 2 (combined)

139	Contact goods (glass bead, metal tweezers, copper, glass and iron fragments).				0-12.....	
140	Splitting adze fragment, type ?				12.....	
141	Bone point, type BIIA.....	1.88	0.48	0.18	12-18.....	
142	Bone point fragment, type BIA (?).				12-18.....	
143	Bone point fragment, type ?.....				23.....	
144	Bone point, type BIIA.....	1.84	.26	.15	24.....	
147	Bone point, type BIIB.....	2.24	.34	.25	36.....	
148	Bone point, type BIIA.....	2.2	.38	.23	37.....	
149	Bone awl, type 1d (tip broken).				36-42.....	
150	Bone awl fragment, type 1e.....				36-42.....	
152	Bone point fragment, type BIB.....	2.62	.48	.16	21.....	
	Charred textile fragments.....				21-24.....	
	Remains of 3 (?) plain checker cedar-bark matting.					0.08 to 0.11 inch and 0.13 to 0.18 inch; 0.09 to 0.12 inch and 0.16 to 0.18 inch; 0.10 to 0.13 inch and 0.18 to 0.22 inch.
154	Small fragment of twilled checker cedar-bark matting. Cypress bark robe fragments (twined).					0.08 to 0.10 inch and 0.08 to 0.10 inch. Wefts each 0.5 inch apart.

OTHER SOUTHERN COAST TSIMSHIAN SITES

A few other sites in this district were inspected by or reported to the expedition.

Kitkiata (U. S. 1584).—The former winter village of the Hartley Bay Tsimshian is situated at the mouth of a stream on the east side of Kitkiata Inlet, off Douglas Channel. The site is still in use as a fishing place. In addition to modern frame houses, three plank houses still stand, and a number of sets of posts and beams. Wave-cutting at the outer end has disclosed a thick black-dirt layer, overlying an equally thick horizon consisting chiefly of mussel shell; the two together are about 48 inches deep. The midden is long and sprawling, though the Indians maintain that a good half of it has been washed away. A heavy growth of nettle stood between the houses and bordered the walks, despite the fact that the people had been there some weeks drying fish at the time of our visit.

The presence of sites was reported at the following localities: Near a small lake a short distance from the salt water at Klewnuggit Inlet; on the east side of Grenville Channel (U. S. 1584, also 1763); at the stream mouth on the north arm of Lowe Inlet; on the same channel (U. S. 1584, also 1763); on the east shore of the south entrance of Laredo Channel (U. S. 1584) (large house frames are said to be standing here); on Hastings (?) Island in the mouth of Laredo Inlet (U. S. 1584); on an island in Higgins Passage (between Price and Swindle Islands) (U. S. 1584). These three last-named localities should be inspected only during the summer season, when reasonably good weather may be expected. This is true also of the localities in the Nepean Sound district described by Caamaño in 1792, in the recently published translation of his journals (Caamaño, 1938).

HEILTSUK (NORTHERN KWAKIUTL) SITES

The territory with which this section is chiefly concerned is that part of the coast from Seaforth Channel on Milbanke Sound to the mouth of Rivers Inlet, exclusive of Dean and Burke Channels. This has been known as the range of groups speaking the Heiltsukan variety of Kwakiutl since earliest historic times.⁴² The Heiltsuk were never confederated until the historic period when a number of the tribes assembled at Bella Bella; formerly each local group or tribe had its own winter village and set of fishing stations and camps. Sites in this region are very numerous, and many are of considerable size. One small Xaihais ("China Hat") site in Khutze Anchorage off Graham Reach was examined, and another nearby was located.

⁴² It was not practicable to include the territories of the northernmost Heiltsuk, the Xaisla of Douglas and Gardner Canals, during the present survey.

KHUTZE ANCHORAGE
(B. A. 1927)

A small Xaihais site lies on a point on the south shore of Khutze Anchorage, which opens off the east side of Graham Reach. The site is a fishing station (a salmon river empties into the salt water about a quarter mile past the point), and is used to the present time, as remains of temporary shacks and very recent Caucasian goods testify. A sheltered cove with a gentle gravel beach fronts the site. Some 30 yards to the south is a small spring. A growth of young conifers between the midden and the beach partly screen it from view, though none grow on the site itself. A few bushes (wild currant, devilscub) and a good deal of nettle grow on the midden material. The maximum length of the deposit is 90 feet, the average width about 30 feet. Twenty feet farther out on the point traces of an older, that is, less recently used, camp were noted, heavily overgrown with alders and brush.

Three test pits, each 6 by 4 feet, and one 5 by 4 feet, were dug. The maximum depth of deposit noted was 34 inches. Shell formed a relatively small proportion of the midden material, which consisted mostly of ash, charcoal, and layers of sand and dirt with admixtures of ash and charcoal. There were also several layers composed of a brown soil which seemed to be chiefly rotten wood, with some sand, charcoal, etc., mixed in. Burnt stones and animal bone were noted throughout. There were almost no artifacts recovered.

ROSCOE INLET 1 AND 1A
(Can. 320)

In a cove just west of the mouth of Roscoe Inlet (near the junction of Johnson and Return Channels), two large middens were found about 100 yards apart and on either side of a small point (see fig. 23). Several trails run through the bush connecting them. The sites are fronted by a gently sloping beach that dries for a good hundred yards at low water, though rather exposed to the lash of sou'easters blowing up Johnson Channel. On the beach in front of midden were several rows of stones, probably canoe runways, and on the west side of the cove was a tidal salmon weir of stones. Several small streams from the mountain behind the sites run along the edge of, and through the midden material.

According to ethnographic information I obtained, the two middens were used as the winter village of the Owiklit (ōwīLit.^x) tribe. They were occupied contemporaneously. The eastern site (1) was known as "Landslide (place)" (hwinis), referring to the landslide scar on

the mountain behind it; the western one (1A) was called "Ready (i. e., to fight)," (tiai'is). The statement that both were simultaneously used is borne out by the presence of house timbers on both middens, although those on midden 1 are better preserved (apparently more recent) than those on 1A. The general nature and order of the midden strata were likewise similar.

In general conformation the two middens are similar. Both follow the shoreline; midden 1 is roughly crescentic in plan. Both rise from the high-tide line in a rather steep (ca. 30°) slope or face which forms an abrupt angular crest where it meets the level midden top. The

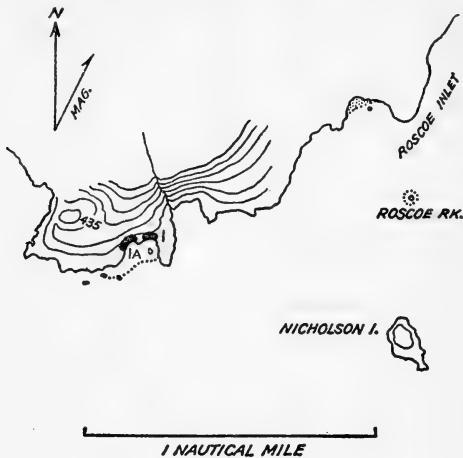


FIGURE 23.—Roscoe Inlet 1 and 1A.

tops of both 1 and 1A extend back to meet the hillside at the rear. The back part of 1A rounds off slightly, forming a shallow trough 1 to 2 feet deep between the midden and the sidehill. Midden 1 is more nearly level, so that no such depression is formed. Midden 1 is about 300 feet long and averages ca. 60 feet wide. Its top is 12 to 15 feet above tide line. A creek cuts through the deposit two-thirds of the way from its eastern end. The dimensions of 1A are nearly the same: Length, 360 feet; average width, 60 feet; height, 12 to 15 feet. One-third of the distance from its eastern end the midden is cut through by a small stream, and at its southwestern end is another slightly larger creek. The cover of the sites is unusual. The eastern half of midden 1, and most of the face (the slope to the beach) supports a growth of long tough grass of a distinctive light

green color. Occasional nettles grow among the grass. The rest is wooded. 1A is, in fact, covered with such a heavy stand that it was not recognized as a midden from the foreshore. (See pl. 6, *d*.) The timber consists entirely of young hemlocks (*Tsuga heterophylla* [Raf.] Sargent) except for a small clump of alders which follow the course of the creek cutting through midden 1. The hemlocks grow in most cases on decaying logs, house posts, and fallen beams, ex-

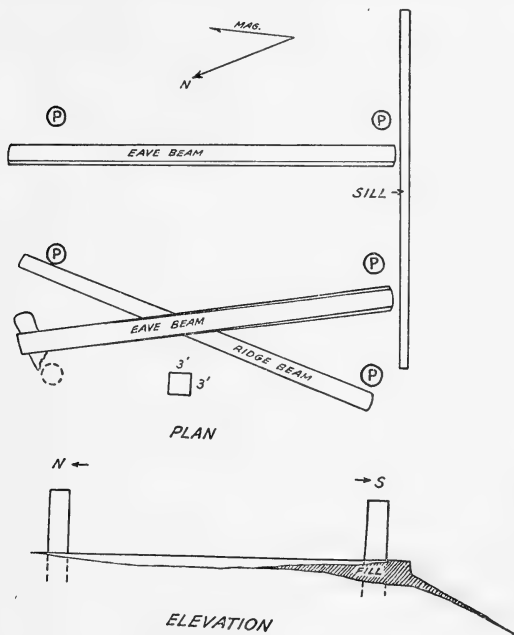


FIGURE 24.—House 1, Roscoe Inlet 1.

tending their roots along the grain of the timber—a type of growth noted by Sudworth as characteristic of the species (Sudworth, 1908, p. 93). (See pl. 7, *e*, *f*.) This habit probably has enabled them to become established where other conifers could not. In a number of instances sizable hemlocks were seen growing in a row on a very slight ridge—seedlings had become established on a fallen beam and had continued to grow after the beam had almost completely decomposed.

As previously mentioned, remains of a number of houses are indicated by the presence of posts and beams on the surface. House 1,

midden 1, is represented by three pairs of posts (see fig. 24), one of which has rotted out and fallen over. The posts are all from 32 to 35 inches in diameter; the central pair, front and rear, are 94 and 106 inches high, the eastern side pair 83 and 72 inches. Height of the other pair could not be determined. They stand in two rows, along the front and rear walls, each pair formerly connected by a heavy adzed beam. Three of the posts are sound enough at the top to show that they had been concavely notched to fit the beam. The dimensions of the house, as indicated by the posts, were: Length, front to rear, 46 to 47 feet (the central pair of posts were 46.5 feet apart); width, 38.5 feet. The side beams are larger than the ridge timber, being 32 and 36 inches in diameter. The beautifully fluted central beam has an average diameter of 21 inches. In length, the timbers are from 51 to 52 feet. Along the front of the house, 2.5 to 3.5 feet from the front posts, and exactly on the edge of the midden face, lies a 16-inch timber embedded in the soil so that only its upper and outer surfaces are exposed. (See elevation, diagram, fig. 24.) This was a structural part of the house, a sill laid down to bank dirt against, in order to level off the floor.

Just west of house 1, its near posts within a foot of the line along the outside of the western pair of house 1's posts, are the remnants of a similar set of three pairs of posts and beams. The timbers of this house (house 2), are much smaller than those of house 1, as are its dimensions (37 by 33 feet). To the east of house 1, stubs of several posts indicate another house (house 3), but a complete set was not found and it was not measured. It was probably about the size of house 2.

On midden 1A (see fig. 25), a rectangular area, 38 by 36 feet, was identified as a house (house 4). It is outlined by a row of hemlocks growing along a low ridge on one side, a rounded bank of earth about 2 feet high along the rear, and a ridge 1 foot high along the third side. The area thus enclosed is noticeably more level and slightly lower than adjacent portions of the midden. No posts or visible timbers remain. Adjacent to it is a smaller level area marked by low ridges, 35 by 23 feet, also a house. House 6, next to the last described, is indicated by a similar level area, 48 by 38 feet, with a slight bank along the rear side. In addition, two heavy beams lie, one along one side of the floor area, the other along its center. Probably more traces of houses could be found on the surface; these six are the most obvious ones.

Two trenches were dug, one in midden 1, the other in 1A. The former was put down 20 feet in from the sill in house 1; its dimensions were 13 feet by 5 feet by 36 inches. At the 36-inch level percolation of

surface water made excavation impossible. An attempt was made to dig a drain in the face of the midden, but this proved unsatisfactory. On midden 1A, a small pit (trench 2), 8 to 5 feet, was staked out just behind the crest of the face, and a drain 2 feet wide was dug down the face. The drain, when completed, extended 12 feet out (horizontally) from the crest and revealed a maximum depth of deposit of 150 inches.

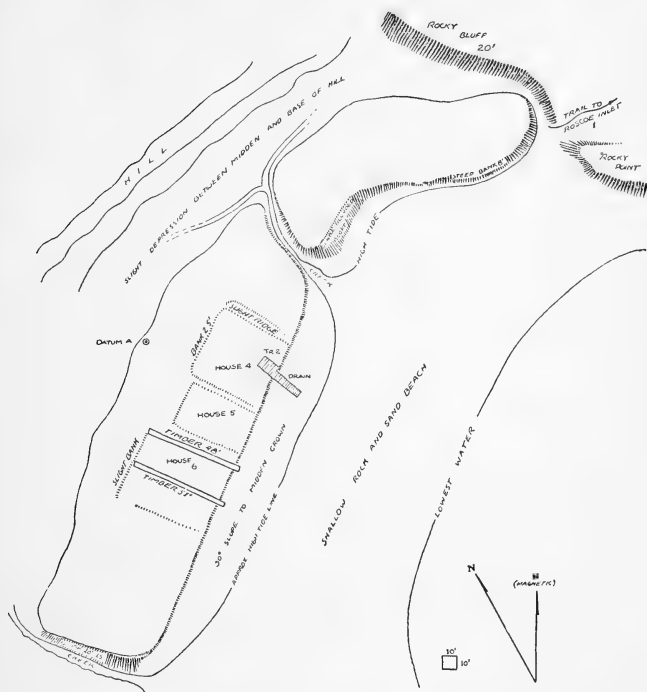


FIGURE 25.—Plan, Roscoe Inlet 1A.

It was slightly narrower at the bottom than at the top. The depth of deposit made it impossible in the available time to complete trench 2, and the structure of the layers in the drain made it unnecessary to do so, so the trench was discontinued at 42 inches.

The results of the excavations at Roscoe Inlet 1 and 1A are of some importance. Both middens were shown to be composed of well differ-

entiated and extensive horizons of ash, charcoal, dirt, or shell. The artifact yield was relatively high, and moreover, there appeared to be a tendency for the artifacts to be concentrated in certain levels which on the basis of other evidence, probably are habitation levels or floors.

A profile of trench 1 (see fig. 26) showed beneath the dark brown surface layer a thick horizon of light brown dirt with considerable sand and burnt stones. A few small lenses of charcoal and charred woods, or ash, and one relatively large pocket of charcoal and stone occurred in it. The large lens was probably not a fireplace, but a dump of hearth refuse, for it contained no ash layers. It appears likely that this whole horizon is fill. It certainly is not ordinary occupational debris. Beneath it, at an average depth of 20 inches, was a thin stratum of finely divided brown to black material. In appearance, the layer was identical with the "decomposed wood" layers identified as habitation levels at the Charles Point site. In the east end of the trench, continuing into the south wall but cutting off just short of the north wall (and, therefore, not shown in the profile) were the charred remnants of a number of large boards or slabs. Caving of the wall during profiling disclosed a vertical stake, 2 inches in diameter, 1.25 feet north of the trench wall, whose point of origin apparently lay above the floor. Below the floor level in the east end of the trench a series of black sandy layers alternated with layers in which mussel shell predominated. In the west end an intrusive pit antecedent to the floor had been cut, then filled with brown soil and with coarse sand and stone. The west edge of the pit cut sharply back to the west wall of the trench, then around eastward 3 or 4 feet from the north wall. Unfortunately, the exact size and shape of this pit was not worked out, nor could its purpose be ascertained. There was a notable dearth of artifacts and faunal remains in this material as compared with the corresponding levels in the east half of the trench. Rapidly dug test holes could be put down to a depth of 72 inches (36 inches below the bottom of the trench) and would not fill with water for several minutes. Two of these, one at either end of the trench, indicated that the deposit continued downward in a series of alternating shell and dark soil levels, similar to those in the east end of the trench between 20 and 36 inches.

The drain cut from the south wall of the trench to the midden face to carry off seepage water showed the upper dark brown layer to ex-

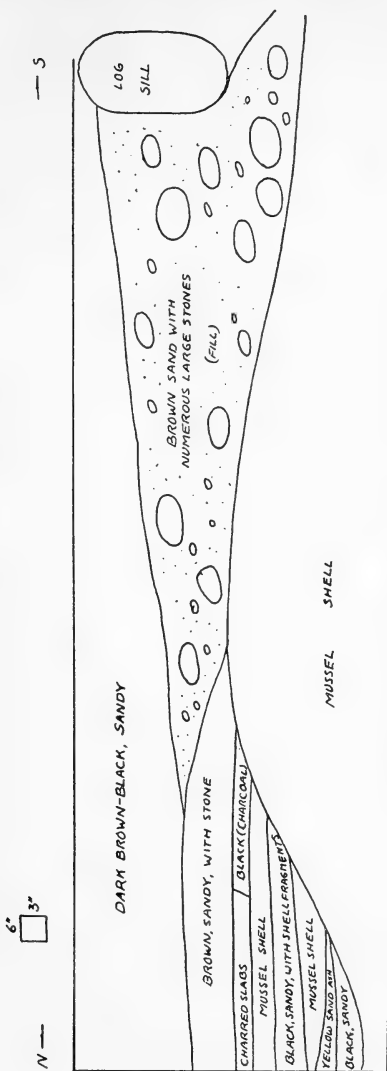


FIGURE 26.—Profile of east face, trench 1, drain, Roscoe Inlet 1.

tend unbroken, though thinning out, to the sill (fig. 27). Against the sill was an area of brown sandy dirt with numerous large stones. This apparently was an artificial fill to level off the latest house floor, that

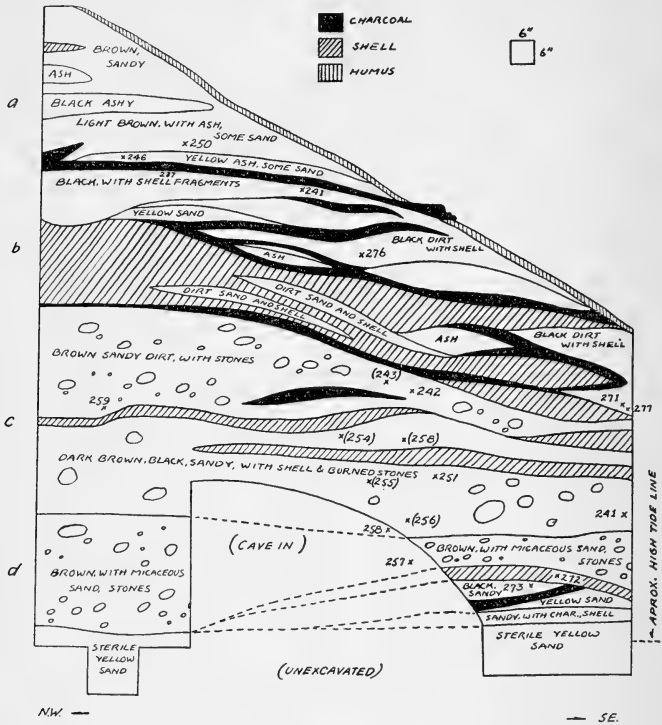


FIGURE 27.—Drain, Roscoe Inlet 1A. (X=location of artifact; numbers in parentheses indicate indeterminable worked fragments.)

of house 1, represented by the uppermost black horizon. Beneath the fill, the mussel-shell horizon rose to a slight crown 19 inches from the surface (from 35 inches at the north wall of trench 1), then dipped beachward.

Contact goods (trade beads and iron) were found in trench 1 in the uppermost (dark brown) horizon, and in the light brown sand with stone horizon (fill) beneath it.

The drain of trench 2 (see fig. 27) exposed a series of differentiated layers in which the predominating constituent was sandy soil, with varying amounts of charcoal, ash, burnt stone, faunal remains, and cultural material, alternating with ash layers and layers of shell (chiefly mussel). A number of dark brown or black strata containing a considerable quantity of organic matter, and occasionally small amounts of broken shell, seemed of the same type as the dark brown to black horizons in trench 1.

Tests to determine the back edge of the deposit showed the midden to contain a fairly large proportion of clam (*Saxidomus nuttalli* Conr., *Venerupis staminea* Conr.) and cockle (*Cardium clinocardium nuttalli* Conr.) shell there, rather than mussel shell as in the outer (and probably older) part of the site.

The artifact yield of the drain and trench corresponded to that of trench 1.

The most striking feature of the profile of the drain is the change in the trend of the habitation levels. The uppermost level carries straight out to meet the sloping face at a definite angle. Presumably this reflects the use of a type of house similar to that found around the point at Roscoe Inlet 1, where the house was built as far out over the edge as possible, filling in against a sill where necessary to level off the floor. The lower strata (again as in the adjacent site) indicated a gradual, more usual type of deposition, in which the layers slope off gradually, and the areas of occupation kept moving backward as well as upward.

To summarize, the middens Roscoe Inlet 1 and 1A represent an extensive site extending downward in time from the historic period. The very characteristic conformation of these middens, steep face joining the top at a pronounced angle (as in some Tsimshian sites), is probably to be associated with a late feature of house construction, and the tendency to build houses as close to the midden front as possible, artificially filling and leveling when necessary. The occurrence of certain distinctive strata which seem to be habitation levels should make it possible with more extensive excavation to define the earlier as well as the recent dwelling types of the region.

TABLE 4.—*Artifacts from Roscoe Inlet 1*

No.	Description	Measurements			Depth	Levels by inches	Remarks
		Length (or diameter)	Width	Thickness			
172	Contact goods (glass bead)				5		
176	Bone point fragment (class B)				6		
178	Bone awl, type 1b	2.86	0.8	0.45	8		
173	Stone hand maul, type III	4.77	2.4	1.96	9		
174	Stone hand maul, type IV	3.4	2.79	1.73	10		
180	Bone awl, type 1a	3.68			10		
181	Bone point, type BIIA (4 asymmetrical proximal barbs)	2.28	.32	.21	10	0-12	
182	Bone point, type BIA	3.22	.47	.16	11-12		
183	Scraper (?) of deer parietal	3.6	1.78	.15	12		
177	Elliptical chipped bone (point blank?)	1.97	.42	.14	7-12		See p. 62.
184	Contact goods (chinaware fragment)				0-12		
192	Whale-bone cypress bark beater, handle missing.		1.85	1.65	10	(1)	
185	Serpentine celt fragment, type IA (?)		1.43		14		
226	Contact goods (iron object)				16		
187	Bone awl, type 1d	4.6	.54	.24	19	12-24	
188	Bone gouge or scraper, small, type IA.	2.63	.27	.23	19		
201	Rectanguloid slate straight-edged stone blade ("saw")	1.78	1.52	.34	24		
195	Bone awl (?) fragment, type 1b (?)				25		
197	Whale-bone object (blank?), one side hacked, one sawed.	14.5	.93	.6	27		
202	Serpentine (?) celt poll fragment, type IB (?)			.63	27		
206	Fish-spine pin (?) fragment	4.+			27		
207	Bone point fragment, type BIIA (?)	2.7+	.3	.15	27-28		
208	Sawed bone fragment				28		
210	Blunt tipped "wedge-shaped" object.				30		See p. 60.
211	Bone awl fragment, type 1e				30		
212	Composite harpoon point fragment, type II.		.54	.22	30	24-36	
200	Stone hand maul, type IV				30		
199	Bone point, type BIIB	3.22	.44	.3	27-30		
191	Stone hand maul, type IV				24-32		
215	Harpoon point butt fragment, type I.		.96	.34	33		
216	Bone scraper (?) fragment, type IB (?)		.88	.22	33		
203	Large flat chip of serpentine (celt fragment?)				34		
217	Bone awl (or gouge?) fragment, sawed, type 1b (?)		.4	.25	34		
219	Small bone (sea mammal rib) wedge.	3.3	.96	.53	35		
220	Bone point, type BIB	3.5	.42	.22	36		
205	Bone awl, type 1e	3.66			24-36	24-36	
222	Stone polisher with wear facets.	1.67			24-36	24-36	
227	Splitting adze fragment				No loc.	(?)	
228	Harpoon fragment, spatulate tip type, V (?)				No loc.	(?)	
Total number artifacts from trench 1					37		40-3 from drain.
Total yardage					7.2 yards		
Artifact yield					5.2 per yard		Also 6 indeterminate worked bone fragments recovered.

¹ From drain.² From drain.

ARTIFACTS FROM ROSCOE INLET 1A

For descriptive purposes, four levels may be distinguished on the basis of type of midden material. It must be made clear that these

levels are not culturally defined, but represent periods of different usage of the portion of the midden through which the trench cut. Level *a* (see diagram fig. 27), extending to a depth of 39 inches at the northwest face, consisted chiefly of ashy strata, with one black dirt (habitational) horizon. Level *b*, 39 to 60 inches at the northwest face, consisted of several habitational layers, interspersed by layers of lenses of mussel shell, and of ash. Level *c*, 60 to 125 inches may also represent a type of habitation, although the composition of the midden material differs somewhat from that of other habitational layers. Level *d*, 125 to 151 inches, differs again, containing as it does quantities of stones and sand (fill). The small habitation area at the bottom of the deposit might be distinguished from "*d*" had we enough material to make it worth while to do so.

 TABLE 5.—*Artifacts from Roscoe Inlet 1A*¹

DRAIN

No.	Description	Measurement			Depth	Remarks
		Length	Width	Thick-ness		
		<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		
250	Ulva knife fragment.....				Level <i>a</i> ...	
246	Bone point, type BIA heavy, blunt tip.....	2.26	0.48	0.2	Level <i>a</i> ...	
237	Bone point, type BIA.....	3.54	.41	.25	Level <i>b</i> ...	
247	Split piece of whale bone, hacked to length, split sawed from cancellous surface.....	11.5			Level <i>b</i> ...	Saw cuts 0.26 in. wide.
276	Sea mammal bone rod, elliptoidal cross section, tapered toward one end (tip broken).....	5.2(+)	.58	.39	Level <i>b</i> ...	
271	Bone awl (? tip missing) type 1a1.....				Level <i>b</i> ...	
277	Thin flat bone object (needle?).....	6.6(+)	.5	.18	Level <i>b</i> ...	See p. 60.
242	Bone point, type BIA.....	4.12	.5	.26	Level <i>c</i> ...	
259	Bone point, type BIA.....	2.6	.62	.2	Level <i>c</i> ...	
251	Bone gouge (scraper), type IA, narrow rounded tip.....	5.58			Level <i>c</i> ...	
241	Hacked sea mammal bone object (point blank?).....	3.1	.56	.44	Level <i>c</i> ...	
258	Small bone awl fragment, type 1d (?).....		.42	.24	Level <i>c</i> ...	
257	Cylindrical, tapered, sea mammal bone rod, (broken medial portion missing).....		2.44		Level <i>d</i> ...	
273	Awl tip (broken and reused), original type indeterminate.....	2.18	.53		Level <i>d</i> ...	
234	Sea mammal bone rod, rectangular cross section, one rounded end, one end missing.....	3.7(+)	.39	.29	Level <i>b</i> ...	Objects 234-245 were improperly located, so that their loci are not certain, except that they came from levels <i>a</i> and <i>b</i> .
245	Bone awl, type 1e.....	5.44			Level <i>b</i> ...	Objects 274, 275, 278, 260, 289 from the drain are without location.
274	Cylindrical whale-bone rod fragment, with rounded end.....		2.56			
275	Bone awl, type 1d.....	4.21	.61	.21		
278	Small pointed bone, square-cut base.....	1.6	.28	.14		
260	Bone point, type BIA.....	2.59	.44	.19		
289	Stone polisher.....					Several noted not saved. In addition, a total of 15 pointed or otherwise worked bone fragments indeterminate as to form, were recovered from the cut.

TABLE 5.—*Artifacts from Roscoe Inlet 1A*¹—Continued

TRENCH 2

No.	Description	Measurement			Depth	Remarks
		Length	Width	Thick-ness		
279	Bone awl, type 1e.....	<i>Inches</i> 3.27	-----	-----	14-----	Level a, depth 0-39 inches.
266	Slender sea mammal bone rod, slotted for point, (arrow fore-shaft?) butt broken.	9.9(+)	² 0.45	-----	16-17-----	Point slot, 0.08 inch wide.
267	Ulna knife.	-----	-----	-----	17-----	
264	Hand drill (?) fragment reduced cylindrical, blunt point.	-----	² .19	-----	14-18-----	
263	Small sea mammal bone rod fragment, 1 rounded end (drill point?).	1.9(+)	² .17	-----	11-21-----	Level a, 0-39 in.
269	Bird head ornament(?).....	-----	-----	-----	21-----	See p. 60.
281	Barbed harpoon point tip fragment, whale bone, type ?	1.34	.62	0.25	22-25-----	
280	Bone awl, type 1e (tip broken).	5.2(+)	-----	-----	21-----	
282	Bone awl fragment, type 1e, partly sawed on one side.	-----	-----	-----	23-----	Objects associated.
283	Bone awl, type 1e.....	-----	-----	-----	23.5-----	
284	Bone awl, fragment type 1e (?)	-----	-----	-----	24-----	
285	Mountain-goat horn core with cut base.	-----	-----	-----	11-24-----	
286	Bone point, type B1A.....	-----	-----	-----	24-28-----	
287	Bone awl, type 1c (ulna, head partly worked).	-----	-----	-----	40-41-----	Level b.

Total artifacts.....	14
Total yardage.....	4.5
Artifacts per yard.....	3.1

Also 6 indeterminate worked fragments. Excluding indeterminables.

In a depth test at the rear side of the midden, a short heavy rectangular cedar-bark shredder of whale bone; length, 6.23 inches; height, 7.38 inches; thickness, 0.6 inches; with an irregular elliptoidal perforation near the upper end, 1.46 inches by 0.61 inches, was found at a depth of 18 inches.

¹ See profile diagram (fig. 27) and indicated artifact loci.

² Diameter.

KILKITEI VILLAGE
(Can. 320)

A site designated on the chart as "Kilkitei Village" is situated on a small promontory on the southwest end of Yeo Island, at the junction of Spiller and Return Channels. (See pl. 6, *b*.) It belongs to the Qoqwaiat (qōqwaiat^x) division of the Heiltsuk, and is known as "kaba."⁴³ The site is fairly well sheltered, being protected from heavy seas in so'easters by the islands to the south (though the force of the wind is not abated), and from westerlies by Grief Island directly in front. A narrow beach, wide enough, however, for launching canoes, and rocky in some places, fronts the site. At either end of the promontory is a narrow sheltered cove; the one to the north

⁴³ It was probably the village from which the attempted massacre of the Atahualpa was made in 1815. (See Howay, 1928 a.)

has a good landing, from which a trail leads to the village. Remains of several native houses are to be seen on the site, as well as a modern frame house. The site is used by people from Bella Bella for growing potatoes, and a good part of the surface has been cultivated at one time or another. On the little knoll at the north end of the promontory are several modern graves with marble headstones, in a fenced plot. Next to them are a pair of carved grave posts (ca. 15 feet apart) between which a gravehouse once stood. (See pl. 8, *g*.) A landslip, caused by the fall of a large tree over the bluff, has carried away the house. A creek running into the cove to the north

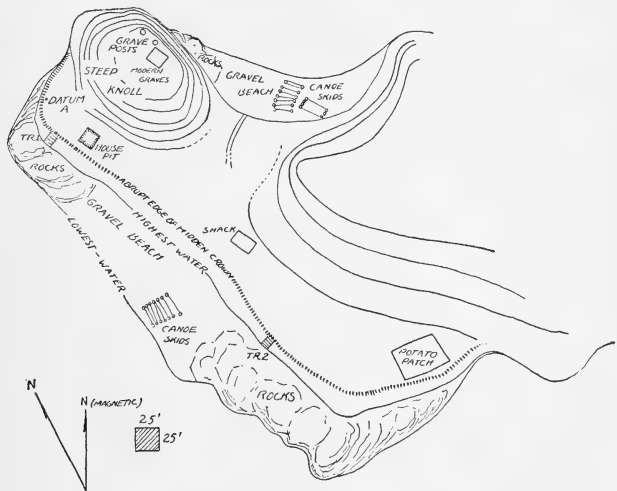


FIGURE 28.—Plan, Kilkitei Village.

provides water, for a well-defined trail leads from the site to the stream. Three canoe runways were seen on the beach, one directly in front of the site, two at the landing in the cove to the north. Unlike those previously seen, these have been kept in repair, poles about 8 feet long being laid across, 2 to 5 feet apart and weighted down with the rocks of the row of stones on either side. The arrangement is a most effective one, as we learned by sliding our skiff up the one in the cove.

The midden is long, straggling along the front of the promontory (see fig. 28). Its dimensions are: Length, 575 feet (along the top); average width, 50 feet. Formerly, it must have been both longer and wider, for the north end appears to have been considerably eroded, and the front has suffered from wave cutting. Height of

the midden varies from 5 to 8 feet about tide line. Some midden material, black dirt with shell fragments, was noted over the low saddle to the landing in the north cove, but whether this is but a thin mantle or deep deposit was not determined. The portions of

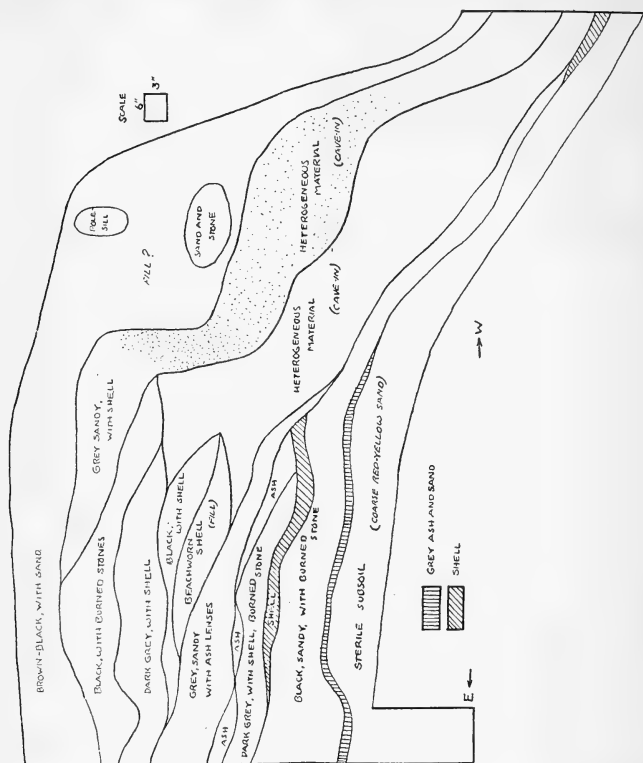


FIGURE 20.—Profile of south face of trench 1, Kilkitei Village.

the site which have not been cultivated support coarse grasses, nettles, and some salmonberry bushes.

Various stubs of house posts and miscellaneous timbers were noted, but none of the houses was measured, save for a rectangular pit, 19 feet by 22 feet, at the northern end. The pit is surrounded by a low bank, 1 to 2 feet high, and 3 or 4 feet wide. Pieces of boards, etc., were noted in the pit. Presumably, this is the remnant of a plank house with a central pit, like those so often described ethnographically, although this pit seems rather small for such a structure.

Two trenches were dug in from the outer face in apparently undisturbed portions of the site; trench 1, 12 by 4 feet, showed a maximum depth of deposit of 38 inches; trench 2, 9 by 4 feet, horizontally, had a maximum depth of 73 inches.

Trench 1 was complex in the stratigraphy of the undisturbed portions (fig. 29). The outer 5 to 6 feet proved to be mixed, owing to wave undercutting and caving-off of the midden face. The remainder of the deposit at this point consisted of numerous small lenses and strata of differentiated material—dirt, sand, shell, and ash.

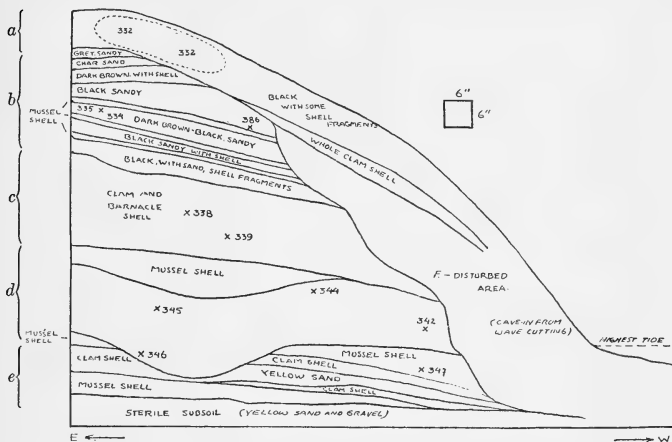


FIGURE 30.—Profile of south face of trench 2, Kilkitei Village.

Apparently the trench cut across the former point or corner of the midden, for the layers in general dipped both north and west. The trench cut through an historic house. In the upper layer a 6-inch pole with iron spikes lay horizontally along the edge of the midden. This may have been a sill similar to that of house 1 in Roscoe Inlet 1, though no clear evidence of artificial fill behind it could be noted. There were traces of fill at lower depths which, however, were not related to the same sort of house construction: a few bone fragments, chiefly in the black dirt with burnt stone layer (4 to 8 inches below the surface) lay at rather acute angles, suggesting loading of this material, and at 19 inches a 4.5-inch lens of beach-worn shell and gravel extended in a tongue to 1.7 feet of the head of the trench, widening rapidly beachward to cover the width of the trench.

A few other observations may be recorded here. In the northeast corner of the trench an ovoid pit, 1.4 feet by 1.8 feet, extended downward 15 inches from its point of origin at the bottom of the black

sandy surface layer. Its purpose could not be ascertained. In mid-trench in the 0- to 12-inch level and again at the base of the deposit (overlying the lowest midden layer) at the edge of the cave-in material, were a number of large unworked stones, 20 to 40 pounds in weight. There was no determinable purposeful arrangement of either of the two lots. The artifact yield of the trench was moderate, as compared to the Roscoe Inlet middens; the layers below 24 inches yielded little artifactual material or animal bone.

Trench 2, like the preceding, cut through a recent house on the surface, as indicated by stubs of house posts on either side. The outer edge of the deposit for about 5 feet from the present face has been disturbed by undercutting and sloughing of upper levels. The undisturbed portion presents a simpler stratigraphy by far than did trench 1. (See fig. 30.) The layers, again well differentiated, are for the most part thicker and apparently continuous, and slope gradually beachward. The original face of the midden must have been much farther out than is the present one. In the upper levels a series of horizons resembling the habitation levels of previously investigated sites were noted. They did not occur at this point below the 30-inch level. The artifact and animal bone yield of the lower levels (51 to 73 inches) was somewhat less than above that point. A pit penetrating the lower levels for 10 inches had its point of origin in dark brown dirt horizon at 65 inches.

In general, the Kilkitei Village midden paralleled those at Roscoe Inlet in structure, though it was considerably shallower. Again the latest houses were built out to the midden edge with sills to hold and level the floor, while the strata below dipped gradually beachward, indicating that houses of a different type were in vogue anciently.

TABLE 6.—*Artifacts from Kilkitei Village*

TRENCH						
No.	Description	Measurements			Depth	Remarks
		Length	Width	Thick-ness		
		<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		
311	Stone celt (burned).....	5.93	1.62	0.68	6-12	Objects that cannot be definitely located as to depth, since they came from the disturbed ground at the outer (wavecut) portion of the trench.
310	Contact goods (glass fragment).....	-----	-----	-----	12	
317	Contact goods (glass, iron).....	-----	-----	-----	0-12	
318	Small cylindric bone object, 1 end pointed, 1 spatulate (hook barb?).....	1.35	1.12	-----	17	
323	Bone point, type BIA.....	2.98	.39	.21	32	
309	Contact goods (iron).....	-----	-----	-----	-----	
312	Small hand maul, type III.....	2.4	1.39	1.24	-----	
13	Hand maul, type IV.....	4.66	2.68	1.68	-----	
314	Hand maul, type III.....	3.38	1.65	1.07	-----	
315	Small pebble with abraded ends (hand maul, type IV?).....	2.28	1.19	1.08	-----	
222	Bone awl, tip missing, sawed, type 1d.....	2.7(+)	.41	.21	-----	
330	Stone celt, type IB.....	3.65	1.47	.73	-----	
331	Hand maul, type III.....	2.95	1.7	1.21	-----	
327	Worked clam shell fragment.....	-----	-----	-----	-----	
Total artifacts.....					11.....		Excluding contact goods, 5 indeterminate worked fragments.
Total yardage.....					4 to 5.....	Approximate.
Artifacts per yard.....					2.2 to 2.7.....	Excluding contact goods, indeterminables.

 TRENCH 2¹

No.	Description	Measurements			Level	Remarks
		Length	Width	Thick-ness		
		<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		
332	Contact goods (iron, etc.).....	-----	-----	-----	a	See p. 60.
336	Socketed bone harpoon fragment.....	-----	-----	-----	b	
335	Hand drill (?) fragment (reduced cylindrical tip).....	-----	-----	-----	b	Tip diameter, 0.12 in.
334	Small blunt bone pin with expanded head (drill point?).....	-----	-----	-----	b	See p. 60.
338	Bone gouge (?) fragment, type IC (?) (shorter and narrower than Tlingit skin-scrapers of this type).....	3.92	-----	-----	c	Diameter of haft, 0.38.
339	Bone gouge tip fragment, type IA or IB.....	-----	0.66	0.27	c	
342	Bird bone awl (?) fragment hafted in another bone.....	-----	1.24	-----	d	
344	Flat, elliptical cross section bone pin (?) fragment, with tapering rounded butt.....	1.8(+)	.27	.11	d	
345	Bone point (?) tip fragment, type B-IB (?).....	1.2(+)	.41	.15	d	
346	Bone gouge tip fragment, type IB (?).....	3.2(+)	.58	.24	d	Width at tip, 0.22 in
347	Bone awl fragment, tip broken, type 1e (?).....	2.4(+)	.46	-----	e	
348	Bone point, type BIA (?), butt broken.....	2.6(+)	.34	.15	f	Objects recovered from the disturbed area (f).
351	Slate blade fragment, with beveled blade, unworked sides (saw?).....	-----	-----	.22	f	
Total artifacts.....					12.....	Excluding contact goods, 3 indeterminate worked fragments.
Total yardage.....					5.0 to 5.5.....	Approximate.
Artifacts per yard.....					2.1 to 2.4.....	

¹ Diameter.

² As in the case of material from Roscoe Inlet 1A, artifacts from trench 2 will be listed according to location levels. The various strata can be grouped according to type into 5 main levels, a-e, with an area f to designate the disturbed area at the outer end of the cut. (See profile, fig. 30.)

KYNUMPT HARBOR
(Can. 320)

A small site is situated on the north end of Campbell Island, on the narrow peninsula between Kynumpt Harbor and Norman Morrison Bay, fronting on the former body of water. The site is locally reputed to be the place in which Vancouver wintered and careened his vessels in 1793; however, Vancouver did not winter on the coast that year, nor can I identify the harbor from his account. The navigator entered Milbanke Sound by way of Return Channel, and probably never came near this place. A pit, 25 feet square, enclosed by low ridges of earth, marks the site of a native house.

According to native testimony, Kynumpt Harbor (qainám't is the Heiltsuk name) was a minor camp, used chiefly in late summer for berry-picking. The site is fairly well sheltered, and fronted by a long gravel beach. Its actual extent was difficult to ascertain owing to clearing and cultivation of a considerable portion of it. The length is in the neighborhood of 200 feet; from the beach the deposit sprawls back following the rising contour of the hillside for about 100 feet. The maximum depth of deposit noted was 69 inches.

Several test pits were dug, but all proved to be in disturbed ground; the present occupants of the site were unable to inform us of the full extent of cultivating and leveling that had been done by previous white settlers. Pit A had undisturbed deposit below 24 inches; the upper portion being fill to level off the slight terrace at that part of the midden. Below this point were well-defined horizons of charcoal, decomposed wood (similar to habitation levels seen elsewhere), and shell, resting on the clean gravel bottom (apparently an old beach). A small number of artifacts were recovered. Of some interest was the incidence of fragmentary human remains in the deposit. Those in the disturbed ground, of course, indicated only presence of skeletal material, perhaps burials or just fragments, in the site. A skull fragment (portion of parietal), however, occurred in the undisturbed black dirt with shell layer at a depth of 30 to 36 inches.

SCHOONER PASSAGE 1⁴

An important site in Wikeno (southernmost Heiltsuk) territory on lower River's Inlet was tested. The midden is located on the northwest end of a small island just off the entry to Schooner Passage, the northern entrance to Rivers Inlet. (See pl. 6, *c.*) According to ethnographic information, the site was an important

⁴The general locality is sketched in on B. A. 1927 and U. S. 5361, but no accurate charts of the Rivers Inlet region have as yet been published.

Wikeno center until about the contact period (accounts vary as to whether the date is to be put just before or just after). At that time a number of other Heiltsuk groups, chiefly at the instance of the Oyalit division, made a very successful raid, killing a great number of the inhabitants. The survivors fled to their kindred villages farther up the inlet. As I understand, the site was never actually occupied by the victors, who sought control of the rich fishing and sea-hunting grounds at the mouth of the inlet, and after a time the

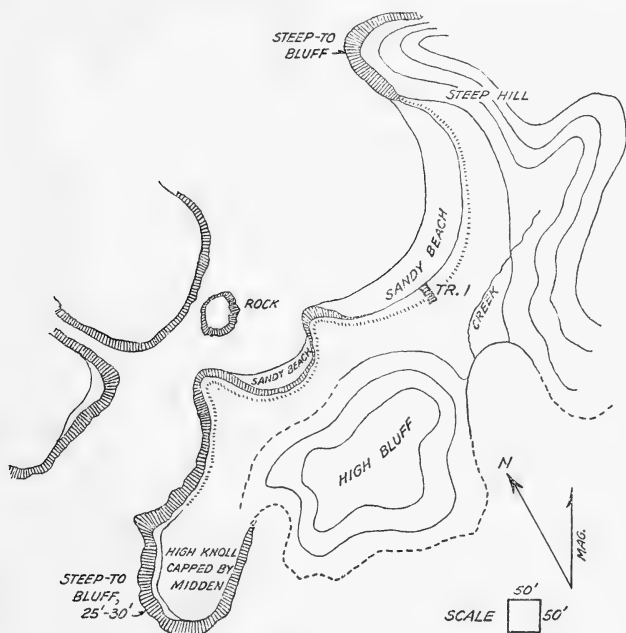


FIGURE 31.—Schooner Passage 1. (Sketch, scale approx.)

Wikeno repossessed the place, using it as a camp, however, not as a main winter village. It is from the incident of the raid that the site gets its local name: "Slaughter Illahee."⁴⁵ Another version of the story adds that quantities of human remains are to be found lying about at the site, which are interpreted as corroboration of the massacre. We found none on the surface, however. Those that have been found may have washed out of the deposit, which contains both burials and fragmentary skeletal material.

⁴⁵ "Illahee" is Chinook jargon for "land," "place," and is used at present on this part of the coast for the middens.

The midden follows an irregular shoreline around three coves and out on the western point of the island for 1,050 feet. (See fig. 31.) In width it averages at present about 60 feet, except in one place near the north end, where it cuts back across a narrow neck to a cove on the shore for 150 feet. The creek which cuts through this back portion of the midden has exposed a vertical section 48 to 60 inches high. External height of the deposit varies considerably, for the point of the island rises to the west, forming steeply bluffs 20 feet high. The extent of actual deposit varies from 10 to 17 or 18 feet, 15 feet probably being the average external height. Notwithstanding the excellent shelter afforded by the surrounding islands, a considerable portion of the midden front has been cut away. The deposit was much more extensive at one time. A dense thicket, mostly salmonberry and wild currant, covers the site. No traces of native houses were seen on the surface except for remnants of two or three very recent shacks.

A strip of the midden face was cleared on the largest cove, and a trench 4 feet wide was dug back to 9 feet from the edge of the bank. At the 72-inch level, the trench was narrowed to 3 feet and carried down to the seepage level at 191 inches. The outer end of the completed trench was 21 feet from the inner face. At 108 inches a block 5 feet long (from the inner face) was left, and the trench walls were brought in slightly so that at the bottom the cut was 2 feet wide. At this level seepage prevented further excavation, although depth tests put down 36 inches showed the midden material to continue (i. e., 227+ inches). The bottom of the trench, at 191 inches, was 47 inches below high-tide line. Several depth tests were dug at low tide down the beach in front of the site, in an effort to determine the extent of the midden material.⁴⁶

Inspection of the profile of the cut brings out a number of significant features in addition to the impressive depth of the deposit (see fig. 32). Perhaps most important of all was the occurrence of definite firepits containing charcoal, ash, and burnt stone (with the underlying shell, etc., definitely calcined, showing that burning had taken place in situ) definitely connected with dark horizons (of heavy organic content) similar to those tentatively identified as habitation levels at other sites. In addition to those which appear in the profile, a number of firepits were encountered in the trench, at the 28-inch, 60- to 72-inch, and 99-inch levels.⁴⁷

⁴⁶ The species of shells represented at this site in quantity were more varied than at other sites. In addition to *Saxidomus nuttalli* Conr., *Cardium clinocardium nuttalli* Conr., and a mussel (*Mytilus* sp.), quantities of a large barnacle (*Balanus* sp.), *Thais lamellosa* Gmelin, and *Thais canaliculata* Ducl. were common in some levels.

⁴⁷ The second in the series (at 60 to 72 inches) was a fireplace of considerable size, 5 feet across and about 20 inches deep. It was cut through, leaving a cross section in the south wall of the trench to be noted and photographed, but was lost in a cave-in.

In general trend, the strata appear more uneven than those at Roscoe Inlet 1A, indicating a different type of midden growth.

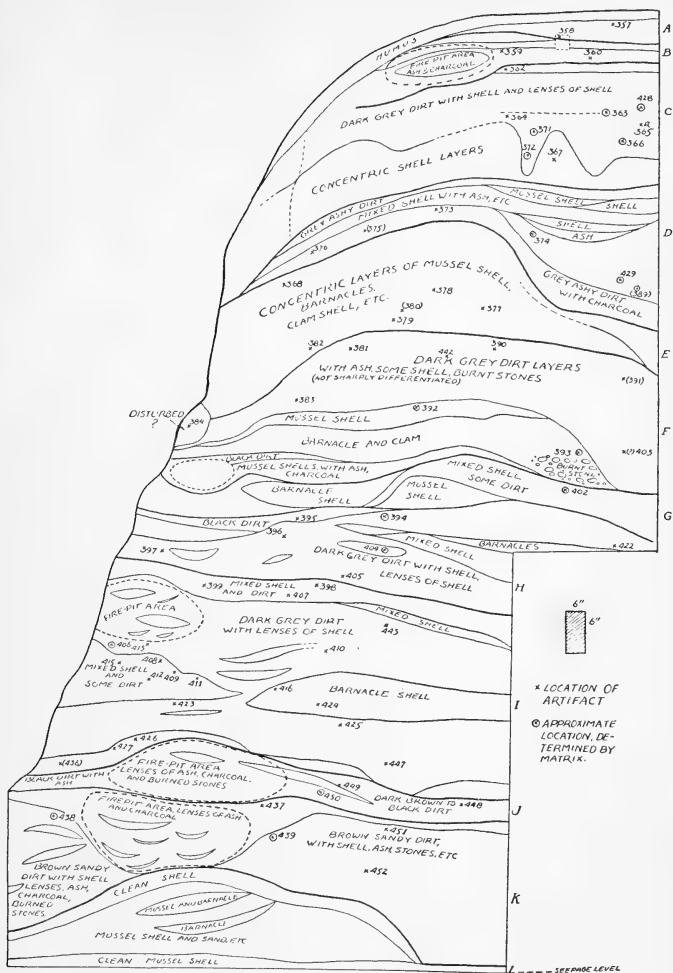


FIGURE 32.—Profile, Schooner Passage 1.

Erosion of the outer face, of course, makes interpretation of so small a section as the present one difficult, but the small well-defined peak in the lowest exposed section, succeeded by lenticular horizons

whose apices appear to have been beachward (at present eroded away), seems to have been followed by a period of retreat of the midden landward. This irregular growth brings up the problem of the mode of deposition of the lower levels. Tests on the beach showed, at a point of 40 feet from the datum, shell material to a depth of 38 inches, at which point the hole flooded. The upper 10 inches consisted of fine particles of white shell (apparently crushed clam and barnacle), overlying a thick bed of mussel shell with fragments of white shell. Both layers contained some ash, and in the lower layers bits of charcoal and burnt stones were noted. At 60 feet from the datum (by eye, 4 feet below the beach line), shell material was found to extend to a depth of 36+ inches (the seepage level.) At the surface was a layer of beach gravel, followed by a 9-inch layer of mussel shell with clam and/or barnacle fragments and considerable ash and charcoal. Inferior to this was a very compact layer of broken mussel shell 8 inches thick, which overlay a bed of mussel shell with ash (lighter in color than the preceding) which continued to the bottom of the hole. The presence in several of these apparent strata of materials of differing specific gravity (different types of shell, charcoal, ash, and burnt stone) argues against the differentiation being due to water-sorting. If this is correct, the midden formerly extended much farther outward, which means that there has been a sharp subsidence of the island. It must be noted, of course, that the possibility of subsidence does not demand the assumption of profound geologic changes over a long period of time, for the northern Pacific coast is notoriously unstable, numerous minor local subsidences and emergences being known (Dawson, 1877; 1880, p. 94 B ff.).

One burial and numerous isolated human bones were found in the trench. The burial, that of a child of 10 or 12, was found in a layer of mussel and barnacle shell with ash at a depth of 106 inches, 1.25 feet from the head of the trench, level *h* in the profile. The body was laid on the back, tightly flexed, with the head to the east. (See pl. 8, *f*.) No pit outline could be traced but the lay of the remains—the pelvis and feet slanted upward—indicated there had been a pit. An undisturbed mussel-shell horizon 92 to 97 inches (part of level *g*) lay above the burial, indicating the point of origin of the pit was below 97 inches. Finely divided black material covered the entire burial; no artifacts were found in association. The bones were somewhat crushed, but articulated. Fragmentary remains were found as follows: Skull fragment (sphenoid, adult) 89 to 94 inches; a tibia and several fragmentary vertebrae (juvenile), 123 to 126 inches; a group of bones consisting of a humerus, radius clavicle, two ribs, portion of a tibia, and a cervical vertebra (all juvenile) in an area of 1.8 feet by 1.5 feet at 131 to 133 inches.

The predominance of juvenile remains is of interest. None of the bones showed traces of gnawing, indicating that they were not from burials dug up by animals.⁴⁸

The artifact yield of the trench was moderate compared to that of the Roscoe Inlet middens, although there was a decrease in quantity in the lower level (in part, at least, owing to reduction of the horizontal area excavated).

TABLE 7.—Artifacts from Schooner Passage 1

No.	Description	Measurements			Level	Remarks
		Length	Width	Thick- ness		
		Inches	Inches	Inches		
357	Contact goods (glass bead).....				a	
358	Bone point, type BIA.....	1.66	0.46	0.19	a	
361	Contact goods (iron bucket bale).....					
359	Serpentine celt fragment, type ?.....				b	Probably level a, depth 0-12 inches.
360	Small flat elliptical cobble with abraded ends (type IV, hand maul).....	2.71	2.22	.92	b	
362	Serpentine celt fragment.....				c	
363	Composite harpoon barb, type II.....	2.54	.46	.28	c	
428	Small bone pin, one end pointed (?) (tip missing), one cut to steep bevel hook or rake point?.....	1.6	.24	.19	c	
364	Bone point, type BIA.....	3.28	.41	.35	c	
365	Hand maul, type IV (burned).....	5.54		1.9	c	
371	Longitudinally split bear (?) canine, with encircling groove at base for suspension.....				c	
372	Serpentine chip with rounded sharp ground tip (knife of reworked celt fragment?).....	3.09	.78	.16	e	
367	Bone awl, type 1e (?) tip missing.....	4.5(+)			c	
429	Bone point, type BIA.....	3.05	.45	.21	d	
374	Split whale-bone fragment, tapering with rounded edges.....	5.8(+)	1.9(+)	.5	d	See p. 61.
373	Bone awl fragment, type?.....				d	
376	Bone awl, type 2d.....	3.4	.43	.23	d	
368	Split bone awl (?or gouge), tip missing, head unmodified except by original splitting (awl, type 1b).....				e	
378	Composite harpoon barb, type II (broken).....	1.8(+)	.43	.19	e	
377	Bone awl, type 3 (a head broken).....	5.5(+)			e	
379	Bone point, type B1B.....	2.1	.38	.19	e	
382	Bone point, type BIA (butt broken).....	2.8(+)	.55	.22	e	
384	Bipointed bone pin (gouge?).....	3.12	.28	.18		From disturbed area (or pit?).
381	Rounded cut whale-bone fragment.....			.6	f	
390	Elliptoidal cut whale-bone object.....	3.76	1.52	.5	f	
442	Whale-bone fragment with slanting beveled edge (chisel or wedge fragment?).....		1.38	.28	f	
383	Small bone gouge, type IA.....				f	Width at tip, 0.28.
403	Worked whale-bone fragments.....				f	
392	Ulna knife, with partly modified (square cut) head.....				f	
393	Whale-bone fragments.....				f	
402	Small (bird-) bone pin fragment with slender tapering point.....	1(+)	.09	.07	g	
394	Bone awl, type 1c.....	4.07	.78	.28	h	
395	Bone awl, fragment, sawed, type 1d.....		.54	.3	h	
422	Small cylindrical bone "pin" (1 end missing), rounded end (drill point?).....		1.11		h	
396	Sea mammal bone "bark splitter," fragment, type IIB.....	5.7(+)	.73	.58	h	
404	Small bone awl (?), unfinished (?), type 3a.....	2(+)	1.2		h	

¹ Diameter.

⁴⁸ Natives state that occasionally wolves and bears molested graves in former times. Modern graves are often covered with a layer of concrete, apparently to prevent this.

TABLE 7.—*Artifacts from Schooner Passage*¹—Continued

No.	Description	Measurements			Level	Remarks
		Length	Width	Thick-ness		
		<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		
397	Cut deer mandible.....				h	See p. 61.
405	Bone awl, type 1e.....	2.64			h	
398	Bone awl or gouge fragment, with whole head, square-cut.				i	
399	Bone awl, sawed, type 1d.....	5.6	0.63	0.33	i	Occurred in same general area, but not definitely associated.
407	Bone awl, type 1b.....	2.64	.48	.27	i	
443	Split whale-bone fragment with cut and worn end.				i	
406	Bone awl, type 1a1.....	3.37			i	
413	Bone point, type BIA.....	2.42	.39	.15	i	
408	Bone awl, type 1d.....	4.04	.44	.27	i	
410	Bone awl, type 1d.....	3.25	.62	.22	i	
415	Bone awl, type 1c1.....	2.08	.72	.53	i	
409	Perforated bird-claw pendant.....				i	
411	Ulna knife fragment.....				i	
412	Small pointed (bird-) bone object, stemmed, one end broken.	.9(+)	.14	.06	i	
417	3 stone polishers.....				i	
416	Small bipointed bone.....	1.85	.16	.1	i	
423	Bone awl with sawed end, type 1d.....	3.14	.34	.27	i	
424	Bird bone with cut ends (drinking tube).	3.1			i	
425	Sea mammal bone rod fragment with steeply beveled end.		.36	.25	i	
426	Small pointed bone fragment, sawed.	.9(+)	.12	.07	i	
448	Elliptical bone rod fragment with tapered end.		.36	.23	j	
449	Bone awl, medial portion missing, type 1d.....		.62	.23	j	
450	Small cylindrical bone object, broken, square-cut end.		1.1		j	
437	Bone awl, type 1c.....	4.06	.59	.34	k	
438	Small bipointed (? tips broken) bone object, rectangular cross-section.	1.1(+)	.15	.12	k	
439	Sawed bone fragment with square-cut end (point butt?).		.34	.16	k	
451	Bipointed bone object, elliptoidal cross-section.	3.73	.33	.19	k	
452	Long slender bone awl fragment, probably type 1d (?).	5.4(+)	.44	.22	k	
369	Bone fragment, probably type 1e.....				a or b	Objects that cannot be located with certainty.
387	Small pointed (bird-) bone object, 1 end missing.	1.3()	.18	.06	d or e	
00	Ulna knife.....	3.2			e or d	
54	Thin elliptical cross section bone fragment with sharp parallel edges (point fragment)?		.45	.12	j or k	
459	Split piece of whale bone, sawed on one side, hacked on other.					
421	} Stone polishers, from various depths.					
434						
Total artifacts.....					69	Not including contact goods, and 10 indeterminate worked fragments. Approximate. Do.
Total yardage.....					22	
Artifacts per yard.....					3.1+	

¹ Diameter.

SITES LOCATED AND REPORTED

A number of other sites in Heiltsuk territory were inspected, in addition to those reported, which lack of time prevented our investigating.

Canoora River (U. S. 1584).—On the north bank of Canoora River, which runs into Graham Reach from the west, and nearly

opposite the mouth of Khutze Anchorage, a fishing station was located. The river empties into the channel at this point over a series of small falls and rapids, making an ideal fishing place. The site lies a short distance back from the salt water on a small terrace, occupying an area of about 250 feet by 100 feet, with an external height (including the terrace) of 8 to 9 feet. It is remarkable among sites located in the total absence of a beach. The shore line ends in a steep rocky ledge, 8 to 10 feet above high-water line, that drops abruptly to a considerable depth. The place is still used occasionally.

McLoughlin Bay (Can. 320).—McLoughlin Bay on Campbell Island, about a mile and a half south of the modern Indian village of Bella Bella, was the site of the early Hudson's Bay post in the region (established 1833). (See pl. 6, *a.*) A midden, apparently not very deep, extends about 1,000 feet northward from the mouth of the creek, flowing into the bay, and rises landward, following the rising hillside, for about 100 feet. Salmonberry and wild currant bushes alternate with patches of bracken to form the cover. Several abandoned recent shacks stand on the site.

Raven Cove (Can. 320).—A peculiarly situated site was examined in Daven Cove, on the northwest end of Chatfield Island near the southern entrance of Return Channel. A small isolated knoll, steep to on all sides, is connected to the main island by a narrow low saddle. The southern side of the knoll drops off in a rocky bluff 50 feet to a slough between it and the island. The entire knoll is capped by depositional material. On the front north side are two terraces, the lower, containing three leveled areas about 20 to 30 feet each; the upper, one such an area, perhaps marking the position of former houses. Midden material covers an area of about 200 by 100 feet, though it was not ascertained how much of that is undisturbed deposit and how much slough-off from the top of the knoll. The cover consists of grasses and nettles. The beach is very rocky, making landing difficult, although the slough may serve for landing at certain stages of the tide. The site conforms to ethnographic descriptions of "refuge island" settlements.

Troup Rapids (Can. 320).—A fishing station was inspected in a cove on the northwest end of Cunningham Island just east of the rapids in Troup Passage. It lies on the south bank of a salmon stream flowing into the cove over a series of rapids—an ideal fishing place. The midden is roughly L-shaped, with a 90-foot front along the wide gravel beach, and an arm 60 feet long fronting on the river. The maximum width determination is 40 feet. Depth indicated a maximum depth of deposit of 26 inches. The midden consists mostly of sandy soil with occupational debris. A few poles, boards,

and scraps of iron on the surface prove recent use. Wild currant and salmonberry dominate in the cover; at the southern (lower) end a few young hemlock and spruce have encroached upon the site. A small tidal salmon weir of stones was noted on the beach.

Meadow Island (Can. 320).—Another small site is situated on the southern shore of Meadow Island, opposite Klikitsoatli Harbor on the northwest shore of Denny Island. The deposit (black sandy dirt with shell) is situated on a terrace above the moderately sloping gravel beach. The site is used for a Caucasian cemetery at present; it is possible, however, that this portion is but a segment of a more extensive midden around the point to the east. A series of very interesting petroglyphs occur nearby (see p. 110).

Sites were reported as occurring at the following places: Eastern shore of Roscoe Inlet, 4 or 5 miles from the mouth; School Bay (or Swede Bay), northwest end of Denny Island; Bella Bella Islet, off the northwest end of Denny Island (at present used as a cemetery); head of Kakushdish Harbor; a place on the western shore of Johnson Channel across from Walker Lake Cannery; (all the preceding shown on Can. 320); Jane Creek, northern end of Hunter Island; Lagoon Bay, opening off the east side of Fisher channel; Namu Lake (remarkable as one of the few sites inaccessible from salt water); Koye River, eastern shore of Fitzhugh Sound; Safe Pass vicinity, west of Campbell and Hunter Island; several large sites in Schooner Retreat, southwest of Schooner Passage on lower River's Inlet.

SOUTHERN KWAKIUTL TERRITORY

Lateness of the season and inclement weather made it impossible to survey the extensive territory of the Southern Kwakiutl divisions. The village site at the mouth of the Nimkish River was inspected, and several others reported. The Nimkish River site is Vancouver's "Cheslakee's village" (Vancouver, vol. 1, p. 345 ff., and plate facing 346). (See pl. 6, *e.*) It is situated on the west bank of the river, just across Broughton Strait from the modern town of Alert Bay. The deposit lies on two high terraces, the uppermost 45 to 50 feet above tide line, the other about 10 feet lower. The sketch of the village in Vancouver's account shows four rows of houses; apparently the two lower terraces have been eroded away. Subsoil outcrops along the bank between the upper and lower terraces. Depth of deposit was not ascertained. The upper trace measured 405 feet long by 95 feet wide. Remnants of one set of house posts are visible, and several depressions which may represent house pits. Tide and river have formed a fair beach in front of the site. Long coarse grasses, and mixed patches of wild rose, salmonberry, and wild currant bushes form the cover. A creek runs down either side.

Sites are reported at the following localities: Inside Nawhitti Bar, Goletas Channel; in Hardy Bay; Salmon Bay, upper Johnstone Strait; Topaze Harbor, off Sunderland Channel (midden reported to contain skeletal material); cove on northern shore Cordero Channel, just west of Green Point Rapids; cove on mainland between Dent Islands and Arran Rapids. There are numerous other sites in Southern Kwakiutl territory, of course, many of them being in use to the present.

MORTUARY CUSTOMS

Some information was obtained on mortuary practices in the region surveyed. The incidence and types of midden burials have been described in connection with the excavations—burials were encountered in deposits at Anian Island (also reported from the Marine Station site), and at Schooner Passage 1.⁴⁹ Dissociated skeletal remains were encountered at Anian Island (pit A), Qalahaituk, Kynumpt Harbor, and Schooner Passage. The significance of this latter feature is not clear, though the numerous occurrences suggest that more extensive operations may show it common to most sites. Several possible explanations suggest themselves, any or all of which may be valid. Some of the fragmentary material may represent midden burials disturbed in digging post holes, house pits, etc., as might happen in any region where the custom of midden burial obtained.⁵⁰ Ethnographic data suggest two other possibilities: We know that human bones were used in various ceremonials, particularly those of the Cannibal cycle, and human remains (though not always bones) were frequently used in witchcraft. (The Nootkan method of using human bones in individual hunting rituals and at shrines is denied by modern Tsimshian and Kwakuitl informants.) Evidences of working (cutting, perforating) of the bones which would definitely indicate one of the two last modes of use were not found, however.

In addition to midden burial other mortuary customs were known, as mentioned in the ethnographic sketch of areal culture—cremation, box burial in caves, in trees, and in gravehouses being reported from various districts. Lack of time prohibited search for ancient cemeteries in each of the localities investigated, but two Heiltsuk burial places were found. One was a fairly recently used rock shelter in Whisky Cove on the northwest shore of Denny Island. (See pl. 8, *b.*) The shelter is rather small. The area of the overhang is

⁴⁹ The skeletal material reported from Topaze Harbor was said to have consisted of complete skeletons (i. e., burials).

⁵⁰ de Laguna (1934, p. 50) so interprets fragmentary remains in the Cock's Inlet middens.

13.25 feet along the back edge, 8.6 feet deep at the north end, 5.4 feet deep at the south end. Height varied from 5.7 feet at the front to 5.25 feet at the rear of the north end, and 5.4 feet to 3.1 feet at the south end. Within this space are four boxes containing burials (two of kerfed and bent cedar, two of sawed lumber with nails), and the remnants of a fifth, cedar-bark matting, and a variety of grave goods (mostly Caucasian objects, so far as could be seen without disturbing them). Seven or eight split-cedar boards lay horizontally

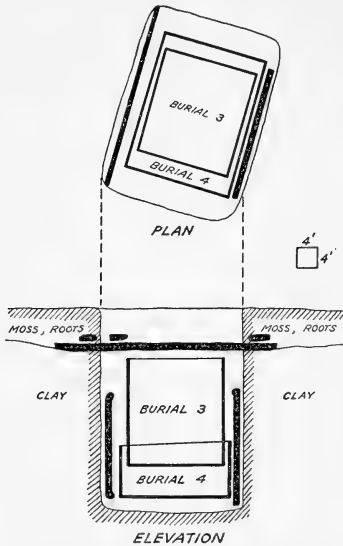


FIGURE 33.—Pit burials Nos. 3 and 4, Troup Rapids Cemetery.

against the boxes, partly sheltering them, but it was not possible to determine if these represented remnants of an attempt to close the front of the shelter entirely or not. None of the covers were in place on the boxes. A few bones had been dragged out of the boxes, probably by animals: most of a leg (femur, tibia, fibula, in articular relation) lay outside the enclosing boards. The interesting point was the position of the bones, in the undisturbed or apparently less disturbed boxes. Uniformly they formed a small heap or layer in the bottom of the box, due to slumping down and collapse of the body with decay of the tissues, the bodies having been crammed into the boxes diagonally, i. e., partially upright. The shelter and burial boxes were photographed, but not molested.

On the promotory at the southwest end of Troup Rapids a burial was found of a type not ethnographically reported. The burial was situated on a low clay terrace about 5 feet above high tideline, and 8 feet back from the bank. There was almost no surface indications, except for a very slight rise of the moss, and scant growth of bushes. The rotted and moss-covered stumps of three smallish trees on the bank in front of the burial may have been associated with it, that is, the trees may have been felled to expose the burial place. Under 6 to 7 inches of root-bound moss several boards and poles were found (fig. 33, and pl. 8, *c*), covering a pit in the clay 2.2 feet by 2.9 feet by 36 inches. Within this pit were two kerfed and bent-cedar boxes, one (1.6 feet by 1.75 feet by 21 inches) nested in the other (1.75 feet by 2.25 feet; original height of sides not determinable). (See pl. 8, *d*, *e*.) The lids of the boxes had been put edgewise and horizontally on the long sides of the pit. Both boxes were of native manufacture, with no nails, the bottoms rabbetted and doweled. Each contained a fragmentary burial. That of the uppermost box lacked (among the more obvious parts), the skull and mandible (though an incisor was found), one entire leg and foot, sacrum, and one innominate. The remains were those of an adult. No grave goods were present. In the lower box, only two femora, a tibia, a scapula, a few vertebrae, and one unidentified bone fragment were found. Some material which appeared to be partly decomposed textile underlay the bones in the bottom of the box. Below the lower box, a layer of gravel with bits of charcoal overlay dark gray dirt and stones. All the bones found were fairly sound, indicating decomposition would not account for the missing parts. Also the presence of a tooth in the upper box suggests skull and mandible had formerly been present in the box. Apparently the burials had been opened, a miscellaneous set of parts removed, after which the grave was carefully re-covered. It seems likely that the disturbance may be attributed to need for human bones for ceremonials, or for witchcraft.

OTHER ARCHEOLOGIC REMAINS

In addition to the middens and cemeteries described, a number of other types of remains were found. Some of these, the canoe-runways (represented by parallel rows of stones along the beach below tideline), and the stone tidal fish weirs, have been mentioned in the site descriptions. Neither are very elaborate structures, being simply low walls of sizeable beach boulders. As was noted in the description of Kilkitei Village, the canoe runways formerly had rows of poles lying across them, held in place by the uppermost rocks. Mr. Newcombe has shown me photographs of such runways at Alert Bay, in Southern Kwakiutl territory; Smith (1907, p. 432) refers to fea-

tures apparently of the same sort in the Georgia Straights region.

The fish weirs noted were all rather small and simple in form. Some very elaborate extensive weirs are reported in the (uncharted) channels and lagoons on the southern end of Hunter Island in Northern Kwakiutl territory.

Petroglyphs are not uncommon along the coast. We saw them at the following places: Near Robertson Point site (Venn Pass); near Kitquiata (off Douglas Channel); on Meadow Island. Others were reported in localities which we were not able to visit; there are probably many more. Several distinct styles were recognizable. In addition to the unusual intaglio human figure near Robertson point, Venn Passage,⁵¹ there are several small beach rocks with designs representing faces. The faces are indicated by a rectanguloid outline with rounded corners, with circles for eyes, etc., very similar in treatment to the petroglyphs along the beach near Kitkiata (see pl. 9, *c*, *d*, *e*,) although in some of the latter there was no facial outline indicated. At Meadow Island, in Northern Kwakuitl territory, a large number of petroglyphs were exposed when a large tree (with 75 ascertainable annual rings) blew over. Three styles are represented here: (1) relief carving, in which human faces, grease-dishes, etc., were carved in very realistic fashion on the rock; (2) intricate line incising, in which figures (the clearest is a Raven) were indicated in the manner of the very highly conventionalized intricate designs painted on boxes, etc., and (3) rather simple crude line incising, in which irregular geometric figures (nonrepresentative) were delineated. These last may possibly be the work of tyros at the art. A number of "coppers" are depicted among the carvings on the rock at Meadow Island. (See pl. 9, *f*.)

Pictographs seem to be less frequently met with. The only group we found was at Troup Rapids, in an almost inaccessible part of the bluff. The painting was done with a reddish-brown pigment, and consisted of several rows of large round dots, and with these, a few traces of conventionalized figures in classic (recent) Northwest Coast style.

RESULTS OF THE 1938 SURVEY

The survey of Coast Tsimshian and Kwakiutl territories resulted in the location of a considerable number of midden sites, 61 in all, as well as certain other types of archeologic remains. From the information collected on the sites certain conclusions as to the regional cultures may be derived. First of all, it is apparent that the habitation sites (middens) are nearly all at the water's edge, indicating that substantially the same subsistence and transportation patterns

⁵¹ Known locally and described by Smith as "the Man who fell from Heaven." Smith, 1936.

as those in vogue in the historic period have prevailed throughout the period represented by the accumulations. This interpretation is substantiated by the fact that the prime requisite of an important site was clearly a good beach where one might land at any stage of the tide; shelter from storms, defence, and the like, were far less important, although native legends speak often of refuge sites occupied in time of war. From the time of first occupancy of the sites, good landing places were sought, and ipso facto canoe navigation and all that it signifies in recent native life and economy was an integral part of the culture. The great number of sites in the area bears out the same interpretation. The survey located only a fraction of the total sites in the region surveyed. To account for so many middens we must assume that the dense population of the early historic period, which was functionally linked with the basic economy of the area, was no new condition but one of moderately long standing. The only alternative would be that the region has been occupied by a small population for an extremely long time, a view for which I can see little justification.

It should also be pointed out that the midden sites of the area are extremely well suited for the type of approach used in the survey—that of beginning with historic horizons and working back from the ethnically identifiable known cultures to the prehistoric horizons. At all but one of the sites tested (Anian Island) European goods were encountered in the upper levels, with a series of underlying horizons which carry well back into prehistoric times. The value of the direct historical approach has been discussed elsewhere, and I do not need to go into it, but I feel bound to point out that, as facile as it is to follow on the Northwest Coast, no future investigations in the area should slight it.

MATERIALS RECOVERED IN 1938

The most obvious fact concerning the artifactual material recovered by the 1938 survey is the varying quantitative yield of the sites. It seems possible to account for this in terms of type of site, although a certain allowance must be made for sampling error. Two of the three Tsimshian sites tested were camps rather than winter villages; the major site, Anian Island, yielded but little apparently because we missed the inhabited areas, i. e., the houses. Even there, pit A, near the midden crest, yielded moderately well, especially from the 60-inch level down. The trench on the back slope (trench 2), on the other hand, patently was not in pay dirt. The tests in Northern Kwakiutl winter sites, which yielded well, all by good fortune cut through habitation levels (floors). Camp sites, whether Tsimshian or Kwakiutl—Charles Point, Qalahaituk, Khutze Anchorage, and

Kynumt Harbor—are plainly poor digging. A reasonable explanation of this site difference is that natives did not take much beyond the immediately necessary tools and gear to camp sites and thus might be expected to leave less in the way of artifacts. Consequently, the increase in the horizontal area worked in a given time by no means increases the yield. On the basis of our exploratory work, therefore, it is possible to make certain recommendations in regard to choice of sites in the future. Winter village sites (identifiable both by ethnographic data, and size) should be selected, and if there are no surface indications of houses, the floor or habitation levels should be prospected for by small test pits before laying out the major trenches. The matter of yield in general may be brought up here appropriately: The moderate yield even at the better sites indicates that the middens require a fairly large investment of man-hours before really definitive results can be obtained. While there are well preserved artifactual and skeletal remains in the middens, one must be prepared to move a fairly large yardage of dirt to get them. Had our party consisted of six or eight men instead of two, or had we been able to treble or quadruple the length of our stay at each site, I am convinced that it would be possible to define the various components with some precision. Since the 1938 expedition was primarily exploratory, and not at all aimed at solving all the problems of Northwest Coast prehistory at a blow, it was felt preferable to cover as much ground as possible rather than to devote enough time at a single site to get a full sampling of artifact material.

The general impression given by the collections made is that, allowing for minor site differences and sampling error, there is little difference between the archeological cultures and those ethnographically recorded. The chief division appears to be between Tsimshian and Northern Kwakiutl, as will be emphasized in the discussion of horizontal distributions of traits. Vertically, at none of the sites was there any indication of early cultural components radically different from those of the uppermost, i. e., historic, levels. While the sampling is not at all adequate to permit us to state that no changes have occurred, it appears that the cultures of the earliest horizons explored were essentially coast cultures of the same general order as those of the historic period. Nonetheless, I see no reason for assuming that Northwest Coast culture has remained perfectly static all that time, particularly since series of cultures have appeared in regions both to north and south (in Alaska and central California). A few vertical distributions at Schooner Passage hint at change which future investigation may verify or negate: The occurrences of human remains only in levels *f* to *i*; objects (bone knives, awls) with square-cut heads; and increased quantity of whale bone, from level *f* downward.

Whether the simultaneous appearance of these traits is fortuitous and due to sampling error, or whether the items are among those indicative of cultural stratigraphy cannot be stated as yet. Two other suggestions of culture change may be pointed out from our present data. Whether they are veritable changes or only due to our limited sampling must be checked by more intensive investigations; whether they are to be reckoned of major or minor significance can be determined only after the areal archeologic complexes have been defined more precisely. The first concerns the absence of splitting adzes from the lower levels of the Anian Island tests. It will be recalled that a number of these objects have been found in the surface layers (p. 67). Their apparent absence in our tests may be due to sampling error, or it may mean that they are relatively late introductions.⁵² It is impossible to estimate at present to what extent the entire woodworking complex must have differed from that of the ethnographic horizon without this important tool; certain it is that some changes must have accompanied its introduction.

Perhaps of more import than the addition of a new tool to the woodworker's outfit is the change in house type suggested by the results of the tests in the Heiltsuk sites. The squarish house built out over the front of the midden slope, with a sill to level off the floor, apparently is the "Northern" type. Its recency in Kwakiutl territory is attested by the changes in midden structure close below the surface at the Roscoe Inlet middens and at Kilkitei. Erosion of the midden face at Schooner Pass has made it impossible to determine if the type was ever in use there even in late times, although the lower horizons clearly show it absent anciently.

All in all, while the present collections are insufficient for the certain determination of presence and extent of culture change over the period represented by the middens tested, they suggest that more extensive excavation will show some local and temporal differences, but that in the main the various components are intelligible as pertaining to the same phase and aspect as their latest (historic) manifestations.

AGE OF THE SITES

There is no key as yet to the temporal span represented by the midden deposits. The tremendous extent of some of the winter village sites suggests a fairly long period of accumulation, particularly in view of the fact that they were occupied only part of the year (the annual shifting of residence reported ethnographically may be predicated for early times as well because of the distance of these sites from salmon streams). A few possible approaches to the problem, however, are worth suggesting.

⁵² de Laguna (1934, p. 172) has suggested that the splitting adze may be a late element on the basis of its position in the Cook Inlet horizons and its limited distribution.

The first and most obvious line of attack is through dendrochronology. As yet I am not certain that woods from the area are suitable for this type of analysis—whether annual fluctuations in rainfall and/or sunlight are marked enough to be reflected consistently in the growth rings. If the wood can be used, it should be no great task to work out a master chart, beginning with standing trees and then beams and posts still in place above ground, as at the Roscoe Inlet middens, or at Qalahaituk. Wood from the various levels in the middens should make it possible to carry the ring count back, for not only charcoal but large pieces of wood occur in deposits, even at considerable depth. The wood comes out fairly sound, although on drying it tends to check and crack. Whether any of the present techniques for salvaging ancient wood would suffice to preserve these pieces, I am not certain, but a method could surely be devised.

The house middens at Qalahaituk suggest the possibility of working out a rough time scale of yardage-accumulation of midden material. That is, had one a dateable house deposit (or even one belonging entirely in the historic period, as presumably did house 1), it might be possible to calculate an approximate deposition rate. The numerous variant factors—length of time the site was used each year, size of the house group, seasonal differences in food habits, etc.—would render it impossible to reach more than an approximate figure, although the ethnographic data that could be acquired with reference to specific historic horizons should partly correct the error here. Even an estimate with a probable error of a couple of centuries would be useful in default of a more precise time gauge.

Another time indicator—although this one is even rougher than the preceding—is the type of cover on the sites. It will be recalled that at all but one place (Roscoe Inlet) the sites were devoid of the normal forest cover, supporting instead deciduous bushes, grasses, and the like. The apparent reason is that conifers require a slightly acid soil, whereas the shell content of the middens makes the deposit basic. The hemlock cover at Roscoe Inlet is less a contradiction than it appears, for there the trees grew chiefly on the fallen house timbers. Both Smith (1903, p. 137; 1907, pp. 331, 373, 399, 400) and Reagan (1917), however, report sites covered with normal forest. Seemingly, the only way to account for such sites is that sufficient time has elapsed since their abandonment to allow precipitation to leach out the calcium carbonates of the upper levels. Whether this leaching process proceeds at a rate near enough constant to make it possible to calculate the time represented by such strata is a matter for a soils expert or chemist, but other things being equal, a site which supports a stand of mixed conifers can safely be assumed to be considerably older—at least, last occupied at a much earlier date—than sites with distinctive

deciduous cover.⁵³ Although the 1938 survey found no such wooded middens, it cannot be assumed they do not occur in the regions surveyed. Obviously, such places would be difficult to find except by very careful combing of each district. Our party was looking for late sites with historic levels. The possibility that ancient hidden sites may occur should not be overlooked when the time comes to do intensive work in the area.

PREVIOUS INVESTIGATIONS

The prehistory of the Northwest Coast has been sadly neglected. What little work has been done north of the Columbia cannot be compared in point either of quantity or of scientific precision to the investigations made in recent years to the north and south. The meticulous researches of Jenness, Collins, and de Laguna in west and southwest Alaska, and of the University of California surveys in central California, have brought order and intelligibility to cultural melanges as confused and complex as that of the Northwest Coast. The prehistory of this vast intervening stretch has been left to the mercies of specimen collectors, who in their quest for beautiful jadeite celts and objets d'art have failed to unravel the first skein of culture history. The contrast with our ethnographic knowledge of the area is incredibly great. Thanks to the efforts of a series of scholars, early and late—one need cite only a few outstanding names of the many worthy ones: Krause, Dawson, Swanton, Boas—the recent culture of the region is about as well known as that of any comparable part of North America. The archeology is the least known, with the possible exception of that of the Mackenzie-Yukon, and northern Plateau hinterland.

One of the first to concern himself seriously with coast archeology was Hill-Tout (1895-96, pp. 103-113; 1900, pp. 492-494), who has recorded his impressions in a series of papers, although various earlier notices had been made of the occurrence of sites, and of "relics" picked up here and there in the region. (Eells, 1889; Wickersham, 1900; Dawson, 1877.)

Hill-Tout called attention to the occurrence of large middens at the mouth of the Fraser River, and described some of the artifactual and skeletal material they contained. He was the first to note the presence of two sharply differentiated physical types in the skeletal material from these sites. He also described some of the burial cairns of the vicinity.

⁵³ The possible significance of distinctive midden cover may be of value in many other regions. (See Hrdlička, 1937; Lillard, Heizer, and Fenenga, 1939, p. 65.) Of course, temporal interpretations of midden flora would have to be based in each instance on local factors of climate, drainage, soil chemistry, etc. In the New World, where exact dates are exceptional, all possible leads to chronology must be tested.

As a part of the American Museum of Natural History Jesup Expedition program, intensive archeological investigations were to be conducted on the Northwest Coast. Harlan I. Smith carried on this work for a number of years, chiefly in the Fraser-Columbia River drainages and the Straits of Georgia-Lower Puget Sound region. Later he extended his operations northward on the coasts, but, lacking time and facilities, these later explorations have borne less fruit than did his initial ones.

Smith has published full accounts of his work, in addition to a series of preliminary and summary papers.⁶⁴ His results can be briefed as follows: Although he dug in a considerable number of sites in the Georgia Straits-Puget Sound district, Smith's important localities were Eburne midden near the mouth of the Fraser, Port Hammond near the upper part of the Fraser Delta, and North Saanich on the southeastern end of Vancouver Island. Despite minor differences in material from these sites, Smith maintains that, by and large, they represent a single culture, and one which was but slightly different from that of the historically known Coast Salish occupants of the region. Nor is there, according to Smith, any evidence of culture change from bottom to top in any of his sites. Nonetheless, he did find evidence of population change. In the three sites mentioned above there were remains of two markedly different physical types. Boas' description (*in* Smith, 1903, p. 190) makes their difference apparent:

The one is characterized by a narrow head, the narrowness of which was emphasized by lateral pressure, with a marked median ridge on the forehead, narrow and high nose, and rather narrow face . . .; the other, by a wide head (produced partly by antero-posterior pressure) and a wide face.

The brachycephals appear to be essentially the same in type as the recent inhabitants of the region. Stratigraphically they are reported to be later. The sequence appears only at North Saanich, where only the dolichocephalic type occurred in the lower levels, the brachycephalic in the upper (Smith, 1907, p. 354). At Eburne, both types were found "in the same layers," and at Port Hammond only the brachycephalic type occurred (Smith, 1903, p. 187). The sequence I would suggest to be:

<i>Period</i>	<i>North Saanich</i>	<i>Eburne</i>	<i>Port Hammond</i>
	Brachycephals	-----	Brachycephals.
Transitional (?)	-----	Brachycephals and dolichocephals.	
Early	Dolichocephals.		

Smith's (1929, p. 4) interpretation is that the broad-headed type represents an intrusion from the interior, which, in view of recent linguistic distributions seems reasonable enough. The anomalous

⁶⁴ See bibliography.

thing is that he denies any correlated culture change, despite the fact that he sees the culture of the adjacent interior as quite distinct from that of the coast. Yet at the same time he feels himself forced into the position of postulating culture change, to account for occurrence of interior traits: Stone chipping, tubular stone pipes, decorative art (geometric representative) (Smith, 1903, p. 190). Smith's views on the way this came about are not altogether clear; he seems to link these elements (and there are others that can be pointed out as probably of interior derivation) with the migration of interior people to the coast (i. e., presumably the brachycephals), yet treats the traits as reflecting strong cultural influence from the interior (Smith, 1907, pp. 439, 441), by which one would understand something different from migration-borne introductions, and really more consistent with his denial of abrupt change. If these interior elements correlate perfectly with the intrusive physical type, it should have shown up at North Saanich—in other words, there should be stratigraphic change there, else the change must have transpired still earlier, and so cannot be associated with the brachycephalic intrusion. Smith recognizes the decrease of "interior influence"—another culture change, though perhaps slight—in the period between the occupancy of his sites and proto- or early historic times (Smith, 1907, p. 441). His plight is that of an archeologic Ancient Mariner: culture stratigraphy all about, but not a sequence could he find. It is to be regretted that neither his published accounts nor his catalogs give vertical distributions consistently enough to make it possible to re-examine his results. One can say only that there may or may not be determinable sequences in the Lower Fraser and other middens of the district; properly conducted excavations remain to be made.

Among the various archeologic remains of the Georgia Straits-Puget Sound region, Smith found numbers of burial cairns of stone, or stone and earth, some containing interments made in the flesh and others apparently cremated remains. These he has been unable to correlate with any particular time interval, especially since there are no ethnographic accounts describing such a mode of burial in the region (Smith and Fowke, 1900, see especially p. 55). I would suggest that some at least are relatively late, on the following grounds: Some are situated on top of middens (at North Saanich, Point Roberts, etc.) (Smith, 1907, pp. 331, 362); while we have no data on physical types found, it is reported that the same antero-posterior type of skull deformation prevalent in historic times in the district occurred among the cairn burials; and, finally, in at least one of them contact goods have been found (Smith, 1907, pp. 60, 63).⁵⁵

⁵⁵ AMNH No. 16.1/1922, "7 white porcelain beads found in skull of 99/1698 from cairn. North Saanich, British Columbia."

Smith's investigations in the adjacent interior regions, on the middle Fraser (1899, 1900) and in the Yakima Valley (1910), should be of significance in their relation to the archeology of the coast. He excavated burials at a number of sites in both districts. His interpretations are that the archeologic cultures were essentially the same as those of the ethnographically known natives of the region, and that, despite a few points of difference, the middle Fraser and Yakima Valley (middle Columbia) are closely akin (Smith, 1899, p. 161; 1900, pp. 432-433; 1910, p. 143 ff.). We have but little data for temporal placing of the materials; they would have to be examined with considerable care to determine whether or not there are but two components—a middle Fraser, and a Yakima Valley one—represented. By and large, the material in Smith's figures and plates suggests that these two would stand, and that, as Smith sees it, the two foci are related. The logical conclusion must be that both foci are to be placed as relatively late in time, the northern one slightly earlier, on the basis of scarcity of such elements as: Contact goods (unless some of the plentiful copper found should prove to be of European origin), and small triangular chipped points reminiscent of late Plains types.⁵⁶ Nonetheless, the presence in many poorly sheltered graves of such perishables as tule matting, woven textile of sagebrush, birchbark, deer and bird skins, and the like (Smith, 1899, p. 135, 159 ff.; 1900, pp. 434, 436-440), indicates that to none of the finds can much antiquity be attributed. The lateness of the Yakima Valley graves is attested by the frequency of contact goods, late Plains type points, and quantities of perishable materials of the same sort as those just mentioned.⁵⁷

All in all, it is probable that in comparing this material from the interior with that from coastal middens of Georgia Straits, Smith is crossing boundaries not only of space but of time. The floral cover of Smith's coast middens suggests a fairly long time since their abandonment (see p. 114) and they are said not to have yielded contact goods (although one of the burial cairns did; see p. 117).

Reagan (1917), in a brief sketch, refers to sequences of archeological components in northwestern Washington, beginning with historically occupied horizons (in which contact goods occur). He finds three components (including the historic) in Quileute territory, four in that of the Makak-Ozete, the third of which (counting from the historic downward) he links with the prehistoric Quileute, and several—it is not clear whether three or four—in the Clallam and

⁵⁶ Contact goods (aside from the doubtful copper) consisted of an iron awl found in grave 1, Government Hill site (Smith, 1900, p. 436); European textiles, grave at mouth of Niola Lake (Smith, 1900, p. 438) and (probably) the spiral end copper hair ornaments from the "main burial site" at Lytton (1899, p. 151). Small triangular points were found in graves 9 and 10 (these are the only ones figured) at Kamloops (Smith, 1900, p. 435 and fig. 332, *f-j*).

⁵⁷ Smith, 1910. See lists of grave lots 152-171 for contact goods; pl. 2 for point types.

Lummi-Nootsak region, one of the older again being linked with an early member of the Quileute series. The most serious difficulty from the point of view of intelligent criticism of his results is that Reagan gives no information at all as to the diagnostic elements of his various components, beyond saying that some—the historic and supposedly prehistoric Makak-Ozete horizon and the earliest—are distinguishable from the intervening “Quileute,” and the other components in Quileute territory, by an abundance of stone implements and decorated objects (Reagan, 1917, pp. 18–20). Lacking these pertinent data, there is no way to judge how he has arrived at his conclusions, nor to compare his horizons with those of adjacent regions.

Reagan also extends the distribution of the burial cairns to include northwest Washington.

Strong, Schenck, and Steward's (1930) excavations in the Dalles-Deschutes region represent the first systematically conducted researches on the Northwest Coast. Properly speaking, however, their sites were less coastal than interior in culture, though Wakemap mound and adjacent localities are in territory held in historic times by Chinookan groups, who, of course, are culturally coast people. The occurrence of semisubterranean earth lodges, cremation, mortars, metates, tubular stone pipes, etc., indicates to the authors an Interior Salishan culture, rather than one of coastal genre. Coastal trade connections, apparently up the Columbia, are indicated by presence of dentalia, whale-bone objects, etc. The upper levels at Wakemap and the cremation material seem to be referable to the protohistoric period, indicating that a cultural change had taken place sometime during this period but previous to the arrival of Lewis and Clark, who saw near the midden the “Echeloot” (Wishram) village of rectangular plank dwellings.

The components revealed in the Dalles-Deschutes region are not, however, identical to those of the Yakima Valley and Thompson River regions. Different types of mauls, absence of celts, absence of large carved stone objects, comparable to the zoomorphic “mortars” and “vessels with a seated human figure,” occurrence of small stone statuettes or figurines of northern Basin type, different point types, the “throwing stones” and notched pebble sinkers, all point to considerable local deviation from the culture configurations to the north. The problem of the relationships in time and space of these various cultures is a critical one, and must be solved before that of their bearing on coast cultures can be approached. It is to be hoped that presentation of Krieger's (1927, 1928, 1935) extensive operations further upstream, as yet only summarily recounted, will bring solution near.

TABLE 8.—*Distribution of northern Northwest Coast artifact types*

Artifacts	Tlingit	Haida	Tsimshian (general)	Anian Island	Charles Point	Qalahaituk	Bella Coola	North Kwakiutl (general)	Roscoe Inlet 1	Roscoe Inlet 1A	Kynumpt Harbor	Kikitei	Schooner Pass.	South Kwakiutl	Strait of Georgia (general)	Comox	North Saanich	Port Hammond	Eburne
One piece barbed harpoons:																			
Type I			1												1		4		35
Type II	15	2	2																
Type III		6																	
Type IV	2	6																	
Type V	5			1											2			1	2
Total	22	14	3	1					(1)	(1)					3		4	1	37
Composite harpoons:																			
Type I									1				2	2	5	2	2	2	
Type II														1	10	2	2	1	
Total									1				2	3	6	12	4	3	
Fixed bone points:																			
Class A (barbed):																			
Type I	3	3	2											3	2		12	5	56
Type II	4	2												1				2	
Total	7	5	2											4	2	15	12	7	56
Class B (unbarbed):																			
Type 1A		2	14	2					1	6	1	1	2	6		6		11	12
Type 1B						1										1		1	
Type 1IA						3													
Type 1IB						1			2										
Total		2	14	2		5			4	6	1	1	3	6		7		12	12
Ground slate points:																			
Type I	18		5	1			1								72	3	6	4	23
Type IA	2														1		3	1	
Type IIA	3														14		1	1	2
Total	23		5	1			1								87	3	10	6	25
Chipped stone points:																			
NAa															7				
NAb1	2		1				1	1							48	2			9
NAb2															2				3
NBa															19			1	
NBa1															2				
NBb															5				
NE	16																		
SAA	1														18				
SAB															5				5
SBA																			2
SBe		3													2		1		7
SCb2															1				1
SCb3															1	1		1	2
Total	22	1	1				1	1							123	1	1	2	29
Splitting adzes:																			
Type I	2	1	1																
Type II	4		3																
Type III	3	1	4				1												
Type IV	3	2	4																
Type V	6	2	4				1												
Type VI	4		2																
Type VII	12																		
Total	35	11	25	1	1	1	2	1	1										

See footnotes at end of table.

TABLE 8.—Distribution of northern Northwest Coast artifact types.—Continued

Artifacts	Tlingit	Haida	Tsimshian (general)	Anian Island	Charles Point	Qalahaituk	Bella Coola	North Kwakwaka (general)	Roscoe Inlet 1	Roscoe Inlet 1A	Kyunmpt Harbor	Kilkitei	Schooner Pass.	South Kwakwaka	Strait of Georgia (general)	Comox	North Saanich	Port Hammond	Eburne
Celts:																			
Type IA.....	5		3				1	1	1					1	3		1		
Type IB.....	7	3	1				11	2	1		1	2		4	20		4	4	14
Type IC.....	2		1				4								9		4	4	6
Type IIA.....	3														12	1	6	1	6
Type IIB.....	4														5		1		
Total.....	21	3	5	1			16	3	2		1	2	14	5	50	1	12	9	26
Hafted stone mauls:																			
Type I.....	2	5	3				19	7											
Type II.....		2					1												
Total.....	2	7	3				20	7											
Hand mauls:																			
Type IA.....	3						1				1								
Type IB.....	15		8				6							7				1	
Type IB1.....	20		7				1							2				6	7
Type IC1.....			2				12	1			1			2					
Type IC2.....		3	2				1	6						3					
Type II.....	5	X	6				13	4	1		3								
Type III.....							2		2		1	3			11			2	
Type IV.....				2	3	1					1	1			1				
Type V.....																			
Total.....	43	3	27	3	1		36	11	3		4	4		26				6	10
Slate blades:																			
Type I.....	3				1										8	1	3	4	1
Type II.....															3	1	3	19	16
Type III.....	1		1																
Total.....	4		1		2				1						8	1	11	133	126

¹ Fragment(s) (type indeterminable) included.

² Specimen is from the Interior Tsimshian (Gitksan) (PMAAE 85849).

³ Provenience not certain.

⁴ Smith reports recovering 24 points at North Saanich and figures some NAa, NBa, SAa, SB6, and SC61 forms from the vicinity (Smith, 1907, p. 332, and fig. 118).

⁵ Specimen from Xaisla (Katamat).

⁶ Specimen type IB or IB1 fragments noted.

⁷ Five type IB or IB1 fragments noted.

TABLE 9.—Distribution of northern Northwest Coast artifact types (occurrence, not frequency)¹

Artifacts	Tlingit	Haida	Tsimshian (general)	Anian Island	Charles Point	Qalahatuk	Bella Coola	North Kwa-kuitl (general)	Roscoe Inlet 1	Roscoe Inlet 1A	Kyunmpt Harbor	Kilkitei	Schooner Pass	South Kwa-kuitl	Strait of Georgia (general)	Comox	North Saanich	Port Hammond	Eburne
Bone awls:																			
Type 1a		X			X														
Type 1a1										X					X				
Type 1b											X								
Type 1c																			
Type 1c1																			
Type 1d																			
Type 1e		X	X							X					X				
Type 2d																			
Type 3a	X	X												X					
Type 3b		X												X					
Bone knives:																			
Type I	X									X									
Type II		X	X										X						
Wedges:																			
Type I	X	X							X										
Type II																			
Bone or horn flakers																			
Horn celt hafts																			
Bone mallets	X	X																	
Cedar-bark shredders:																			
Type I	X									X									
Type II		X	X					X						X					
Bone needles:																			
Type I								X		X?									
Type II																			
Stone "bark shredders"			X																
Pile drivers																			
Biconical stones (grinders)	X		X		X														
Whetstones				X															
Grooved sinkers			X																
Notched sinkers			X																
Perforated sinkers								X											
Spindle whorls:																			
Type I											X								
Type II								X											
Stone vessels:																			
Type I-1		X	X																
Type I-2																			
Type IIA1	X	X																	
Type IIB1		X	X																
Type IIB2		X									X								
Type IIC																			
Type III		X		X															
Stone disks			X											X					
Slate "pencils"		X	X												X				
Cut bird-bone tubes			X																
Bird-bone whistles			X																
Shell beads:																			
Dentalia (archeol.)																			
Clamshell disks		X																	
Bone beads																			
Cannel-coal beads																			
Pendants:																			
Tooth or claw			X																
Long bone rods	X	X																	
Flat carved bone	X	X																	
Copper crescents																			
Copper tubes																			
Deer or goat hoof	X	X																	
Stone	X	X																	
Labrets:																			
Elliptical	X	X						X											
T-shaped	X	X																	
Flat bone bands																			
Stone pipes															X				
Massive stone carving																			
Geometric incised design	X	X													X				
Stone chipping	X	X																	
Stone and bone sawed																			

¹ The artifacts in this table are those whose frequency, because of insufficient number of examples from the several parts of the area, is not worth recording at present. For this reason occurrences only are indicated by (X). Blanks mean no specimens seen; they are not necessarily true absences. In a number of cases, however, where fair samplings of material have been recovered, the blanks are probably significant.

DISTRIBUTIONS OF ELEMENTS ON THE NORTHERN
NORTHWEST COAST

If we turn now to an examination of the horizontal distributions of archeological elements in our area (see tables 8 and 9), without regard to possible vertical differences, some striking facts appear. There are, first of all, three fairly well set off divisions, which in the main fit geographic and linguistic groupings. It is possible that this seeming regularity may be in part a result of generalized information as to provenience of some of the museum material (i.e., "Tlingit," "Tsimshian," "Bella Coola," etc.) that further research may modify. At present, however, we may suggest a Northern aspect⁵⁸ which would include Tlingit-Haida-Tsimshian territories; a Milbanke-Queen Charlotte Sound aspect, coextensive with the Kwakiutl territory of historic times, and a Straits of Georgia-Puget Sound aspect, all belonging to the Northwest Coast pattern. (Our data are inadequate for placing the Bella Coola. Some strong affiliations of this group to the Northern aspect are indicated; in other respects they align with their Kwakiutl neighbors.) It is worth stressing that ethnographic materials indicate essentially the same divisions. The diagnostic features of these aspects can be summarized from the distribution charts:

THE NORTHERN ASPECT

One-piece barbed harpoons, Types II, III, and IV.

(Composite harpoons rare?)*

Class A fixed bone points.

Chipped stone points (not common).

Ground slate points.

Splitting adzes.

Hafted stone mauls.

Hand mauls, *type I.*

Slate blades, especially *type III.*

Few bone awl types (?).

Celts, types I and II, usually *jadeite.*

Stone "bark shredders."

Stone vessels, especially *type IIA1.*

Grooved, notched, perforated stones (?).

Cut bird-bone tubes.

Bird-bone whistles.

* Parentheses denote a significant absence. Italics denote relatively high frequency.

⁵⁸ The taxonomic designations proposed by McKern (1934) for the Middle West are used here in a modified sense, indicating cultural divisions of differing order. By "pattern" is meant a group of cultures sharing the same basic industries and general cultural orientation. In the present instance, the Northwest Coast "pattern" is synonymous with the Northwest Coast culture area. "Phases" are subdivisions of the pattern which are alike in the trend of their specializations of the basic trends of the pattern. I would group the coast cultures, from the Columbia north, into one phase, as opposed to those of coastal Oregon and northwest California (this is on the basis of comparative ethnography). Within the phases are the "aspects"—cultural-regional divisions of fairly high degree of similarity of culture.

Tooth and/or claw pendants.
Long rodlike bone pendants.
Deer and/or goat hoof pendants.
Elliptical, T-shaped labrets.
 Stone polishers.
 Biconical stones.
 Geometric incised designs (occasional).
 Midden burial, cave burial in boxes, cremation (ethnographic).

MILBANKE-QUEEN CHARLOTTE SOUND ASPECT

(One-piece barbed harpoons rare).
 Composite harpoons (probably common)
 (Class A fixed bone points rare).
Class B fixed bone points, highly specialized types.
 (Chipped stone points rare or absent).
 (Ground slate points rare).
 (Splitting adzes very rare).
 Hafted stone mauls(?).
 Hand mauls, *types III and IV.*
Considerable number of types of bone awls.
 Celts, *type I, chiefly of serpentine.*
 Stone pile drivers.
 Stone vessels, especially Bella Coola.
 Stone disks, especially Bella Coola and southern Kwakiutl.
 Grooved stones.
 Spindle whorls, *type II.*
Long bone rods.
Bone mallets for shredding cypress bark.
Rock-shelter burial in boxes, midden burial, grave houses, box burial in trees
 (ethnographic).

STRAITS OF GEORGIA-PUDGET SOUND ASPECT

One-piece barbed harpoons, types I and IV.
Composite harpoons, type I (lacking at Eburne).
Class A fixed bone points
 Class B fixed bone points, *types IA-IB.*
Chipped stone points, [especially Eburne].
Ground slate points, all types.
 (No splitting adzes).
 (No hafted mauls).
Hand mauls, type I.
Slate blades, types I and II.
Variety of bone-awl types.
Celts, types I, and II, commonly of jadeite.
 Bone needles [Eburne only].
 Flaking tools.
Stone vessels, type IIC.
 Bone and horn wedges.
Horn celt hafts.
 Perforated stones.
 Cut bird-bone tubes [Eburne].
 Bird-bone whistles [Eburne].
 Spindle whorls, *type I.*
 Clamshell disk beads (not common).

Cannel-coal beads (not common).
 Tooth, claw pendants.
 Copper crescents.
 Labrets, T-shaped.
 Stone pipes (not common).
 Flat bone "browbands."
 Massive stone carving.
 Geometric incised designs.
 Midden burial, cairn burial, occasional cremation.

THE NORTHERN ASPECT

An interesting feature of materials from the Northern aspect, particularly from Tlingit territory is the lack of finish of many of the pieces, particularly adzes and celts. This would seem a minor point, were it not for the well-marked tendency on the Coast as a whole to finish all manufactures well and neatly. So pronounced is this habit that it seems basic to Northwest Coast material culture and technology. The rough-polled celts and adzes suggest again influences from the ruder culture of the interior, where expediency took precedence over pride in workmanship.

In addition to the interior affiliations of the Northern aspect, it has strong ties in another direction, namely, to the southwest Alaskan variants of Eskimo cultures. The parallels in our limited sampling from the Northern (Northwest Coast) division—numerous barbed harpoon points, splitting adzes, hafted mauls, mirrors, sawing in stone working, and the like (cf. de Laguna, 1934, *passim*)—are amply corroborated by the occurrences of Eskimoid barbed bone arrow points, Eskimoid harpoon-arrow points (type IV), and ethnographic parallels such as the Tlingit throwing-boards, lamps, and umiaks.⁵⁹ Which way the major trend of influence has moved cannot be known until we have the results of investigations on the northern part of the Coast to compare with de Laguna's meticulous studies in Cook Inlet.

That the two regions have exerted mutual influences at many points cannot be doubted. It may even be that each owes its distinctiveness—the Northern from other Northwest Coast phases, the southwest Alaskan phase from the rest of the Eskimo pattern—to contacts with the other. This is once more sheer speculation, yet it seems to help place transitional aspects whose relationships to each other are very nearly as strong as those binding each to its distinctive pattern.

THE MILBANKE-QUEEN CHARLOTTE SOUND ASPECT

With the few data that we have at our disposal, it is difficult to say much about this phase, other than to point out the apparent basis

⁵⁹ (Throwing boards) : Niblack, 1890, fig. 127; Dalton, 1897, p. 230. (Lamps) : Krause, 1885, p. 206. (Umiaks) : La Perouse, p. 35 and pl. facing p. 34; Olson, 1936, p. 214.

of its distinctiveness. I would stress that its outstanding characteristic, that which differentiates it from adjacent divisions, is the absence (or much smaller quantity) of elements traceable to interior influences. This is intelligible enough on the ethnographic time level. We know that the historic occupants of the region had very little contact with interior tribes (save for the Bella Coola, themselves presumably intrusive). In this regard the Kwakiutl differed from Tlingit and Tsimshian to the north, and from the Coast Salish in the south. What interior influences there are in Kwakiutl cultures must have come in a roundabout way. The apparent absence of abrupt cultural change during the time interval represented by the Heiltsuk deposits tested indicates that this isolation was a condition of at least moderately long standing. This hints that in the Milbanke-Queen Charlotte Sound phase may be seen the coastal culture of purest strain. Whether not only the purest but the oldest coast-dweller culture is to be found in this region, only further investigations can determine.

THE STRAITS OF GEORGIA-PUGET SOUND ASPECT

Perusing the foregoing lists of elements brings out the surprising fact of the numerous parallels between the Northern and the Straits of Georgia-Puget Sound divisions, emphasizing, though in a negative fashion, the distinctiveness of the central Milbanke-Queen Charlotte Sound aspect. Although classifications based on ethnographic data indicate three divisions similar to these proposed from archeologic distributions, this high similarity does not appear so clearly. If we analyze the group of parallel elements—one-piece barbed harpoons, class A fixed bone points, chipped stone points, ground stone points, hand mauls type I, celt types and materials (especially jadeite), stone vessels, cut bird-bone tubes and whistles, geometric incised designs, cremation—it becomes evident that we have to do with a series of traits most of which can safely be attributed to interior influences.⁶⁰ Many appear to be characteristic of the middle Fraser-Columbia River cultures, described by Smith, and Strong, Schenck, and Steward; others, like the one-piece barbed harpoons and ground slate blades, have a wide if not altogether regular distribution across the northern part of the continent. Lacking stratigraphic evidence, it is impossible to say whether in either or both of these coastal phases the interior elements form an old substratum or late overlay. The fact that the longest series of interior items of very restricted coastal distribution—bone mat needles, clamshell disk beads, tooth and claw pendants, flat bone "browbands," cut bird-bone tubes and whistles (numerous)—

⁶⁰ It is interesting in this connection to note that the only Type I harpoon point noted north of Georgia Straits is from the interior-dwelling Gitksan of the Upper Skeena (table 8, and note 2).

come chiefly from Eburne (which, on the basis of physical type occurrence, has been suggested as possibly transitional) or from Eburne and Port Hammond, suggests that for the Straits of Georgia phase at least the interior elements may overlie an older purely coastal component.

CULTURE OF THE FRASER-COLUMBIA BASINS

It becomes pertinent to bring up the question of relationship between the block of interior traits apparently intrusive on the coast in the Georgia Straits region, and the archeologically known cultures of the interior. Our data, unfortunately, are so indecisive as to the interrelations of the Fraser-Columbia cultures that the most that can be done at present is to point out certain possibilities. For the most part we have to do with late manifestations; apparently late prehistoric to full historic in the Thompson district, mostly historic in the Yakima Valley, and only in the Wakemap material do we have remains suggesting a temporal span even possibly comparable to that of the coastal middens.

Smith's conclusions as to the downstream trend of culture flow on the Fraser (whether by migration or diffusion is beside the point) appear logical enough. They raise the problem whether or not the coastal components at Eburne and Port Hammond, and their equivalents at other sites in the district, may not be derivatively interior in genre; in other words, whether these cultures might not be viewed as a specialized or modified aspect of a Plateau, or, perhaps better, Fraser-Columbia River phase. In default of conclusive evidence, this much may be offered: The massive stone carving appears so widely distributed in the interior as to suggest that region as its source, particularly when we include the "sculptured ape heads" from eastern Oregon as part of the complex (Terry, 1891). This stone carving is the oldest art style of which we have any knowledge on the coast; the many stylistic similarities to northern wood carving of the classic period have been pointed out (Boas *in* Smith, 1907). Its place of origin inevitably must be regarded as the fountainhead of everything we consider "Northwest Coast" in culture in the sense of the coast culture of historic times. The antiquity of this art in the Georgia Straits region is not known. Yet Smith reports no example of it from the lower levels of North Saanich—those containing only the older type dolichocephalic skeletal material, and by far the greatest quantity comes from Eburne, the site with mixed (transitional?) population and with the greatest number of interior traits. This at least hints at an interior provenience of the carving complex. While we have no evidence of this massive art at Wakemap, there are traces of a rather similar stone carving of small animal forms which

may well be related to the complex and which extends far down into the Great Basin.⁶¹ Also it is probably significant that the very distinctive bone carving tradition that seems to center on the middle Columbia⁶² is patently linked with the massive stone art, as indicated by the carved "ribs" and "vertebrae" on a number of the stone pieces. (See Smith, 1907, figs. 183*a*, 185*c*, 190, 196, 198.)

I can see nothing impossible about the suggestion advanced by Strong, Schenck, and Steward (1930, p. 145) that "in coast Salish [I would say simply 'Salish'] territory we may yet distinguish the early manifestations of the widespread northwest coast culture," if by that they mean Northwest Coast culture of the classic or ethnographically known period. Such an origin would involve the assumption that the center of dominance or focal center (in Kroeber's sense) shifted northward in the course of time. Such shifts have occurred more times than one. The dominant center of Anasazi culture has not been the San Juan for many years; and the rude Pima and Papago gaze uncomprehendingly at the cultural remains of their Hohokam predecessors.

On the other hand, it is entirely possible that the culture hearth lay to the north, in the Northern phase, where stimulus to new developments may have grown out of the welding of inland, Eskimoid, and coastal elements. Or, as a matter of fact, the Milbanke-Queen Charlotte Sound phase may have produced the new trends autochthonously. The truth of the matter can be determined only by careful and extensive investigations. My aim here, however, is not to soar off into the realms of speculation, but to point out a series of problems, and specifically at this point, the vital need for more rigidly controlled excavations in the Fraser-Columbia region as well as on the adjacent coast.

⁶¹ R. F. Heizer has recovered a series of surprisingly well done stone figurines, etc., in his surveys of the Humboldt Basin region in Nevada. They are quite similar to the objects figured by Strong *et al.* 1930, pl. 26, *c-d*, *h-i*, fig. 17, *b*, *c*, *e*, *f*.

⁶² See Smith, 1904; Steward, 1927; Strong, *et al.*, 1930, pl. 9, *a-j*, and pp. 142-143 (distribution).

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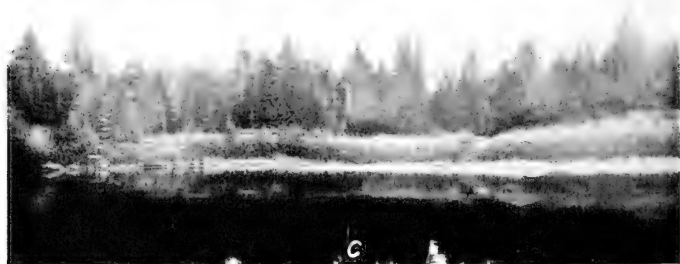
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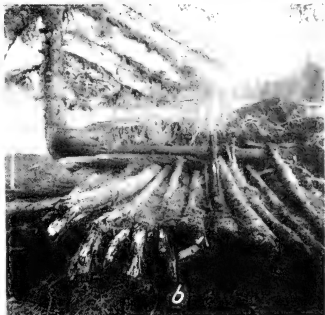
TSIMSHIAN SITES.

a, Anian Island midden. *b*, Robertson Point midden. *c*, Wilgiapshi Island midden.
d, Shawatlan Falls camp site. *e*, Qalahaituk midden.



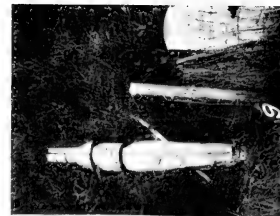
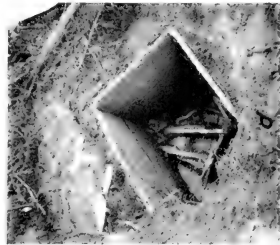
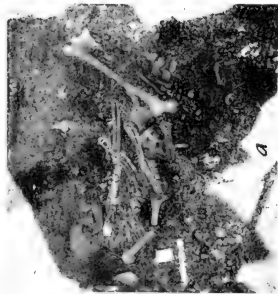
KWAKIUTL SITES.

a, McLoughlin Bay site. *b*, Killkitei Village midden. *c*, Schooner Passage I midden.
d, Roscoe Islet I.A, front slope of midden. *e*, Nimkish River I site.



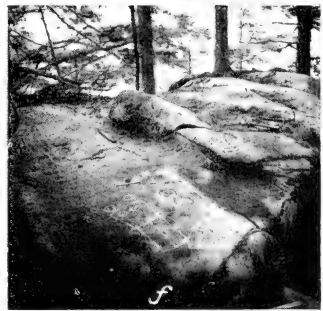
HOUSE REMAINS.

- a*, Rock-filled fire pit, Charles Point midden. *b*, Flooring, northwest corner House 1, Qalahaituk, from west. *c*, Standing house post, House 6, Qalahaituk. *d*, Cross trench through House 1, Qalahaituk, showing supporting timbers, from center of house. *e*, Southwest cornerpost, end of beam, and front sill, House 1, Roscoe Inlet 1. Note hemlock growing over end of beam. *f*, Southeast cornerpost and beam, House 1, Roscoe Inlet 1. Note hemlock which has split post from top, and others growing on beam.



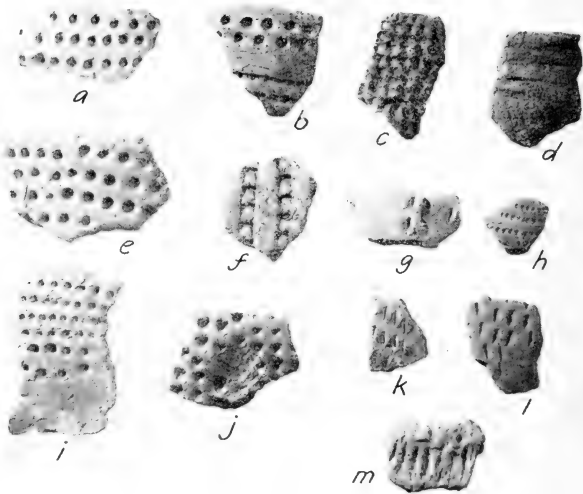
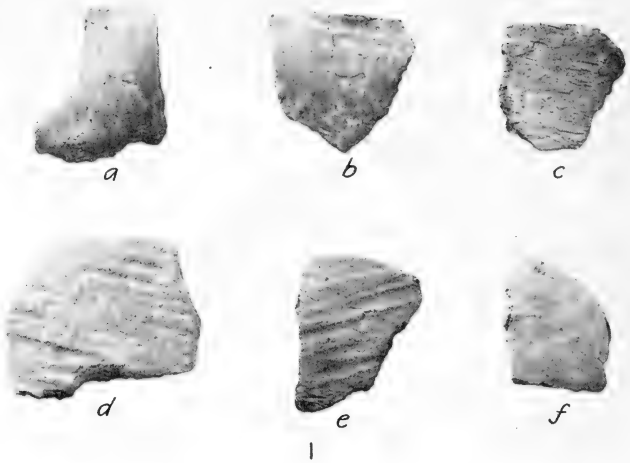
BURIALS.

a. Burial 1, Anian Island. *b.* Boards covering burial pit, moss humus removed. Troup Pass. *d.* Box containing Burial 3, board covering removed. Troup Pass. *e.* Box containing Burial 4 (box of Burial 3 removed). Troup Pass. *f.* Gravepost, near Kilkiti Village. *g.* Box containing Burial 6, Schooner Passage I.



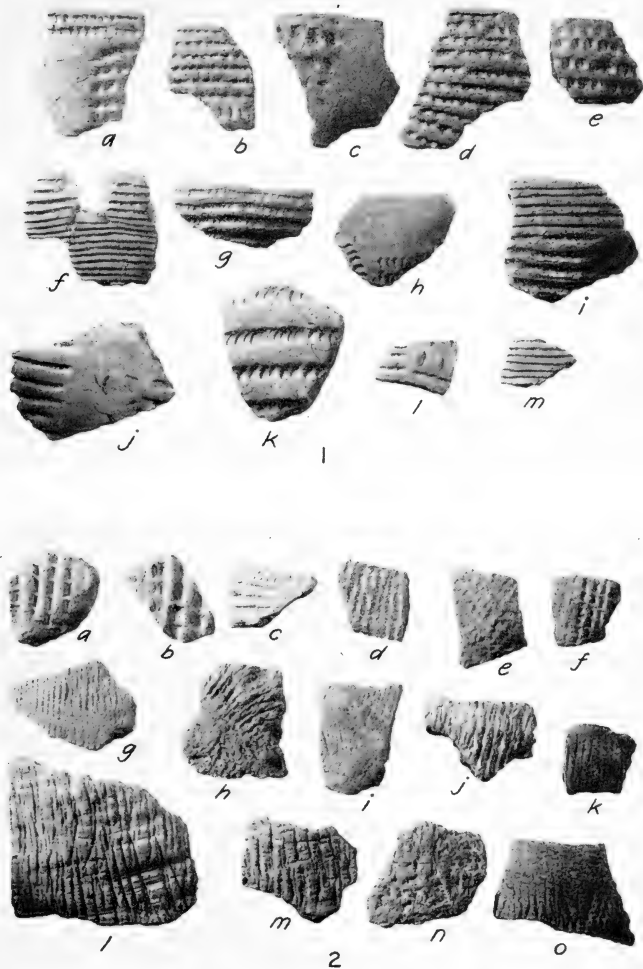
MISCELLANEOUS VIEWS.

a, Rows of rocks for canoe skids, east of Charles Point. *b*, Midden face cleared for trench, Schooner Passage 1. *c*, Petroglyphs, Kitkiata Inlet. *d*, Petroglyphs, Kitkiata Inlet. *e*, Petroglyph, Kitkiata Inlet. *f*, Petroglyphs, Meadow Island.



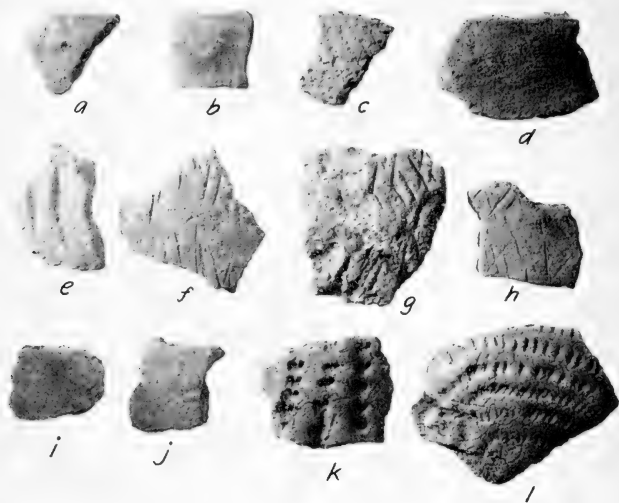
2

STALLINGS PLAIN AND PUNCTATE SHERDS FROM THE CHESTER FIELD SITE.
(For explanation, see page 168.)



STALLINGS PUNCTATE SHERDS FROM THE CHESTER FIELD SITE AND CHECK STAMPED AND CORD MARKED SHERDS FROM THE LAKE PLANTATION.

(For explanation, see p. 168)



MISCELLANEOUS SHERDS FROM LAKE PLANTATION AND TWO STALLINGS PUNCTATE SHERDS FROM JONES ISLAND.

(For explanation, see p. 108)

APPENDIX A

EARLY VERTEBRATE FAUNA OF THE BRITISH COLUMBIA COAST

By EDNA M. FISHER

The excavation of several kitchen-middens along the coast of British Columbia resulted in the collection of numerous animal bones of interest. The animal bones are on the whole in a poor state of preservation; several are cracked and most of them are broken; flaking and peeling are a common condition; and in many instances all important diagnostic characteristics are gone. Owing to this fragmentary condition, it has been impossible to do more than assign some of the bones to certain major vertebrate groups. For example, there are many bones that surely belong to three genera of the Order Artiodactyla, but only a relatively few of these that can be definitely identified as those of either mountain sheep, mountain goat, or Columbian black-tailed deer.

I wish to thank Edward W. Gifford, Curator of the Anthropology Museum, Berkeley, Calif., for his most cordial cooperation in this study. Also I wish to thank Dr. Alden H. Miller, Director of the Museum of Vertebrate Zoology, University of California, for the privilege of consulting the osteological collections under his care.

The identification of the bones brought no unusual finds. No form was found that might not have been expected to occur within the regions studied. In fact, fewer species occurred in the sampling of the kitchen-middens than had been expected; particularly is this true for the water birds. Evidently, the elements recovered represent some of the species that were hunted by the early inhabitants for food and as a source of clothing. The comparatively small number of elements is most surprising. Why so few? Was it due to lack of equipment for capturing the game, the small number of natives living at a given site at any one time, or the lack of interest in large amounts of animal food as compared to plant materials? Surely it could not be that there was a scarcity of animals in the region.

In a study of the vertebrate remains no species was found that was not already known from this province. Food and clothing needs

would account for the largest number of bones, but hardly for the many bones of the domestic dog that were found. For details concerning the age of the different levels and of the respective deposits, the reader will be referred to Dr. Drucker's discussion of the subject (pp. 113-114). No attempt has been made here to evaluate the various areas of relationships.

The different localities from which animal bones were saved have been grouped in this study into five major areas. These major areas are as follows: 1, Anian Island (a winter village), Kaien Island, and Charles Point (the northernmost group included here); 2, Qalahaituk; 3, Khutze Anchorage; 4, Roscoe Inlet and Kilkitei Village (both winter habitations), and Kynumpt Harbor; 5, Schooner Passage (a winter village site). By winter village is meant the permanent home site that supposedly was occupied throughout the year with, perhaps, short trips inland at certain seasons.

The following is the list of genera and species which it has been possible to identify to date among the vertebrate remains in this collection:

MAMMALIA

<i>Euarctos americanus perniger</i> (Allen)-----	Black bear.
<i>Euarctos americanus pugnax</i> (Swarth)-----	Black bear.
<i>Euarctos americanus altifrontalis</i> (Elliot)-----	Northwestern black bear.
<i>Ursus</i> or <i>Euarctos</i> -----	Bear, genus and species unknown.
<i>Canis familiaris</i> Linnaeus-----	Domestic dog.
<i>Lutra canadensis periclyzomae</i> Elliot-----	Alaskan river otter.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Zalophus</i> -----	Sea lion, species unknown.
<i>Eumetopias jubata</i> (Schreber)-----	Steller sea lion.
<i>Callorhinus atascanus</i> Jordan and Clark-----	Pribilof fur seal.
<i>Phoca richardii richardii</i> (Gray)-----	Harbor, or hair seal.
<i>Erethizon epixanthum nigrescens</i> Allen-----	Porcupine.
<i>Castor canadensis canadensis</i> Kuhl-----	Beaver.
<i>Odocoileus hemionus columbianus</i> (Richardson)---	Columbian black-tailed deer.
<i>Ovis canadensis</i> ¹ -----	Mountain sheep, subspecies unknown.
<i>Oreamnus americanus columbiae</i> Hollister-----	Mountain goat.
<i>Phocaena phocaena</i> (Linnaeus)-----	Harbor porpoise.

AVES

<i>Gavia immer immer</i> (Brünnich)-----	Common loon.
<i>Gavia arctica pacifica</i> (Lawrence)-----	Pacific loon.

¹ It is doubtful at present if the bones of mountain sheep are included in the collection. There is insufficient comparative material available at present to settle this point. The bones herein listed as mountain sheep are probably those of mountain goat. So far as is known there is no record of the natural occurrence of mountain sheep in the area studied, either in paleontological or recent times. It is known that the coast Indians did trade with the inland tribes for the horns of the sheep and there is the possibility that some Indian might have traded for more of a sheep than just the horns.

<i>Cygnus columbianus</i> (Ord)-----	Whistling swan, probable species.
<i>Branta canadensis canadensis</i> (Linnaeus)-----	Canada goose.
<i>Branta canadensis occidentalis</i> (Baird)-----	White-cheeked goose, probable subspecies.
<i>Dafila acuta tzitzihoa</i> (Vieillot)-----	American pintail duck.
<i>Glaucionetta islandica</i> (Gmelin)-----	Barrow golden-eye duck.
<i>Oidemia americana</i> Swainson-----	American scoter, probable species.
Accipitriidae-----	Genera and species unknown.
<i>Haliaeetus leucocephalus alascanus</i> Townsend-----	Northern bald eagle.
<i>Buteo swainsoni</i> Bonaparte-----	Swainson's hawk.
<i>Larus glaucescens</i> Naumann-----	Glaucous-winged gull.
<i>Larus occidentalis occidentalis</i> Audubon-----	Northwestern gull.
<i>Larus heermanni</i> Cassin-----	Heermann's gull.
<i>Larus canus brachyrhynchus</i> Richardson-----	Short-billed gull.
<i>Cerorhinca monocerata</i> (Pallas)-----	Rhinoceros auklet.

AMPHIBIA

Several leg bones of a medium-sized species of amphibian. Owing to the complete lack of comparative material, it is quite impossible to further identify them. The size of the bones suggests that they might be from either a frog or toad.

FISCES

Again owing to insufficient comparative material, accurate identification is not possible at this time. That the bones are from salmon and bass seems a logical suggestion since these two types of fish are relatively numerous along this northern coast line.

The bones of the domestic dog were found at almost all levels explored on the Anian Island site. Of all the sites excavated Anian Island contained the most dog bones. In some of the other mounds there were a few dog bones but these were usually at lower levels only. Artiodactyls (deer, sheep, or goats) were present in most deposits and at most levels. The deer bones identified certainly outnumbered by far the bones of sheep or goats. There were numerous bones or fragments that were from some carnivore but due to the condition of the bones it has been impossible to date to identify them further. This group may contain pieces of fox or wolf since these forms probably did occur within the region. There are numerous bones too fragmentary to even hazard a guess as to the kind of animal to which they belonged.

The number of species represented and the number of elements, that is, the volume of material recovered, is small in the northern deposits and increases with each area studied to the south. Perhaps more extensive collections from the northern areas would change the picture somewhat.

The following is a list of the species for the various areas beginning in the north and continuing to the southward:

ANIAN ISLAND

Mammalia:

- Odocoileus hemionus columbianus* (Richardson) Columbia black-tailed deer.
Erethizon epixanthum nigrescens Allen Porcupine.
Canis familiaris Linnaeus Domestic dog.
 Canidae Genera and species unknown.
Enhydra lutris lutris (Linnaeus) Northern sea otter.

Aves:

- Dafila acuta tzitzihoa* (Vieillot) American pintail duck.
Oidemia americana Swainson American scoter, species uncertain.

KAIEN ISLAND

Mammalia:

- Canis familiaris* Linnaeus Domestic dog.

CHARLES POINT

Mammalia:

- Odocoileus hemionus columbianus* (Richardson) Columbia black-tailed deer.
 Canidae Genera and species unknown.
Enhydra lutris lutris (Linnaeus) Northern sea otter.
Canis familiaris Linnaeus Domestic dog.
Phoca richardii richardii (Gray) Harbor seal.

Aves:

- Branta canadensis canadensis* (Linnaeus) Canada goose.
Cerorhinca monocerata (Pallas) Rhinoceros auklet.

QALAHAITUK

Mammalia:

- Odocoileus hemionus columbianus* (Richardson) Columbia black-tailed deer.
Enhydra lutris lutris (Linnaeus) Northern sea otter.
Euarctos americanus perniger (Allen) Black bear.
Euarctos americanus Black bear, subspecies unknown.
Phoca richardii richardii (Gray) Harbor seal.
Oreamnus americanus columbiae Hollister Mountain goat.
Callorhinus alascanus Jordan and Clark Pribilof fur seal, probable species.

Aves:

- Haliaeetus leucocephalus alascanus* Townsend Northern bald eagle.

KHUTZE ANCHORAGE

Mammalia:

- Odocoileus hemionus columbianus* (Richardson) Columbia black-tailed deer.
Canis familiaris Linnaeus Domestic dog.
Ovis canadensis Mountain sheep, subspecies unknown.

KHUTZE ANCHORAGE—Continued

Mammalia—Continued.

<i>Phoca richardii richardii</i> (Gray)-----	Harbor seal.
<i>Erethizon epixanthum nigrescens</i> Allen-----	Porcupine.
<i>Castor canadensis canadensis</i> Kuhl-----	Beaver.
<i>Euarctos americanus</i> -----	Black bear, subspecies unknown.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Ovis canadensis</i> -----	Mountain sheep, probably.

Aves:

<i>Branta canadensis canadensis</i> (Linnaeus)-----	Canada goose.
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ROSCOE INLET

Mammalia:

<i>Phocaena phocoena</i> (Linnaeus)-----	Harbor porpoise.
<i>Odocoileus hemionus columbianus</i> (Richardson).-----	Columbian black-tailed deer.
<i>Erethizon epixanthum nigrescens</i> Allen-----	Porcupine.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Phoca richardii richardii</i> (Gray)-----	Harbor seal.
<i>Lutra canadensis periclyzomae</i> Elliot-----	Alaskan river otter.
<i>Lutra canadensis</i> -----	River otter, subspecies unknown.
<i>Castor canadensis canadensis</i> Kuhl-----	Beaver.
<i>Zalophus</i> -----	Sea lion, species unknown.

KYNUMPT HARBOR

Mammalia:

<i>Phocaena phocoena</i> (Linnaeus)-----	Harbor porpoise.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Odocoileus hemionus columbianus</i> (Richardson).-----	Columbian black-tailed deer.
<i>Zalophus</i> -----	Sea lion, species unknown.

KILKITEI VILLAGE

Mammalia:

<i>Phocaena phocoena</i> (Linnaeus)-----	Harbor porpoise.
<i>Odocoileus hemionus columbianus</i> (Richardson).-----	Columbian black-tailed deer.
<i>Euarctos americanus pugnax</i> (Swarth)-----	Black bear.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Erethizon epixanthum nigrescens</i> Allen-----	Porcupine.
<i>Castor canadensis canadensis</i> Kuhl-----	Beaver.
<i>Zalophus</i> -----	Sea lion, species unknown.
<i>Phoca richardii richardii</i> (Gray)-----	Harbor seal.

Aves:

<i>Larus heermanni</i> Cassin-----	Heermann's gull.
Accipitridae-----	Hawks, eagles, genera unknown.
<i>Cygnus columbianus</i> (Ord.)-----	Whistling swan, probably.

SCHOONER PASSAGE 1

Mammalia:

<i>Odocoileus hemionus columbianus</i> (Richardson)-----	Columbian black-tailed deer.
<i>Zalophus</i> -----	Sea lion, species unknown.
<i>Phoca richardii richardii</i> (Gray)-----	Harbor seal.
<i>Enhydra lutris lutris</i> (Linnaeus)-----	Northern sea otter.
<i>Phocaena phocaena</i> (Linnaeus)-----	Harbor porpoise.
<i>Eumetopias jubata</i> (Schreber)-----	Steller's sea lion.
<i>Canis familiaris</i> Linnaeus-----	Domestic dog.
<i>Erethizon epixanthum nigrescens</i> Allen-----	Porcupine.

Aves:

<i>Dasyla acuta tzitzihoa</i> (Vieillot)-----	American pintail duck.
<i>Branta canadensis canadensis</i> (Linnaeus)-----	Canada goose.
<i>Gavia immer immer</i> (Brünnich)-----	Common loon.
<i>Larus occidentalis occidentalis</i> Audubon-----	Northwestern gull.
<i>Haliaeetus leucocephalus alascanus</i> Townsend-----	Northern bald eagle.
<i>Larus glaucescens</i> Naumann-----	Glaucous-winged gull.
<i>Glaucionetta islandica</i> (Gmelin)-----	Barrow golden-eye duck.
<i>Buteo swainsoni</i> Bonaparte-----	Swainson's hawk.
<i>Gavia arctica pacifica</i> (Lawrence)-----	Pacific loon.

Amphibia----- Probably frog or toad.

The following tables give the vertical distribution of the various animal remains. These tables are also arranged from the north group to the south. Blank spaces indicate that no animal bones were found at those levels. All measurements of depth are given in inches unless otherwise stated.

TABLE 2.—Vertical distribution of animal remains, area 2

Depth in inches	Qalahaituk		
	House 9: Trench 1	House 9: Trench 2	¹ House 1: X.
0-12....	Sea otter, deer.....	Carnivore, bear?, deer?.....	Bird, seal, deerlike, deer. House 1: A
12-24....	Fish, salmon?, sea otter, harbor seal, deerlike, deer, mountain goat.	Fish, bird, Northern bald eagle, mammal, sea otter, seal, harbor seal, bear, mountain goat.	Carnivore, sea otter, deer? House 1: B Deer? House 1: C
24-36....	Mammal, sea otter, harbor seal, deer?	.....	Carnivore, bear, deer? House 1: D
36+....	Mammal, carnivore?, sea otter, harbor seal.	.....	Fish, carnivore, sea otter, bear? (<i>Euarctos americanus perniger</i>), deer?

¹ Explanation of levels: X, Trench in house 1; house 1: A, northwest quadrangle, in sand below floor poles; house 1: B, northwest quadrangle, sand horizon with large shell fragments; house 1: C, northwest quadrangle, sand with charcoal lenses; and, house 1: D, sandy muck with wood chips.

TABLE 3.—Vertical distribution of animal remains, area 3

Depth in inches	Khutze Anchorage			
	Pit A	Pit B	Pit C	Pit D
0-6....	Fish, harbor seal, dog, deer?, mountain sheep, deer.	Mammal, carnivore, sea otter, bear, seal, porcupine, deer, mountain sheep?	Bird, Canada goose, mammal, harbor seal, porcupine, deer, mountain sheep?	Bird, sea otter, seal, harbor seal, porcupine, deer.
6-12....	Fish, harbor seal, mountain sheep?.	Mammal, carnivore, seal, porcupine, deer?	.....	.....
6-16....	.....	.....	Bird, Canada goose, carnivore, sea otter, beaver, deer.	.....
12-18....	.....	Fish, mammal, deer....	.....	.....
16-26....	.....	.....	Deer.....	.....
18-24....	.....	.....	.....	Deer?.
26.....	.....	.....	Bear (<i>Euarctos americanus perniger</i>), deer.	.....

TABLE 5.—*Vertical distribution of animal remains, area 5*

SCHOONER PASSAGE 1

Depth in inches	Trench 1	Depth in inches	Trench 1
Surface....	Seal?, bear?, deer.	72-84.....	Fish (salmon?), bird, deer.
<i>Inches</i>		84-96.....	Fish (salmon), birds, mammals.
0-12.....	Fish (salmon?), American pintail duck, Canada goose, common loon, mammal, seal, harbor seal, sea lion, sea otter, Canidae (dog?), bear?, deer?	96-108.....	Fish (salmon?), Swainson's hawk.
		84-128.....	Fish, salmon?, birds, sea otter, deer?
12-24.....	Fish (salmon?), western gull, northern bald eagle, mammal, sea otter, seal?, deer.	130-138.....	Fish, bird, deer?
		136-150.....	Fish, salmon, Amphibia, birds, American pintail duck, northern bald eagle, mammals, sea otter, dog, porcupine, deer.
24-36.....	Fish, salmon?, Canada goose, Barrow golden-eye duck, mammal, sea otter, seal, carnivore, Steller's sea lion, deer, porpoise.	150-162....	Fish (salmon?), carnivore, dog, deer.
		162-174....	Birds, Pacific loon, mammals, porpoise.
36-48.....	Fish (salmon), birds, mammals, seal, deer.	108-120....	Fish (salmon), American pintail duck.
		120-132....	Fish (salmon?), birds, American pintail duck.
48-60.....	Fish, salmon, American pintail duck, mammals, sea otter, deer.	132-144....	Fish (salmon?), birds.
		144-156....	Fish, bird, sea otter, porcupine, deer.
60-72.....	Fish, salmon?, glaucous-winged gull, Barrow golden-eye duck, mammal sea otter, seal?, deer.	156+.....	Fish, salmon, birds, glaucous-winged gull.

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Anthropological Papers, No. 21

Some Notes on a Few Sites in Beaufort County, South Carolina

By REGINA FLANNERY
The Catholic University of America

ILLUSTRATIONS

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SOME NOTES ON A FEW SITES IN BEAUFORT COUNTY, SOUTH CAROLINA

By REGINA FLANNERY

The Catholic University of America

This is a summary account of some archeological work done on Port Royal and the sea islands near Beaufort, S. C., by Dr. Warren K. Moorehead, February 8 to March 12, 1933. Assisting Dr. Moorehead were especially Woldemar H. Ritter, an architect of Boston, and Hughes H. Lake, of Port Royal Island. Mr. Ritter did the surveying, supervised the excavations, and carefully compiled the daily field report. Mr. Lake, devoting his whole time to the undertaking, was in charge of the workmen and assisted in the digging operations. Both Dr. Moorehead and Mr. Ritter have since died. The present writer participated in the work as a student assistant. She is not in a position to draw up a complete technical report;¹ she does, however, wish to put on record something at least of the culture revealed by the excavations in this little-studied region (fig. 34).²

The interest of Dr. Moorehead in the archeology of Port Royal Island had been awakened by Mr. Ritter, who, together with Mr. Lake, had done some exploratory digging in several sites during 1931 and 1932. The excavation of a burial mound on St. Helena Island prior to 1898 by Moore (1899) had been the only other archeological work done in the immediate region.

During some 20 years' residence on his plantation, Mr. Lake had accumulated a collection of surface finds from Port Royal Island. These comprise some 30 or 40 chipped-stone objects, including 1 fine black flint point 7 inches in length, 1 celt, a few decorated bone

¹ The detailed field report containing all notes, maps, and drawings is available for consultation at the Department of Anthropology, Catholic University. A few specimens from the Chester Field site are also here. Samplings of pottery were sent to the Ceramic Repository for the Eastern United States at the University Museums, Ann Arbor, for analysis. The bulk of the pottery, other artifacts, and all skeletal material were sent to the Charleston Museum. A few of the choicer specimens were retained in the small local museum at the Library, Beaufort, S. C.

² The writer wishes to acknowledge her indebtedness to Dr. John R. Swanton and Dr. James B. Griffin for their valuable suggestions, and to Miss Grace Fowler for her kindness in drawing the accompanying map.

awls, and quantities of potsherds. There is also one small pottery figurine in the shape of an animal head. The stone and bone material is rather scarce as compared with the number of sherds.

The Lake Plantation occupies a considerable portion of the southern tip of the southwestern extension of Port Royal Island, and had been a strategic center for Indian life, with direct access to deep water as well as to numerous springs. In addition to the extensive

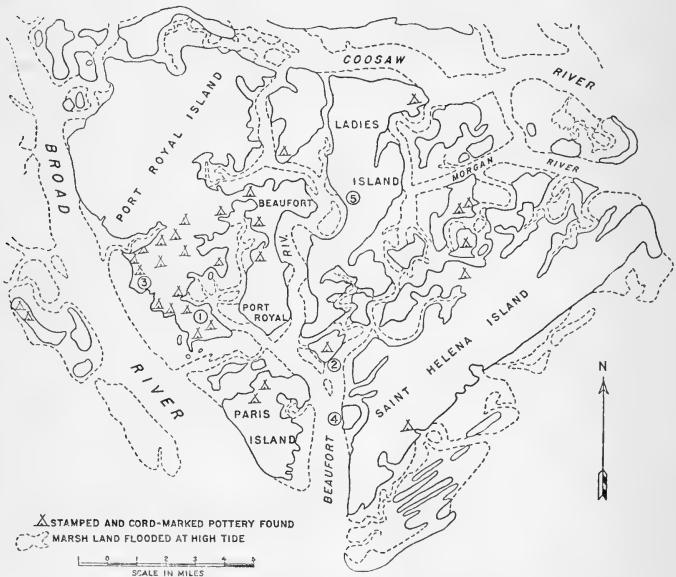


FIGURE 34.—Map of the Beaufort region.

1, The Lake Plantation. 2, Cat Island. 3, The Chester Field site. 4, The Jones Island site. 5, The burial mound.

shell heaps along the shores, the entire cultivated area of 20 or 30 acres north of the Lake house is strewn with broken oyster and conch shells, etc. Indian occupation of the locality indicated on the map drawn by Jacques Le Moynes, 1564, is borne out by the archeological evidence, although unfortunately we are unable to correlate the archeological and ethnological source materials.³

³ Dr. Moorehead concluded that the numerous shell heaps on the Lake Plantation represented temporary camp sites to which the Indians returned from time to time rather than permanent habitations. Juan Rogel, S. J., who arrived at St. Helena Island 1569, wrote that the Indians lived scattered for 9 months of the year, "each one to his own place, and came together only at certain feasts, which they held every 2 months, and this was not always in one place, but at one time here and another time in another place, etc." (See Swanton, 1922, p. 57). There is no evidence to date, however, which would indicate whether

More than 200 test pits were sunk at various points on the Lake Plantation. A great many oyster, periwinkle, and clam shells⁴ were found as well as a number of bones of deer and other animals,⁵ but, with the exception of pottery, scarcely any artifacts. In excavating the larger test pits it was noted that the earth had been disturbed in places to a depth of 6 feet. But there were no true ash pits, and no suggestion of a hearth or fireplace, except at one spot where the

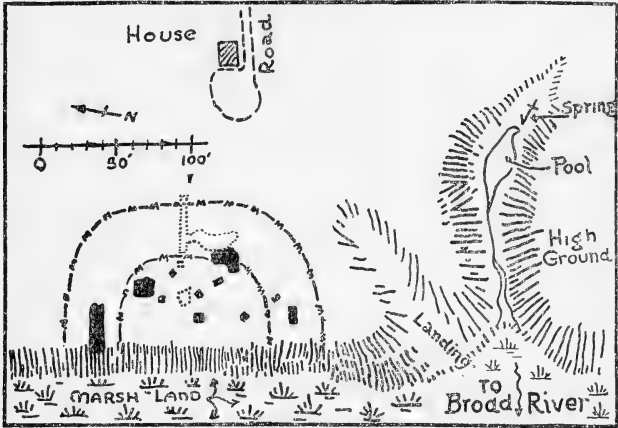


FIGURE 35.—The Chester Field site.

clay was rather hard and burned to a depth of 3 feet below the surface. Griffin (whose paper appears in this Bulletin, pp. 155-168) has analyzed the pottery from the Lake Plantation and has discussed it in its wider distributions. Ware similar to the types found there, with the exception of the few sherds of Stalling's Island culture

or not the Indians referred to used artifacts of the type recovered from the shell heaps. Griffin informs me that the available material gives us no reason to expect European trade goods.

⁴ A random sampling of shells from one of the larger pits was sent to Dr. Frank C. Baker, Museum of Natural History, University of Illinois, who kindly reported as follows: "Marine species—the common oyster, *Ostrea virginica* Gmelin, Nova Scotia south to Florida; a long narrow clam with thin shell, *Tangulus gibbus* Spengler, range from Cape Cod to Trinidad, West Indies; a small quahog or round clam, *Venus mortoni* Conrad, range Virginia south to Florida Keys; a salt water mussel, with coarse radiating lines at one end, *Modiolus demissus plicatulus* (Lam.), range Nova Scotia south to Georgia; a periwinkle or snail with very thick shell, *Littorina irrorata* Say, range Rhode Island south to Jamaica. Land snails—a 2-inch long, elongate ovate shell, *Euglandina rosea* (Ferussac), found from South Carolina to Florida and Texas; a small land snail, $\frac{1}{2}$ inch in diameter, shell thin, the aperture with 2 teeth or ridges on the base, *Gastrodonta gularis* (Say), range S. Carolina west to Tennessee, a rare shell in South Carolina at least."

⁵ A sampling of bones from the same pit was sent to Dr. Glover M. Allen, Curator, Museum of Comparative Zoölogy at Harvard, who wrote as follows: "I have examined the bones, and find most of them to be Virginia deer, some of the antler-bases of maximum size, but I can match them with material here. There is one raccoon jaw, and a fragment of a large radius as large as that of a medium-sized cow and apparently indistinguishable from domestic cow, but cut square across near the end. There were no other species."

type, were recovered by excavation of shell heaps at Cat Island and elsewhere from the surface as indicated on the map. Unfortunately, none of this material was sent to the Ceramic Repository and no more definite statement can be made regarding it.

On the same southwestern extension of Port Royal Island, but on the west side thereof, and on ground owned by Chester Field, is a horseshoe-shaped mound, the ends of which meet the steep overgrown bank of Broad River. (See fig. 35.) A marsh at the foot of the bank extends half a mile or so into the river, but is flooded at high tide. Whether or not the mound was at one time circular is impossible for the present writer to say. Nothing in the lay of the land suggested this possibility to Dr. Moorehead at the time. At present, however, the level space enclosed by the mound measures about 110 feet at its widest point and 55 feet from the riverbank to the center inner periphery of the mound. There is a good spring about 130 feet to the south.

Scattered in the central portion of the level area enclosed by the mound, seven test holes disclosed the ground disturbed to a depth of from 12 to 30 inches, but otherwise sterile. One test hole, dug by Mr. Ritter in 1932, in the true center of this enclosed area showed a fire pit, 24 inches below the surface and filled with debris. In the northeast section of the level area, another test hole, 10 feet by 10 feet, showed sand disturbed to a depth varying from 18 to 30 inches, and in the southeast corner of the test hole a compact shell deposit 12 inches thick and 16 inches below the surface. The artifacts recovered from this test hole comprise some 27 potsherds, a worked antler prong, several chipped flints and flakes, one-half of a round pitted stone, and some animal bones. The test hole on the opposite side of the level space enclosed by the mound showed near the surface a 6-inch layer of shells, below which was disturbed sand to a depth of 30 inches. Only 6 or 8 sherds and a few animal bones were recovered therefrom.

The mound itself is about 25 feet wide and varies in height from 3 feet above the level of the enclosed space on the south side, to 5 feet on the north side, or from 14 feet 8 inches to 16 feet 2 inches above the high-water mark on the bank. As Mr. Ritter and Mr. Lake had already excavated the central portion of the mound to some extent, a trench 10 feet wide was started where the north side of the mound meets the riverbank and was run 25 feet east through the middle of the mound. The mound is artificial, being composed largely of oyster and other shells, interspersed occasionally with irregular layers of dark earth several inches thick and containing a few shells and some debris. Pockets of periwinkle shells, measuring roughly about 2 gallons each, occur rather frequently. Undisturbed

ground is reached on an average at 30 inches below the present level of the enclosed area, which corresponds with the undisturbed base of the enclosed area itself.

Refuse occurred with equal frequency among the shells and in the irregular layers of earth. More than 1,000 potsherds were recovered from the midden when the trench had been extended 20 feet to the east. There were a large number of animal bones and pieces of antler, but relatively little stone—only 8 pieces of worked flint, several chips, 3 round rocks, and one pitted stone. Worked bone was represented by four carved pointed objects⁶ and one bone scraper broken into three pieces. There were also one antler prong, marked with an incised line, and one antler point.

The trench dug by Mr. Ritter and Mr. Lake in the central portion of the mound was then enlarged. The same type of midden composition as described above was noted. Parts of four more carved bone objects, a large flint nodule from which pieces had been flaked, and several worked antler prongs were added to the collection. Of the two test holes toward the south end of the mound, one revealed two potsherds with drilled holes, and the other, sunk at the highest point at the south side of the mound, yielded about 20 sherds and about 40 small pieces of animal bones. The shells were much decayed, and more dirt and sand were mixed therewith than was the case at the north end of the mound.

The Chester Field site seems to indicate a permanent camp or village, the level space enclosed by the mound evidently having been reserved for the dwellings. The numerous animal bones suggest that meat was an important element in the diet of this people, although seafood was probably the staple. There was no evidence of maize.⁷

The importance of the site lies especially in the fact that it represents another locality of the Stalling's Island culture. The complex is present at the Chester Field site in its essentials, though some of the items ascribed to the complex by Clafin (1931) are lacking. The pottery of the site has been analyzed by Griffin (p. 159), who states that it identifies the site as a component of the same cultural division as the Stalling's Island complex. Found in association with this type of pottery are decorated bone-pointed objects of the same general types as those described by Clafin. The designs on these objects are individual, no two of ours are identical in carving, nor presum-

⁶ Decorated bone objects of the same type are considered by Clafin to be ornamental pins. See Clafin (1931, pp. 23-24, and pl. 38, *f, d, g*).

⁷ Two caches of burned corncobs were found in Stalling's Island site (see Clafin, 1931, pp. 12-13) but not assigned definitely to the true Stalling's Island culture. Griffin informs me by letter that there is every reason to believe that maize was not grown in the Southeast at the Stalling's Island period.

ably are those from Stalling's Island. The stone material from the Chester Field site is not so varied as that from Stalling's Island, but so far as it goes it agrees therewith. In neither the Chester Field nor Stalling's Island sites was there any evidence of pipes of any sort, but worked and unworked antler is characteristic of both. The net sinkers, so numerous at the Georgia site, are lacking, so far as we know, from the Chester Field midden.

The Stalling's Island pottery type was yielded by one other mound investigated by Dr. Moorehead and his assistants in 1933. This shell mound, belonging to C. C. Jones, lies in the marshland, across the Beaufort River from Paris Island. The mound covers about half of the land left free at high tide, and runs parallel to the river for about 350 feet. The deposit is massed at the southern end, being exposed 30 inches above ground level and extending to a depth of 30 inches below level at the high point, which is on the western side. The deposit gradually pales off toward the other side of the mound and rather abruptly toward the land side, where the deposit is only a few inches thick and does not extend appreciably below the level of the ground. Several test pits were sunk and one small trench was dug. The mound is composed of compact shells, lacking the layers of earth as intermixed in the Chester Field midden. The ware is the same as the Stalling's Island type. One decorated bone object and a bone comb, together with some food bones and pieces of antler, were recovered.

Another site, the last one to be investigated, proved to be a burial mound, similar to that excavated by Moore on St. Helena Island. This mound is at the Kempfer place on Ladies Island, about 565 feet from the Beaufort River, on level sandy ground about 15 feet above the river which runs close to the steep bluff forming the bank. There are a spring and a small water course a short distance north of the mound, but no signs of Indian occupation in the immediate vicinity. The gently sloping mound is circular in shape, the diameter being about 70 feet, and the highest point 41 inches above the present surrounding level. The ground had never been cultivated, and four large live-oak trees are growing on the mound.

A systematic excavation was made of the central portion of the mound to include an area 15 feet by 15 feet, and 12 test holes were sunk at various other points. The mound is artificial and composed of sandy soil. At a level 48 inches below the grade at the highest part of the mound, or 7 inches below the present surrounding level, is a stratum of very dark earth, heavily colored by charcoal. This stratum is 4 inches thick in the central area of the mound and gradually thins out until about 10 feet from the periphery on the east-west axis it becomes very faint. Directly in the center of the mound,

and resting on this charcoal bed, were massed human bones forming a compact layer over an area 12 feet by 6 feet on the north-south axis. Disposition of the skeletal remains suggests that the bones were massed on the charcoal layer with no regard for order or completeness. Skulls, jawbones, and long bones predominated, representing at least 30 or probably 40 individuals. Evidence of cremation in situ on top of this layer of bones was noted in seven instances. The remains were in a bad state of preservation but were removed as carefully as possible to the Charleston Museum where they await further study. Three feet to the west of the northern end of the massed bones and just below the charcoal stratum was evidence of another cremation. Six feet west of the southern end of the massed bones, and just below the charcoal stratum, was a basin or depression about 24 inches deep and 18 inches in diameter, apparently lined with clay which had been slightly burned. Half of this depression was filled with charcoal and ashes.

There was no trace of any artifacts with the exception of one round sandstone with two hollows, found in the charcoal stratum, under the layer of massed bones, at about the center of the mound. The fact that, as Claffin notes (1931, p. 44), it was not a common practice of the Stalling's Island people to place mortuary offerings with their dead may suggest the possibility that the mound on Ladies Island may have been made by people of Stalling's Island culture. On the other hand Claffin (1931, p. 43) ascribes a number of flexed burials to the Stalling's Island people and, furthermore, concludes that it was customary for them to bury their dead beneath the floors of their dwellings. Investigation of the Chester Field village site showed no evidence of such a practice. It would seem then that no conclusion can at present be reached regarding the culture type to which belonged the people whose burial mound on Ladies Island was investigated.

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Anthropological Papers, No. 22

An Analysis and Interpretation of the Ceramic Remains from
Two Sites near Beaufort, South Carolina

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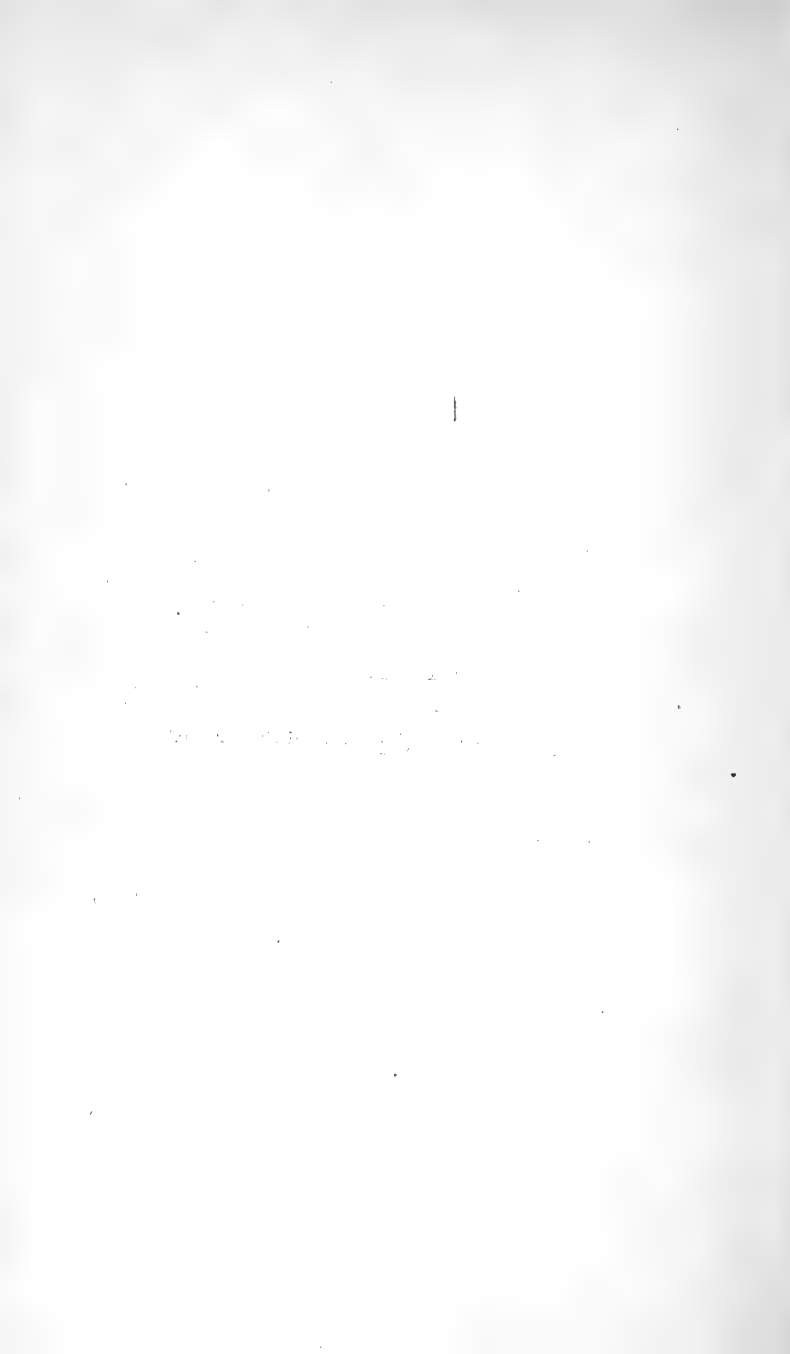
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AN ANALYSIS AND INTERPRETATION OF THE CERAMIC REMAINS FROM TWO SITES NEAR BEAUFORT, S. C.

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The pottery in this report was obtained during 1933 by a field party under the direction of Dr. W. K. Moorehead. Shortly after the field season was over, the Ceramic Repository received a shipment of sherds from both the Chester Field site and from the Lake Plantation. In January 1941, Dr. Flannery turned over to the Ceramic Repository a series of sherds from the Chester Field site and two sherds from a site on Jones Island. It is assumed that the pottery available for study is representative of the total collections obtained from each site, for the bulk of the pottery is in the Charleston Museum.

CHESTER FIELD

The Chester Field pottery is quite homogeneous in paste, temper, color, surface finish, and shape. It belongs to the fiber-tempered ware, which is apparently the oldest ceramic horizon in the Southeast. The best known site is that on Stalling's Island (Claffin, 1931) and the name of the site has been given to the pottery described in that report as belonging to the lower level. The pottery from the Chester Field site is similar to that illustrated by Claffin and to the sherds from Stalling's Island in the Ceramic Repository. It is also very similar to the ware called Saint Simons Fiber Tempered by Holder during his excavations near Savannah and to pottery from the Bilbo site near Savannah, which will be described by Waring. Since the Stalling's Island site is the only one now fully described in the literature, it is suggested that the names Stallings Plain (pl. 10) and Stallings Punctate (pl. 11) be applied to the pottery ware described below from the Chester Field site with the full recognition that they are essentially the same product. The type description will be headed Stallings Plain, but, with the exception of the decorative techniques described below, the type description applies to both divisions.

TYPE NAME: STALLINGS PLAIN

PASTE

Method of Manufacture.—A suggestion of coiling or ring building on some sherds, but it is not too clear.

Temper.—Varying proportions of a fiber which has almost uniformly disappeared in firing, presenting a vesicular appearance. In some examples there is

a very small amount of fiber while in others the sherd is honeycombed. The majority of sherds have nonplastic inclusions very much like fine grains of sand, which were apparently inclusive in the clay. Some of the sherds have rather large (2 to 4 mm.) particles of rock.

Texture.—Cross-sectional appearance is medium fine to medium coarse; granular if fairly large sand particles are present and honeycombed if a large amount of fiber was used.

Hardness.—The exterior surface hardness ranges from 2 to 2.5. The majority can be scratched by the finger nail.

Color.—Almost always a dark grey to black core with narrow, lighter, oxidized surface layer. The exterior surface when oxidized ranges in the yellows and chocolate browns.

SURFACE FINISH

Exterior is roughly smoothed with a porous surface or is compacted due to surface smoothing. Usually both surfaces are treated in the same manner. Some of the sherds have an uneven surface, possibly caused by an impressing technique something like the so-called Simple Stamping found in the Southeast. Those specimens whose surfaces were not well compacted most clearly show the channels left by the disintegration of the fiber temper.

DECORATION

None. Described under companion type Stallings Punctate.

FORM

Vessels are from 15 to 30 centimeters or more in diameter. No whole vessels are known.

Rim.—Vertical to slightly incurving walls.

Lip.—Most commonly narrowed and rounded. Rarely a flattened lip.

Body.—Bowl shape only one known. No angled rims at Chester Field site.

Base.—Somewhat rounded to flattened.

Thickness.—Lip from 3 to 7 millimeters, rim and side wall from 0.6 to 1 centimeter, base 0.6 to 1 centimeter.

Appendages.—None. Examples of crack lacing (?) from Stalling's Island.

USUAL RANGE OF TYPE

Stalling's Island and related sites mentioned by Claffin. At least as far north along the coast as Charleston and south along the Georgia coast toward the St. John's area of Florida. Comparable types described by Holmes, Griffin, and Haag. Also mentioned by Kelly.

CHRONOLOGICAL POSITION OF TYPE IN RANGE

First pottery type at Stalling's Island, and Wheeler and Pickwick Basins in northern Alabama. Found in early levels at Savannah and along the Atlantic coast. Generally thought to be the earliest pottery in the Southeast.

The plain sherds are in the minority in the collection at the Ceramic Repository although this was probably not the case at the site. The accompanying table lists the sherds available for study according to surface treatment and decoration. The proportions would undoubt-

edly be changed with the complete sherd count from an archeological site of this horizon. The tabular presentation of the various decorative styles does serve, however, to indicate the prevalence of different kinds of punctating as the favored decorating technique.

The most prevalent punctating technique I have called linear punctate. The punch marks are placed in a straight incised line and were made at about a 45° angle to the surface. They are usually close together. Sometimes the punctates and the incised line were made as part of a single continuous operation. The size of the individual punctated line varies from 3 to 7 millimeters wide and they are usually 2 to 3 millimeters deep. The linear punctates are most often arranged in closely spaced rows which run parallel to the lip. The next most common orientation is to be placed vertically on the outer surface.

Individual punctates of varying shapes are sometimes arranged in orderly horizontal and vertical rows. While sherds differed as to the type of punctate impression which was used, no sherd carried more than one type of individual punctate. The punctates include small hemispherical depressions; circular with conical base, and many of these have ridges suggesting they were made by small marine gastropods; hemiconical punctates; large semicircles, perhaps made by a split reed; small, circular punctates; finger-nail punctates; and hollow-cylinder punctates.

The individual punctates and the linear punctates are often found on the same sherd. The size of the sherds listed as incised in table 1 offers no guarantee that there were not also punctates on the same vessel. While none of the pottery from Chester Field offers good evidence of the use of incising as a sole decorative technique the sherds illustrated by Claffin (1931) on plate 15 do show such treatment. Most of the sherds on plate 14 of the report on the Stalling's Island mound have a roughened surface similar to that mentioned in the type description given above of Stallings Plain. It is very suggestive of the surface treatment widely called "simple stamping" by Southeastern archeologists. Some advantage was taken of plain areas to separate linear punctated areas from other linear punctates or from groups of individual punctates.

Relatively little use was made of a curvilinear arrangement of linear punctates, or individual punctates in curved lines and nothing quite comparable to some of the patterns illustrated by Claffin (1931) on plates 19 and 20. The fiber-tempered ware at Stalling's Island itself is apparently more complex, i. e., it has more variety in surface treatment and decoration, and in the angled rim possesses a modification of the bowl shape which is apparently absent at the Chester Field site. While Claffin stated that the tempering material of the Stallings

types at Stalling's Island was primarily grit, that does not seem to be the case with the relatively small number of sherds in the Ceramic Repository from that site. All of the sherds belonging to the Stallings types had varying amounts of fiber included in the paste. There are also other kinds of nonplastic material in the clay including small quartz and other grit particles which, because of their rounded edges, were probably waterworn and inclusive in the clay beds. This is also true of the Chester Field sherds.

The two sherds from a site on Jones Island are Stallings Punctate specimens. One of these is a linear punctate and the other is a curious paired punctate such as could have been produced by the distal end of the femur of a small mammal. (See pl. 12.)

LAKE PLANTATION

The pottery in the Ceramic Repository from Lake Plantation is assumed to be characteristic of the site as a whole (pl. 12). It presents a decidedly more complex ceramic picture than did the Chester Field site. The accompanying table presents the variation in surface treatment and decoration found on sherds possessing different types of tempering material.

On the basis of other excavations in the Southeast, particularly those recently made by Holder (1938), Fewkes (1938), and Caldwell and Waring (1939), it can be safely assumed that all of the sherds listed above are not assignable to a single cultural group at a single time period. As has been mentioned above, the four sherds of the fiber-tempered ware belong in the Stalling's Island culture. The tentative sequence presented by Caldwell and Waring (1939) for the area around Savannah, which is contiguous to the Beaufort area, strongly suggests that the sherds called Deptford and perhaps those with simple stamping, belong in the first ceramic period following the fiber-tempered horizon. The majority of the rest of the sherds belong in the Savannah period, but their exact allocation is difficult due to the paucity of the sherds and the absence of rims. The clay-tempered sherds that are probably closely related to Wilmington Heavy Cord Marked apparently belong somewhere in between the Deptford and Savannah periods. One of the plain, sand-tempered sherds has the remains of a red slip which has almost disappeared. It was probably applied after firing. This treatment is found in Florida pottery. The net-impressed sherd is an apparent anomaly in this area.¹

The absence of pottery of the Irene period at this site is noteworthy. The Irene period began during the Lamar Focus period

¹ Holder (1938) reports net-impressed pottery at a mound on the north end of Sea Island.

in central Georgia and continued into the historic period. On the basis of the available ceramic material, we would not expect to find European trade goods at this site.

COMPARATIVE STATEMENT

It is unfortunate that the artifacts obtained by Moore along the South Atlantic coast have not been reexamined by students familiar with the current progress in the Southeast. The brief mention in his reports of sites in the Beaufort area which yielded cord-marked sherds, or those with cord-marked and stamped sherds, are tantalizingly indefinite. The sites which appealed to Moore were usually the large, more complex units of the Irene or Savannah periods with the result that the majority of the pottery he illustrates does not belong to the earlier periods from which the pottery described in this report was obtained.

A report on the archeology of a small area near Charleston, S. C., sheds some light on the northern distribution of some of the pottery types.² The illustrations clearly indicate the presence of Stallings Punctate sherds with individual and linear punctates. There are also sherds related to the Deptford horizon and to Wilmington Heavy Cord Marked. The majority of the sherds, however, belong to the complicated-stamp group and range from the early Brewton Hill type down to the Irene Filfot Stamp type which comes into the historic period. This surmise is borne out by the presence of glass beads and European clay pipes on the site. Thus, if this area was occupied by the Sewees alone at the early historic period and the Sewees were Siouan, we would have still another archeological complex to add to the already remarkably diversified material culture remains of that linguistic stock. If the occupants of the Charleston area who left the Irene Complex were Muskhogean, it would agree linguistically with the closely related sites in the central Georgia area.

It would be advantageous to have the archeological material attributed by Claffin to the later period at Stalling's Island reexamined in the light of recent Southeastern developments. As Claffin (1931) pointed out, certain of the types attributed to the later period are found alone on other sites and the great variety of ceramics discussed by him does not indicate cultural contemporaneity for the assemblage in the Augusta area.

Excavations in the Savannah area, the most recent of which has been by Waring, indicates not only that the fiber-tempered ware is the oldest, but that there is strong indication of stratigraphy

² Gregorie (1925). A representative collection of sherds from this site in the Ceramic Repository certify to the accuracy of the drawings in Dr. Gregorie's report.

within that horizon.³ At the Bilbo site, Waring found no pottery in the lower level of a deep refuse midden. His second zone contained fiber-tempered plain ware while the third zone introduced a strong proportion of decorated fiber-tempered ware. In the top and surface zone Waring found sand-tempered pottery of the Deptford horizon with conical to round bases and some tetrapodal supports. The rest of the cultural items from this site fit in well with the Stalling's Island complex.

The excavations by Preston Holder (1938), on and near Saint Simons Island south of the mouth of the Altamaha River, uncovered considerable evidence of different archeological groups. At the Charlie King site, the fiber-tempered ware was predominant. Also present was a cord-marked type and a checked-stamp type. The mound described by Holder for this site was probably not erected by the makers of the fiber-tempered pottery. The Sea Island site yielded a high percent of net-impressed clay-tempered pottery while other sites showed a high proportion of fine cord-marked pottery and still others a dominance of complicated stamped ware of the Irene period.

In the Macon area, Kelly (1938) has mentioned the presence of a fiber-tempered ware at the Swift Creek, One Mile Track, Shell Rock Cave, Macon Plateau, and the Stubb's Mound and Village Site. He suggests that it belongs in the Early Swift Creek period. Unless the central Georgia area sequence and cultural association differs from that to the east and northwest, such a contemporaneous ceramic grouping would not be expected. However, the complete evidence on the sites from the Macon area has not been presented and until that time further speculation is not warranted. Other units of Kelly's early Swift Creek period such as the Mossy Oak Simple Stamp type, the plain plaited fabric pottery, plain-surface sherds, and early check-stamped types have been segregated in contiguous areas into what are apparently more meaningful cultural divisions. Again, full comparative treatment must await more complete publication.

A small collection of pottery from Wilkes County, Ga., in the Ceramic Repository, indicates the presence of the fiber-tempered ware up the Savannah River Valley northwest of Augusta.

The coastal area of Georgia and South Carolina form a significant unit of the fiber-tempered ceramic ware which is different from the St. Johns development on the one hand and the fiber-tempered ware in northwest Alabama on the other. (Griffin, 1939; Haag, 1939.) In this latter area the ware has a plain surface, is simple stamped,

³ Waring, T., verbal report at the Fifth Southeastern Archaeological Conference, Baton Rouge, La., 1940.

punctated, or dentate stamped. The simple stamping is somewhat more common than in the Stallings Island Focus,⁴ while there is a marked absence of the linear punctate in the Tennessee Valley. The individual punctating is not as varied in type nor as regularly applied as in the Stallings Punctate specimens. The dentate stamp impressions form a distinctive Tennessee Valley style which may be related to one style of Deptford Linear Check Stamp. It is certainly related to the dentate stamp of the early Woodland and Hopewellian pottery in the north.

From the illustrations of Wyman (1868) and Holmes (1894), it is probable that the St. Johns area had significantly different fiber-tempered types, which would certainly suggest a different cultural grouping if not a different time horizon. The strong use of incised decoration including the use of a curvilinear scroll is not compatible with the style of decoration in the Stallings Island Focus or in north-west Alabama. This decorative style is usually found at a much later time period. Unfortunately there are no examples of the fiber-tempered ware from east Florida available for direct comparison.

SUMMARY

The pottery from the Chester Field site identifies it as a component of the same cultural division as the Stallings Island complex. This is the oldest ceramic horizon in the Southeast. The pottery from the Lake Plantation indicates greater cultural diversity and a longer time period of aboriginal occupation. It is related on the one hand to the stamped ware of the Southeast and on the other to the cord-marked pottery which is common throughout the entire area east of the Rocky Mountains.

TABLE 1.—*Fiber-tempered ware from the Chester Field site*

Type	Surface treatment and decoration	Sherds		
		Rim	Body	Total
Stallings plain		8	20	28
Stallings punctate	Linear punctate, various shapes	22	29	51
Stallings punctate	Linear punctate plus finger punctate		2	2
Stallings punctate	Linear punctate plus circular punctate	1	1	2
Stallings punctate	Linear punctate plus incised	1	1	2
Stallings punctate	Individual punctates of various shapes	15	25	40
Stallings punctate	Individual punctates—circular to conical punctate	9	13	22
Stallings punctate	Large U-shape punctate		5	5
Stallings punctate	Finger pinched		1	1
Stallings punctate	Incised	3		3
Stallings punctate	Incised plus punctate		1	1
Stallings punctate	Heavy cord marked		1	1
Total		57	99	158

⁴ This term is used as a convenient one to express the close similarity of a group of coastal sites.

TABLE 2.—*Fiber-tempered ware from the Stallings's Island site, from Ceramic Repository Collection*

Type	Surface treatment and decoration	Sherds		
		Rim	Body	Total
Stallings plain		1	15	16
Stallings punctate	Linear punctate	9	29	38
Stallings punctate	Individual punctate	4	2	6
Stallings punctate	Linear punctate plus individual punctate		1	1
Stallings punctate	Linear punctate plus incised	1		1
Stallings punctate	Simple stamp		1	1
Total		15	48	63

TABLE 3.—*Pottery from the Lake Plantation in the Ceramic Repository Collection*¹

Pottery	Sherds		
	Rim	Body	Total
Stallings plain	1	3	4
Stallings punctate		2	2
Deptford linear stamp		1	1
Deptford Bold Check Stamp		10	10
Sandy tempered check stamp related to Savannah check stamp		16	16
Sandy tempered complicated stamp perhaps related to Savannah Complicated Stamp	3	7	10
Sandy to grit tempered plain surface	5	15	20
Coarse grit tempered with heavy simple stamping		5	5
Sandy tempered cord marked, related to Savannah fine cord marked		30	30
Clay tempered cord marked related to Wilmington Heavy Cord Marked	1	20	21
Clay tempered net impressed		1	1
Total	10	110	120

¹ 31 of the best sherds from this site were loaned to Joseph Caldwell at Savannah, Ga., for comparative purposes in the summer of 1939.

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EXPLANATION OF PLATES

PLATE 10

Figure 1.—Stallings Plain sherds from the Chester Field site.

- a, b*, Bowl rims with well compacted outer surface.
- c*, Bowl rim with the small channels of burned-out fiber clearly visible.
- d, e*, Body sherds with roughened surface or simple stamping.
- f*, Body sherd with well smoothed surface. (U. M. M. A. 4287.)

Figure 2.—Stallings Punctate sherds from the Chester Field site.

- a-c*, Bowl rims with individual punctates.
- d*, Incised.
- e, f, h-j*, Body sherds with single punctates.
- g*, Pinched style of punctate.
- k, l*, Finger nail individual punctate.
- m*, Cord-marked body sherd which may not belong to the Stallings Island Focus. (U. M. M. A. 4288.)

PLATE 11

Figure 1.—Stallings Punctate sherds from the Chester Field site.

- a-g*, Bowl rims with various styles of linear punctates.
- h*, Individual punctates placed unusually low on outer rim.
- i*, Body sherd combination of incised and linear punctate.
- j, k, and m*, Various styles of linear punctate on body sherds.
- l*, Finger punctate and linear punctate on same sherd. (U. M. M. A. 4289.)

Figure 2.—Check stamped and Cord Marked sherds from the Lake Plantation.

- a, b*, Deptford Bold Check Stamp.
- c*, Deptford Linear Check Stamp.
- d-f*, Check Stamp sherds probably of Deptford horizon.
- g-k*, Cord-marked body sherds with sand and grit aplastic.
- l-o*, Clay tempered Wilmington Heavy Cord Marked sherds. (U. M. M. A. 4290.)

PLATE 12

Miscellaneous sherds from Lake Plantation and two Stallings Punctate sherds from Jones Island.

- a, b*, Plain surface sand-tempered rims.
- c*, Net impressed.
- d*, Fugitive red, sand-tempered body sherd.
- e-h*, Sand-and grit tempered sherds with simple stamp impressions.
- i-j*, Indistinct complicated stamp sherds with grit temper.
- k, l*, Stallings Punctate sherds from a site on Jones Island. (U. M. M. A. 4291.)

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Anthropological Papers, No. 23

The Eastern Cherokees

By WILLIAM HARLEN GILBERT, Jr.

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PREFACE

This study is the result of 2 years' research on the Cherokee Indians of North Carolina. Field work with this band was made possible by a grant from the Department of Anthropology of the University of Chicago in 1932 and was carried out in two visits from September to December of that year.

The village of Big Cove was made the type of the whole reservation because it was the most conservative district of the region. The data from Big Cove was later checked by material collected from the other five towns of the Eastern Cherokee Reservation.

The purpose of the field survey was to obtain a fairly complete description of the existing society of the Cherokees. The data collected consisted in the main of descriptions of persons, households, land tenures, genealogies, clan memberships, places of residence, and the terms and behavior included in the kinship system.

The author endeavored to enter into the social life of the people as fully as possible. By virtue of living at the home of the chief informant, who was also the head man of the village, he was able to follow the daily round of activities and participate frequently in the native dances and games. In this way a better understanding of the spirit of Cherokee affairs was obtained than might have been acquired through the method of having the informant come to some strange and unfamiliar surroundings for questioning.

It is a pleasure to acknowledge the assistance of many kind friends. Invaluable aid was rendered in the field by native Cherokees, notably Will West Long, the councilman at Big Cove, and ex-Chief Sampson Owl. Aid was also rendered by local white officials, in particular Miss Louvica Wyman, Superintendent R. L. Spalsbury, Farm Agent A. M. Adams, and Chief Clerk J. L. Walters. Elsewhere, Dr. J. R. Swanton, of the Bureau of American Ethnology, furnished the original stimulus for this study and many subsequently helpful suggestions; Drs. F. Olbrechts, F. Speck, and the late J. N. B. Hewitt, as students of the Iroquoian-Cherokee field, made helpful comments; and, at Chicago, indispensable aid was rendered in the final organization of the materials by Prof. A. R. Radcliffe-Brown and by Drs. Fay-Cooper Cole, Robert Redfield, and Fred. R. Eggan.

THE EASTERN CHEROKEES

By WILLIAM HARLEN GILBERT, JR.

INTRODUCTION

The Cherokees of the Southeastern United States were a tribe of great importance in early colonial times. Much has been recorded concerning their merciless wars with the white settlers, yet they remain today a tribe about which little is definitely known so far as social organization is concerned. The various ethnologic observations on the Creeks, Choctaws, Chickasaws, and other Southeastern tribes have been summarized and systematized by J. R. Swanton (1928), so that we have today a generalized picture of social organization in the Southeast. The Cherokees have remained outside of this picture.

The present study is concerned with two very definite problems:

1. The outlining of the present social organization of the Cherokee in its formal and integrative aspects.

2. The portrayal of the historical changes in this social organization so far as they can be gleaned from past records of Cherokee culture.

A third possible problem arises in connection with the classifying of social structures in the Southeast and the relating of Cherokee social organization to these. Consideration of this problem will be deferred, for reason of its magnitude, to a later time.

DESCRIPTION OF THE PRESENT SOCIETY

THE ENVIRONMENTAL FRAME

GENERAL FACTORS

The natural environment of a people is divisible into several sets of influences, depending on the type of material concerned. The terrain, climate, minerals, plants, and animals are all conceivable as types of unified influences helping to give order to a people's culture. The factors arising from the terrain comprise such characteristics as the surface configuration of the land, the distribution of surface water in rivers, lakes, or ponds, the sites of settlements, trails, and the human orbit of activities.

LOCATION

The general locus of the Cherokee tribe was by States—western North Carolina, South Carolina, Virginia, and West Virginia; the north of Georgia and Alabama; all but the western parts of Tennessee; and parts of Kentucky adjoining Tennessee.¹ The eastern part of the Cherokee domain was part of the Southern Piedmont Province, a gently rolling plateau dissected by rejuvenated streams with valleys from 50 to 150 feet deep. Numerous monadnocks and isolated peaks rear their heads over the surrounding areas. This was the territory comprised in the Lower Settlements. The central area of the Cherokees, comprising the Kituhwa (Middle) and the Valley Settlements, was the heart of the tribe. This area lay within the Blue Ridge Province and comprised the slopes of the Unakas or Great Smokies (with spurs such as the Snowbird and Balsam ranges) and the numerous coves and flat-bottomed valleys nestling to the south of the main range. Finally, on the north and west lay the Overhill, or Tennessee Settlements, in the Appalachian Great Valley Province with river valleys from 50 to 500 feet deep, in a region predominantly of a gently rolling character.

The chief rivers of the Cherokee area flowed out from the great central watershed in three directions, viz, southeast to the Atlantic Ocean directly (Chatooga-Tugaloo and Keowee affluents of the Savannah); south and southwest to the Gulf of Mexico direct (Coosa and its affluents, the Oostanaula and Etowah; Chatahoochee and its affluents); west by north to the Ohio River drainage (Little Tennessee and its affluents, the Tuckasegee and Nantahala, the Hiwasee and its affluent, the Valley River).

At the time of the earlier contacts with the whites, the Cherokee town sites were grouped in four main divisions, namely: (1) Lower Settlements on the upper tributaries of the Savannah River in what is now South Carolina; (2) Middle Settlements or Kituhwa lying to the north of the Lower Settlements on the easternmost reaches of the Little Tennessee and Tuckasegee Rivers in North Carolina between the Cowee Mountains and the Balsam Mountains; (3) Valley Settlements in extreme western North Carolina along the Nantahala, the Valley River, and the Hiwasee; (4) Overhill Settlements north of the Unakas and south of the Cumberland Chain along the upper Tennessee and Lower Little Tennessee Rivers.

Later, in Revolutionary times, the whole Cherokee nation was pushed bodily southward into northern Georgia where a thriving group of settlements sprang up on the banks of the upper Coosa tributaries such as the Oostanaula, Coosawattee, Etowah, Chatooga, and the Little River.

¹ During the nineteenth century Cherokee Indians settled at various times in Ohio, Virginia, Missouri, Arkansas, Oklahoma, Texas, and even in Mexico in Jalisco near Lake Chapala.

After the removal of 1838 only fragmentary remnants of the Valley and Middle Settlements were left. The numerous branch creeks along the Valley River sheltered small groups until quite recent times. The upper reaches of the Cheowa River and its branches—Buffalo Creek, Santeetlah Creek, the Snowbird River, Little Snowbird Creek, and others—were the sites of a cluster of settlements up until quite recently. This was called the Graham County group. The damming of the Cheowa River and the formation of Lake Santeetlah has in

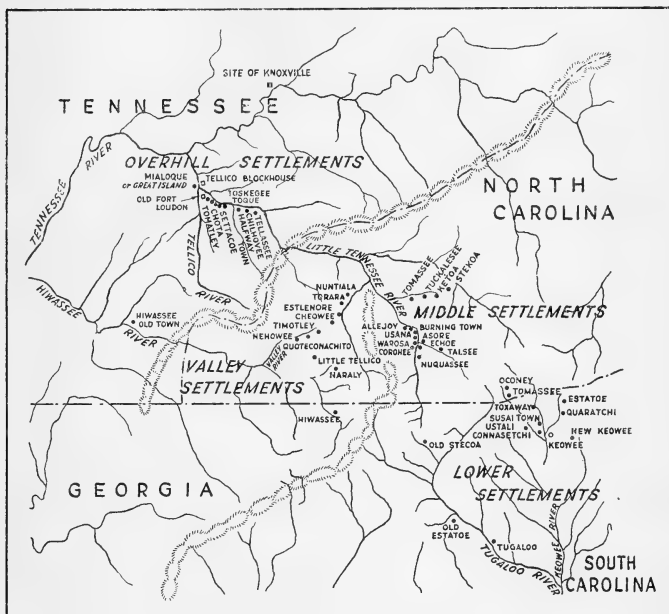


FIGURE 36.—The Cherokee settlements, 1762-1776.

recent times done away with habitation sites for all of the groups in this region save those on Buffalo Creek West and Little Snowbird Creek.

By far the largest and most important of the remnantal Cherokee groups after the removal were those clustering around the juncture of the Ocona and Tuckaseege Rivers near the old settlement of Kituhwa in the heart of the old Middle Settlements. With the exception of the "Thomas 3,200 acre tract" along the east and west slopes of a ridge south of the Tuckaseege, all of this group is settled along the axis of the Ocona River and its tributaries in what was

early known as "The Qualla Boundary," but which is now called simply "The Eastern Cherokee Reservation." This area consists of five towns, at the present time known as Birdtown, Yellow Hill, Big Cove, Painttown, and Wolftown. This pitiful remnant contrasts with the

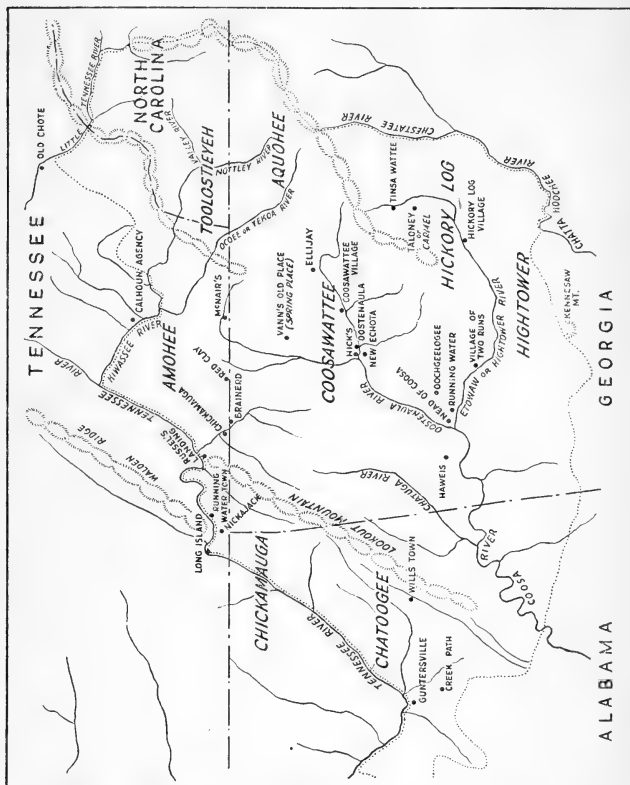


FIGURE 37.—The Cherokee settlements, 1825-30.

64 villages mentioned by Adair in 1775 and the 43 mentioned by Bartram in 1790.

At the time of the earlier white contacts with the Cherokees there were some seven main groups of trails or means of access to this area. These were as follows:

1. A group of trails running north to the Kanawha and Big Sandy Rivers.
2. A group of trails running north through the great valley to Pennsylvania.
3. Trails running northeast and east to the tidewater in Virginia and North Carolina.

4. Trails running down the Savannah to tidewater in South Carolina.
5. Trails leading south and east to the Chattahoochee and Coosa valleys of Georgia.
6. Trails westward along the Tennessee River and others through Tennessee.
7. Trails running northward through Kentucky to the Ohio.

Through trail group 1 the Cherokees had contact with the Mingoes, Iroquois, and Shawnees; through group 2 they contacted with Senecas, Mohawks, and Delawares; group 3 connected them with the nearly related Tuscaroras, the Catawbias, and the Eastern Siouans; group 4 with the Uchees, Cheraws, and others; group 5 with the Creeks; group 6 with the Chickasaws, Shawnee, Choctaws, and Natchez; and group 7 with the Shawnees. It was through trail groups 2, 3, and 4 that the westward rolling stream of white population first connected up with the Cherokees, but it was not until the whites had crossed the mountains and attacked the Cherokees in the rear through trail groups 6 and 7 that the latter were finally subdued.

Although parts of the Tennessee Valley are scarcely over 600 feet above sea level, the major part of the ancient Cherokee domain is above 1,200 feet in altitude and considerable areas over 3,000 feet, especially in the present-day settlements along the steep sides of the Oconaluftee River Valley. The Cherokee were predominantly mountaineer tribesmen, an aggregation of marauding, predatory warriors who swooped down on the more peaceful lowlanders of the east continuously when mountain conditions became too crowded or meager for sustenance. The cutting up by the mountains of the Cherokee area into so many small self-sustaining communities may account for their lack of political cohesiveness. In this they stand out in contrast with their kinsmen, the Iroquois, who lived in a less rugged topography. What cultural cohesion there was to the Cherokees appertained rather to historical tradition and common heritage. Such political cohesion as existed was fragile and broke at the slightest shock from without. The Cherokees of the past, and those of today, owned and still possess a certain individualism and independence of thought tinged with a type of conservatism peculiar to mountain peoples.

The Cherokees had a vigorous reaction on the terrain in which they found themselves. Materially this took the form of (1) numerous footpaths and trails leading over mountain gaps and through stream valleys, (2) villages—consisting of aggregations of square boxlike houses of poles clustered around large heptagonal town houses set on mounds or clearings with maize-bean crops growing on them, (3) chunky yards and ball grounds—large flat areas cleared for the games, (4) stream weirs and dams impounding the swift mountain torrents into quiet ponds for fishing, (5) stone cairns, (6) mounds for burials, (7) stockades, and (8) canoes and dugouts on the larger streams and other constructions. Less obviously visible, this reaction on the ter-

rain took the form of an elaborate toponymic system connecting with plants, animals, and the general mythology of the tribe. Origin myths for many place names are to be found in Mooney. Probably every mountain, open level area, cave, stream, and such had a name, and this terminology, if completely recovered, would comprehend fairly well the totality of factors arising from the terrain involved in Cherokee culture.

The terrain, then, furnished the orbits for the revolution of the cultural elements of Cherokee life about their central factor, the individual. It furnished the routes for diffusion of cultural elements and for contacts. It furnished the protecting walls which enabled elements of Cherokee culture to survive to this day. It afforded the necessary basis for the growth of the various factors of reaction on environment mentioned in the above paragraph. Finally, the terrain formed the foundation on which could grow the other factors of plant, animal, and climatic influences.

CLIMATIC FACTORS

The climate of the Cherokee Country furnishes functional influences allied with the topography and the latitude. The area has essentially a mild, temperate climate. In the winter the sun is capable of heating the surface of the mountain slopes to around 50° or 60° Fahrenheit at midday even though a temperature of 15° to 20° above may be recorded during the night. In the summer a midday temperature of around a hundred will be succeeded by a night temperature of 35° or 40° Fahrenheit. Some 9 hours of daylight in the winter are succeeded by about 13 hours in the summer. Seasonal variation in temperatures in the mountains is not as great as the diurnal variation since the average Fahrenheit temperature of July is 80° and that of January is 40°. On the high mountains the moon and stars shine brilliantly at night and the burning sun beats down mercilessly by day. The average barometric pressure is slightly higher in winter (30.15 cm.) than in summer (30 cm.). The winds in winter are prevailingly north to south and southwest to northeast in summer. On the high mountain slopes there are few winds save during storms. A high wind can appear and disappear in a remarkably short time.

Air humidity varies with the altitude. In winter the precipitation is 40 inches or more in the high mountains, 30 to 40 inches in the semi-high areas, and 20 to 30 inches in the remainder. In winter, especially, the wispy cottonlike masses of clouds billowing against heavily wooded mountain slopes appears weird even to the chance outside observer. Ziegler and Grosscup mention the uncanny foreboding which afflicts the traveler in the high mountain country when he sees the dark glens and steep uncouth declivities of the higher ranges. What must

have been the effect, then, on the superstitious mind of the native-born Cherokee in earlier times?

In summer this region wears on the whole a more genial aspect. In the high mountains the rainfall is 30 to 40 inches and about 20 to 30 inches in the remainder. Storms are fewer and of shorter duration in the summer. The lightning is an object of great attention on the part of the Cherokee mythology and is connected with the daylight. Such local phenomena as landslides, earthquakes, and floods do not appear in the mythology as of much importance. It would be instructive, if some way of measuring the process could be devised, to ascertain the effects of change of locale of residence from higher to lower altitudes on the ideas and culture of the more recent western Cherokees.

The climatic factor consists primarily of a rhythmic or cyclic set of influences operating to produce a seasonal effect on the culture. The regular repetition of these influences constituted a unifying factor of tremendous importance in the tribal life. The alternation of moon and no moon (occasions for special monthly rites), of winter and summer (ceremonial and nonceremonial seasons), plant sprouting and ripening (rites and dances at planting and harvest), and other events serve as examples. The menstruation process was accompanied by severe taboos and was related in the minds of the Cherokees to the phases of the moon.

The reaction of the Cherokees on the natural forces of the climate are to be found in their uses of fire, smoke signalling, divination by sunlight through crystals, gazing at the sun as a shaman training ordeal, imitation of the noises of nature in the hunting of animals, rites to control the weather, cosmogonic wondertales, and in the intimate linkage which they made between the celestial phenomena and health or disease. Curious linkages also occur of waterfalls with thunder and of snakes with lightning.

INORGANIC ELEMENTS

The chemical constituents of the earth's crust entered into the Cherokee culture in various ways. Quartz crystals were used in divining the future, flint and chert were used in the manufacture of cutting tools and weapons, various river clays were used in pottery manufacture, red hematite powder from certain hillsides was made into pigment for face paint (connected here with one of the clans), white clays were also made and used for pigments, steatite was used for pipe carving and the heavier ferromagnesian minerals were chipped and ground into axes, celts, and hammers, slates into ceremonial pendants and gorgets, and so on for many others of the natural minerals of the hill country.

Water had a tremendously important role in Cherokee culture. Aside from its practical value for drinking and fishing, as a place to stalk game, and a means of travel by canoes, it played an indispensable part in ritualistic bathing, in divination, and as a base for decoctions of medicinal plants. The present Cherokees claim that in the autumn when all of the trees seem to be dropping their leaves and many of these find their way into the streams, the latter have an especial curative value. This is owing to the mingling of all the curative properties of different plants in one big decoction for the season of the medicine dance.

FLORA AND FAUNA

The flora of the southern Appalachians belongs phytogeographically to three plant worlds. These are (1) the Appalachian Mountain district of deciduous forests, (2) the Piedmont vegetation, and (3) the Alleghanian-Ozark district. The general characteristics of the first area are: A predominance of hardwoods such as poplar, pine, spruce, balsam or fir, hemlock, buckeye, tulip-tree, chestnut, and birdseye maple along with many species of herbaceous plants and cryptogams. The second area is one largely of undergrowth and herbaceous species. The third area is marked by a great variety of broadleaved trees of some 700 species and a scarcity of evergreens.

Plants appear in the Cherokee culture in connection with food, shelter, clothing, and medicine. Compared with the animals in general, plants are friendly agents to man and fight in this way against their enemies, the animal world. They especially help man through their curative properties for the human diseases believed to result from the machinations of animals. According to Mooney some 800 species of plants were known and used by the Cherokees.

Most important of the cultivated food plants were maize and beans, to which were added at a later date potatoes, pumpkins, peas, squash, strawberries, tobacco, and gourds. Weeds from streams were burnt for lye, which was then used as a salt substitute and for soap making. Wood served a wide variety of uses. Houses of poles were the earliest type known and these were later supplanted by the log cabin of the pioneer white settlers. The log cabin had become the common type of dwelling among the Cherokees by the period of the American Revolution. In the nineteenth century plank or frame houses gradually supplanted the log cabin, which is now very rare. Wooden artifacts are numerous and woodworking is highly regarded. Various bark and herb fibers were used as twine and for weaving a certain type of garment. The typical medicinal plants are sassafras, cinnamon, wild horehound, seneca, snakeroot, St. Andrew's Cross, and wild plantain.

Zoogeographically, the Cherokee area belongs in the Alleghany subregion of the North American, or Nearctic Region. The characteristic native mammals of the area are bats, moles, shrews, raccoons, skunks, weasels, otters, bears, wolves, foxes, wildcats, panthers, hares, porcupines, groundhogs, beavers, rats and mice, squirrels, bison, deer, opossum, and a native dog. The descriptions of these species and the explanation of techniques for dealing with them forms a substantial section of Cherokee myth and folklore.

The bird species of the area are especially diversified and numerous. Among the more important can be mentioned tanagers, larks, finches, buntings, creepers, woodwarblers, pipits, nuthatches, kinglets and goldcrests, titmice, shrikes, vireos, thrushes, wrens, gnatcatchers, swallows, hummingbirds, owls, buzzards, hawks, woodpeckers, cuckoos, kingfishers, eagles, ospreys, vultures, cormorants, pelicans, geese, ibises, storks, herons, cranes, plovers, quail, woodcocks, snipes, sandpipers, grebes, doves, rails, coots, and pigeons. It was taboo to kill some species of birds but many types were snared by various means or shot with blow gun or arrow. Along with quadrupeds, birds were closely connected with clan names.

Especially important in the medicinal mythology of the Cherokee were the reptiles and amphibians. In this group were the rattlesnakes, copperheads, and other snake species, the lizards, skinks, glass snakes, iguanas, turtles, frogs, toads, and salamanders.

The rivers and streams of the early days, before the chemical plants of the white man began using them for waste-product dumping places, abounded in fish such as perch, croakers, bass, pike, catfish, garfish, salmon, trout, and sturgeon. Many species of shellfish were also to be found. In Cherokee mythology fish, as well as quadrupeds and birds, cause diseases in man.

The insect world was not neglected in the Cherokee mythology. The warlike proclivities of the ants interested them greatly as did also the ways of the butterflies, beetles, crickets, flies, bugs, dragonflies, bees, and wasps. Among the lower animals worms were considered an important source of disease in man.

In summarizing the utilitarian effects of animals in Cherokee Culture it is worthy of note that scarcely any animal was domesticated in the older days. The dog appears to have been tamed and possibly also the bee, and turkeys were kept in captivity when young. The chief pursuit of the Cherokee men in the older period was the hunt. The principal objects of the hunt were bears, deer, bison, eagles, elk, beaver, turkeys, wild duck, and geese. These animals were hunted for food and for their hides, teeth, and bones. Anciently, also mollusks were gathered for food and for shell working and decoration. Fishing was seasonally very important in the Cherokee economy.

Among the ceremonial and nonutilitarian aspects of animals we note the important part played in mythology and lore. Intimately connected with the causation and cure of disease they were also linked with clan names, with mimetic dances, and education. The mimetic dances seem to have been connected with success in the hunt. Animals were conceived of as being organized like the Cherokees into clans and tribes with council houses and village settlements. The relationship between the Cherokee and animal species took on the character of international relations in which wars were waged, blood revenge was demanded and secured, alliances were contracted and dissolved, and peace declared. The prime objects of Cherokee raids on the animal world took on the same character as their plundering raids on other tribes of Indians, the only difference being that, in relation to the animals, the plunder was the body of the animal itself and that magic played a major part in the warding off of blood revenge and successful capture in the latter case.

ECOLOGY OF THE CHEROKEES

This tribe had a special adaptation to the Blue Ridge Physiographic Area. Settlements were elongated and strung out on river banks for considerable distances with little more than a few acres of level land in river bottoms. As in every case of tribal reaction to environment, there were two aspects visible in the ecology, namely: (1) An *autecological* aspect, or the means adopted by the tribe to adjust itself to immediate natural environment, and (2) the *synecological* aspect, or the means adopted whereby the tribe might adjust itself to other tribes, i. e., trade, theft, war, and predatoriness. Within the tribe each community or settlement had a corresponding autecology and synecology although the two tended to coincide in view of the relative homogeneity of the environment. It is through the tribal synecology that we find the existence of so-called "trade artifacts," or objects used by a specific tribe which could not possibly have been made by this group (or the material of which could not have come from the territories of this particular tribe). Thus, in one instance only the material may be foreign, in another both technique and material are foreign. In our catalog of material artifacts at least four categories can be distinguished: (1) Native articles made by native techniques of native materials, (2) native articles made by native techniques of foreign materials, (3) foreign articles made by foreign techniques of foreign materials, and (4) foreign articles made by foreign techniques of native materials. This came into great importance, especially in the distinction of marine from fresh-water shells, and their working.

The spheres of activities of the tribal members in relation to environment ought to be noted as follows: (1) The widest activity was war, which took the males far afield out of the normal habitat; in the case of the Cherokees as far north as the Ohio, as far west as the lower Tennessee, or even Mississippi River, and as far east as the Atlantic coast. The exaggerated land claims of the Cherokees, Chickasaws, and other tribes were undoubtedly based solely on the exploits of war parties in traveling immense distances, and resemble the claims of present day nations to uninhabited tropical jungles, or barren polar ice fields. (2) The next widest activity was hunting, which seemed hardly to have acquired the constancy of location characteristic of the northern Algonkians and often took members of the tribe great distances along rivers or valleys or mountain ridges in search of game. (3) The next activity, that of land cultivation and utilization, was not nearly as extensive as the first two

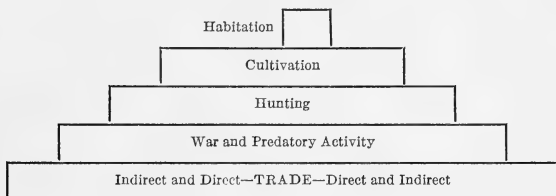


FIGURE 39.—Diagram of the spheres of tribal activity.

activities mentioned. It corresponds roughly with what we understand as the true habitat of the tribe and consisted invariably of river bottoms or nearby slopes. There was generally here, as well as in the next category of activities, a primary and a secondary type habitat. Examples of this form of Cherokee habitat are (a) Blue Ridge primary habitat, (b) Piedmont or Valley Provinces as secondary habitat. (4) The last of the spheres was the actual habitation area or sites of settlement. These latter are, of course, our primary concern as the nuclei of tribal life, which can still be discovered and described by archeological techniques. The trade relations of a tribe are difficult to fit into any of the foregoing categories. They might be said to constitute an elemental form wider than any other of the foregoing spheres. Trade relations are, however, of different sorts, direct trade or indirect trade (trade through intermediaries). The indirect trade extends spheres of trade interaction to virtually continental dimensions.

In the Southeast considerable attention has been directed to the Eastern Siouans, Choctaw, and Chitimacha as primarily trading groups who acted as intermediaries between tribes living in quite

different environments in the exchange of products. Undoubtedly the development of peaceful trade largely accounts for the building up of the entire material culture of the Southeast. Elements became known first through intermediaries, then directly, and finally are produced by the tribe itself. Thus a regular series of stages in growth is observed. Trade is probable whenever there are possibilities of contact with foreign groups. War enters in as a factor to counteract trade activities and to differentiate major social groups. The line of warlike relationships is generally the dividing line between major political groups, or confederacies. Thus we find Cherokee vs. Chickasaw, Cherokee vs. Creek, Chickasaw vs. Creek, etc. In some instances "civil" wars occurred within poorly organized areas as in the Timucuan region, the Eastern Siouan area, etc. This latter occurrence was rather unusual and clan blood revenge took care of most troubles within these social bodies. Thus we have the antithetical intertribal relations of trade and war.

These constitute the synecology of a tribe. Within the tribes hunting, soil cultivation, and habitation activities might be said to constitute the autecology. Hunting among the Cherokees was the practice of specialists and we know very little about it. The habits of animals were carefully observed, compounded with magical practices derived from the myths, and so "formulas" were developed and monopolized by the specialists. This lore has, unfortunately, been lost to a large extent. We know much more about soil cultivations, and the divisions of labor involved therein between the sexes. In common with most of the Southeastern tribes, the Cherokees were primarily sedentary agriculturalists, not migrants, and hence we can pin them down to definite areas. We know the plants cultivated, the supplementary wild plants used in times of scarcity, and much of the mythology and magic connected therewith. The final group of activities connected with habitations, eating, sleeping, physiological events, and the accompanying ritual are fairly well recorded in the literature.

At this point a word must be said about culture change and environment. None of the activities heretofore mentioned make for a static cultural situation. As a result we have to catch our culture traits on the run, so to speak, and hope that observers of some contemporaneousness will record a definite picture. Cherokee material culture was a very evanescent thing. New techniques were constantly in process of adoption and old ones of being discarded. The result is evident in such things as pottery. No one can definitely say what Cherokee pottery was at the time when the mounds were built in these areas although we might eventually find some strong indications by digging in historically recorded sites. The present-day techniques

are presumed to be of Catawba origin, although the clay is, of course, from the Cherokee area. The early observers, moreover, omitted the description of such fine points as basketry techniques or weaving of clothing. Hence, present-day Cherokee basketry is a mystery. Likewise the stone tools, both chipped and polished, were given absolutely no attention by ethnological writers. In hardly any sphere of material culture and especially in food preparation, clothing, manufacture and use, and house construction is it possible to derive a great deal of suggestion or helpful data from ethnological writers on the Cherokees for interpretation of present-day archeologic finds. This appears so potently before the mind of the present writer that he is forced to suggest that site analysis of known historic Cherokee settlements is the only practicable method of linking up any of the present-day archeologic finds with this specific tribe. A list of historic culture traits of the Cherokee may be suggestive in attempting to interpret archeologic finds, but that is probably the extent of its value. The Cherokees were possessed, let it be emphasized once more, of an especially dynamic culture whose composition was the result of diverse contacts and frequent changes of old lamps for new.

Among the items connected with environmental adaptation we ought to notice the extensive use of plants for medicines. Undoubtedly the Great Smokies is one of the richest areas in North America in varieties of plants from which the Indian could make his beloved decoctions for specific ills. Perhaps it was the attraction of this type which originally induced the Cherokees to settle in their rather inhospitable and inaccessible mountain homes.

The Cherokee area of eastern Tennessee, in common with the other surrounding regions, was one furnishing a fundamentally nonvegetable diet of deer, turkey, bear, and fish. The deer is an animal preferring open glades in mixed forest-grassland areas and eats grasses, shrub leaves, tree leaves, aquatic plants, and acorns. Besides being eaten by man, it is eaten by cougar, wolf, and wildcat. The bear is an omnivorous eater of grasses, fruits, berries, roots, ants, honey, small mammals and birds, fish, frogs, and carrion. It prefers thickets more than the deer.

It must be emphasized that food-chain relationships between animals and man are established habits and are fairly consistent over long periods of time. The dietary habit of the Cherokee tribes of this area, then, conjoined with known ecological areas, is a fundamental key to the early distribution of the Cherokee aborigines.

A great majority of the existing archeological sites of the Cherokee area occur on rivers. This is especially the case in eastern Tennessee. Here the best places for cultivation were canebreak areas because the cane stalks could be easily pulled out by their roots from the ground

and the latter thus cleared for crops. Maize, being likewise a grass plant, probably flourished in this environment. There are no native grass lands in eastern Tennessee excepting for the high mountain balds. On the whole, the forest areas were not suitable for cultivation since the trees obscured the sunlight necessary for crop growth and took up the better part of the space available. The clearing of such land was a task of considerable magnitude with stone implements.

The location of settlements in the lower valleys made them susceptible to flooding by the rivers and this insecurity frequently led to hasty vacating of the town. In one site in Hamilton County, Tenn., T. M. N. Lewis found a layer of river silt between two distinct strata of cultural remains. Characteristic also of the low-lying areas was the hunting of small animals whereas the larger game animals were hunted in the mountain areas back from the river generally. This came to be especially true at a later date when game was becoming scarcer through the use of guns and white man's techniques. The modes of stalking and hunting game have not been reported in much detail for the Cherokee area. Animals may have been secured when they repaired to springs or other such drinking places and at salt licks.

The types of available materials and their uses reflect physiographic environments. The river bank emphasis is shown, for example, in the many uses of shells for decoration and utensils, the extensive use of cane for basketry and for blowguns, the use of cane for thatching dwellings or even for walls, the use of cane in fire making, the ritualistic importance of the river, the great emphasis on fish food, and, finally, the divisions of groups of settlements into localities by particular river habitats. On the other hand the occasional use of small trees for houses, especially large ceremonial structures, the dugout canoes, and the extensive use of bark fiber for clothing and basketry point to the supplementary use of the forested areas of the high slopes back from the rivers. Chipped and polished stone tools are also secured in quarries which are generally at a distance from the streams. Again, as has already been indicated, the character of the animals used reflects physiographic areas insofar as these animals have known habitat preferences.

It has been noted that major tribal groups are frequently located on small affluents of larger streams rather than on the major river courses. Thus, the early Choctaw sites were mainly on small affluents of the Tombigbee River, the early Chickasaw on small branches of the Tombigbee, Big Black, and Yazoo Rivers; in the case of the Cherokee, on the smaller branches of the Tennessee River and the Savannah River. In this connection, of course, it is very likely that the military value of back positions away from main traveled routes was of protective significance.

Locations again frequently occur at transition points between two distinct types of physiographic developments. For example, the Creeks were located on the fall line between the Coastal Plain and the Piedmont, as were also the Eastern Siouans. The Cherokees appear to have located on the border lines of the Piedmont and the Blue Ridge Provinces in part and on the border between the Appalachian Great Valley and the Blue Ridge for the remainder. An even more obvious case is furnished by the tribes on the coast proper, such as the Chitimacha of Louisiana, who traded on the advantage of having both land and sea products to use. In a sense the Cherokees were a peripheral group insofar as they were in the Blue Ridge Province the sole inhabitants apparently, whereas in the Piedmont and Great Valley Provinces they were in competition with other tribal groups. The more favored areas from the cultural standpoint in early days were the regions such as the Piedmont-Coastal Plain transition wherein trading peoples developed.

A few words should be said regarding the mountain balds. These clear grassy spaces on the ridges of high mountains were not used by the Cherokees, but were superstitiously avoided. As before mentioned, ritualistic use of rivers prevented settlement very far away from the valleys even though the balds did furnish springs. The openness of the balds together with the presence of springs seem to have attracted a considerable number of game animals, especially deer. Apparently at some early date the balds were resorted to by Indian groups since projectile points have been found in them. It is possible that the balds may have been used to drive game into the open yet it seems unlikely that they were created by the burning off of original forested areas for this purpose. Nor were they likely to have been burnt off by early man for settlement purposes. Their inaccessibility and exposed location are disadvantages for any type of permanent settlement. Most likely the mode of their creation was by natural soil factors.

Several lines of evidence go to prove that, in the main, the primary adaptation of the Cherokee was to a fairly high altitude. There is, first, the evidence furnished by the Cherokees themselves and, second, the evidence furnished by their cultural and linguistic relatives, the Iroquois and Caddo.

In the first place, there is the fact of the existing location of the Cherokees of the east in the high mountain areas of the Blue Ridge Province. Their expressed preference for this habitat is quite marked even at the present time. The mere threat that the United States was planning to remove the final remnant from their beloved mountain homes several times in the nineteenth century almost created a panic. Divinations, magical prayers, and other devices were resorted

to by the conjurers to prevent this anticipated calamity. Various ideas still circulate that the lowlands of Oklahoma are unhealthy and cause Cherokees to sicken and decay.

When the first of the emigrant Cherokees removed from their original Appalachian home in the late eighteenth century to the westward, their first sites of settlement were in the Ozarks, on the slopes of the Boston and Ouachita Mountain ridges of Arkansas. These areas furnished an environment most like the original habitat in the east. Later the Cherokees were forced by pressure from the whites into the northeastern hilly sections of Oklahoma. Those Cherokees who went to Mexico found, after a temporary sojourn in the Rio Grande Valley, a permanent home in the highlands of Jalisco near Guadalajara and Lake Chapala.

The original four groups of settlements of the Cherokees were all, except one group, in the highland area of the Appalachians. The single exception consisted of the Lower Settlement group of South Carolina, which seems to have been located exclusively in the Piedmont. This group of settlements disappeared so early before the advancing tide of European settlers that we have scant knowledge as to its character. There is some evidence that this region was inhabited by Siouans or Yuchi at the time of the earliest explorers and was later conquered by Cherokees from the north.

Finally, there is the evidence furnished by kindred cultural groups. The original sites of Iroquois settlements appear to have been exclusively confined to the high plateau areas of southern New York and northern Pennsylvania and it is only within the historic period itself that we find them settling in the lake valleys with which the tribal names have come to be indelibly associated. The stockading of bluff sites continues in the new habitat of the lowland areas, beside the lakes and rivers of central New York. Apparently both the Iroquois and the Cherokee are found sharing a preference for highland life when we first glimpse them. The Caddoan Tribes, likewise, although more plainslike than forestlike, in many respects show an original preference for the highlands of the Ozarks when we first hear of them. Later they find secondary adaptation, like the Iroquois, to lowland areas.

The Cherokee environment was a highly variegated one owing to the close juxtaposition on steep mountain slopes of diverse altitudinal assemblages of plants and animals. This variegation was probably a stimulant to local trade and cultural interrelations. Although communication in this rough topography was difficult, nevertheless we find a vigorous and a dominant people whose influence on the whole of the Southeastern Woodlands area was quite marked.

THE SOMATIC BASIS

HISTORY OF OUR KNOWLEDGE OF CHEROKEE SOMATOLOGY

Scattering observations on the physical type of the Cherokees occur in a number of authors of the last two centuries. The first attempt at an accurate study was that of Frederick Starr in 1892 for the Chicago World's Fair of that year. Evidently no use was ever made of this study or the results ever published. In 1928 A. R. Kelly, of the University of Illinois, made a prolonged survey of physical traits, both descriptive and metric, among the Eastern Cherokees.

The Cherokees early showed a great susceptibility to smallpox and treated it so inexpertly that the tribe was at one time reduced by 50 percent through that disease.

The cephalic index in the southeastern area of aboriginal American Indian populations ranges from 75 to 84 and skulls average from 170 to 175 cm. in height. According to Brinton, Cherokee skulls are dolichocephalic. According to Hrdlička, Cherokee skulls are brachycephalic. Whether there was ever any artificial cranial deformation of the skull among the Cherokees is not definitely settled. The Western Cherokees were once called "flatheads." The custom could have been sporadic among the Cherokees in the earlier times from contacts with the Eastern Siouans.

The stature of both males and females was always recorded as from middle to tall. The body build is universally described as thin, delicate, and slender in both men and women. The extremities are rather small.

The complexion is described as rather light for Indians of the South by most observers. Starr describes two types—one with a light yellow-brown complexion and the other dark as burnt coffee, possessing a fat round little nose and hairy forehead. The forehead of these persons is narrow, low, and covered with fine, soft, short black hair, this characteristic disappearing after the age of 20. Other observers describe the skin as copper colored, or deep chestnut colored and obscured by red paint or other colored pigments.

The long black coarse hair sometimes appears brownish red and is almost soft in children. The hair has been variously treated in the course of the centuries. In the earlier times it was shaved save for a patch on the back of the head in the young and plucked out by the roots in the old. The long scalplock alone remained hanging from the apex of the head. Later the hair was allowed to grow and be confined by a fillet or a turban. Feathers were always favorite decorations for the hair. Women wore the hair of the head long but plucked it elsewhere.

According to Butrick, the ancient Cherokees wore beards but these were discarded with the coming of the white man in order to distin-

guish themselves from him. Other authorities concur in the statement that facial hair on the Cherokee visage was always scant and generally plucked.

Ears were slit and stretched to an enormous size in the old days. Silver pendants and rings hung from these ear slits.

Most authorities concur in the opinion that both physically and temperamentally the older Cherokees made a most favorable impression. They delighted in athletics and excelled in endurance of intense cold. Well featured and of erect carriage, of moderately robust build, they were possessed of a superior and independent bearing. Although grave and steady in manner and disposition to the point of melancholy and slow and reserved in speech they were withal frank, cheerful, and humane, as well as honest and liberal.

BLOOD ADMIXTURE

Mixing of blood between Cherokees and whites has been prolonged and extensive. Among the earlier blood infusions were those from Scotch traders, Scotch-Irish soldiers, and English or German farmers of the poor white class who came in land-hungry hordes. The Scotch contribution was notable and from it developed several important leaders. Negro admixture was negligible in the early days. Leaving out of this consideration the Western Cherokees, who are much more thoroughly mixed in blood than those in the east, we find several additions to the mixture already mentioned.

First, the Catawbias who were always close neighbors and who for a time in the nineteenth century dwelt with the Cherokee, introduced considerable blood of a highly mixed character, Indian-Negro-White. Land-hungry whites from all of the surrounding area are ever increasing intruders into Eastern Cherokee families and have given rise to a large class of "White Indians" (possessing a sixteenth or more blood of Cherokee origin). Again, some of the Cherokee students away at Indian Government Schools in Pennsylvania, Kansas, Virginia, and Oklahoma have brought back wives of other tribes (Seneca, Pueblo, Chippewa, etc.). Even Creek and Shawnee blood is still traceable in some families of the Eastern Cherokee.

A new method of possibly determining extent of admixture of bloods was tried about 1926 in the case of a sample of 250 Cherokees of North Carolina and reported on by L. H. Snyder. The percentages of the four recognized blood types were (in the Cherokees):

1	2	3	4
74.4 percent	16.0 percent	7.2 percent	2.4 percent

The relative percentages of the four recognized blood types in the average white American is—

1	2	3	4
45.00 percent	42.00 percent	10.00 percent	3.00 percent

Of the sampling of 250 Cherokees, 110 were pure-blooded (by testimony) and 140 were definitely known to be mixed. In the pure-blooded group the percentage of group 1 was 93.6 while the mixed group percentage of group 1 was 59.3 or much nearer the white ratio. This appears to substantiate a claim already made that the American Indian is predominantly of group 1 (Pacific-American) blood type and that the occurrence of other types is due to mixture of bloods.

The influence of personal differences in Cherokee culture seems to have been extensive, and the amount of individual freedom allowed among the Cherokees accounts not only for their singular lack of strong internal cohesion but also for the strong influence wielded by single leaders such as John Ross and others. The individual was in some lights more important than the group.

Population movements of various types have been noticed. Passing over the alleged early movement from the headwaters of the Ohio to their present homes, we perceive first the increasing southwesterly movement under pressure of the Anglo-Americans at the time of the Revolution. At the time of the Removal in 1830, Cherokee population centered in northern Georgia. The grand exodus of 1838 through Tennessee, Kentucky, Illinois, and Missouri to Oklahoma removed all except a scant hundred individuals who hid in the mountains. From these Indians who remained have sprung the present-day Eastern Cherokee.

The Cherokee physical type was variously modified through a reaction expressed in a number of ways, the chief being through labrets, earrings, scratching (scarification), bleeding of veins, coiffure arrangements, various body paintings, ornaments, and the like.

PRESENT-DAY PHYSICAL TYPE

Passing to the subject of general present-day somatology, we find that one of the best places to observe the general Cherokee type is at the dance. The average height is rather under that of the white man in the neighborhood, appearing to be about 5 feet 4 inches. The women are shorter than the men. The taller men range to 5 feet 10 inches. The build of the men, although in a few cases strikingly muscular and athletic, is in the main asthenic and wiry. The build of the women is variable. The younger girls are thin as a rule. The married and older women are well-rounded and rather heavy-set, especially around the waistline. Some of the very young girls are very chubby cheeked and almost obese. The face of the females is rather rounded with prominent cheek bones. Prognathism is sometimes apparent. The men seem to be lighter boned in the face and more approaching the white type of feature.

The long black hair of the women is in many cases rather attractive. The skin color is a variable brown tending toward lighter shading.

Mostly the hair is straight and black and moustaches or beards are rare. The complexion of the unexposed parts of the body is very light according to the testimony of informants. The Mongolian fold appears in the eyes of the females occasionally.

The beaklike formation of the face characteristic of Maya sculpture sometimes crops out. Ears are generally small, lips rather full but vary to thin. Brownish hair appears occasionally in children and is attributed to burning by the sun. Lighter eye coloring than is usual with dark races appears now and then.

The Cherokees have a peculiar walking gait consisting of short steps with the foot pointed straight forward and the back humped a little. A man can average 30 miles a day in walking although the Cherokees are not especially great travelers. Swimming is a favorite activity in summer. If cramps develop, a taboo is laid on rabbit meat with a fast of several days and scratchings. The swimming is mostly of the dog paddle variety although diving and water somersaults are indulged in. Formerly the Cherokees rode horses a good deal.

Sleeping postures vary immensely from the curled-up position of the child or the prone position of the adult to the chair-sleeping posture of the old men.

Childbirth is treated in some detail by other authorities. The woman is generally aided by midwives who hold the arms of the parturient upright while she keeps a standing or sitting position. The general practice is for the woman to go to the water with the conjurer when she has been pregnant for 5 months to see if the baby will be born sound or not. She then takes a physic every new moon from then on. Just before the birth, the woman is rubbed on the stomach to help her out. If the child is sidewise in the uterus, they will raise the woman up while the conjurer examines to see about the position. The beads are used to examine for the future of the expected child. Decoctions are sometimes drunk to aid difficult childbirths while the beads are re-examined to see what the probable outcome will then be.

The Cherokee physique is subject to a variety of diseases and disease symptoms. From study of the magical formulas almost any kind of disease can be deduced. The following is a list of symptoms treated in the prayers:

1. Urinary disorders.
2. Digestive disorders (stomach troubles, bloody flux, piles, etc.).
3. Skin disorders (cancers, scrofula, pellagra, pimples, warts, boils).
4. Birth and menstrual disorders (suppression, excessive flow, retention of after-birth, breast sickness).
5. Circulatory disorders (anemia from hookworm, weak heart, leg swelling).
6. Respiratory disorders (tuberculosis, inflamed palate, pains in the chest, etc.).
7. Minor disorders such as toothache, earache, etc.
8. Nervous troubles such as insane terrors, paralysis.

9. Accidents such as lacerations, broken bones, gunshot wounds, snake bites, sunstroke, worms in bowels, etc.

According to one informant, the Cherokees suffer considerably from kidney trouble because they are in the custom of leaching lye from ashes to use with their bread to raise it. Also goitre was attributed to the excessive loads carried up hills by the women with the cloth straining on their neck muscles.

Tuberculosis is rather a common disease, along with another malnutrition disorder, pellagra. Gonorrhoea is known, but a sure cure is claimed for it. It does not appear to be widespread. Syphilis is almost unknown. The very symptoms of this kind of all diseases are apparently unrecognizable.

In summarizing these somatic asides, we might notice that the Cherokee physique is of the type called asthenic by Kretschmer, implying that a schizothymic diathesis might be expected. Be that as it may, the most noticeable insanities on the reservation have been manic-depressive, implying thereby a cyclothymic predisposition. There are no especially noticeable dysplasias, but a tendency toward hyperthyroidism might be suspected. An introverted or melancholic disposition is characteristic. The large abdomens seem to point to an emphasis on the digestive activities in the average Cherokee.

CENSUSES OF NUMBERS AND PEDIGREES

(For the following lists, see the files of the Indian Office at Washington, D. C.):

1835. Treaty Roll.

1848. J. C. Mullay Roll. Names of North Carolina Cherokees of 1836 who did not go west. There were also some in Georgia, Tennessee, and Alabama, totaling 2,133.

1850. D. W. Siler. Names of all in North Carolina, Georgia, Tennessee, and Alabama.

1862. Terrell Roll listed soldiers of Cherokee extraction in Civil War.

1868. S. H. Swetland.

1882. J. G. Hester. Listed some 2,956. Most of these were in North Carolina, although some were in Georgia, Tennessee, and Alabama.

1890. Jas. Blythe and H. W. Spray listed some 1,520 and 256 blockhouses.

(At the Cherokee, North Carolina, Indian Office the following records are to be found:)

1900. H. W. Spray and Jas. Blythe list for North Carolina and Tennessee of 1,376.

1910. Churchill Census. "This is the most authentic," says Mr. Walters, chief clerk of the reservation.

1920. Henderson Census.

1930. L. W. Page and S. D. A.

Yearly enumerations are made on the basis of annually registered births and deaths at the present time. One, Baker, in the 1926 enumeration, used the records at Washington in making up his list.

The age groups in the 1930 census were as follows:

<i>Age</i>	<i>No.</i>	<i>Age</i>	<i>No.</i>
0-1	23	40-49	104
1-3	19	50-59	104
4-9	79	60-69	55
10-19	163	70-79	30
20-29	146	80-89	11
30-39	110		

This great predominance of the younger elements in this population is significant of the mental attitude of the Cherokees, a youthful outlook on life, which we might not at first sight expect from such a conservative community.

These census records are hardly more than of supplemental value to the pedigrees collected from the natives themselves. The premarital names of wives are not mentioned and, of course, clanship affiliations go totally unnoticed in the official census records. On the other hand, the degree of social mobility indicated by the places of residence is given as well as the state, living or dead, of the persons enumerated at the time of listing. Also ages are rendered in the official censuses. The native names, which are so often valuable material, are generally faultily rendered in the censuses.

The writer's lists of Cherokee pedigrees, which were obtained from Will W. Long, Charley Lambert, John Lasi, Jim Taylor, Saunook Littlejohn, and others, are the first to be collected in this region. In the lists the writer endeavored to list, where possible, both the native and English name, condition (living or dead), clan affiliations, place of residence, and, of course, consanguinities and affinities so far as they were remembered. The limit of informants' knowledge was generally reached at the third or fourth ascending generation above his own and the generations descending were rather hazy (hence best supplemented from the official census records). Most of the pedigrees were obtained through the wonderful cooperation of Will W. Long by means of his ability to extract information from his relatives and neighbors where his own extensive stock of knowledge failed. Remarkable as it might seem, he was almost invariably able to give clan affiliations even where he forgot names and consanguinities. Only in a few cases wherein persons had moved in from some remote section was the clan unremembered.

CULTURAL BACKGROUNDS

SOUTHEASTERN TRAITS

In the main, the elements of the aboriginal material culture of the Cherokee were typically Southeastern. The chief cultivated plants were maize, beans, and tobacco. Other typical culture elements were

the skin breechclout and shirt, the feather cloak, the female short skirt of deerskin, the square house with gables and constructed of poles, the dugout canoe, and the blowgun.

Owing to the poverty of resources in the mountain environment, the Cherokee were lacking elements in which the rest of the Southeast shared. In several important respects, moreover, the Cherokee differed entirely from the rest of the Southeast, particularly in their use of triangular unnotched arrowpoints, round-bottom pottery, the grooveless celt, and some other points exclusively Iroquoian.

In the matter of ceremonies and beliefs the Cherokee differed but little from the rest of the Southeast. Typical elements shared by them with the other Southeastern tribes were the green corn feast, the sacred ark, the new fire rite, religious regard for the sun, use of divining crystals, scarification, priesthood, animal spirit theory of disease, and certain medical practices. A few of the myths of the Cherokee are reminiscent of the Iroquois, but the majority seem to be of Southeastern types.

From what we know of the superficial features of Cherokee social organization, such elements as matrilineal clans, matrilocal residence, a double division of government into white and red organizations, an emphasis on rank and military titles, intertown rivalry in ball games, and many features of the sexual division of labor were shared with the other Southeastern tribes.

Linguistically, the Cherokee shared a common inheritance with the Iroquois of the North, and showed remote, if any, affinity with the Muskogean family of the Southeast. In keeping with the topographically dissected nature of the country of the Cherokeees, several dialectic variations occurred: (1) The Elati, now extinct, was once spoken in the Lower Settlements; (2) the Kituhwa was spoken in the Middle Settlements; and (3) the Atali was spoken in the Valley and Overhill Settlements. The Graham County Cherokeees still use the Atali, and the Qualla Boundary Cherokeees the Kituhwa dialect.

CULTURAL APPROACH

The primary purpose of this study, as was pointed out at the beginning, is to deal with two related problems: (1) The delineation of the principles involved in the present social organization of the Eastern Cherokeees, and (2) the portrayal of the historical changes in this social system so far as these changes can be gleaned from past records of Cherokee culture. It must be realized from the outset that we are dealing with a partially deculturalized group in studying the present-day Cherokeees, and that the admixture of white and native elements has gone so far in some instances as to render impossible any attempt to separate the two. The purpose of the first half of this study, there-

fore, is simply to describe, and, if possible, interpret the existing social organization and social integration of the Cherokees, laying emphasis on those elements which seem most important, regardless of their white or Indian origin. The purpose of the second half will be to attempt to trace back those elements which have had a recorded role in Cherokee history and separate them from the recent intrusive elements of white origin.

The form of procedure in the first part will be to outline the kinship system and kinship behavior, the clan organization, and the various political and economic groupings. The discussion in the second part will interpret the data presented in the first part in terms of the structural viewpoint developed by A. R. Radcliffe-Brown and his group of investigators.

This represents, so far as is known to the writer, the first attempt to apply to data from the Southeast the principles of structural sociology. The literature on the Southeast is lacking in those data on which the structuralist lays most stress, namely, kinship usages and detailed material on social integration. This places a double duty on the pioneer in this area of both making sure of his ground in his statements concerning his particular subarea (in this case the Cherokee) and of cautiously avoiding erroneous interpretation of the data of other writers on this and culturally related tribes.

This synchronic study of the first two parts will be followed in the third part by a consideration of certain important early materials which would possibly lead to a historically helpful explanation of the existing features of Cherokee social organization and furnish the basis for a comparative study of change in methods of social integration. One of the results to be expected from this study is a test of the value of historical data as an adjunct to functional studies in general. If it should be shown that historical material is necessary in explaining the findings of present-day culture, then one of the basic premises of the Radcliffe-Brown school, namely, that historical reconstructions are unnecessary, will be opposed by an apparently negative case. If, on the other hand, the culture type of the Cherokees can be shown to have been unstable and shifting, then the historical data will prove itself to be of little value or importance for functionalism.

Finally, a fourth part will be devoted to a discussion of Cherokee culture considered in its diachronic aspects, in order to discern, if possible, the fundamental principles of the cultural changes undergone by this people. The changes in mode of integration and the significance of these changes will be pointed out and a definite answer will be sought for the question of the stability of the culture pattern or type.

PRESENT-DAY QUALLA

Before proceeding to a discussion of social units it might be helpful to consider the general background in which the Cherokee Society exists. The five towns of the Qualla Boundary today are Birdtown, Yellow Hill, Painttown, Wolfstown, and Big Cove. Birdtown, Yellow Hill, and Big Cove are located in the valley of the Oconaluftee River proper while Wolfstown and Painttown are located on the Soco Creek tributary of the Oconaluftee. Each town consists of a number of log cabins strung out at intervals of from a quarter to a half mile apart. There are two recognized neighborhoods in Big Cove, upper Big Cove, or "Raven," and lower Big Cove, or "Calico." Each of these neighborhoods is distinguished by certain social groupings limited to each.

The total native population of the Eastern Cherokee Reservation numbers scarcely 1,900 persons, and of these about 1,000 are still native enough to have clan affiliations. In Big Cove there are perhaps 300 persons grouped in 50 families. Of these scarcely half a dozen are white families. The town of Big Cove is the least permeated by white influences of the several towns.

The existing material culture of these towns is not distinguishable from that of the neighboring mountain whites. Each family possesses a tract of hillside or woodland of about 30 or 40 acres. Of this area perhaps some 6 acres may be cultivated and planted with corn, beans, or potatoes. The amount of stock owned is scant and consists of a horse, cow, a few hogs, and chickens.²

Such of the old culture as remains consists principally of non-material elements. The speech of the home is still native although most, if not all, of the Cherokees speak or understand English. The kinship system and the various local political and other social organizations betray much of the aboriginal nonwhite inheritance. Locally there occur sporadic survivals of the old time dances, medicinal prayers, and other lore.

SOCIAL UNITS

THE TOWN

The Eastern Cherokees are organized politically in six towns³ which have locally elected officials and which are united in a republican form of government known as The Eastern Band of Cherokees. Members of a Band Council are elected annually and a chief and vice-chief are also elected. These officials, as well as the United States Superintendent of the district, regulate affairs among the Indians and determine policies. The Eastern Band is incorporated

² Data on these subjects is contained in a thorough census of economic conditions in the reservation made by Roy Adams, the local school principal, in the summer of 1932, and kindly made available to the present writer by R. L. Spalsbury, Superintendent of the Reservation.

³ The sixth town comprises the Graham County Settlements. The other five towns are of the Qualla Boundary.

under the laws of the State of North Carolina and hence a most confusing conflict of State, National, and Cherokee jurisdictions is to be found. Generally speaking, the State regulates taxation and administers common law in the area, the National Government regulates education and local welfare work, and the Cherokee Band regulates its own land policies.

Each of the six towns comprising the Eastern Band is composed of one or more local neighborhoods whose interests are expressed in several local organizations. These latter consist mainly of co-operative bodies such as the *gadugi*, and the funeral or poor aid societies. The unity of the town itself is recognized not only in its political organization with head councilman or councilmen but also in the organization of a town ball team and, in some cases, a town dance team. The importance of the ball team in emphasizing the unity of the town will be later elaborated. Suffice it to say here that the town organization has important ritualistic and kinship connections.

THE HOUSEHOLD

A smaller social unit, yet one of the utmost importance as the fundamental unit of Cherokee society, is the household, in which dwells the domestic family. The individual land tenure is not held in fee simple but rather as a grant to the individual householder on the condition of his occupation and cultivation of the area. Yet these tenures can be bought, sold, traded, or inherited just as if they were actually private property. The conditions under which land reverts to the band are not clear but generally pertain to circumstances in which the holder of the tenure has become a person who is not an actual bona fide member of the band. Usually, in order to be judged a member of the band, the possession of at least one-sixteenth Indian blood must be proved to the satisfaction of the band council.

The Cherokee household is generally made up of the simple domestic family with occasionally a few other relatives. Extended domestic families consisting of father, mother, children, mother's connections, and daughter's connections occur occasionally. Residence has many matrilineal features although the prevailing trend is toward the patrilineal type. In some cases two or more families quite unrelated may dwell together in perfect amity under the same roof.

The ordinary head of the household is the father. The authority and prestige of the father is shown in various ways. Family names are English and can be traced back at least three generations in a patrilineal line. Given names for children are selected by the father or the father's connections. The father must be obeyed by the child and must be defended and upheld on all occasions. The father is

the economic head of the family and is generally the wage earner bringing in a monetary income from handicraft arts or from labor with the gadugi in white employment.

The father was not always in a position of high authority in the Cherokee family. It is historically recorded that the father at one time came to live at the house of his wife and was there quite restricted in his activities and authority over the children. The mother's line was the most important means of tracing descent and the mother's brother was the person of authority in the family whose commands must be obeyed on all occasions. It is to be inferred, consequently, that the patripodestal family of today is a form borrowed from the white people.

The household is the land-owning unit. The title to the land resides in the male head of the family generally. In Big Cove some 35 native households were listed and from the accompanying table of household members some idea can be obtained of the degree of solidarity residing in the female connections within the individual household.

BIG COVE HOUSEHOLDS AND THEIR MEMBERS

	<i>Number of cases</i>
1. Simple complete families—husband, wife, with or without children..	16
2. Simple complete families with wife's or daughter's relatives.....	4
3. Simple complete families with husband's or son's relatives.....	1
4. Single man.....	2
5. Single woman.....	0
6. Widow:	
a. With her own or her daughter's relatives.....	2
b. With her children.....	3
c. Alone.....	2
7. Widower:	
a. With his relatives or his son's.....	2
b. Alone.....	3

THE CLAN

The next unit of importance in Cherokee society is the clan. The many and often widely diverging definitions of the clan, as a segmentary division of society, a totemic lineage, and a kinsnip grouping, need not obscure the fundamental reality of its existence. Among the Cherokees matrilineal exogamous groups bearing totemic designations and having apparently some correlation with ritual, marriage, and other phases of culture function as social factors and are called "clans."

There are, and have always been, to the present memory of the natives, seven clans among the Cherokee. Their names are: Aniwahiya (Wolf), Anikawi (Deer), Anidjiskwa (Bird), Aniwodi (Red Paint), Anisahoni (Blue?), Anigotigewi (Wild Potatoes?), and Anigilohi (Twisters?).

The names of these clans call up totemic associations and are derived by the natives from various resemblances and occupations. The Wolf Clan used to hunt in the old days much like wolves. They were fond of wolves and used to raise them in captivity, training the pups just as dogs are trained. The Wolf clan used to be called Anidzoghohi when the bears were said to have belonged to this clan and to the Cherokee tribe. It was, and still is, regarded as bad luck for a Cherokee to kill a Wolf.⁴ Wolftown is named after this clan.

The Deer Clan used to be like the deer for swiftness. They also used to keep deer in captivity. They were skilled especially in being able to hunt and kill deer.⁵ Part of Painttown was formerly called Deer-place (Kawiyi).

The Bird Clan people were always fond of birds and often kept captive crows and chicken hawks. They were noted for their successful use of snares and blowguns in bear hunting. Birdtown is named after this clan.

The Red Paint, or Hematite clan people were formerly noted for their ability and magic with the red iron oxide paint employed for love attraction and for protection. They were great conjurers in these matters. Painttown is named after them.

The Anisahoni Clan are named after a bluish plant that they used to gather from the swamps for food and medicine. This plant is called sakoni or sahoni and is a kind of narrow-leaved grass having a berry like a young cucumber. Only the roots were used. It was customary to bathe the children every new moon in a decoction of this plant to protect them from all diseases.

The Anigotigewi Clan always used to gather wild potatoes. Wild potatoes are like sweet potatoes except that they are round. They grow in swampy places along the rivers. This clan was especially fond of the wild potato, and many Indian people still eat them.

The Anigilohi clan are supposed to have derived their name in two ways. One way would be through the word gagiloha, "one who twists," changed to ugilaha, "one born twisted," and Anigilohi, "those who are born twisted," referring to the fact that they used to be a very proud people who strutted when they walked and twisted their shoulders in a very haughty manner. According to another version, the name is derived from ugilohi, "long hair," referring to the love of adornment and display of their elaborate coiffures which was once characteristic of this people.

⁴ Mooney (1900, pp. 261-311, section on Wolf) mentions the professional "wolf killer" who used magic.

⁵ J. H. Logan (1859, p. 26) mentions the professional "deer killer" who, like the wolf killer, used magic to avoid evil consequences.

There are some six or seven previous lists of Cherokee clans from as many authors and altogether there is a fair amount of correlation in names as may be seen from table 1 (p. 205).

A list was compiled of 321 families among the Eastern Cherokees (table 2), and clan affiliations of the family heads were noted for some 475 individuals (table 3). Of these families 28 (about 8 percent) were absolutely clanless; in 71 families (22 percent) showed only one of the two heads of the family to possess clan affiliations, and in 31 families (9 percent) father and mother both appeared to be of the same clan. So far as absolute numbers go, the Wolf Clan was far in the lead with 142 members (30 percent) followed tardily by the Bird with 94 members (20 percent). These two clans accounted for 50 percent of all the individuals listed as having clan affiliations. The Twister and Deer Clans tied for third place with 73 members each (15 percent each) and far below them came Red Paint with 34 members, Wild Potato with 32, and Blue with 27 members.

The Wolf clan predominates in Wolfstown, the Wright's Creek area of Painttown, in Yellow Hill and Birdtown, besides disputing first place in Big Cove with the Deer clan. The Wolf clan is, in fact, strongly represented everywhere except in Graham County, where it hardly exists. The Deer clan ranks highest in Big Cove and is numerous in Graham County. Elsewhere it is weakly represented. The Bird clan ranks highest of all clans in numbers in Graham County and ranks second in Wolfstown, Painttown, and Yellow Hill. The Paint clan predominates locally in the Wright's Creek area of Painttown. The Blue clan is scarce everywhere except in Big Cove, and the Potato clan is scarce everywhere save that it increases toward the western towns. The Twister clan is at its strongest in Birdtown and Yellow Hill.

TABLE 2.—Survey of clan affiliations of family heads of Eastern Cherokee households

Town	A Clanless households	B Only one of two with clan	C Both heads of same clan	D Normal planned households	Total households
Big Cove.....	10	6	1	38	55
Yellow Hill.....	11	22	4	31	68
Wolfstown and Painttown.....	3	28	13	66	110
Birdtown.....	4	15	7	35	61
Graham County.....	-----	6	21	0	27
	1 28	1 77	1 46	1 170	321

¹ Mostly "white Indian."

² Mixed families.

³ Abnormal marriages.

⁴ Typical marriages.

Local preponderances of one or two clans is quite large. Some 57 percent of Big Cove consists of Deer and Wolf; 60 percent of Yellow

Hill consists of Wolf and Bird; 50 percent of Wolftown and Painttown consists of Wolf and Bird; 65 percent of Birdtown consists of Wolf and Twister; and 73 percent of Graham County consists of Bird and Deer. On the whole, the less thickly settled areas such as Graham County and Big Cove show a greater preponderance of one or two clans over the others than do the more densely populated areas such as Painttown and Yellow Hill.

TABLE 3.—*Representative numbers of the members of the various clans among family heads in each town*

Town ¹	Wolf	Deer	Bird	Paint	Blue	Potato	Twister	Total
Big Cove.....	19	21	8	1	12	1	7	69
Yellow Hill.....	32	7	19	4	7	4	10	83
Wolftown and Painttown.....	57	22	32	22	4	16	22	175
Birdtown.....	32	8	11	3	3	8	30	95
Graham County.....	2	15	24	4	1	3	4	53
Total.....	142	73	94	34	27	32	73	475

¹ The figures herein cited by no means include all of the individuals possessing clan affiliations among the Eastern Cherokees but rather a representative sampling in each town of a total of 475 individuals.

The significance of the relative percentages of the various clans in each town will be seen later in the discussion on the preferential marriage system.

The clan is the subject of a number of magical ideas and practices. The clan is regarded as being identical with the mother's blood. This blood gets into the food a woman prepares during her menstrual period, and if a man eats of this tainted food he becomes sick. Only a woman with clan can cause this sickness, not a white woman. For this sickness there is a medicine, but the application of the cure to the man causes the woman to become still more violently taken during her own sickness.

It is the idea of the blood connection of the clan which allies with the blood revenge principle. According to the old Mosaic idea of "an eye for an eye" and "a tooth for a tooth," the older brother of a person who has been injured by a certain man takes revenge on the offender or a member of his clan. The principle of blood revenge, held in abeyance by white man's laws, may still function under cover in the conjuring battles between rival magicians.

The clan is believed by the Cherokees to have been derived along with their songs, dances, and magical formulas from the great mythical giant Old Stonecoat, who was slain long ago. The legend relates that this giant was burned at the stake and as his spirit ascended on high it sang forth the whole culture of the Cherokees. Included in the words uttered were the rules and regulations which govern the clan even today. Going to the water in clan groups for purificatory ceremonies is a custom abandoned only recently. As the conjurer prayed

for the family he mentioned the clan by name and prognosticated as to the future fortunes of its individual members. In all of his conjuring practices, whether for the good or ill of the person affected, the conjurer is above all careful to get the right name and clan of the person to be conjured on, otherwise the charm would be powerless.

A council of seven members to represent the seven clans is always employed in selecting a conjurer to pray for rain or to magically order a favorable change in the weather. This clan representative council is allied to the older council pattern of village government by an executive council of seven members recorded for the Cherokees of the earlier culture in the Payne manuscripts.

The clan is inherited through the mother. Hence the mother's clan is ego's clan. From ego's clan a whole series of relationships are developed. All members of ego's clan except mother and her sisters, brothers, and grandparents are "brothers" and "sisters" to ego. Ego is forbidden to ever marry one of these "brothers" or "sisters." The term "child" is applied to anyone whose father is one of these brothers.

The next most important clan is ego's father's clan. Everyone in this clan is a "father" or a "father's sister" or "grandmother." All men marrying "father's sisters" are "grandfathers" and all of the women marrying "fathers" are "step-parents" if of a different clan from ego's, or "mothers" if of ego's clan. All children of "fathers" are "brothers and sisters."

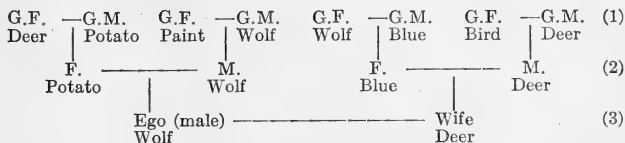
Two other clans are important in the average individual's reckoning, the mother's father's clan and the father's father's clan. All the persons in both these clans are "grandmothers" and "grandfathers." It is among these "grandfathers" and "grandmothers" that the ego must find a marriageable mate. Toward all of these persons behavior of a familiar nature is allowed.

The regular configuration of rights and duties toward some four clans is carried on in every village wherever one chances to be. When a man is traveling in a distant village and needs shelter for the night he seeks one of his "brothers" of his own clan. The ascertaining of mutual clan affiliations is the ordinary form of greeting between two persons when meeting for the first time. There are several ways of ascertaining a given man's clan without asking him. He may be found always associating with his own clansmen, and the affiliations of one of these may be known. Then again it is only necessary to observe his behavior toward these persons whose clan affiliations are already known to determine his clan. Hence, in general, it is quite easy after some slight acquaintance within a given village to know how to behave toward a number of persons who stand in given relationships to ego.

One's grandfather on the maternal side is generally of a different clan from one's grandfather on the paternal side. The reason for this

is that marriage with a "sister" or woman whose father is the same as one's own is forbidden with the result that in few cases is the wife's father of the same clan as her husband's father.

In order to properly objectify the relationships involved in a clan pedigree, we will select a typical three-generation set of individuals. Only the clans of the individuals will be given since that is the primary concern of this chart.



In the above pedigree, ego sustains the following relationships:

(1) *Wolf clan*.—This is his own clan and he is on the terms of fullest familiarity with its members except that he cannot marry a woman of this clan and he must respect his mother and her siblings, his own children, and his sister's children.

(2) *Potato clan*.—He must always respect this clan because its members are all "fathers" and "father's sisters." Anyone whose father is in this clan is a "brother" or "sister" to ego.

(3) *Deer clan*.—He may find his wife in this clan and did in this case. This is his ginisi (paternal grandfather's) clan and can be joked with and treated pretty freely. After marriage with a Deer woman, however, he must respect the wife's mother and her siblings.

(4) *Paint clan*.—This is treated exactly like the Deer clan.

(5) Persons of the other three clans are treated exactly as their personal relationships to the Wolf or Potato clans prescribe. In this case wife's father (Blue) is respected. Yet, if X, say, is Blue and has a father who is Potato, then X is a brother to ego.

If ego in this case lives in Big Cove and goes to Painttown on a visit, he finds out the clan affiliations of everyone he meets. Then he knows how to behave. Every Potato that he meets must be treated with great respect and praised highly. On meeting persons whose father is Potato he jokes with them as brothers and sisters. He would not think of marrying one of these, however. He stays at the house of Wolf people in Painttown. If he were visited by Wolf people, he would keep them in his own house at Big Cove. He must respect people whose fathers were of Wolf clan as they are the same as children to him. If he finds a man whose father's father is of Deer clan, he must respect him because his own father's father was Deer and hence that man is a brother of his own father.

ECONOMIC UNITS

After the household and clan the most important social units are the economic divisions. Some account must be given of the general

economic situation by way of introducing the economic units. The methods of landholding afford the foundation of Cherokee economics. Since Congress passed the law in recent years allowing persons of one thirty-second Indian blood to be enrolled as members of the band, the number of Cherokees has much increased. The 1,900 members of the band in 1930 was suddenly increased by 1,100 more persons of one-sixteenth or less blood. There is evidently a desire on the part of white people to become enrolled as members of the band. It is the land which attracts the whites into the tribe, and the possibility of a future allotment of the land to individual owners in fee simple is very alluring. Some 12 families out of the 50 families at Big Cove are "white Indians," or persons showing no perceptible Indian characteristics either in physique or culture. Some white families have even been admitted into the tribe by the act of adopting a Cherokee child, others by the marriage of a relative to an Indian man or woman. The "white Indians" tend to take up all of the best land. In the district of Raven, for example, practically all of the best bottom land along the streams is preempted by two or three white families. The purebloods retain small holdings of steep hillside land, rocky and forested. The average Indian holding is 30 acres, and of this hardly more than six is cultivated as a rule. There is nothing to prevent the buying up or inheriting of land beyond the 30-acre limit.

In the Adam's Creek district of Birdtown the same situation exists, namely the white Indians occupying all the low-lying level and fertile areas while the purer bloods occupy the rim of the valley. Again in the rich Soco bottoms, an immense amount of white invasion has taken place and intermarriage with the Indians occurred.

The pureblood Indians acting as individuals are not able to hold their property or land for long. Several instances, which occurred in Big Cove in recent years, of the loss of property and money at the hands of unscrupulous persons emphasizes this. Moreover, land titles have always been in a confused state. Claims are generally based on the Temple survey, made in 1876. But the boundaries are constantly in dispute. The end result of the constant wrangling which has occurred is that the small landowner has been pushed to the wall by a few white Indians. Consequently, there are many persons in favor of an allotment of the tribal lands in individual holdings with fee simple. As yet, the allotment principle has not been adopted.

An examination of some 49 households in Big Cove showed that in 40 cases the land was a simple grant from the tribe and that in the remaining 9 cases the holdings were rentals from other members of the tribe. This constitutes a proportion of home owners to renters of approximately 80 percent to 20 percent. The proximity of considerable unclaimed land has allowed a great amount of homesteading.

Also, unimproved land reverts to the tribe, and keeps the land from becoming absorbed in unused claims.

As far as was remembered by the informant, the average number of changes of tenure of households in Big Cove was from two to three times; however, limitations of knowledge on the part of informants may vitiate this estimate. Of the recorded changes of property in Big Cove, 32 were changes of possession through inheritance, and 23 were changes of possession through purchase.

The methods of obtaining the land tenures were the following: (1) Inheritance, in 17 cases; (2) homesteading and improving wild land in 11 cases; (3) purchase from previous owners in 8 cases; (4) "swapping" in 4 cases; and (5) squatting on disputed land in 1 case.

In the 17 cases of inheritance, 8 households were inherited from the man's father or grandfather, 5 inherited from the wife's father, 1 from taking care of an old person, 1 from the wife's mother, 1 from the deceased husband, 1 from the wife's former husband, and 1 from the sister's husband.

All of the 50 households were originally homesteads. The general method of homesteading consists in clearing a small acreage for crops and erecting some sort of a dwelling thereon, after having applied to the Council for a grant to legalize the holding. Places which are unoccupied become liable to homesteading even if still claimed by the original owners.

"Swapping" of lands is a common practice. Persons are constantly moving from one town to another or from lowland to highland. Cherokees of the more conservative type are perpetually trying to locate further away from the trails which lead to the white man's world.

The annual cycle of events in Cherokee economy are as follows: In latter April or early May, potatoes, corn, and beans are planted. The harvest comes in August or in early September. The corn is ground in corn mills run by water power. During the summer, fish constitutes a large item of sustenance. Any rainy day in summer, the Cherokee man can be seen wending his way to the stream with his hornet's larvae bait over his shoulders. In good weather, during the summer, he spends his time hoeing the corn or in making hay. He may have a few side crops such as sweetpotatoes, cabbages, turnips, pumpkins, squash, parsnips, carrots, and tobacco. In the late spring various kinds of berries are gathered, such as blackberries, blueberries, gooseberries, huckleberries, and strawberries. During the summer, fruit such as apples, plums, grapes, and the like ripen. During the summer also, the ball game is played. The fall is the period for hunting and dancing. Various small rodents such as rabbit and squirrel are hunted, and nuts are gathered. In the winter, a great part of the time is spent in gathering wood for the fire, tending the

stock, and dancing. The amount of stock is now very limited, but may consist of some pigs, chickens, a few cows, steers, and horses. Bacon and sausage are sometimes made. In early spring, some hunting is done, and plowing on the steep hillsides with the aid of steers.

Various forms of economic cooperation exist between Cherokee neighbors. Of these the most typical are the *gadugi*, or "companies," and the poor aid societies.⁶ The *gadugi* consists of a group of a dozen men organized in the form of a corporation, with a treasurer, a sheriff or money collector, a warner to catch the laggards, a secretary, and a chief. All of these officials are elected by the members of the company annually. The most important officials are the chief, who hires out the company, and the warner, who commands the operations of the company, tells them how long to work, and regulates the labor in general.

The *gadugi* hires out its services, and divides the profits annually among its members. In addition to this, the members of the *gadugi* work in rotation each other's farms for 4 days in the week. For example, white people hire the *gadugi* for \$2 a day, which averages about 20 cents a day per member. The members of the *gadugi* may borrow money from the common treasury, such as 10 cents or 50 cents on the dollar earned by the month. In order to borrow money, however, one has to place a mortgage on stock, land, or dwelling. Two or three women often belong to the *gadugi*, as cooks. A woman cooks in the morning and helps in the other tasks of the *gadugi* in the afternoon. During her menstrual period, a woman is not allowed to cook. The tasks of the *gadugi* consist of ordinary agricultural labors, such as hoeing corn, cutting the tops of corn for cattle fodder, and clearing fresh land for agriculture. About one-fourth of the people of Big Cove belong to these *gadugi*. There are two *gadugi* in Big Cove, one in Raven, or upper Big Cove, and one in Calico, or lower Big Cove.

The habit of exchange of services between neighbors still persists. Farmer A and his family spend a day with farmer B and his family in digging potatoes. Here there is no money transaction involved, but rather a simple exchange of services with the gift of a few potatoes and some meals. A pattern of spontaneous cooperation for a common purpose exists among the Cherokees. Whenever the community desires the services of some useful person, such as a conjuror, everyone in the neighborhood assembles and proceeds to render some service to that person. Some will hoe the corn, some will cut wood, others will fix up his house. Another form of cooperation is shown in enterprises for public good. When a new footbridge is needed, the band will furnish the materials, and the

⁶ The *gadugi* are described by Starr, Boston (1899, p. 140).

people in the neighborhood will assemble and put the bridge together in a short time.

Still another form of cooperation of great importance among the Cherokees is the poor aid society.⁷ Annually the people of the Raven district meet on August 10th in the graveyard. Here they elect a chief undertaker, a secretary, gravedigger, coffin maker, and two warners. The assembly then combines to clean up the graveyard of weeds, and to straighten up the tombstones. The officials have various duties. The chief acts as director of poor aid, the warners are delegated to look after the poor.

When a family is in bad straits, the chief directs the two warners to go around and collect the neighbors together. When these are collected together, they do the planting, hoeing, harvesting, and cutting wood for the family. For this the neighbors expect payment in kind from the family which they assist, in the form of chickens or other livestock. The chief can command the services of the community with 3 days' notice during the summertime. At other times, he can command immediate service.

At the death of a certain person, the gravedigging company is notified, and the chief gives notice to his helpers to collect together and dig the grave. The gravediggers consist of a company of six volunteers who obey the chief. All these are appointed for 1 year. The coffin is made by the coffin maker and two assistants. Nomination and election of all of these officials is generally made from volunteers. The ritual accompanying death and burial will be mentioned in the section on the life cycle.

There is, in addition to the foregoing forms of cooperation, a farm organization in Big Cove which is sponsored by the United States Government. Intended to include all of the adults of the community, it has the purpose of raising the level of crop production in quality and quantity. Its head is the Government farm agent, and annual and other meetings are held in the schoolhouse.

The economic life of the Cherokees today is largely a resultant of the interracial situation which exists between the Cherokees and the white man. As we have already noted, the whites have tended to absorb the best lands of the reservation even under a stringent system of land grants only to members in good standing of the tribe.

Because of this there has grown up a chronic resistance to white encroachments in the form of a resilient negativism to all white influences. In this connection several examples came to the fore. A century of missionary proselytizing has few results to show among the Cherokees. A very small minority of the Cherokees of Big Cove are pro-

⁷ Described by Olbrechts (Mooney and Olbrechts, 1932, pp. 135-36).

fessing Christians. These few are divided between the Baptist and Methodist sects in the main, and their influence is ebbing steadily.

In the case of the penal sanctions governing the Cherokees there is also a complete failure of the white influences to become entirely dominant. In cases of murder the local white authorities are left utterly in the dark as to witnesses since the racial solidarity of the Indians is great enough to prevent reliable testimony being given in court.

The principal North Carolina State laws affecting them are resented by the Cherokees. They are regarded as being the cause of the present depressed economic state of the people. In the old days during autumn the Cherokees were accustomed to setting fire to the brush and light timber on hillsides in order to roast the chestnuts, which were to be found in great numbers at that time of the year. Now, the State Law forbidding brush or timber fires has ruined all of the chestnut trees and made them subject to blight, say the Indians. The hills, again, were formerly the free grazing ground of the cattle, razorback hogs, and other stock of the Cherokees, but the State stock law passed some time ago, which required the fencing in of grazing areas, has caused the Cherokee stock to dwindle and disappear.

Still other grievances are laid against the white man. The poisoning of the wolves has ridded the country of these sacred animals and the white hunters have exterminated the deer, pigeon, bear, and other game. The State law forbidding the poisoning of the streams has at one stroke ruined one of the principal methods of fishing formerly in vogue among the Cherokees. Moreover, it is claimed that the State tax on corporations is so high that the formerly flourishing cooperative companies, the gadugi, have been taxed out of existence. The gadugi existed in a time when a more universal prosperity existed among the Cherokees than that which exists today.

Even the white education instilled in the younger generation of Indians does not always take root. The college graduates of Haskell or Chilocco often return to their hillside farms and forget entirely their profession or trade learned while away at school.

In one line of effort, however, white influence has been an entire success. The commercial activities of the Cherokees have increased owing to the more frequent and numerous contacts with white demand for local products. An annual fair is held at Yellow Hill in September in which a complete display of products from Cherokee hands competes with a graphic display of sports and dances characteristic of the tribe for local and State interest. For agricultural products and Indian artifacts there has arisen a considerable demand and the interest in the dancing and the ball game on the part of the whites has led to the formation of Indian companies to travel and give exhibitions of native games and dances in white communities. Qualla itself forms an ideal "ethno-park."

POLITICAL UNITS

The economic units having been mentioned, there remains only the political units to be considered in closing this discussion. These units consist of the town and the band. The town is a unit only in elections and most of its functions are purely fictitious. The real political life resides in the band council and the chieftainship (Donaldson, 1890).

The Cherokee Council meets annually the first Monday in October. It consists of members elected from each of the six towns of the Eastern Band of Cherokee Indians. Elections of the council members take place every 2 years on the first Thursday of September.

The Chief is elected on the same day every 4 years. Previous to the election there is a convention of delegates from all over the band, two delegates from each district or town. Each town chooses its delegates at a special meeting in the summer. At Big Cove a meeting is held the first Saturday in August at the schoolhouse and a regular organization of officers presides. This might be said to resemble the primaries held under the American party system.

The old council meets 60 days before the election at the town of Yellow Hill when summoned by the chief. It then passes a resolution to choose delegates from each town to the band convention. From two to six candidates may be making the rounds, stumping for office. Sixty days before the election the council also selects two judges to preside over the election.

The council decides questions having to do with land tenure and aid to the needy, the disposition of tribal funds, improvements for the public welfare, questions of membership in the tribe, and other problems. It meets for 2 or 3 days in early December, elects a marshal, and then transacts general business. Much of its time is taken up in discussions of the budget, the advisability of leasing lands for lumbering purposes, petitions to the Congress of the United States, solving pressing land disputes, and the like. The decisions on land disputes are a constant necessity. No tribesman possesses land in fee simple but only as a grant tenable during the lifetime and good behavior of the individual. The land reverts to the tribe at the death of the individual but is usually regranted to the heirs. Improvements are willed to the heirs.

The chief of the band has a position of great dignity analogous to the position of the Chief Executive of the United States. Before the present form of government was adopted by the Eastern Cherokees in 1870-75, there were chiefs in each settlement. There were, moreover, at that time several more towns than there are now among the Eastern Cherokees. There have been some 13 national chiefs among the Eastern Cherokees from 1870 to the present.

The chief, together with the vice chief, constitutes a sort of executive committee of the council, which latter is theoretically supreme. The chief has great dignity, however, and travels about the reservation deciding questions of boundaries, trespasses on land, etc. He can veto acts of the council, but his veto can be overridden by a two-thirds majority vote. The marshal enforces the decisions of the chief and the council.

The United States has long ago abolished the Indian agent among the Cherokees but has allowed an attorney to be retained by the tribe. The American Government has two departments of contact with the Cherokees; the schools and the charity work, both under the supervision of the Indian Bureau at Washington. A superintendent has charge over the schools and tribal affairs in general and can override decisions of both council and chief. He regulates the disposal of funds, the health and welfare activities of the American Government, and the like.

The school system consists of several day schools of four grades in the outlying towns and some eight grades at the main school in Yellow Hill. From here students leave for free educations at Haskell, Chillico, and elsewhere in the west.

The influence of the State of North Carolina is but weakly felt. The administration of criminal law and the collection of some kinds of taxes seems to represent all that is at present actively affecting the Cherokees. In some years the Cherokees vote in national elections as registered citizens of the United States.

The band of Eastern Cherokees, in conclusion, is unified in the following ways: (1) Through possession of a local semiautonomous political organization into towns and band; (2) through the system of land tenure grants to persons judged as genuine Cherokees and members of the tribe, and (3) through the possession by most of the Cherokees of clan affiliation inherited through the mother, which affiliation automatically links the individual with the distinctive kinship system of the Cherokee Society.

THE KINSHIP SYSTEM

PRINCIPAL TERMS USED

The accompanying charts outline the main kinship terms employed by the Cherokees. Figures 40, 41, and 42 are mostly terms of consanguinity while figure 43 includes the terms of affinity. It will be seen at once that the system is of the "classificatory" type common among the American Indian tribes in which relatives of near and remote propinquity are classed together.

In the grandparent's generation there are separate terms for "father's father," "mother's father," and "grandmother." In the par-

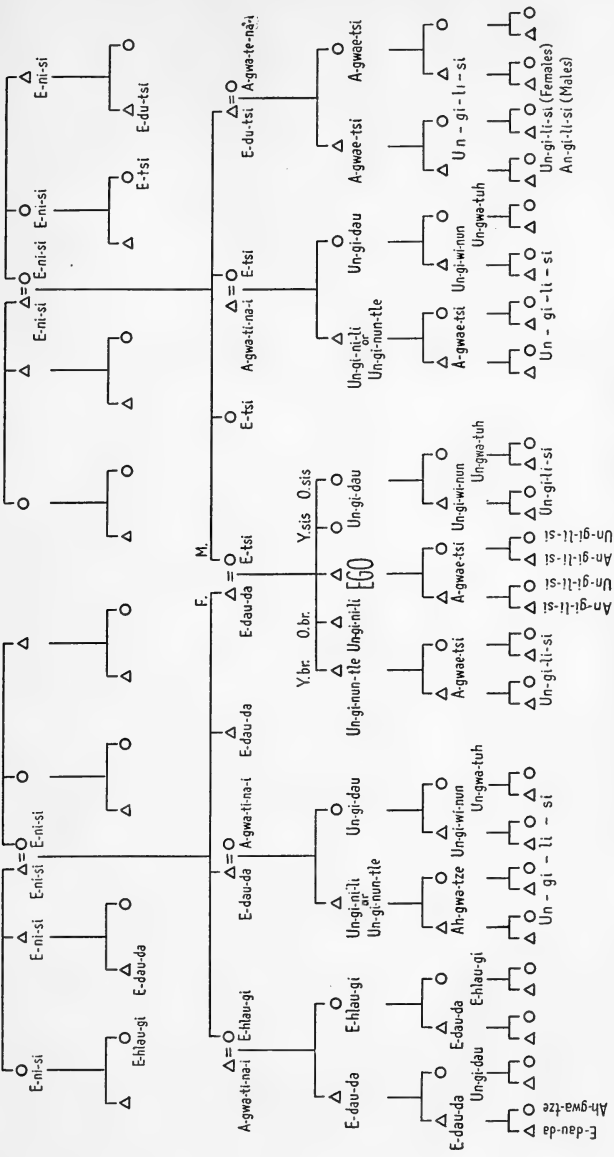


FIGURE 40.—Western Cherokee kinship: Male ego (after Morgan).

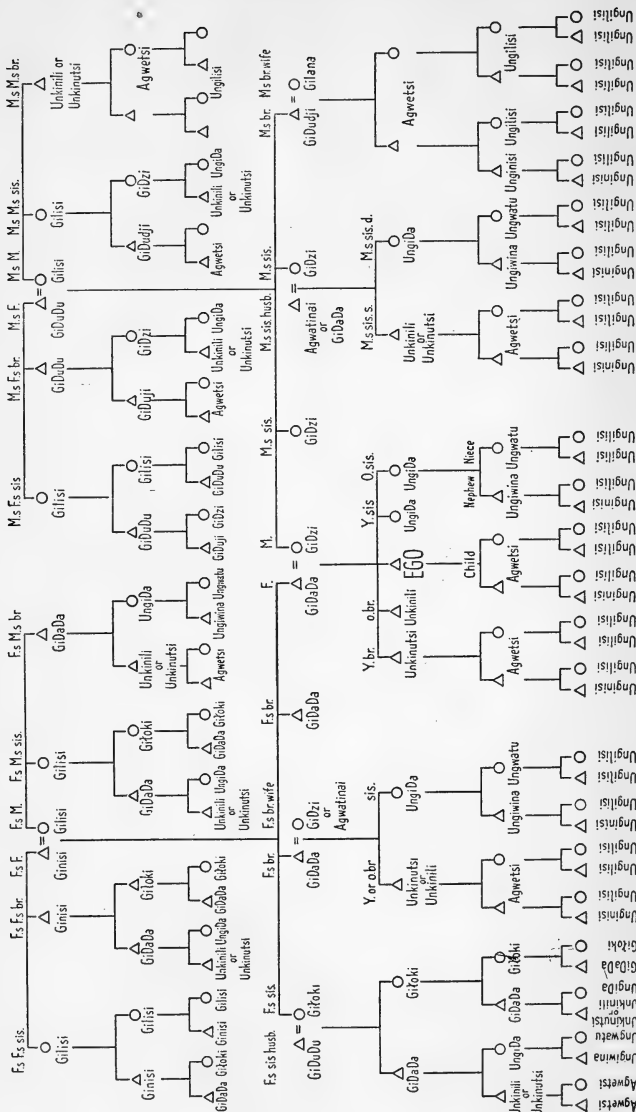


FIGURE 41.—Cherokee kinsip consanguines : Male ego.

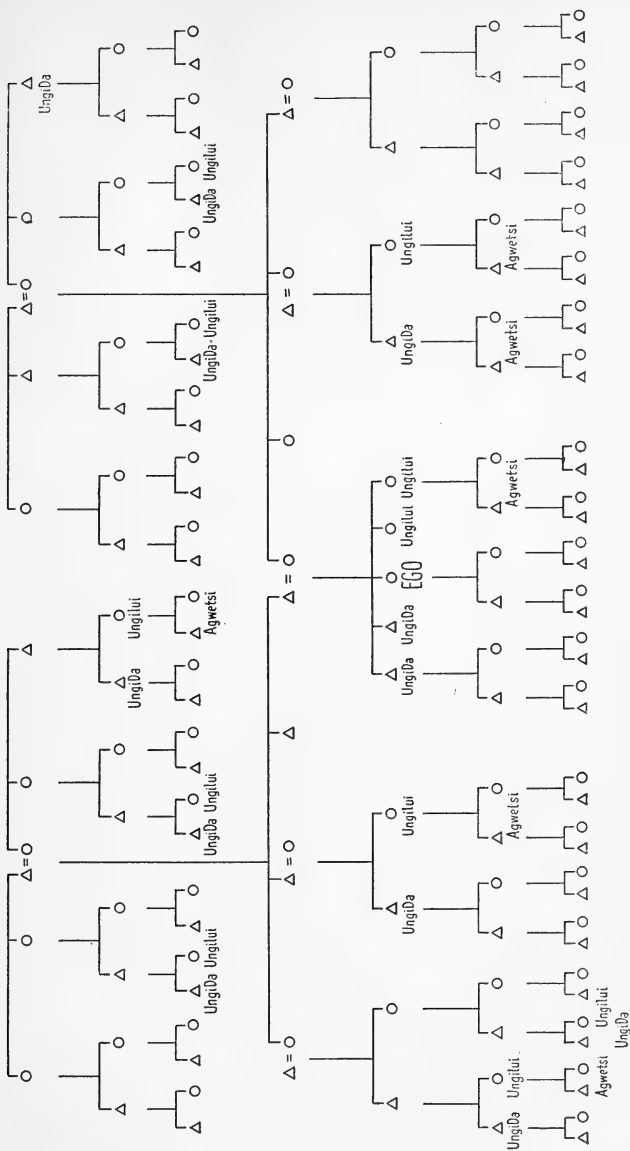


FIGURE 42.—Cherokee kinship consanguines: Female ego.

ent's generation there are distinct terms for "father," "mother," "father's sister," "mother's brother," and "mother's brother's wife." The father's sister's husband is classed as "grandfather" and the father's brother's wife and mother's sister's husband are classed as "step-parents." A single term is used for the wife's parents and their siblings and a single term is likewise used for the husband's parents and their siblings.

In ego's generation the male speaker distinguishes his older and younger brothers by distinct terms. The female speaker uses a single term for "brother" which when used by the male speaker means "sister." In ego's generation, also, the cross cousins are differentiated, the children of the father's sister being "father" and "father's sister," while the children of the mother's brother are "children." Parallel cousins are "brothers" and "sisters" and a single reciprocal term is used for brother's wife, sister's husband, wife's brother or sister, and husband's brother or sister.

In the children's generation, sex of the individual is not ordinarily distinguished except that a man distinguishes his sister's children as "nephew" and "niece" and the "son's wife" and "daughter's husband" are distinguished. In the grandchildren's generation, a general term is used which differs in consonantal quality for male grandchildren through a male child, on the one hand, and female grandchildren through a male child, or grandchildren through a female child, on the other. The children of nephew or niece, male speaking or female speaking, are "grandchildren."

Before analysing the separate terms we will list for convenience the prefixes used in the Cherokee kinship terms.

Prefixes Used in the Cherokee Kinship Terms

1. agi-, or gi-, agw-, ungi-, ungw-, meaning "my." Example: agiDaDa, agwetsi, unginutsi, ungwatu.
2. esta-, or tsa-, meaning "your." Example: tsaDaDa.
3. u-, uw-, meaning "her, his, its." Examples: ulisi, uwetsi.
4. di-, pluralizing prefix. Example: digwetsi.
5. tci-, dji-, tsi-, dzi-, pluralizers. Example: tcungilisi.
6. gini-, our (two of us). Example: giniDaDa.
7. iga-, ig-, oga-, odji-, odzi-, tadji-, ours (three of us). Example: igiDaDa.
8. ogini-, yours and his. Example: oginiDaDa.
9. ogi-, your (pl.) and his. Example: ogiDaDa.
10. uni-, their (his and their). Example: uniDaDa.
11. ski-, your (sing.) and my. Example: skiDaDa.
12. skini-, your (pl.) and my. Example: skiniDaDa.
13. denda-, ana-, they are.
14. otsa-, ita-, we are. Example: otsalinudji.
15. isa-, you are.
16. weti-, old one. Example: wetiginisi.
17. taline-, second. Example: talinegiDaDa.

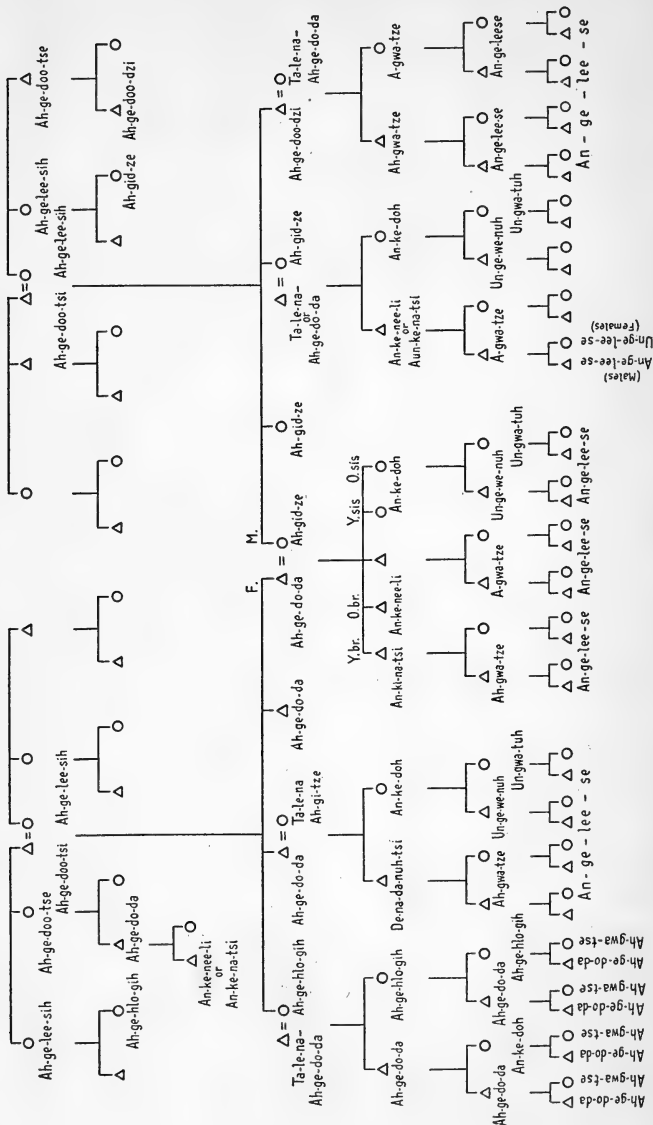


FIGURE 44.—Eastern Cherokee kinship consanguines: Male ego (after Morgan).

With these prefixes in mind it will be somewhat easier to place the principal terms as they occur in the list that follows:

The principal kinship terms of the Cherokee are the following: giDaDa (father), giłoki (aunt), giDzi (mother), giDudji (uncle), agwetsi (child), ungiwina (nephew), ungwatu (niece), u Natsi (wife's parents), djiDzo i (husband's parents), agi Nudji (daughter's husband), agiDzo i (son's wife), agila Na (uncle's wife), giDuDiya (aunt's husband), ginisi (male paternal grandparent, male grandchild), gilisi (female grandparent, female or male grandchild), giDuDu (mother's father), ungiDa (sister, brother), unginutsi (younger brother), unginili (older brother), ungilu i (sister), and agwelaksi (relatives-in-law).

giDaDa ("Ah-ge-do-da" of Morgan): This term means "father" primarily. It is extended to father's brothers and to all male members of the father's clan except lineal ascendants of ego's father. This term is applied to father, father's brother, father's sister's son, father's sister's daughter's son, mother's sister's husband (along with the term agwatina i, or "stepparent"), father's father's brother's son, and father's father's father's brother's son's son.

Special uses are made of the father term in the following: giDaDa awina, "younger father" (father's younger brother), giDaDa ayuli, "older father" (father's older brother), giDaDa udanti, "gentle father," and giDaDa unagalu i, "cranky father" (the last two referring to distinguishing characteristics of the father's brothers).

Giloki ("Ah-ge-h lo -gih" or Morgan): This term means "father's sister" primarily. It is extended to all females of the father's clan except those lineally ascendant to him. This term is applied to father's sister, father's sister's daughter, father's sister's daughter's daughter, father's father's brother's daughter and father's mother's sister's daughter.

giDzi ("Ah-gid-ze" of Morgan): This term means "mother" primarily. It is extended to the mother's sisters and to the wife of any male member of the father's clan if she is of ego's clan. This term is applied to mother, father's sister's son's wife, mother's sister, mother's mother's sister's daughter, mother's mother's mother's sister's daughter's daughter, and father's brother's wife if she is of ego's clan.

giDudji ("Ah-gedoo-dzi" and "Ah-ge-doo-tsi" of Morgan): This term means "mother's brother" primarily. It is applied also to mother's mother's sister's son, and to mother's mother's mother's sister's daughter's son. Various epithets are used to distinguish the mother's brothers such as udanti giDudji, "gentle uncle," unagalu i giDidji, "mad uncle," ulkanista giDudji, "cranky uncle," and udajati giDudji, "stingy uncle."

agwetsi ("Ah-gwa-tse" of Morgan): This term means "child" primarily, and is used by both sexes generally. It is extended to the child's parallel cousins and to anyone whose father is of ego's clan. This term is applied to one's son and daughter (male and female speaking), to a brother's son and daughter (male and female speaking), to a sister's son and daughter (by a female speaker), father's brother's daughter's child (female speaker), father's brother's son's child (f. sp.), mother's sister's son's child (m. and f. sp.), mother's sister's daughter's child (f. sp.), father's father's brother's son's son's child (m. and f. sp.), mother's mother's sister's daughter's daughter's daughter's child (f. sp.), mother's mother's sister's children (m. and f. sp.), etc. The absence of sex distinctions in the term agwetsi requires various supplementary terms. The term teu 'tsa awina, "male child," and ge'yutsa, "female child," are used for children not yet at the age of puberty

(12-14 years). The term *awinutca* is used for young males from 12 to 20 years of age and the term *atu(N)* is likewise used for young women of this age. At 20 the boy becomes *askaya*, a "man," and the girl *agehiyu*, a "woman."

ungiwina ("Un-ge-we-nuh" of Morgan): This term means "nephew" primarily and is used only by the male speaker for sister's son, father's brother's daughter's son, mother's sister's daughter's son, and mother's mother's sister's daughter's son.

ungwatu ("Ungwa-tuh" of Morgan): This term means "niece" and is used by the male speaker only. It is applied to sister's daughter, father's brother's daughter's daughter, mother's sister's daughter's daughter, and mother's mother's sister's daughter's daughter's daughter.

u Natsi ("Tse-na-tze of Morgan"): This term refers primarily to the wife's parents (male speaking). It is applied to wife's father, wife's mother, and their brothers and sisters, and to wife's grandfather and grandmother (and their brothers and sisters). This term seems to be closely related to the term for son-in-law, *agi Nudji*.

dji dzo i: This term refers primarily to the husband's parents and is used only by the female speaker. It is applied to the husband's father, husband's mother, husband's parent's siblings, husband's grandfather, and husband's grandmother.

agi Nudji ("Ah-ge-h na-tze" of Morgan): This term refers to the daughter's husband, brother's daughter's husband, sister's daughter's husband, and mother's brother's daughter's husband.

agi Dzo i ("Ah-ge-tzau-hi" of Morgan): This term refers to son's wife, brother's son's wife, sister's son's wife, and mother's brother's son's wife.

agila Na: This term refers to the mother's brother's wife or to the mother's mother's sister's son's wife.

giDuDiya: This term refers to the father's sister's husband and means "he becomes grandfather" or "he makes himself grandfather." Any husband of a *giloki* is called *giDuDiya* or *giDuDu*.

ginisi ("Eni-si" of Morgan): This term refers to the father's father or son's son, primarily. It is applied to the following: Father's father, father's father's brother, father's father's brother's son, the father's mother's brother, son's son, brother's son's son, sister's son's son, father's brother's son's son's son, father's brother's daughter's son's son, mother's sister's son's son's son, mother's sister's daughter's son's son, mother's brother's son's son, and mother's brother's son's son's son.

gilisi ("An-ge-lee-see" of Morgan): This term refers primarily to female grandparents through the mother and to grandchildren through a daughter. It is applied to the following: Mother's mother, mother's mother's sister, mother's father's sister, mother's father's sister's daughter, daughter's children, son's daughter, brother's daughter's children, brother's son's daughter, sister's daughter's children, sister's son's daughter, mother's brother's son's daughter, mother's brother's daughter's children, mother's sister's daughter's children, mother's sister's son's daughter's children, mother's sister's son's son's daughter, father's brother's son's son's daughter, father's brother's daughter's daughter's children, father's brother's son's daughter's children, etc.

giDuDu ("Ah-gedoo-dze" (?) of Morgan): This term refers to mother's father or father's father's father. It is also applied to mother's father's brother, mother's mother's brother, and mother's father's sister's son. It is apparently a term meaning "grandfather" on the mother's side.

ungida ("An-ke-do(h)" of Morgan): This term means "sister" with the male speaker and is extended by him to father's brother's daughter and mother's sister's daughter. The same term is used by the female speaker for "brother" and is extended by her to the father's brother's son and mother's sister's son.

unkinu'tsi ("Aun-ke-na-tsi" of Morgan): This term means "younger brother" with the male speaker. It is extended to the father's brother's son younger than self, mother's sister's son younger than self, father's sister's son's son younger than self, and father's mother's brother's son younger than self. The term awinage'i, "he is younger," is also used for this relative.

unkinili ("An-ke-nee-lee" of Morgan): This term means "older brother" with the male speaker and is used for the same relatives as the above who are older than the speaker.

ungilu i ("An-ge-la-ih" of Morgan): This term means "sister" and is used by the female speaker for the following relatives: Sister, mother's sister's daughter, father's brother's daughter, father's sister's son's daughter, father's mother's brother's daughter, etc.

agwelaksi ("Squa-lo-sih" and "Ga-ya-loh-sih" of Morgan): This term refers primarily to relatives-in-law and is applied to the following: Wife's brother or sister, husband's brother or sister, sister's husband, brother's wife, and to affinities of like relatives. There are various supplementary terms used for particular persons in this relationship. astadali i ("Au-sda-li-gi" of Morgan) is used jokingly for father's brother's son's wife. asatlu i ("Au-su-dlun-hi" of Morgan) is used by the female speaker for her father's brother's daughter's husband and is a joking term. awadu i ("K-na-duh-hi" of Morgan), meaning "they are pretty," refers to husband's brother's wife (f. sp.) and to wife's brother's wife (m. sp.).

There are a number of other supplementary kinship terms of which the following are of importance:

agwati Na i ("A-gwa-ti-na-i" of Morgan) refers to "step-parent" and is applied primarily to the father's brother's wife and the mother's sister's husband and for genuine stepparents.

agi Nudji a is a term applied to the man who is courting one's daughter and is a prospective agi Nudji, or "son-in-law."

There are several terms used for siblings which are of considerable importance with reference to the solidarity of brothers and sisters in the individual family. The following are notable:

uda Nilge i, "he is older," is used for older brother.

awinage i, "he is younger," is used for the younger brother.

tsukinu'dji, is used by the younger brother with the meaning, "we are brothers."

tsukinili, is used by the older brother with the meaning, "we are brothers."

otsalinu'dji, "we are brothers and sisters," is used by siblings in referring to their common relationship together.

tsotsalinu'dji, "we are brothers," is applied to the wife's sister's husband.

In the husband-and-wife relationship there are a number of supplementary terms. The most notable are the following:

agwada iyusti, "like a wife," is applied to a woman with whom a man is keeping company but not living.

dji'ye i, "I'm holding her," is a term sometimes used for wife.

akstayu uski, "she's my cooker," is often used for wife.

owasulasu i, is applied to a widow or widower.

agi(X)ye i (husband), is often supplemented by such terms as ostine'li, "we are living inside together" (in a house), and utusane i, "the old man."

MORGAN'S SYSTEM

As may have been noted from the parenthetical inclusions, the kinship terms listed by L. H. Morgan in 1871 for the Cherokees differ somewhat from the present kinship terms.

From its incomplete character, so far as collateral lines are concerned, it is difficult to obtain a clear-cut pattern for kinship terms in the list furnished by Morgan in his tables. A complete comparison of this list of terms with the one just described (Long's) is therefore impossible. Enough can be adduced, however, to note two differences from the Long terminology. There is, first, the rather inconsequential differences in the morphological forms used for the same relative, such differences arising from alternation of prefixes, use of substitute words, and the like. Secondly, there are the differences arising from real usage, relatives being classified in a different pattern.

Differences of the latter category include two important instances: (1) the mother's mother's brother's son is called "mother's brother" in Morgan's terminology and "child" in Long's; and (2) the father's father's sister's daughter is called "father's sister" in Morgan's list and "grandmother" in our terminology.

In spite of the Cherokee tendency to equate the father's sister with the grandmother in behavior and terminological usage, it would seem that, in Morgan's terminology, there is a real asymmetry in the terms used for the father's and mother's cross cousins. This point is still further emphasized in that the paternal male cross cousin's male descendants are called "fathers" by ego. This fact leads one to suspect that Morgan's terminology may be to some extent "filled out" on a generation or other basis from analogy with other tribes, according to the logic of the compiler. The Long version, obtained at Big Cove in 1932, does not possess a perfectly symmetrical terminology, but it does allow of a lineage basis for the implied usage of preferential mating indicated in the pedigrees. Following the version of Morgan, it would be difficult to obtain a clear-cut lineage basis for preferential mating.

KINSHIP DISTINCTIONS

The kinship terms are always of some use to the people who possess them in the distinguishing of certain relatives toward whom specific behavior is due. The type of distinction made is best analyzed by comparing the native terms for relatives with our own English system as a yardstick.

The first and most obvious distinctions occurring in the Cherokee system are those of lineage and generation. The unilateral basis for the kinship grouping on a lineage line is perceptible in the identity of the terms applied to persons in a direct descent through females.

The giDaDa-giloki descent in the father's matrilineal lineage is indicative of a lineage distinction which is heightened by the application of the terms giDuDu (grandfather) and giDzi (mother) to persons marrying into this line. The gilisi-giDuDu descent in the mother's matrilineal lineage is likewise further distinguished by the application of the term agwetsi (children) to the issue of all of these persons. In this case, however, there is a difference in terminology for those generations above ego from those below.

TABLE 4.—Comparative table of kinship terms of the Cherokee

Eastern Cherokee		Western Cherokee
Long	Morgan	Morgan
1. ginisi		E-ni-si.
2. gilisi	An-ge-lee-sih.	
3. ungilisi	An-ge-lee-se	An-gi-li-si or Un-gi-li-si.
4. giDaDa	Ah-ge-do-da	E-dau-da.
5. giDzi	Ah-gid-ze	E-tsi.
6. agwetsi	Ah-gwa-tze	A-gwae-tsi.
7. unkinili	An-ke-nee-li	Un-gi-ni-li.
8. ungiDa	An-ke-do(h)	Un-gi-dau.
9. ungiu i	An-ge-la-ih.	Un-gi-lun-i.
10.	Ah-ge-doo-tsi.	
11. unkinutsi	Aun-ke-na-tsi or An-ke-na-tsi.	Un-gi-nun-tle or Un-gi-nun-tli.
12. otsalinudji	Tsa-ke-na-tsi or Tsan-ke-toh.	An-tsa-li-nun-tli.
13. agiDzo i	Ah-ge-tzau-hi.	E-tsau-hi.
14. agi nudji	A-ge-h -na-tzi	E-hua-tsi.
15. ungiwina	Un-ge-we-nuh	Un-gi-wi-nun.
16. ungwatu	Un-gwa-tuh	Un-gwa-dun.
17. taline giDzi	Ta-le-na-ah-gi-tze.	
18. agwati Na i		A-gwa-ti-na-i.
19.	De-na-da-nuh-tsi	Tsan-sda-da-nun-tli.
20. ostadali i	Ah-ke-tso-hi	Au-sda-dun-hi.
21. awadu i	E-na-duh-hi	Au-sda-li-gi.
22. asalu i or agwelakei	Ga-ya-loh-si or Squa-lo-sih	Au-sda-dun-hi or Au-sda-lau-si or Au-se-dlun-hi.
23. giloki	Ah-ge-h'lo-gih	E-hlau-gi.
24. taline giDaDa	Ta-le-na-ah-ge-do-da.	
25. giDudji	Ah-ge-doo-dzi or Ah-ge-doo-tsi or Ah-ge-doo-tse.	E-du-tsi.
26. agi(X)yehi	Ah-ge-he-a-hih	Ah-gi-ya-hi.
27. agwadali e	Ah-gwa-da-le-ih	Ah-gwa-da-li.
28. dji dzo i	Tse-na-tze	E-hua-tsi.
29. u Natsi	Tse-na-tze	E-dzau-hi.
30.		Si-da-na-lun.

In the mother's father's matrilineal lineage there is again a carrying of the giDuDu-gilisi descent from above to below ego's generation. In the father's father's matrilineal lineage the giDuDu-gilisi descent is again carried on from above to below ego's generation.

The distinctions of generation are most apparent in the terminology for immediate relatives and for siblings. As Lowie's terminology expresses it, this is a "bifurcate-merging" system in that one-half of the collaterals are merged with the lineal line. This is to say that the persons who are parallel cousins are "brothers" and "sisters," while cross cousins are given a different terminology. In the case of the Cherokee this terminology happens to take the line of a lineage basis; in the case of cross cousins through the

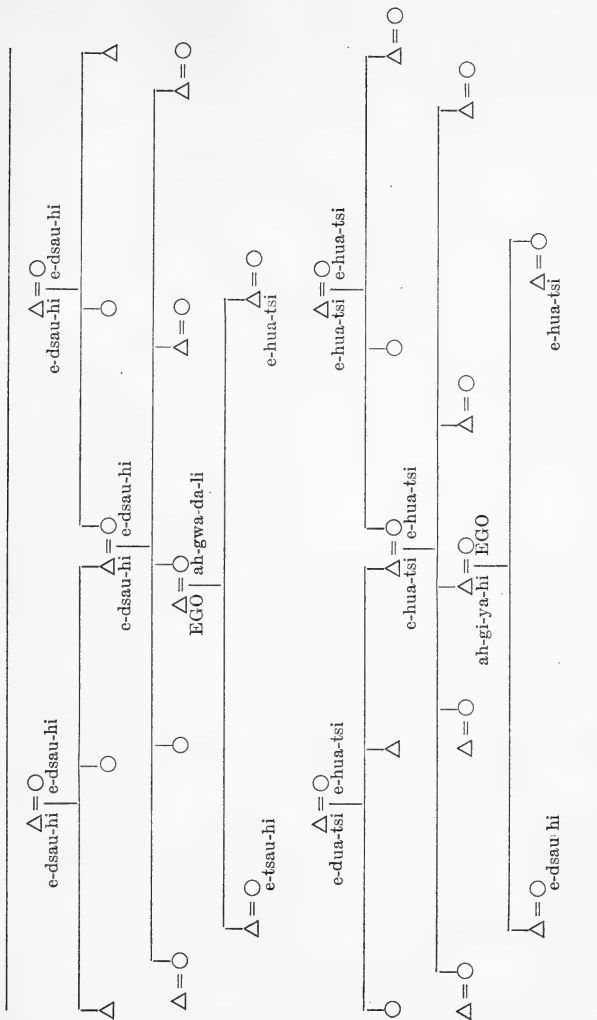


FIGURE 46.—Eastern Cherokee kinship affinites (after Morgan).

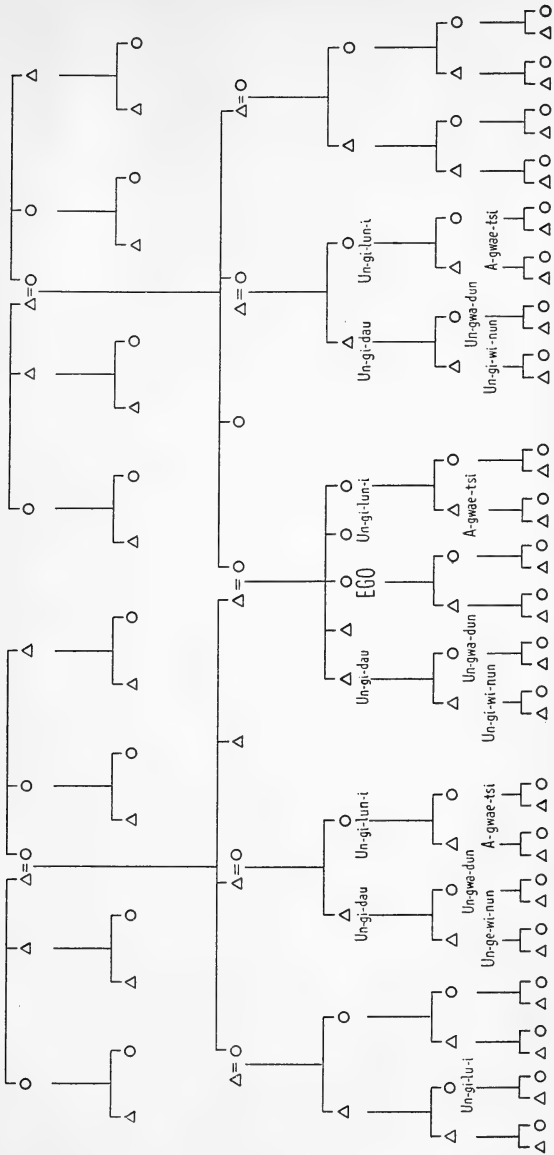


FIGURE 48.—Western Cherokee kinship consanguines: Female ego (after Morgan).

father the cousins are put in the father's matrilineal line, whereas in the case of cross cousins through the mother the descendant terms "child," "grandchild," etc., are used. Hence, generation can be said to be important so far as immediate siblings and parallel cousins are concerned. Also, the use of certain distinctions of superordination and subordination distinguishes the parental generation from the child's. The grandparent generation is alone distinguished throughout as "grandparents," the other generations being bisected by the lineage principle.

Two important types of relationships occur in the terminology, namely, the complementary reciprocal and the self-reciprocal. The complementary reciprocal terms are terms used between close relatives exclusively and are not used by others. Such terms are father-child, mother's brother-sister's child. The self-reciprocal terms consist in identical terms used between two relatives. Such would be grandmother-grandchild, brother-sister, etc. In the case of complementary reciprocal terminology, linkages of persons who must remain distinct for certain reasons are secured. In the self-reciprocal terminology a merging of social personalities is desired and to a certain extent obtained.⁸

Other factors entering into kinship distinctions are those of sex and age. The sex distinction is expressed in three principal ways: (1) Sex of the speaker, (2) sex of the person spoken to, and (3) sex of the person through whom the relationship exists, including relatives by affinity.

The distinction of the sex of the speaker is often made clear by implication. The male speaker calls his sister's children "nephew" and "niece," while the female speaker calls them "child," the husband and wife apply different specific terms to each other and each other's parents, and the male and female speakers use entirely different terms for brothers.

The distinction of the sex of the person spoken to is expressed in the following: Father and father's sister distinguished, mother and mother's brother distinguished, nephew and niece through sister distinguished by a man, grandfathers distinguished from grandmothers, husband and wife distinguished, and the use of the term *giloki* for any female member and of *giDaDa* for any male member of the father's clan.

⁸ The present writer has experimented with the use of the reciprocal terminology among a group of University of Chicago students engaged in a common vocational activity. In this case the term "John" was introduced and adopted among a dozen male persons as a sort of joking term for each other in direct address. The general result was a surprising increase in group solidarity and familiarities. A like solidarity was generated by the use of the terms "citizen" and "comrade" during the French and Russian Revolutions.

The distinction of the sex of the person through whom the relationship is traced is expressed in the following: The giloki or aunt is a person related through the father; the mother's brother is related through the mother, the mother's brother's wife is related through

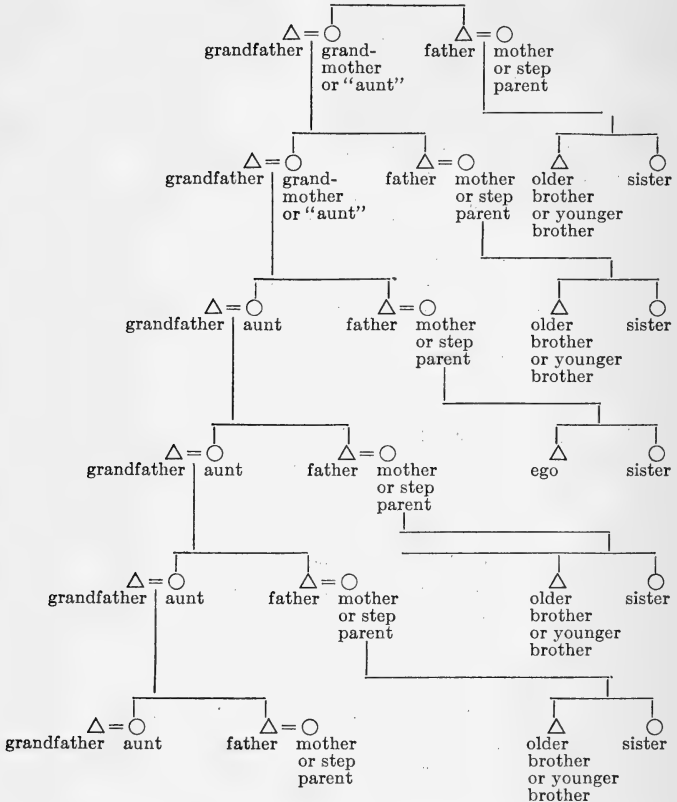


FIGURE 50.—Father's matrilineal line. 1, All women are "father's sisters" or "grandmothers," all men are "fathers." 2, All men marrying "father's sisters" are "grandfathers," all women marrying "fathers" are "mothers" or "step parents." 3, All children of "fathers" are "brothers" and "sisters". 4, The fathers' clan and line is nonmarriageable.

the mother and brother, and the relationships through the wife are distinguished from the relationships through the husband.

With regard to the relative importance of the various sex distinctions the following may be said: Of some 28 kinship terms listed, the

distinction of sex of the person spoken to is omitted in 10, the distinction of the sex of the person through whom the relationship is traced is omitted in 12, and the distinction of the sex of the person speaking is omitted in 18. Hence, the order of importance of emphasis of distinctions is in the following order: (1) Sex of person addressed, (2) sex of person through whom relationship is traced, and (3) sex of the speaker.

The age of relatives is not distinguished as a rule except by supplementary terms such as "older" and "younger." In the case of brothers, however, the distinction of older male sibling from the younger is clearly marked in the terminology. This is a relationship of a complementary terminology and is to be explained on the basis of the function of the older brother in the family to protect and avenge the younger brother and to act to some extent like a father or uncle to him.

LINEAGES

The nature of the kinship system will be still more elaborated in a study of the charts which illustrate the lineage basis for the kinship reckoning (figs. 51-53). The grouping is partially on a vertical and partially on a horizontal basis and there is as much of an emphasis on the unilateral matrilineal descent as there is on the bilateral origin of the individual, so far as the terminology is concerned.⁹

In ego's father's matrilineal lineage all of the women are "father's sisters" or "grandmothers" and all of the men are "fathers" or "grandfathers." All men marrying women of the father's matrilineal lineage are "grandfathers" and the wives of "fathers" are "mothers" if of the same clan as ego, or "stepparents" if not of the same clan. Any child of a man of the father's clan is a "brother" or "sister."

In ego's mother's matrilineal lineage the women may be "grandmother" or "mothers" and "sister," "niece" (male speaking), or "child" (female speaking). The men are "grandfathers," "mother's brothers," "brothers," "nephew" (male speaking) and "child" (female speaking). All of the women who marry a "grandfather" are "grandmothers" and the women who marry a "mother's brother" are denoted by a special term. Any child of the mother's clan may be a "mother's brother," "mother," or "child."

In ego's mother's father's matrilineal lineage all of the men are called "grandfathers," the women are called "grandmothers." The rules of terminology for women marrying into this line are the same as in the case of ego's mother's matrilineal lineage above.

In ego's father's father's matrilineal lineage all of the males are "grandfathers" and the women "grandmothers." A man marrying

⁹ The writer is indebted to Dr. Fred Eggan for the initial suggestion in drawing up these lineage charts.

into this line is a "grandfather"; a woman marrying into this line is a "grandmother."

The kinship terminology of the Cherokees extends the terms for relatives of close degree in the lineage to collateral and remoter rela-

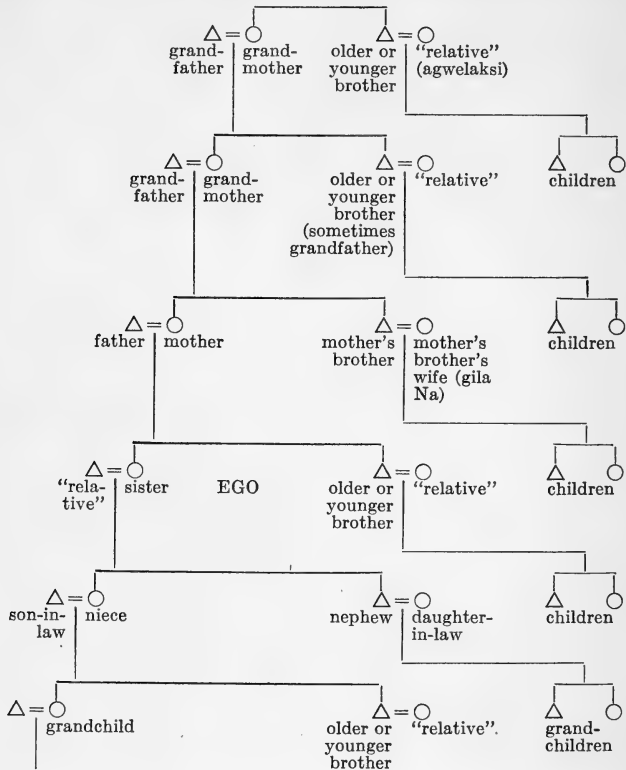


FIGURE 51.—Mother's matrilineal line. 1. All women are grandmothers, grandchildren, mothers, sisters, or nieces; all men are brothers, mother's brothers, nephews, or grandchildren. 2. Men marrying grandmothers are grandfathers, those marrying mothers are fathers, those marrying sisters are relatives, those marrying nieces are sons-in-law, women marrying brothers are relatives, those marrying mother's brothers are mother's brothers' wives; those marrying nephews are daughters-in-law. 3. Children of males of own lineage are children or grandchildren; children of females of own clan are nieces and nephews, etc. 4. Mother's matrilineal line is nonmarriageable.

tives. Qualificatory terms such as taline, "second," and weti, "far off," may be attached to the terms when the remoter relatives are designated. The range of the primary extensions of kinship in lineages may be considerable but it is still further extended by means of the clan system.

The clan extends the range of kinship almost to every one in the community. Every male in the father's clan is a "father" and every female is a "father's sister." Likewise every member of ego's clan is a "brother" or "sister" and any child of a "brother" is a "child" to ego. Every member of ego's father's father's clan or mother's father's clan is a "grandfather" or "grandmother." Any person whose father is of ego's father's clan is a "brother." In the ordinary Cherokee town averaging 300 persons, it is possible to discover relationships with almost

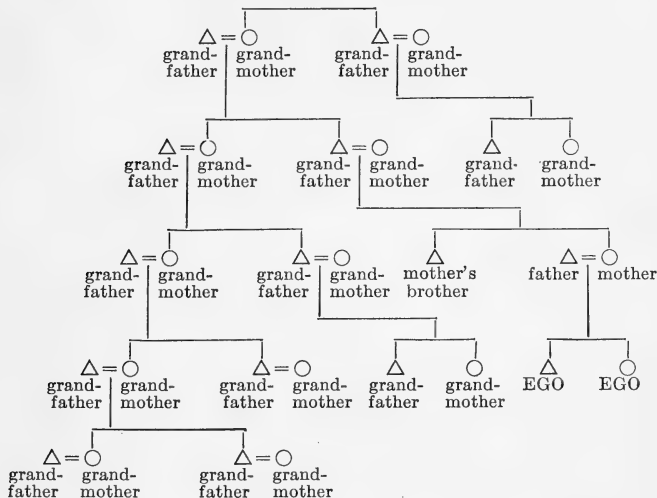


FIGURE 52.—Mother's father's matrilineal line. 1, All women are grandmothers; all men are grandfathers. 2, All men marrying grandmothers are grandfathers, all women marrying grandfathers are grandmothers. 3, All children of grandfathers (except own mother and her siblings) are grandfathers and grandmothers. 4, The mother's father's clan and line is marriageable.

everyone in the community since there are generally only 4 or 5 main clans predominant.

The configuration of Cherokee kinship relations is extended to the world of plants, animals, and inorganic elements and forces. The bears and other animals of the forest and the mountains are regarded as being organized into moieties, clans, and towns, and the magical "little people" of the wastelands live in a similar organization and dance and play ball just as the Cherokees do. Spirits designated as "father" and "mother's brother" are thought to send apoplexy. The maize in the fields is regarded as a "mother," the fire and the sun are "grandmother," while the moon is regarded as a powerful protecting "elder brother."

PREFERENTIAL MATING

When the author was first collecting pedigrees among the Cherokees, he was told by an informant that, "The Cherokees marry their 'grandmothers' (digilisi)." Since then the preponderance of the evidence collected has tended to substantiate this statement of a basic preferential mating principle.

The marriage preference principle stated in its simplest form is that the choice of one's mate is generally restricted to persons in

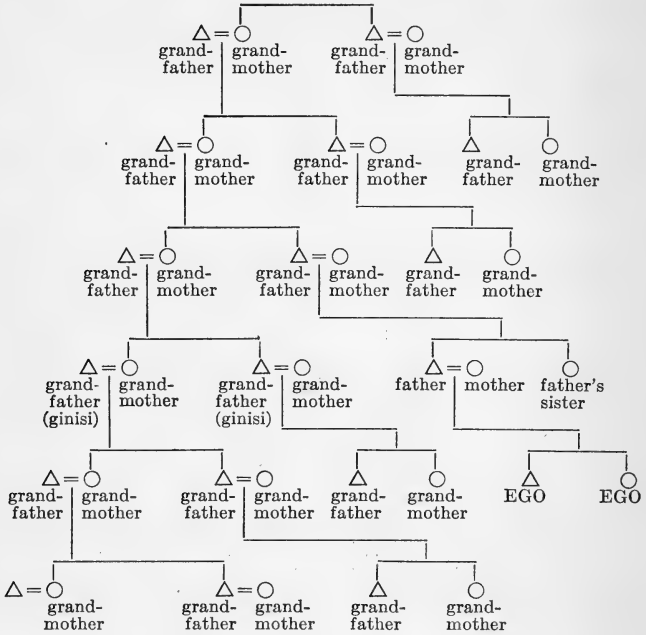


FIGURE 53.—Father's father's matrilineal line. 1, All women are grandmothers; all men are grandfathers (father's father distinguished by term "ginisi"). 2, All men marrying grandmothers are grandfathers; all women marrying grandfathers are grandmothers. 3, All children of grandfathers are grandmothers and grandfathers (except ego's father and his siblings). 4, Father's father's clan and line is marriageable.

one's father's father's clan or in one's mother's father's clan. The matrilineal lineage of the father's father and the mother's father, as we have seen in the section on the kinship system, contain only grandfathers (digiDuDu) and grandmothers (digilisi).

The evidence for preferential marriage can be divided into two parts, direct evidence and indirect evidence. Under direct evidence

can be listed the testimony of the pedigrees and the inherited clan affiliations. Under the classification of indirect evidence there exists the pedigree evidence of the children within given families preferring to marry certain clans, the statistics indicating a tendency for persons who marry more than once to marry into the same clan, the statistical evidence of a low incidence of marriage with one's own or one's father's clan, and, finally, the overwhelming evidence of the kinship usages.

First, as to the evidence from the pedigrees directly. It was exceedingly difficult to derive many cases showing marriages of the preferential type for the reason that families are always moving from one village to another and the informant's knowledge soon stops in these cases. Again, it is difficult for the informant to recall clan affiliations for more than two generations above his own and the determining of marriage preferences in the present day require a knowledge of the clan affiliations of the grandfathers on both sides of the union, a total of four persons who can be exceedingly elusive on occasions.

As may be seen from a glance at the accompanying list of clan marriages (below), recorded from the pedigrees of Big Cove, a random sampling of 35 unions gives the following results: Marriage with the grandparent or great-grandparent clan occurred in 29 cases, marriage with the father's clan occurred in 4 cases, and marriage with own clan in 2 cases. The marriages within the clan constitute about 6 percent (2 cases out of 35), and the marriages with the father's clan 11 percent (4 cases out of 35). The other 83 percent of the marriages are of the normal Cherokee type.

LIST OF SAMPLE CLAN MARRIAGES IN BIG COVE AREA

A. Marriages according to the rule of preference

1. J. W. (Twister) and M. T. (Deer). This marriage resulted from an acquaintanceship in which both respected Bird Clan. In addition, the man's father's father was Deer.
2. D. C. (Blue) and N. B. (Deer). The woman was of the man's father's father's clan.
3. C. B. C. (Wolf) and O. W. (Blue). Her mother's father was Wolf.
4. C. W. (Wolf) and N. T. (Deer). His mother's father was Deer.
5. J. L. (Paint) and A. (Wolf). Her mother's father was Paint.
6. C. L. (Wolf) and M. A. (no clan). Her father's father was Wolf.
7. W. W. L. (Wolf) and M. W. S. (Deer). Her father's father was Wolf. His father's father was Deer.
8. U. W. (Wolf) and M. W. S. (Deer). Her father respected Wolf. The man and the woman of this marriage both respected Blue.
9. U. S. (Wolf) and N. D. (Deer). Her father's father was Wolf. Both the man and the woman in this marriage respected Blue.
10. W. T. (Potato) and G. (Deer). His father's father was Deer.
11. A. B. (Deer) and S. P. (Blue). Her mother's father was Deer.

12. N. P. (Blue) and E. (Deer). His mother's father was Deer.
13. A. W. (Wolf) and A. R. (Blue). His mother's father was Blue.
14. J. L. (Deer) and C. P. (Blue). She and he respected Blue. His father's father was Deer.
15. S. S. (Wolf) and K. D. W. (Bird). Her mother's father was Wolf.
16. U. (Blue) and L. A. T. (Deer). Her mother's father was Blue. His father's father was Deer.
17. L. L. (Deer) and K. L. (Twister). His father's father was Twister.
18. C. D. (Blue) and O. W. (Wolf). Her mother's father was Blue.
19. C. D. (Wolf) and E. B. (Twister). Her father's father was Wolf. His grandmother's father was Twister.
20. C. B. W. (Twister) and R. D. (Wolf). His father's father was Wolf.
21. T. W. (Twister) and K. C. B. (Blue). Her mother's father was Twister.
22. O. C. (Wolf) and M. T. (Blue). Her mother's father was Wolf.
23. L. H. (Deer) and L. J. W. (Wolf). Her mother's father was Deer.
24. D. S. (Blue) and A. F. (Wolf). His mother's father was Wolf.
25. J. C. (Bird) and C. T. (Blue). Her father's father was Bird.
26. L. C. (Wolf) and E. B. (Paint). His mother's father was Paint.
27. L. C. (Wolf) and O. C. (Paint). His mother's father was Paint.
28. J. W. (Bird) and J. W. (Wolf). His father's father was Wolf.
29. W. D. (Blue) and E. W. (Bird). His father's father was Bird.

B. Marriages of Outlaw Status

1. J. D. (Blue) and E. W. (Wolf). This is a violation of rule because her father's clan was Blue.
2. J. W. (Wolf) and A. C. (Deer). This marriage is a violation of rule because her father's clan was Wolf.
3. F. S. (Deer) and L. D. (Blue). This marriage is a violation of the rule because her father's clan was Deer.
4. M. C. (Wolf) and S. A. L. (Deer). This marriage is a violation of rule because his father's clan is Deer.
5. L. S. (Deer) and O. C. B. (Deer). This marriage is outlaw because both are of the same clan. Both the man and the woman in this case respect Blue.
6. W. W. L. (Wolf) and A. E. W. (Wolf). Here again both are of the same clan.

The predominant factor governing marriage choices as shown by this list seems to be the membership in the grandfather's or great-grandfather's clan. Only in the case of the woman's mother's father's clan was there a slight predominance of one of the four possibilities over the others. Again, it is noticeable that, of the outlaw marriages with the father's clan, there were more on the part of the women than on the part of the men. Common respect for the clan seems to have led to acquaintanceship and marriage in several cases.

The preceding element to marriage is the familiarity relationship and in some cases extensive pedigree investigation is necessary in order to determine just how such a familiarity relationship can exist. Persons standing in the relation of giDuDu (grandfather-grandchild) or gilisi (grandmother-grandchild) to each other are always on familiar terms and capable of marital relation. Just such a cause

arises in the case of the marriage of J. T. (Potato) and L. W. (Wolf). According to the pedigree record, he should have married either Deer or Blue and she should have married either Deer or Twister. But the Deer Clan is giDuDu to both of them and such being the case they were placed in the relationship of familiarity to each other (and not being of the same clan as each other) were allowed to marry, as giDuDu to each other.

One favorable factor in the present pedigree studies is the fact that family names are now transmitted back through the male line for at least three generations in most cases. This is a valuable aid in determining the fathers whose clans are so important in the selection of a mate.

The pedigree showed among other things several cases of the sororate, at least one case of the levirate, and several examples of marriage by exchange and marriage of two or more brothers to two or more sisters. The pedigrees demonstrate also the practical necessity of determining the identity of the so-called "invisible man" in the case of illegitimate births in order for the child to develop a proper orientation in its kinship relations.

The mechanics of the pedigree allow for no alterations of the kinship behavior anywhere along the line. If there is a slip-up at any time this is bound to affect later generations. Therefore outlaw marriages tend to run in certain families and to cause increasing disruption as they proceed. There ensues a conflict of principles such as that in which one party married within his own clan because his father's father was of his own clan.

Some quite unexpected consistencies are brought out in the pedigrees. In one case a Cherokee man whose father was of Wolf Clan married a white woman of no clan. The woman bore him a daughter who was, of course, clanless since the clan is transmitted only through the mother. But the daughter followed true to the rules of the tribe and married a Cherokee man of the Wolf Clan. In a few cases a literal following out of the rules of preferential mating has taken the line of marrying an actual grandmother or person of the grandmother's generation. One man contracted marriage with a woman and later with his adopted daughter through her.

In summary of the pedigree situation, then, it is possible to say that actual evidence seems to point in a sprinkling of sample cases to a law of preferential mating with the grandfather's clan or the lineage of the father's father or mother's father of ego. This is the direct evidence adducible.

The limitations of the pedigree samples make some corroborating evidence for preferential mating desirable and this is to be found in the incomplete pedigrees in connection with certain rules which seem

to inhere in them, together with census data as to relative numbers of clan members and, lastly, kinship usage.

The evidence from the incompleting pedigrees, i. e., pedigrees in which the clan affiliations of one or more of the four grandfathers of the two members of a union are not at all certain, can be characterized as the indication by choices of mate. These choices of mate by clan affiliations may be of two types, namely, (1) a preference may be shown by all of the children of a family for marrying persons of one or two clans, and (2) a preference may be shown by persons who marry more than once to marry persons of the same clan.

LIST OF CLAN CHOICES IN MATES IN BIG COVE

<i>Clan of mother of family</i>	<i>Clan choices of children</i>
1. Blue-----	Bird, Deer (2).
2. Deer-----	Wolf (2), Bird, Twister.
3. -----	Wolf (3), Twister, Potato.
4. Deer-----	Wolf (2), Deer, Bird.
5. Wolf-----	Twister (3), Paint (3), Blue, Potato, Deer.
6. Deer-----	Blue (5), Wolf (3), Twister (1).
7. Blue-----	Deer (3), Wolf (1).
8. Deer-----	Wolf (2), Potato (1), Twister (1).
9. Blue-----	Bird (2), Wolf (1).
10. Blue-----	Deer (2), Bird, Blue, Wolf.
11. Blue-----	Wolf (3), Potato, Blue.
12. Blue-----	Wolf, Deer.
13. Blue-----	Twister (2), Deer, Blue.
14. Deer-----	Deer, Blue, Twister.
15. -----	Deer (3), Potato (1).
16. Paint-----	Deer (2).
17. Deer-----	Bird, Deer.
18. -----	Bird (2), Wolf (2).
19. Twister-----	Twister (2), Paint (1).
20. Blue-----	Wolf (3), Deer.
21. Wolf-----	Deer (2), Blue (2), Wolf.
22. Twister-----	Deer, Wolf.
23. Twister-----	Deer (2), Blue, Wolf.
24. Deer-----	Twister (2), Wolf.
25. Deer-----	Wolf (3), Bird (3).
26. Bird-----	Wolf, Paint, Deer.

Seven of the families listed exhibited no clan preferences in the mates chosen by the children. Of the remaining 20 which seemed to exhibit a definite preference, some five were shown by additional data to be preferences which conflicted directly with the principles of non-marriage with one's own or one's father's clans. The remaining 15 (about 60 percent of the cases) showed a definite preference in marriage for one or two clans. It is not entirely impossible to suppose that these two clans are the grandfathers' clans.

The remarriage of individuals shows even more definitely a tendency to select certain clans. An examination was made of 35 persons who

married more than once with the following results. One person married four times, and two of the mates were of the same clan. Six persons married three times and five of these six married persons of the same clan twice. Twenty-eight persons married twice and of these, nine married in the same clan both times. This appears to be a rather large percentage of repetition of choice.

Another line of indirect evidence, the average local numbers of clan members, shows a close correlation with the data just cited. The average local preponderance of two clans is about 58 percent as can be seen by comparing the local percentages mentioned in the section on the clan. The average percentage of marriages showing a definite choice in clan affiliations is about 60 percent. Here is an interesting correlation. This can be interpreted in three ways: (1) The local preponderance in clan numbers may have given rise to the marriage preferences, (2) the marriage choices may have given rise to the preponderances, and (3) both of these phenomena may be examples of an underlying principle.

The local preponderancies in clan numbers can hardly have given rise to the indicated marriage preferences for the following reason. An enumeration of the heads of households in Big Cove showed the following numbers of clan memberships: Deer, 19; Wolf, 18; Blue, 10; Bird, 9; Twister, 6; Paint, 1, and Potato, 1. On the basis of the relative clan numbers, a certain order of expected matings would occur if local concentration of clan numbers was the most important determining factor in marriage preferences. If a comparison of expected order of matings in terms of frequencies of occurrence of clan persons as based on local clan numbers were made with the actually observed order of frequency of matings and a fair amount of coincidence were shown, then it would seem justifiable to assume that chance local or geographic propinquity governed clan matings.¹⁰ But such a coincidence does not occur as can be seen from the accompanying table.

ORDER OF FREQUENCY OF CLAN MATINGS

Expected order:

1. Deer-Wolf.
2. Deer-Blue.
3. Wolf-Blue.
4. Deer-Bird.
5. Deer-Twister.
6. Wolf-Bird.
7. Wolf-Twister.
8. Blue-Bird.
9. Blue-Twister.

Observed order:

1. Deer-Wolf.
2. Wolf-Blue.
3. Deer-Twister.
4. Wolf-Bird.
5. Deer-Blue.
6. Deer-Bird.
7. Wolf-Twister.
8. Paint-Bird.
9. Potato-Blue.

¹⁰ Unless, of course, previous factors had interfered. None such were recorded, however.

It will be observed from this table that with the exception of the Deer-Wolf matings, which are unavoidably most numerous because of the immense local concentrations in numbers of these two clans, the observed order of matings does not in any way correspond with the expected order.

Another indication that geographic propinquity does not govern clan marriage preferences may be obtained from the relatively low percentage of marriage within the clan already cited, namely, 6 per cent, and the similarly low percentage of marriage with the father's clan. If local number of clans governed clan marriage choices, then in some regions an immense amount of Wolf-Wolf matings would occur, and so on. The inevitable conclusion must be from this evidence that cultural factors operate to restrict and guide behavior rather than chance propinquity so far as marriage choices are concerned.

It is a difficult task to show that the marriage preferences indicated could have given rise to the local clan preponderancies. If clan marriages had been totally a chance series of permutations, it would perhaps be expected that the numbers of clan members would be locally and generally quite equal or roughly so. With only chance guiding marriages, the possibilities of selecting mates from any 2 of the 7 clans would be 29 out of 100. Instead, there occurs an average selection of 2 clans in marriage in 60 cases out of 100.

It is most likely that the local clan concentration and the marriage choices indicated are the expression of some common principle. This principle may be the formerly existing dual division of society into dual organizations. Two groups of clans may have existed, probably comprising four in each, and marriage regulations were possibly originally such that marriage only into the opposite moiety was allowed. The basis for this argument lies in the historical records showing that not only the ancient Cherokees but also the neighboring Creeks and other Southeastern tribes had a complete double system at one time involving the division into red and white groups of a basic eight-clan series. The Creeks still retain remnants of the moiety system but the Cherokees have lost it entirely. The ancient Cherokee double division and its functioning will be discussed more fully in the section on historical change.

It would be exceedingly desirable if the pedigrees would be able to show within given lineages that a balance was struck between marriages with the father's father's clan and marriages with the mother's father's clan but unfortunately the genealogies are not complete enough to show this definitely. It can be observed from the List of Sample Clan Marriage in Big Cove Area (p. 239-240) that there were six choices each of the man's father's father's clan, man's mother's

father's clan, and the woman's father's father's clan, while in the case of the woman's mother's father's clan there were nine choices. This latter number may or may not have been accidental and of no significance but the general purport of the sample seems to be that there is a remarkable degree of evenness in the numbers of selections from the four primary possibilities of a given union.

There is generally an active and a passive party in each case of preferential mating. The active party is the one whose grandfather's clan is the same as the passive party's clan. The passive party is the one who is "selected out," so to speak, by the active agency of the active party. There is apparently no correlation of active and passive parties with either of the sexes.

Preferential mating is carried on mainly by means of the clan mechanism. As has already been stated, four clans are important in the life of every individual, and it is the kinship restrictions and privileges attaching to one's behavior toward each of these four clans which determines the choice of a mate. Therefore, we can safely make the functional generalization that the Cherokee clan is primarily the regulating agent of preferential mating and the most important single manifestation of its structural basis. The clan is a structural mechanism whose *raison d'être* lies in the special principle of preferential mating.

The single clan is a unit possessed of intense social solidarity but, by means of a self-adjusting mechanism expressing itself through preferential mating, it allows of an exchange of constituent members in marriage between itself and other clans. Under present conditions there exist no relationships between clans as a whole. There exist only relationships between individual members of the clan and other clans as wholes. This situation was probably not always in existence, as historical evidence seems to indicate that formerly the clans were divided equally into two groups. If this was true, preferential mating was probably between these two segmentary groups. This, however, brings us into the problem of diachronic changes which will be discussed later.

FAMILIARITY AND RESPECT

As has been mentioned before, the problem of usages of privileged familiarity and respect involves the mechanism which leads to preferential mating. At an early age the Cherokee child learns that he may be familiar with some relatives and not with others. These two categories of relatives stand out as most important in his behavior throughout life.

The following relatives must be respected and never directly joked with: (1) First degree ascending generation persons (father, mother,

aunt, and uncle); (2) first degree descending generation (children, nephews, and nieces); (3) the respected relatives of one's familiar relatives (wife's parents, husband's parents); (5) the familiar relatives of one's respected relatives (son's wife, father's sister, father's clan, etc.); and (5) one's son's child or father's father.

The following relatives may be joked with: (1) One's siblings and their affinities (brothers and sisters and their wives and husbands); (2) cousins through the father's brother or mother's sister (parallel cousins); (3) one's whole clan except the mothers and mother's brothers; (4) most persons in the grandparent generation except own father's father; (5) reciprocally the grandchildren's generation can be joked with except the son's children; (6) one's own affinities and their siblings (spouses and their brothers and sisters); and (7) the familiar relatives of one's familiar relatives and the respected relatives of one's respected relatives (parents' parents and children's children) with exceptions above noted.

Respect and familiarity behavior may be extended in various ways. Ego may be forced to respect a man whose father is of the same clan as ego's father's father since that man is a "brother" to ego's father and hence is a "father" to ego. Ego may likewise set up relationships of familiarity at once with any man whose father is of the same clan as ego's father since that man is a "brother" to ego.

First, as to the privileged familiarity connected with preferential mating: It has already been mentioned that familiarity and respect are two fundamental poles of behavior in Cherokee society. The distinction seems to be correlated with the marriageability of lineages. The father's and mother's matrilineal lineages are not to be intermarried with nor (by extension) the clans correlated with these two lineages. The individual must always maintain an attitude of formal respect toward the father's matrilineal lineage and clan. With his mother's matrilineal lineage and clan he can maintain an attitude of familiarity with the men (except mother's brother and his own sons) but with the women he must maintain a certain reserve. On the other hand toward the persons whom he meets and finds to be in the matrilineal lineages and clans of his grandfathers he can maintain the utmost familiarity. They are giDuDu and gilisi to ego and he or she can marry the women or men of these lineages and clans.

Familiarities may be of three types, namely, intersexual, satirical, and indirect. Each of these types of familiarity has a functional correlation with the preferential mating pattern.

Intersexual familiarities transpire between persons of different sex standing in the grandparent-grandchild relationship to each other. The most common occasions for the display of these familiarities is at the dance and while visiting. We shall mention those occurring at the dance as typical.

The young men convey various meanings to the young women by sign language with the hands or by scratching and tickling the hands of the girls in the dance circle. The various familiarities of the Friendship Dances are in particular occasions for the display of familiarity behavior—the men putting their hats on the heads of the women, placing their arms about their shoulders or necks, and other movements. In the Raccoon Dance the men pretend to rub grease on the women. In the Bear Dance the men pretend that they are bears and endeavor to scratch the women. In the Chicken Dance the women place one foot on one foot of their male partners. More violent and overt forms of familiarity take the form of feinted blows with the hands, tickling, and poking with the fingers, and in various obscene gestures in the Bear Dance and Bugah Dance.

All of these familiarities are limited to persons of the grandparent-grandchild relationship and the other persons present are relatives who cannot be joked with and who enjoy the fun in a vicarious fashion, so to speak. The end result of the familiarities is that the sexual relationship is established between young men and the young women with whom they are enabled by means of the familiarities to become acquainted. Acquaintanceships of the type leading to marriage are not likely to be developed between a young man and his *giłoki* (father's sister) or with his *ungiDa* (own sister).

Intersexual familiarities appear to have a special correlation with the dance as a vehicle of the display of the relationship. In this connection it is curious to note that the periodicity of the dances inclined them to correlate with the lunar cycle throughout the Southeastern area. Regular monthly dances were formerly held among the Cherokees and Creeks at the time of full moon only. There is a negative correlation of sexual familiarities with the periodic menstrual cycle. During the menstrual flow, great stress is laid on avoidance of relationships so far as the woman is concerned, and this sets up a barrier to intersexual familiarities. She cannot participate in the dance during this period. The husband-wife relationship of solidarity is set up from the intersexual familiarities. This acts to break up the former solidarity of the two families of orientation of the pair forming the new union. Thus a new family is born.

The second form of familiarity, the satirical type, is that which prevails between brothers in the main. In the Eagle Dance and in the Friendship Dance ego's clan brothers may twit him about his faults and misdeeds and indulge in various comments at his expense. The person who is addressed is made the butt of every joke and sly dig. This is also an incessant activity wherever two or three relatives of the correct relationship are gathered together and is accepted as the only forms of exchange of the social amenities between great numbers

of persons. The principal feature to be noted in connection with this joking is the very obscene and coarse joking directed toward these men who attempt to marry their own *giloki* (father's sister). The person who indulges in this socially unwholesome marriage is made the butt of severe ridicule for the rest of his day. The satirical familiarities can, in this case, be seen to have the force of a satirical sanction of preserving the social system from violation of rule because few are the men able to stomach the ridicule thus self-imposed.

Another form of satirical familiarity, or at least familiarity used with the force of a satirical sanction, occurs in the case of the man who marries the father's sister. This person is said to "make himself grandfather" and he is the subject of a peculiar joke on the part of his wife's brother's sons and daughters. These latter gather together on an auspicious occasion when they can catch the father's sister's husband alone and ask him for tobacco, saying that they have diarrhea and need the tobacco to cure it. If the father's sister's husband refuses or has no tobacco on him, the children of his wife's brother have perfect right to set upon him, throw him to the ground, and then strike, kick, and otherwise maltreat him without resistance on his part.

This joke can be played only once by the same person on the same father's sister's husband but ego can play it on any one who marries a woman of his father's clan, otherwise he must respect persons of this relationship. The application of this ridicule sanction to the system of preferential mating can occur through the fact that the brothers and sisters of ego can plague him with this joke and get others to do so should ego decide to marry a woman of his father's clan. The threat of this joke has been known to actually deter men from such a violation of clan law.

The third form of familiarity, the indirect, is that which occurs between a father and mother and their children or between an uncle and his nephew or niece. This has been referred to in the section on preferential mating as one of the preceding elements to that event. Indirect familiarity between a father and mother and their children or between an uncle and his nephew or niece is allowed with preferential mating. The relation between the father and his son is typical.

At an early age in his son's life the father speaks to him about marriage. "You must marry my aunt," he tells the boy. The boy cannot understand at that time that it is the father's classificatory "aunt" who is meant and thinks only of the old and somewhat ugly person whom his father calls "aunt" in the home. This is hugely enjoyed by the father who is aware that sooner or later the boy will "catch on" to the joke. This enables the father, however, to

have a good deal of enjoyment at the expense of two relatives whom he cannot ordinarily joke, his father's sister and his own son. The point of this joke is that a respected relative is joked indirectly by ego about another respected relative. In this manner familiarity relations are implied between the two respected relatives. And so it turns out. Eventually the son finds that he can joke with and be entirely familiar with his father's giloki, who is gilisi to himself. It seems possible, then, to interpret the indirect joking of this type as correlated with preferential mating through its association with the embryonic stage of the grandparent-grandchild familiarity.

The kinship terminology of the Cherokees finds a natural complement in the general kinship behavior peculiar to the tribe. The behavior, however, must be kept separated from the terminology in order to discover the amount of correlation between the behavior and the terminology in the case of the individual relationships.

KINSHIP BEHAVIOR OF PAIRS

The kinship behavior is best analysed as a series of relationships between pairs of relatives. The most important relationships are the following: Father-son; mother-daughter; father-daughter; mother-son; husband-wife; brother-brother; brother-sister; sister-sister; father's sister-brother's child; mother's brother-sister's child; father's father-son's child; mother's father-daughter's child; grandmother-grandchild; wife's parents-daughter's husband; husband's parents-son's wife; and, lastly, the somewhat involved relation between husband's or wife's siblings and sibling's husbands or wives.

The father-son relationship (giDaDa-agwetsi).—Neither the father nor the mother differentiates the sex of the child in the terminology, yet behavior is conditioned somewhat by the sex of the child. The father jokes in an indirect fashion with his son but does nothing of the kind with his daughter. The father does not regard it as his duty to discipline the son since the latter is of the mother's clan and not his. The father, therefore, leaves to a considerable degree the upbringing of the son to the latter's mother's brother. Yet the father is very important in the boy's life. He aids and assists his son in obtaining skill in the crafts of life. Beyond that he always maintains a reserve and distant aloofness toward the son, as befits a person to be respected.

For the son the father is a skayegusta, which means a "road boss," "a chief," or "a person well dressed." The father is the representative of a clan or group of persons of the highest quality. The father must always be upheld in arguments with other persons, and it is impossible for a son to derogate or belittle his father in the slightest degree.

In joking with his "brothers," the son must never joke about his father's clan.

The father often jokes with his son about a third party, but the joking is kept on a strictly impersonal plane and as will be seen later develops into an important functional relationship. The father will joke with, and derogate his clan brothers and it will be the duty of his son to come to their defense.

So far as could be ascertained, the child does not differentiate in his behavior toward his real father and the numerous clan "fathers" with whom he is brought into relation. Toward all the attitude he must maintain is one of respect and exaltation.

Mother-daughter relationship (giDzi-agwetsi).—The somewhat stiff and formalized relationships existing between father and son prevail also between mother and daughter. The mother attempts to instruct the daughter in the arts of life, but the bonds of sympathy between the two are apparently not many. Most of the daughter's affection goes to the mother's mother, with whom relations of familiarity are maintained.

Father-daughter relationship (giDaDa-agwetsi).—Little could be ascertained as to the importance of this relationship. The father plays with his daughter when she is little but he maintains an aloof attitude later. The daughter in turn learns to respect and uphold her father and his clan.

Mother-son relationship (giDzi-agwetsi).—The mother is very important in the life of the son. It is she who first introduces him to the age-old lore of the tribe and starts him out in life. The mother must be respected and upheld by the son. Between the mother and son there can take place the same indirect joking as that which takes place between father and son, namely joking about a third party.

Husband-wife relationship (agi(x)yehi-agwadali e).—The relationship of husband and wife is held close by bonds of familiarity privileges. Various accessory epithets are used between the pair, the husband being referred to as "my supporter" or "he who lives with me," while the wife is called "the old woman," "my cooker," etc.

The sexual division of labor is somewhat marked, the woman doing the domestic work of cooking and laundering while the husband cultivates the fields or cuts wood for the fire. There are many cooperative labors such as hoeing and harvesting, in which the sexes join. In some fields of work the division of labor is very marked indeed; only the women make pottery, only the men carve wooden effigies or stone pipes. Certain games such as the ball game and bow and arrow games are reserved for the men exclusively. On the other hand certain dances are exclusively feminine.

There is an avoidance of sexual relations between husband and wife during the menstrual period and also in pregnancy but there is no segregation of the woman during these events.

Divorce is easy and frequent. The mode of separation depends upon the type of marital relationship involved. In those cases in which the husband has come to live with the wife at her home he simply leaves and does not return. The business of protecting the abandoned wife and her issue is then relegated to the woman's brothers. In other cases wherein the man and woman are living together away from relatives or with the man's relations, the woman picks up her belongings and goes back to her family.

The bonds of privileged familiarity which bind husband and wife together are described in the section on familiarity.

Older brother-younger brother relationship (unkinili-unkinutsi).—The relations between brothers are very close. There is a great amount of familiarity and privileged joking between them and brothers take a special pleasure in teasing each other before one another's children. The children must always defend their fathers in cases like this.

The older brother has the express function of protecting the younger brother and avenging any wrong done to him.

The older brother generally leaves the family household at an early date to set up his own home elsewhere. The youngest or younger brothers tend to stay at home and to take care of their parents. It is the younger sons who generally inherit the land tenures.

Brothers act as the moral censors of each other's behavior. If a man attempts to violate the law of clan exogamy or to marry someone of his father's clan, his brothers tease him and threaten a large number of practical jokes which are calculated to make the offender uncomfortable for the remainder of his life. There is no differentiation apparently between brothers who are sons of the same clan and real brothers so far as joking is concerned.

In the use of coarse and quite obscene joking between brothers, a tendency toward homosexual relationships characteristic of the South-eastern area is to be seen. Significantly enough, obscene joking is not extended to the sisters. Brothers often name each other's children and may joke each other by giving silly or ridiculous names to the children.

Brother-sister relationship (ungiDa-ungiDa).—The brother generally takes a protective attitude toward his sister. If his sister has been made pregnant, it is her brothers who take the initiative in accusing the so-called "invisible man" responsible. The accusation, if sustained by local opinion, leads to some sort of settlement on the part of the man responsible. If a sister has a number of children by "invisible men," her brothers will take the lead in building a house for her to live in and raise her children in.

Brothers act as moral censors to prevent their sister from marrying someone in her own clan or her father's clan. A sister who indulged in such an outlaw marriage would have to stand for a great amount of teasing, more than she would ordinarily have to endure.

Brothers cannot joke on sexual topics with their sisters. She can be joked in a mild fashion only.

The sexual division of labor separates brother and sister at an early age. The types of recreation and play of male and female children also differ immensely. Notwithstanding, if neither brother nor sister marries they may live together all of their lives in the parents' home-stand. The solidarity of brothers and sisters is immense, so great, in fact, that a number of accessory cultural devices in the line of privileged familiarity have to be called into play in order to overcome it and provide for the development of a normal husband and wife solidarity.

Sister-sister relationship (ungilu i-ungilu i).—The older sister is not distinguished from the younger insofar as terminology is concerned as the brothers are distinguished. There is a greater amount of sister solidarity and identification with each other as sociological equivalents. There is still a tendency for a man to marry first one sister and later another younger sister of his wife. Polygamy would be more common, or at least more open, were it not for white laws.

The older sister acts to instruct her younger sibling of the same sex in many of the duties of the household and she also acts somewhat as a protector.

One sister may jokingly refer to the husband of the other sister as "my husband." Outside of these points no marked features appeared in the sister-sister relationship.

Father's sister-brother's child relationship (gɪlɔki-agwetsi).—The paternal aunt is always accounted a person to whom the highest respect must be paid. She is just like a father. She protects and looks after her brother's offspring whenever necessary. She accounts her brother's children just as important as her own children. It is her function to name her brother's children, quite frequently. She will pick out a name such as her father's or her mother's for the child.

Mother's brother-sister's child relationship (gidu.dji-ungiwina or gidu.dji-ungwatu).—The mother's brother is, next to the father, the person regarded with the highest respect of all ego's male relatives. It is the mother's brother who acts to regulate the conduct of the growing boy and he teaches his sister's son much in the way of hunting lore and magical formulas. He also jokes with his sister's son in an indirect fashion about third parties just as the boy's father does. When his nephew or niece is sick, it is the mother's brother who attends

to them. The nephew or niece will be able to tell the mother's brother to do something and he will generally do it.

Father's father-son's child relationship (ginisi-ginisi).—The father's father can play with and tease his grandchild but the grandchild is not supposed to reciprocate. It is thought best for the grandchild to accept the indignities involved in the teasing because the paternal grandfather is a person of respect. Toward anyone else in the father's father's clan, however, it is quite the proper thing to exhibit behavior of the utmost familiarity.

Mother's father-daughter's child relationship (giDuDu-gilisi).—The mother's father can tease and joke with his daughter's child to his heart's content and the child is likewise free to tease and joke with the mother's father to any degree. It is in his grandfather's clan maternal or paternal that the boy finds the greatest amount of freedom and familiarity.

The husband of the paternal aunt, who is regarded as a giDuDu by ego, is the subject of a peculiarly ritualized joke on the part of his wife's brother's children. This is the tobacco joke to which full reference was made in the section on familiarity (p. 248).

Grandmother-grandchild relationship (gilisi-gilisi or gilisi-ginisi).—The great freedom prevailing between the mother's father and his daughter's children also exists between the grandmother both paternal and maternal, and their grandchildren. Joking is carried on all of the time and a great amount of familiarity is always present. The grandmother is the person who is remembered as having first borne her grandchild on her back and as the playmate of the grandchild. Yet some grandmothers are feared and an ugly old woman or grandmother is said to be a witch and the children are greatly afraid of her.

Wife's parents-daughter's husband relationship (tcinatsi-agi Nudji).—This is a relationship of mutual respect. One may joke mildly with a son-in-law but not in a really familiar manner. Ego must respect the mother- and father-in-law just as he does his or her own father or mother.

Husband's parents-son's wife relationship (djiDzo i-agiDzo i).—This is a relationship of mutual respect which is virtually the same as the preceding.

Mate's sibling-sibling's mate relationship (agwelaksi-agwelaksi).—The relations that ego bears to his wife's brothers and sisters or to her husband's brothers and sisters is invariably one of familiarity. There is reciprocal joking of a complicated and extensive nature between these relatives which is partly expressed in special terms for agwelaksi relations. The familiarities involved have important implications and will be dealt with later.

GENERAL SOCIAL FEATURES

BIRTH AND CHILDHOOD

There are certain social features adhering to the individual life cycle, the dances, and the games of the Cherokee which merit attention in this description. First, on the life cycle.

The information available on the birth rites and early life of the Cherokee infant is rather scant. Frans Olbrechts has investigated this phase of Cherokee life and intends to publish considerable data on it in the future.¹¹

The pregnant mother goes at each new moon to the waterside to pray. The conjurer laves her head, bosom, and face and prays with her. He then divines with beads on a cloth as to whether the child will live or not, and how long. In order to facilitate delivery and cleanse the system of the mother, various drinks are administered. Various taboos are laid on the pregnant mother as she is considered very dangerous. She must not prepare any meals nor go near growing crops or fishtraps. She must not eat a number of foods, must not wear certain articles of apparel, must not see a corpse or a mask. The pregnant woman's husband is likewise under various disabilities. He must dig no grave, not play in the ball game, and must accompany his wife in her various rites before delivery.

In parturition, four women attend. A conjurer may be present if the delivery is difficult and he resorts to various magical formulas to induce the child to be born. The placenta is disposed of by the father, who crosses two to four ridges and then buries the placenta deep in the ground. The next child will be born within a number of years corresponding to the number of ridges crossed. If the placenta were thrown away in the open, another child would be born almost any time.

The child is given a name some 4 or 7 days after birth, according to some accounts, by a prominent old woman of the community. From the field accounts of the present writer, the father's family is generally delegated with the task of selecting a name for the child. Sometimes the father's brother will select a ridiculous name as a joke for the child and the parents will be forced to accept it. Generally, however, the father's sister selects the name for the child. Later on in life new names may be acquired by the child, descriptive of its character or achievements.

When the child is 3 or 4 weeks old it is carried about sitting astride the mother's back. The grandmother has this function also and the term *gilisi* used for her means "she bears me on her back."

¹¹ Parts of the following are from his Swimmer manuscript (Mooney and Olbrechts, 1932, pp. 116-131).

Certain children are raised to be "witches." These are given a special diet of a liquid potion of corn hominy for some days and then certain other medicines are administered and prayers said at the end of a given period. These children then grow up to be powerful magicians who can fly through the air and under the ground and assume any shape. They can wish anything and it immediately takes place. They are a terrible calamity to the community so they are generally sought after and slain in infancy. Twins are regarded as potential witches, also, whose abilities may be even more readily developed.

At the age of 4 or 5 the young boys make bows and arrows under the supervision of their fathers or elder brothers. Little girls of this age begin to assist in the household duties. The children also begin to participate in the dances at this age. Various games occupy the time of the children. Toy bows and arrows are used to shoot at crickets and apples in the trees. The game of hunter and deer is played. Other sports are indulged in, such as rolling stones down the mountains, and playing on toy musical instruments, and various athletic sports.

Instruction now begins to follow the line of the sexual division of labor. The boys are taught by the mother's brother various formulas for success in hunting and obtaining success in love affairs; the girls are taught to make baskets, pottery, and to perform various household tasks.

MARRIAGE AND ADULTHOOD

There are apparently no ceremonies connected with the initiation of the child into the adult group. Entrance into the adult status generally occurs automatically with the marriage relation. The direct mechanism involved in courtship will be described later in the discussion of familiarity and the dance. (See pp. 263-264.)

The young people meet at various places. The principal mode of acquaintanceship is the habit of visiting relatives. The mother and the father of the family are always taking the children around with them in their visits to relations. The friendship of the boy and girl may be still further developed at the dances, at the friendship dances, and the ball dance in particular.

A marriage may take place in various ways. The man may simply go to live at the house of the woman, and she may then bear him children. Afterward he may tire of the woman and leave for some other community. Or in other cases the man may take the woman to his own house, and she will stay there while their family is being raised. In still other cases the young couple may go out and found a homestead of their own on the mountain slopes.

There is little or no ceremony connected with the formation of a new family. The groom may give a wedding feast at his home for all

the relatives of his own and the bride. It is said that in the past a woman signified her acceptance of a young man's proposal of marriage by pounding up into flour and then baking into bread a sack of corn left at her door by him.

The age of consent in marriage is 15 for girls and 17 for boys. However, marriage earlier than these ages frequently occurs. Late marriages are by no means uncommon. Either these later marriages are generally of ugly persons unable to find a mate earlier in life or remarriages by conjurers. Late marriages and many of the early ones involve the use of love charms or magic to induce affection in a woman who is much desired.

After marriage the man farms, looks after the stock, cuts wood, hunts game, fishes in the river, or visits other villages. The woman does the household chores, looks after the children, cooks, sews, washes the clothes, and perhaps follows her husband around in his visits. In all public meetings, such as the ball game, dances, church services, and the like, the women always congregate by themselves apart from the men.

The man regards with great respect his wife's parents, and she does the same with his. The husband will never joke with or treat in a familiar manner the wife's parents, but he can treat with great jocularity any brother or sister of his wife. She likewise jokes with the brothers and sisters of her husband.

SICKNESS AND DEATH

As age creeps up, the number of diseases afflicting the individual begin to multiply and assume increased importance. Disease is regarded as being caused principally by malevolent conjurers or by nature spirits whose evil influence must be warded off by enlisting the aid of some powerful conjurer on the side of the patient. Later on in this paper some attention will be given to the theory of disease causation among the Cherokees and its social implications. (See pp. 294-297.)

When sickness comes to the family and its activities are so definitely crippled as to threaten its health and well-being, the local cooperative poor-aid society steps in and does the farming and housework of the family until the latter is on its feet again.

When death comes to the family, the local cooperative again functions, this time as an undertaking establishment. Mooney and Olbrechts (1932, pp. 131-144) have graphically described the death and burial of an important member of the Big Cove community.

Beyond a few miscellaneous tasks, relatives or immediate kin are not allowed to take any part in the funeral arrangements or burial of the deceased. The corpse is washed, dressed, and then lies in state for several days for all to come and get a last look. The friends of the family

watch the corpse day and night. The coffin, which has been prepared by the funeral society, is brought, and then the corpse is placed inside it and borne to the cemetery. An ordinary Christian burial service is generally held at the house of the deceased before burial. And so the life cycle is completed.

THE DANCE

The next general social feature is the dance. There are some 24 dances current or remembered among the Cherokees of Big Cove. Some 8 of these have fallen into disuse. The following are the dances known: Ant, Ball, Bear, Beaver, Buffalo, Bugah, Chicken, Coat, Corn, Eagle, Friendship, Green Corn, Ground Hog, Horse, Knee Deep, Medicine, Partridge, Pheasant, Pigeon, Raccoon, Round, Snake, War, and "Woman Gathering Wood." The Ant, Buffalo, Chicken, Medicine, Pheasant, Pigeon, Raccoon, and War Dances have all lapsed from current use and are only half remembered. In Birdtown several additional dances are performed to which later reference will be made.

In most of the dances both men and women participate, but only men are allowed to lead and to do the singing for the dancers. A few dances are confined to one or the other sex.

Most dances are led by a singer who has a drum or gourd rattle in his hand and who may or may not participate in the motions of the dance. The rank and file of the dancers, who follow the leader in single file, may accompany the singing of their leader, or they may finish out his initial phrases, or they may reply in antiphony. A woman with tortoise-shell rattles fastened to her legs generally follows immediately after the leader and keeps time for his singing by shaking the rattles on her legs in rhythmic sequence.

The musical instruments used in the dance consist of (1) a ground-hog skin drum, (2) one or more gourd rattles on short sticks, and (3) several tortoise-shell rattles bound about the legs of the woman leader.

Various ornamental and characteristic features are introduced in the dances, such as pine boughs, sticks, eagle-feather wands, pipes, masks, and robes of various kinds. Costumes of skins were said to have been used in the past but today, except for the masked Bugah Dance and the dances at the annual fair in imitation buckskin, the plain overalls of everyday life are worn.

The dances are usually held at night. Certain dances are given only in the early part of the evening and others are relegated to the hours after midnight. The evening dances are the Eagle, Bugah, Beaver, "Woman gathering Wood," and Pigeon. The Friendship Dances may continue all night as may also the Ball dances. The general order of the evening dances is for a Bugah Dance to precede an Eagle Dance after which may come a Friendship Dance. Or perhaps a Pigeon Dance may start off the evening followed by a

Beaver and then a Bugah Dance. If the Eagle Dance was scheduled, the Pigeon Dance would be left out, or vice versa. The Bugah Dance, again, will almost always contain a Bear Dance given by its masked performers.

Somewhat after midnight, at about 2 o'clock in the morning, there commences another series of dances known as *teudale Nuda* or "different dances." These are also called *uskwiniye'da* or "every kind," from the word for a general store. These dances generally run in about the following order: Coat, Ground Hog, Corn, Knee Deep, Buffalo, Ant, Quail, Chicken, Snake, Raccoon, Bear, Horse, and, finally, the Round Dance after full daylight has come.

Dances may be given in the daytime. The Green Corn Dance is given at any time during the day but is never ended until after dark. After a morning Round Dance as mentioned above, the new day may be started with another Eagle Dance or perhaps by a game of women's football.

Some dances should be given only at certain seasons. In the recent past if the Eagle, Bugah, or Snake Dance were given in the summer, snake bite or cold weather would be sure to follow. The proper time for these dances is the frosty season from November to March. It is thought that the disappearance of the old-time conjurers may have something to do with the fact that these dances can now be given with impunity in the summer. As we shall see in the section on culture change (p. 367), a regular annual cycle of dances used to be held monthly throughout the year among the Cherokees. Of this cycle but little evidence is available now.

Although dances can, in the main, be held either out of doors or in the house, the majority are now held indoors. Sometimes a regular periodic round is made of all the houses in the neighborhood, each weekly or biweekly dance being held at a different house. At Big Cove, during the writer's visit there, all of the dances were held at a convenient house in the valley flats.

The number of song accompaniments to a given dance may range from 1 to 14 but the average is about 4. A song consists of an individual melody sung with a series of more or less meaningless words or syllables, consisting of terms for obsolete towns and places, unintelligible onomatopoeic phrases, and the like. In the Friendship Dances considerable scope may be given to the improvising of syllables and melodies and in the course of several hours as many as 40 or 50 songs may be sung. In the main the syllables and the accompanying melodies seem to be somewhat stereotyped except that vowel quality of the syllables seems to vary in the numerous repetitions. The average duration of a single dance with its 4 songs and their repetitions may be from a quarter to a half an hour.

A roughly alternate order of slow and fast melodies seems to be maintained, with the faster tempos seeming to predominate toward the end of the dance. The steps used in dancing do not vary perceptibly from dance to dance and consist of simple rhythmic walking steps in time with the drum or rattle. In fast time a sort of quick hopping motion develops. In the Bugah Dance any kind of a step may be allowed. Much dancing is done with the upper parts of the body, especially the arms, shoulder, and head.

All kinds of conventionalized and naturalistic motions accompany the dances. Except in the cases of the Green Corn Dance and the Ball Dance, most of the dances have lost all significance in connection with outside activities or occurrences. True, hunting methods and habits of various animals are simulated as well as the movements of sowing seed and tillage of the soil. But these motions are incidental and apparently lost in a maze of other less explicable movements. The basic motif of the dances as they are at present performed seems to be the social one of a good time and making acquaintances.

Clapping of the hands is a common feature of the Friendship Dances. This action expresses the joy and happiness being experienced by the participants. Bears are thought to clap their hands when pleased. The enjoyment of the dance was so great in the past that whenever some family had lost a member by death the rest of the neighbors would give a dance to make them forget their sorrow.

SPECIFIC DANCES

In the Friendship Dances the young people get acquainted. There is a great amount of teasing and joking of relatives occurring at these dances in particular. The young men will scratch the young girls' hands with their fingernails, slap them or feint blows at them, poke at them, or otherwise tease these familiar relatives. For the older people the word "Friendship," attaching to these dances, signifies the renewal of the pleasures of their youthful experiences in love and social intercourse.

In the Eagle Dance and in the Friendship Dance the leader or principal performer can tell a story as he dances. He may perhaps recount his conquests over women or his acquiring of great wealth. He will never fail to get in some jibes at his joking relatives while he sings.

The gotogwaski, or "caller," is the organizer of a dance occasion and it is he who calls off the names of those who are to lead each song step. At the end of a song he shouts out words of encouragement and applause. He always endeavors to pick the best and strongest singers as leaders. The leader starts to walk around in a circle singing his song and followed at first only by one or two old men. Other men join

the circle and then the woman with rattles on her legs and finally a vast number of girls, boys, men, and women are circling around at a faster and faster rate. After the song ends the whole group makes a wild dash for the door and fresh air.

Since the dances of the Cherokees are of extreme importance in the social integration of the tribe, it will be in point to briefly mention the outstanding characteristics of the remembered dances, especially those whose social function seems more strikingly important than others.

The Ant Dance (*daksu dali*) consisted of a snakelike procession in single file, the participants moving about like a colony of ants. Both men and women participate but the men do all of the singing and the singing leader dances with a gourd rattle in his hand. The leader sings about the ants and says that their grandmothers are flying.

The Ball Dance (*dundje-la Nuni*) is performed in two parts, one by the men and the other by the women.¹² The men go to water both before and after a ball game. The men's dance consists of a procession of the players about the fire, racquet in hand, singing some four songs. The singing leader has a gourd rattle in his hand and dances at the head of the line. Simultaneously with the men's ball dance, or perhaps in its intermissions, the women give their dance. The details of this dance are very important and are worth considering at some length.

A male singer seats himself facing the town which the team is to play against and takes his drum in his hands while the seven women dancers line up in a row behind him. Then, as the drummer begins to sing, the women dance forward and backward. Only the first and last songs are danced, the others consist in merely singing to the accompaniment of the leader. After each song the drummer will give some derogatory remarks about his familiar clansmen in the opponent town, saying that their town is bound to lose in the coming game. Then the women may likewise make up jokes about their clanspersons in the opponent town. After one drummer is tired, another will take his place and joke his fellow clansmen of his own clan in the opponent town. This magical rite concludes with the whole group "going to water" for certain lavations and purifications. This joking of the opponent town has the apparent effect of magically weakening the opponent town and causing them to lose the coming game. This is one of the most striking correlations of magical potency with relations of familiarity imbedded in the kinship system to be found.¹³ Fuller reference to the possible significance of this rite in connection with

¹² The Ball Dance has been described by various authors, of which Mooney's description in his article on *The Cherokee Ball Play* (1890, pp. 105-132) is perhaps the best. This dance dates back at least 100 years.

¹³ No previous mention has ever been made of this joking in the numerous references on the Ball Game. Mooney, in the article previously referred to, mentions the "conjuring" which goes on at the Ball Dance.

other magical establishments of familiarity will be made in the discussion on integration and extension of social principles to magic and myth.

The Bear Dance (*yo na*) is an important dance given after midnight.¹⁴ Men and women both take part in this dance, which requires the use of gourd and tortoise-shell rattles. The general course is a spiral motion by a group in single file about the fire or pot or whatever can be made to serve as the center of revolution. Various obscene familiarities are indulged in between relatives in this dance, especially between the men and the women. The words of the songs refer to the bear's habits.

The Beaver Dance (*doya*) is mimetic of the beaver hunt.¹⁵ Each dancer carries a small stick about 2 feet long, and this stick is flourished in various manners. The principal feature of this dance is an animal skin, meant to represent the beaver, which is pulled back and forth on a series of strings and which the dancers attempt to hit. Missing the skin affords immense amusement to the participants and spectators alike and this is consequently a favorite dance.

The Buffalo Dance is hardly remembered.¹⁶ Masks and skins were said to have been used in this dance, which was mimetic of the hunt of buffalo.

The Bugah Dance (*tsunagaduli*) is a masked dance of particular social importance. The name is of obscure origin but the actors in the dance are called Bogeys or sometimes Buggers.¹⁷ Considerable paraphernalia and preparation are necessary for this dance. From 6 to 12 masks made of gourd, wood, or pasteboard are collected beforehand in the neighborhood as well as 6 or 10 gourd rattles and a ground-hog skin drum. From all of the women present one man, the organizer, collects shawls, wraps, or sweaters to clothe the bogeys in.

Six men seat themselves at one side of the room, a drummer or leader with five assistant music makers holding gourd rattles. These persons are known as *dininogiski*, "callers," whose function it is to sing and call the bogeys. When the callers have completed their sixth song, the bogeys enter one by one, concealed by masks and various wrap-around materials, and hobbling in various comical positions and with odd motions. They wear the strangest make-ups and endeavor to do everything in a topsy-turvy manner.

There are seven of the bogeys and as the seventh song is played they dance in a circle about the room and endeavor to scare those children who are *ungilisi* or *digiDuDu* relatives to them. They also

¹⁴ Mentioned by Timberlake (1929, pp. 102 ff.).

¹⁵ Described by J. P. Evans in Payne MSS., vol. 6, Sketches of Cherokee Characteristics, 1836.

¹⁶ Mooney (1900, pp. 352, 485) mentions it in an Iroquois myth.

¹⁷ J. P. Evans (1836, in Payne MSS., vol. 6, Sketches of Cherokee Characteristics) describes this dance as part of the Eagle Dance.

tease the grown-ups who are their familiar relatives. The relatives and spectators in the room enjoy this game of guessing which of their familiar relatives the teaser is.

At the end of the seventh song the bogeys seat themselves in a comical fashion and with clumsy gestures on a log at one side of the room. The interpreter or organizer, meanwhile, is asked by the head caller to put some questions to the bogeys. The first question is generally, "What is your name?" or, "Where do you come from?" The interpreter then goes up to the first bogey and repeats the question to him. To this the bogey gives a whispered reply and the name he gives himself is always either ludicrous or obscene. He gives as his place of origin some remote or fanciful locality. He may joke a familiar relative in a neighboring town by giving his name. After the initial questions are over, the first bogey gets up ludicrously and clowns in a dance all his own. During the dance the music maker or chief caller calls the name of the bogey over and over again and the bogey goes through motions and gestures appropriate to the name which he has given himself. The steps of this solo dance are utterly unlike any other Cherokee dance and consist of a series of heavy hops in rhythmic time. When the first bogey is through, the whole thing is gone over again with the next one and so on down the line.

Following this the interpreter asks the bogeys to do a bear dance together. This is done and then the audience joins in with the bogeys. As the dance proceeds the bogeys tease their familiar relatives, especially the women, in obscene and ridiculous ways. After this dance the bogeys leave and go to some remote field where they remove their disguise and slip home without being recognized. After the bogeys are gone, the audience generally begins a friendship dance.

The Bugah Dance is one of the most extremely used occasions for the display of the joking and privileged familiarity relationships between relatives. The bogeys may even tease and joke each other if they are in the correct relationship. The crazy movements of the Bugah solo dance may imitate everything except the motions of white peoples' dances. The bogeys themselves may imitate white people, negroes, or joking relatives.

The next dance, the Chicken Dance (*sata'ga*) has not been given for some time in Big Cove. The principal feature of this dance consisted of the woman resting one of her feet on the foot of her male partner in the dance, and hopping with the other foot. This dance was said to have been the cause of much jealousy and fights. The Chicken Dance is possibly mimetic of a bird habit.

The Coat Dance (*gasule'na*) is apparently of little significance, now. In the older days the men were said to have bought their brides

with buckskin coats as payment and in this dance some motions are made of covering or "claiming" a woman with the coat.

The Corn Dance (*se'lu*) is apparently mimetic of the actions of planting corn. The women were said to have done the planting and the men to have followed with the hoe to cover the seeds with earth. The term *adan wisi*, "they are going to plant corn," is possibly allied with the dance called "Yontonwisas" by Mooney (1900, pp. 365-367) and may be the Corn Dance.

In the Corn Dance the men cup their hands as if they were pouring corn grains into the aprons of the women and then the women reciprocate in giving the corn to the men. Various other arm movements take place between the sexes in this dance.

The Eagle Dance (*tsugi'dali*) is probably the most important and most revered of the Cherokee Dances.¹⁸ The eagles were said to have gathered together and teased each other just as men do in the Eagle Dance. The Eagle Dance used to be held in the fall or winter when the eagles were killed but now it is held at any time. In addition to its function as a celebration of the killing of an eagle, the Eagle Dance has several subordinate elements such as the Scalp Dance which celebrates victory in war (Mooney, 1900, p. 496), and the Peace Pipe Dance which celebrates the conclusion of peace. The chief function of the Eagle Dance at the present time is the celebration of victory in the Ball Game.

In its present-day performance, all of the elements of the Eagle Dance are somewhat mixed together. The Scalp Dance is a solo dance in which the young man can dance and tell his story, vaunting his bravery before the women or other men. He derogates the deeds of his clan brothers and joking relatives, saying that they are cowards and of no value to the tribe. When the derogated relative's chance comes, he in turn derogates the former singer.

The rather elaborate ceremonial involved in killing and propitiating the eagle which preceded the Eagle Dance has been described by Mooney. At present, dances can be given without killing an eagle. There are, in all probability, totemic values attaching to the Eagle.

The Friendship Dances (*di'sti*) are a mixed assemblage of a large number of dances whose primary significance is shared in common, namely the social intercourse which is necessary for the young people in order that they may find husbands and wives among potential relatives.

The familiarities of the Friendship Dances consist of such actions as the men placing their hats on the heads of their female partners, putting their coats around them, putting their arms around their shoulders and necks, and performing various overhand movements with them and

¹⁸ Mooney, 1900, pp. 281-283. The Eagles were formerly killed only by a professional "eagle killer" like the deer and wolf.

others. These are the dances for getting acquainted and all of the motions of the dance are designed, or appear to be designed, to break down shyness and reserve on the part of the young people. This reserve is broken through, however, strictly along the line of the familiarity relationship with specific relatives. It is impossible, or in general improbable, that a young man will tease or joke with a woman of his father's clan, or even of his own clan. On the other hand if he finds a "grandmother" (gilisi) or a "grandfather" (giDuDu, ginisi) he can tease them to the extreme. It is most likely that he will tease the women rather than the men as privileged familiarities between men are reserved for other occasions. At the dance a man must find a wife and there is only one way to find a wife and that is to select her out of the group of women with whom he can carry on relations of familiarity.

The typical Friendship Dance begins with a few of the older men moving around in a circle about the room.¹⁹ The woman with the tortoise-shell rattles on her legs joins in the circle and then come the older women followed by the younger men and women. Round and round the circle goes, gradually picking up speed and volume as more join and none leave the magic ring of dancing humanity. Finally the crowd becomes too great for the one small room, the heat and sweat becomes too much, the dust too choking, and so with a final whoop all rush forth into the open air.

Aside from certain features, such as a stygian smell of old tobacco permeating the air and the constant spitting, the Friendship Dance is one of the most fascinating features of Cherokee life. This dance holds a gripping power as great as any opera in our own society, for its drama and music are the prime expression of the socially significant facts of Cherokee existence. In the renewal of their old-time mating memories the older people find their chief consolation as age advances. In the sex glamor of the occasion the young people find their chief recreation. In the general cheerfulness of the atmosphere generated those who mourn for deceased relatives may find forgetfulness.

The Green Corn Dance (agohundi) is an all-day dance which takes place in September after "Roasting Ear's Time."²⁰ The name given to this dance refers to a town where, according to tradition, this dance was given especially well. This occasion has no direct connection with the Corn Dance, except that the latter celebrates the planting of the corn, while the Green Corn Dance celebrates the harvest.

The Green Corn Dance is really a composite of several other dances. First, there is an all-day dance by the men in which guns are fired at intervals of half an hour to make the noise considered essential to this

¹⁹ J. P. Evans (Payne MSS, vol. 6, Sketches of Cherokee Characteristics) describes Friendship Dance in 1836.

²⁰ This dance is described by Butrick as the third in his Annual Series of Festivals. (See Payne Mss., vol. 1.) It is widespread among the tribes of the Southeastern area.

dance. Secondly, there are three evening dances—a Grandmother Dance by the men, a Meal Dance by the women, and a Trail-Making Dance by both sexes.

The all-day dance is the essential celebration of the completely successful harvest. The Grandmother and the Meal Dances are mimetic of the preparation of the corn meal by the women and grandmothers, and the Trail-Making Dance, as its name implies, mimics the activities of fixing up the trail for next year. After the dancing is over, a big feast is held in the evening, and everyone eats in great plenty of the fruits of the harvest.

Now follow three dances of no great social importance. The Groundhog Dance (ogonu) is not of any great importance now.²¹ The motions of the dance are highly conventionalized and not significant. The Horse Dance (sogwili) is imitative of the marching and prancing movements of the horse. The dancers move slowly back and forth in a row, occasionally giving a kick as a horse will do. The Knee Deep Dance (dustu) is a short dance named after a little frog which appears in March in the part of the Spring known as "Knee-deep time."

The Medicine Dance (egwa nuwati) appears to have virtually disappeared. It is of considerable significance, however, in connection with the familiarity relationship. This dance appears to have been held after the leaves had fallen into the streams in October.²² This mixture of the virtues of the leaves with the water caused the people to believe that the river was a gigantic medicine pot whose boiling was evinced in the eddying and foaming of the water. So this became "Great Medicine" time, the period in which life renewal and protection from all disease could be secured by bathing in the stream.

A mixing of actual medicine in pots occurred at this time also. While the pot boiled all night, the women and men used to dance to keep awake, and then in the morning they went to bathe in the stream for purification. The long hours of the night used to be passed in joking each other's "grandfathers" (digiDuDu) and "grandmothers" (digilisi). This joking became the main feature of the dance. The women were said to have taken the initiative in joking the men at this dance. If the men were shy, the women would catch them and force them to dance.

The Partridge or Quail Dance (k.gwe) is a dance somewhat resembling the Horse Dance and supposed to be initiative of the movements of the quail.

Similarly of little importance, the Pheasant Dance (tadisti) has completely vanished but it is remembered that the drumming of the

²¹ Origin myth for this dance is given by Mooney (1900, pp. 279, 452).

²² This dance is a remnant of the 4th Great Annual Festival described by Butrick in Payne Mss., vol. 1.

pheasant was imitated during the course of the dance (Mooney, 1900, p. 290).

The Pigeon Dance (wayi) was an important dance in the past and numerous efforts are made to revive it from time to time. The actions seem to be mimetic of the stalking and capture of a flock of pigeons by a sparrowhawk. One strong man represents the hawk and he is painted red on the face, wears feathers, and is naked to the waist. He carries a buckskin in one hand and stands in a dark corner awaiting the line of dancers representing pigeons. As they pass him he swoops down and captures one with the buckskin. He then retires to his corner only to swoop down on another one and so on.

The Raccoon Dance (kuli) is also lapsing. It was mimetic of the capture of the raccoon in the tree where he has taken refuge. Some of the motions of the dance indicate joking of the women by the men as in the Bear Dance. The men pretend to rub the grease of the raccoon on the women, the grease being an adorning feature.

The Round Dance (ade'yohi) is a farewell dance which finishes an all-night series of different dances. It is said that this dance refers to the people having to go around the mountains in going home. The first half is a women's dance but the men join in the second half.

The Snakelike Dance, inadiyusti, consists of spiralings by the line of dancers about the fire.

The War Dance (daNowehi) has not been given for a long time. It was said to have consisted of various military deployments backward and forward and about the fire, all imitative of the scouting and engagement of actual warfare. There was a magical significance attaching to this dance since it determined which warrior would come back safely of those who went to war.

The Woman Gathering Wood Dance (adohuna) was once regarded as preliminary to all the other dances. It is apparently mimetic of, or at least connected with, the women's gathering wood to feed the fire. The movements are mostly back and forth movements by a row of women, the men taking no part.

This list concludes the series of dances known in the village of Big Cove. In this area the old-time methods of dancing have been remembered and carried on the longest, by universal testimony. Nevertheless, a considerable interest in dancing and periodic indulgence in the characteristic Cherokee dances was found at Birdtown. Several additional dances are known in Birdtown which seem to be lacking in Big Cove. These are: The Witch Dance (skili), in which the performers imitate goggles on their eyes with the use of their fingers; The Gagoyi Dance ("curled up," or "twisted") whose evolutions resemble the Ant Dance; and the Parched Corn Dance (gawicida itcu), which was an additional part of the Green Corn Dance.

TABLE 5.—Dances of the Cherokees

Name	Number of songs	Given in evening	Given after midnight	Instrument			Function and significance
				Gourd	Tortoise shell	Drum	
1. Ant.....	1		X	X			Imitative of ant colonies. Magical attainment of victory in ball game. Imitative of animal habits. Occasion for familiarities between sexes. Imitative of beaver hunt. Imitative of buffalo. Imitative of buffoons. Occasion for privileged familiarities. Imitative of bird habits. Occasion for privileged familiarities between sexes. Imitative of taking a wife by paying a coat. Imitative of corn planting. Combination of various dances commemorating victory. Joking between men. Many dances all designed to promote familiarities between sexes. Celebrates the harvest of corn and composed of several dances. Imitative of hunting ground hog. Imitative of horse movements. Renewing health. Occasion for familiarities between sexes. Imitative of quail movements. Imitative of pheasants. Imitative of hawks hunting pigeons. Imitative of hunting raccoon. Familiarities between sexes. A woman's dance which culminates in all-night dance at daylight. Imitative of snake. Magical protection and movements of war. Imitative of woman gathering wood for fire. Begins a series of dances.
2. Ball.....	4 and 13	X	X	X	X	X	
3. Bear.....	7		X	X			
4. Beaver.....	4	X		X	X	X	
5. Buffalo ¹	2+			X	X	X	
6. Bugah.....	7	X		X	X	X	
7. Chicken.....	1+		X	X	X	X	
8. Coat.....	4		X	X			
9. Corn.....	4	X		X			
10. Eagle.....	14	X		X			
11. Friendship.....	44+		X	X			
12. Green Corn.....	7		X	X			
13. Ground Hog.....	4+		X	X			
14. Horse.....	7		X	X			
15. Knee Deep.....	2		X	X			
16. Medicine ¹	4	X		X	X	X	
17. Partridge.....	1		X	X			
18. Pheasant ¹	3+		X	X			
19. Pigeon.....	3+		X	X			
20. Raccoon.....	2		X	X			
21. Round.....	4		X	X			
22. Snake-like.....	2		X	X			
23. War ¹	2+	X		X			
24. Wood-Gathering.....	7			X	X	X	

¹ Extinct.

The main features of the Cherokee dances are presented in table 5 (p. 267) in summary form. It will be seen from the data presented just how tremendously important the social motive is in the dances and how they play a most characteristic role as the vehicles of privileged familiarity between relatives. The analysis of this function will be presented in the section on social integration (p. 309).

THE BALL GAME

Similar to the dances in social importance are the sports. The chief sports or games among the Eastern Cherokee consist of the following: Cherokee ball; women's football game; basket game; "arrows"; matches of various kinds such as archery, rock casting, pitching of stones, and match hunts; various children's sports and others. In this discussion attention will be devoted only to those games which have social significance.

The first and most important of all Cherokee sports is the ball game.²³ This game, apparently a local version of an Indian game almost continental in its range of distribution, has a special importance in Cherokee culture as a basic form of organization of town units in opposition to each other.

The dantelidahi, or "captain," organizes his team from the available young men of the town and may have as many as 20 players enrolled. In the actual playing only 12 are allowed to participate. There are appointed two "drivers" to separate the players in the scrimmages and keep the game going. As a rule each town has its team play three games a year. Summer is the ball game season.

The way of arranging a match is for the captain of one team to send out two messengers to a rival town challenging them to a game. The rival town appoints two men to receive the challenge and to accept it. Then the rival captains get busy and search for the best conjurer available in order that as strong a magical power as possible can be brought in to aid in winning. Extraordinary measures are sometimes resorted to in order to secure a good conjurer. The whole community may turn out to hoe the fields or perform work on the conjurer's fields in order to show their good will and regard for the conjurer's powers.

The conjurer prays and divines what the future has in store by a special technique. If he finds that the opponents are stronger than the home team, he takes measures to strengthen the latter. These measures consist of "scratchings," prayers, going to the river and bathing at stated intervals, and the dance for the 4th night before the day of the game. The players must fast and abstain from their wives during

²³ Described by Timberlake, 1929, p. 102; Bartram, 1853, p. 299; Haywood, 1823, p. 286; Butrick in Payne Mss., vol. 4; Evans in Payne Mss., vol. 6, pp. 17-25; Lanman, 1849, pp. 100 ff.; Mooney, 1900 (already cited in connection with Ball Dance); and Culin, 1907, pp. 574-588.

the latter part of their period of training. The captain of the team "calls" the leaders of the nightly ball dances. In the magical rites for strengthening, the conjurer especially looks after the ayeli anakstone i, or "center knockers," for these are the men who jump in the center when the ball is first tossed up at the beginning of the game and this event is important in deciding which side first gets the ball.

Before the game bets are placed by players and spectators alike on the probable outcome. These bets, generally wearing apparel or more often money, are thrown in a pile and two men, one from each side, are appointed to watch them. Sharp sticks are stuck into the ground to register the bets.

The game is played between two goals, generally trees. The touching of the opponents' goal with the ball in hand by a player of the other side constitutes a score of one. Twelve scores win the game. The ball, a small golf-ball-sized object, is tossed into the air by one of the drivers and is then batted back and forth with racquets until someone catches it in his hand and runs to the opposite goal. If two players start wrestling for the ball, a foul is declared and the ball is tossed up again for a fresh start. The manner of playing is extremely rough and injuries are frequent, especially since the players are dressed only in the equivalent of a pair of trunks. After the game, the players are ceremonially scratched and retire for supper, the bets being allotted out to the winners. Seven days after the game, the winners hold an Eagle or Victory Dance to celebrate. Great stress is laid on magical power as the sole determinant of the winning or losing of games. The games, in fact, resolve themselves into a rivalry of conjurers in opposing towns rather than into any rivalry of teams. Hence, the magical rites surrounding the game are extensive and esoteric.

OTHER GAMES

The game of Cherokee football was a form of social opposition between the sexes. It was played by a team of from 10 to 15 women matched against 10 or 15 men. Usually the women were given one strong man on their side for additional assistance. Each team was organized by a manager. The small groups comprising these teams were drawn from the same neighborhood. One side would challenge the other and the challenger had the privilege of kicking off. As in the ball game, scoring consisted in getting the ball to the enemy goal by fair means or foul and 12 scores counted a game. The ball used was the size of a baseball and was made of buckskin or cloth. An interesting phase of this game was the betting. The men generally bet a deer and the women bet bread. If the men were beaten they had to hunt and prepare a deer for a feast. If

the women were beaten they had to prepare bread for a feast. This was generally chestnut or walnut bread.

The Cherokee basket game is a "parlor game" (Culin, 1907). It is used in the family circle to while away the long winter evenings. The dice are 6 beans cut in half, the one side showing the black husk and the other the white interior. Sometimes 6 pieces of wood or 6 grains of corn colored black on one side were used. The dice are shaken in a shallow basket (4 inches deep by a foot square) and if 1 bean of a given color comes up it counts 1, if none comes up it counts 2 for the player. From a pile of from 18 to 24 beans kept as counters the corresponding number according to the score are put in front of the player. As soon as the counters are exhausted in the main pile, it becomes a contest between the players' piles and generally dwindles down into a contest between two. After the center pile is exhausted, 2 or 3 beans are taken from each player and this generally eliminates the weaker players. Most of the time 2 or 3 beans of a color come up and the player cries, "konigit! (nothing)" and passes the basket on to another. If he scores, however, he gets another trial. Two partners may play against 2 others in this game and the women play against the men. Betting in the game as in the football game consists in the men betting a deer, squirrel, or rabbit against the women's bread. Today money is bet.

A sport current until the last few years was the grapevine pulling contest. This consisted in a contest between four to six men on one side and several women with one strong man on the other. The stronger side had to pull their opponents over a predetermined course in order to win. As in other sports, the women would bet bread and the men some form of game.

Until very recently the Cherokees of Big Cove used to have match hunts at Thanksgiving and New Year's. A manager was appointed and he would round up all of his recruits from one side of the river and the opponents would be collected from the other bank. One side challenged the other and the losers had to cook the feast on the holiday after the hunt. The score was determined by the total number of animals shot.

In reference to children's sports, one trait to be noted is the absolute separation of girls' from boys' sports. The boys play at hunting and athletic contests, the girls play at housekeeping or the like.

Running through Cherokee sports in general, then, are the following elements: Opposition and separation of the sexes, opposition of towns and conjurer groups, betting of goods and money, and the influence of magic.

With the description of sports and their social features, the survey of the formal aspects of Cherokee society has been completed. In the first place some of the features of the social units and their interrelationships were observed; secondly, the kinship system was sketched in order to properly set forth certain basic features of the Cherokee social organization; and thirdly, general descriptive features of social importance, such as the life cycle of the individual and the dances and the sports of the people, were rapidly noted.

INTEGRATION OF THE PRESENT SOCIETY

THE FUNCTIONS OF THE PRESENT-DAY TRAITS

The first part of this paper, Description of the Present Society, has sketched for us the outlines of Cherokee society as it exists today. Much has been said about the externals of the social structure but less has been mentioned concerning the interrelations and functions of the various traits. So the purpose of this second part will be to try to relate the various structures which have previously been described.

FUNCTIONING OF THE FAMILY

Here and there in the foregoing discussion some hints have been given concerning the fundamental role of kinship in Cherokee society. In particular the regulations which surround and conduce to preferential mating have been stressed as basic to an understanding of the other parts of the system. What to make of the material now that we have it before us is the question.

First, there is the domestic family which occupies the individual household. The individuals making up the family may be said to be held together in certain ways and kept apart in certain ways. The ways in which the family is held together in a working social mechanism will be entitled phases of social solidarity and the ways in which the individual members are kept apart, social opposition.

The individual man is very close to his brothers in social position. He can take the place of a brother in many ways and from the viewpoint of the outside world is hardly distinguishable from him. So likewise in the case of the individual woman there is little to distinguish her from her sisters to the view of outsiders. This identity for social purposes of brothers and sisters can be spoken of as social equivalence. Brothers are socially equivalent, then, and so are sisters while, to a certain extent, brothers and sisters together are equivalent in Cherokee society. There are many reciprocal privileges and obligations between these children of common parents which are exclusive to them and which bind them together in a type of common unity.

Solidarity within the individual Cherokee domestic family takes on the character of a series of solidarities of the various primary pairs. The solidarity of husband and wife is manifested in the following ways:

1. In their common attitude of respect toward each other's parental generation.
2. In their shared attitude toward their children's generation.
3. In the fact that the familiarity relationship always exists as a medium of contact between them except on those extraordinary occasions on which taboos must be enforced. These latter will be mentioned in the section on magical extensions of social principles. (See pp. 299-300.)
4. Reciprocity in marriage involves an exchange in the marriage feast and is symbolized in the women's betting of bread against the meat bet by the men in several of the games.
5. Pregnancy and menstrual taboos imposed upon the wife are extended to her husband in restriction of his contacts with other persons.

The solidarity of parent and child is manifested in the following ways:

1. The indirect joking relationship allows some degree of good fellowship between the parental and the children's generations.
2. Protection is afforded to the children by the parents, and the children who stay at home and take care of the old folks are the ones who obtain the property by inheritance.
3. The child must render a respect to his mother and father and he must in particular defend his father's clan against all aspersions from without.

The solidarity of brothers and sisters is manifested in the following ways:

1. The terminology expresses group consciousness clearly in this case. There exist not only terms for "brothers and sisters" in general but also terms for "brothers" and for "sisters" taken collectively. The terminology between brothers and sisters is reciprocal, each calling the other by the same term.
2. In certain inheritance customs whereby a man's oldest sister's son inherits a position as chief or some like office (no longer practised).
3. In the intense solidarity within the clan extensions of the brother and sister relationship. All clan brothers and sisters are regarded as being of one blood and of a common identity.
4. In the solidarity of the parental generation within itself, the father with father's brother, the mother with mother's sister, etc.

Of the three primary relationships just cited the strongest in solidarity would appear to be the brother-sister bond, the next stronger would be the husband-wife bond (which is a form of the grandfather-grandchild relationship), and the weakest relationship is that between parent and child.

The rather firmly entrenched solidarity of the individual family can thus be seen to be made up of individual pair solidarities between which there can be—and often are—conflicts. Particularly strategic in this regard is the conflict tendency between the brother-sister bond and the husband-wife bond. For, in the course of each individual's life, he or she is taken out of his or her brother-sister group and merged with his or her grandparental clan group at the time of marriage. This act can be looked upon both as setting up barriers

of opposition within the formerly intact ego generation and as serving to unite ego's and the grandparental generation in a new bond of solidarity through the connecting link of ego's marriage.

Residence may or may not add to family solidarity. The typical Cherokee household consists of the family nucleus, the husband, wife, and children, together with parts or wholes of other families. The wife's relatives are often found in the household, such as her sister, mother, brother, or her maternal aunts and uncles. Residence may have once been matrilocal but it is now patrilocal in the main. A man whose wife has died may go to live with his own sister, especially if she be widowed. Often the children marry and continue to reside for a considerable time in the parental household.

The original husband, wife, and child triangle is connected by bonds of inheritance and marriage with other similar family nuclei. The husband is not only connected with his brothers, the wife with her sisters, but also both are connected by the ties already mentioned with their own siblings of the opposite sex, the husband with his sister, the wife with her brother. Thus ego comes into relation with two important individuals of the parental generation, his father's sister and his mother's brother. The father's sister is not connected with ego by any too strong a bond of solidarity. He must respect her, it is true, but he is uncertain as to whether to behave toward her as a grandmother or as a father. His uncertainty, perhaps, finds release in joking with the man she marries, as mentioned in the section on privileged familiarity. The mother's brother, also, is respected, but, due to his possession of the same clan as ego, he tends to be regarded as a sort of older brother.

Other similarly disjointed sections of solidarity are carried over in the relationships which ego bears toward the mates of his siblings and vice versa with the siblings of his mate. These relationships are more or less combinations of brother-sister relationship with grandfather-grandchild relationship with the predominance of the weight tending in the latter direction.

Familiarity relationships of rather extreme teasing unite ego with these relatives. He regards his brother's wife as his wife. The woman regards a husband's sister as a "wife" to her husband.

TABLE 6.—*Cherokee kinship*

Factors illustrated	Type 1 relationships	Type 2 relationships	Type 3 relationships
1. Basic relationship.....	Parent-child (Y)	Brother-sister (X)	Grandparent-grandchild (X).
2. Underlying principle.....	Opposition between contiguous generations	Clan equivalence and generational solidarity	Alternate generation solidarity.
3. Secondary pairs of consanguines.....	1. Father-child (Y). 2. Mother-child (Y). 3. Father's sister-brother's child (Y). 4. Mother's brother-sister's child (Y).	1. Older brother-younger brother (Y). 2. Sister-sister (X).	1. Paternal grandfather-grandchild (X). 2. Grandmother-grandchild (X). 3. Maternal grandfather-grandchild (Y).
4. Secondary pairs of affines.....	1. Husband's parents-son's wife (Y). 2. Wife's parents-daughter's husband (Y). 3. Mother's brother's wife-husband's sister's child (Y). 4. Father's sister's husband-wife's brother's child (Y).	.....	1. Husband-wife. 2. Mate's sibling-sibling's mate. 3. Grandchild's mate-mate's grandparents.
5. Predominant attitudes within pairs.....	Respect and indirect familiarity	Satirical familiarity.	Sexual familiarity.
6. Lineages traced.....	Two, father's matrilineal and own.....	One, own matrilineal.....	Two, father's father's matrilineal and mother's father's.
7. Terminology ¹	Complementary reciprocal in main.	Self reciprocal in main.	Self reciprocal in main.
8. Behavior.....	Asymmetrical	Symmetrical	Symmetrical.
9. Functioning.....	Superordination-subordination	Satirical sanctions	Clan reciprocity and preferential mating.
10. Direction of classification.....	Vertical	Horizontal	Vertical and horizontal.

¹ Self reciprocal, X; complementary reciprocal, Y.

The accompanying table shows the basic Cherokee relationships and the principles which underlie their solidarities (table 6). The parent-child relationship is a vertical one in which the barrier of opposition between contiguous generations seems to outweigh every other element. The brother-sister relationship, on the other hand, is a horizontal one in which the bond of clan equivalence or solidarity within the individual generation seems to outweigh every other element. The grandparent-grandchild relationship is a vertical one like the first but after the occurrence of marriage it becomes, in the form of the husband-wife relationship, a species of horizontal grouping. This is expressed in the mate's siblings-sibling's mates' relationship just mentioned.

All three of the primary relationships are built up with the matrilineal lineage in the background. The solidarity of the matrilineal lineage is immense and is perhaps the most stable fact in Cherokee kinship. This solidarity of the matrilineal lineage is the situation which underlies the sister-brother equivalence and solidarity. The father-child and the grandfather-grandchild relationships are possessed of solidarity only so far as they touch on the continuity and the stability of the matrilineal lineage. The matrilineal lineage, it must be reemphasized, holds together the whole system, both in its vertical and in its horizontal aspects.

It will be seen from the table of the Cherokee kinship system (table 6) that each family contains within itself the seeds for its own reproduction and replacement through the translation of the grandparent-grandchild relationship into the husband-wife relationship. The importance of the chief relationships within the life cycle of the single individual can be expressed in the following order from infancy to age: (1) Child to parent, (2) brother to sister (or vice versa), (3) grandchild to grandparent, (4) husband to wife (or vice versa), (5) parent to child, and (6) grandparent to grandchild. The family of orientation includes the first three relations as the most important, and the family of procreation the last three (orientation referring to the family into which one is born and procreation the family created by one's own marriage). It will be seen that an equating of the relationships of the first three in the family of orientation with the last three in the family of procreation places the husband-wife relationship in the second as the equivalent of the brother-sister relationship of the first. This would seem to indicate that the solidarity of ego's family of procreation was inversely proportional to the solidarity of ego's family of orientation.

It is certainly true that the solidarity of the original family of procreation will tend to resist the development of opposition barriers occasioned by the marriage of its individual members. Therefore,

a considerable degree of solidarity is generated at all contacts with the "outstander." This is manifested in the cases in which genitor or biologically true father tends to become separated from pater or social father. When a woman has a child through her relations with several men, it is her brothers and sisters who take the lead in pointing out the man whom they think is the father. How this is determined is not clear, but to have the finger of accusation pointed at one is a serious thing because it involves responsibility for the child's economic welfare and bringing up. In case the accused man cannot be reached, the brothers of the woman will build her a house in which she may bring up her family.

Factors of social opposition operate most frequently along the lines of generation, sex, age, and lineage within the family. These act to make breaches in the social solidarity of the family and to help bring about the dissolution of the individual family after the agencies of death and marriage have enacted their role.

The breach between the parental generation and the generation of age is marked by the superordination-subordination relationship. The generation that is going out transmits by way of the authority relation the cultural heritage to the generation that is coming in. This same relationship is extended to the clan and matrilineal lineage of the father so that a factor of social opposition is interposed with a whole group of relatives who come under this classification, as well as with the whole of at least one clan or social segment. The respect relationship to the father, however, is extended also to the father's father himself but not to the father's father's clan.

The factor of the sexual division enters into the list of social opposition forces in several places. The sexual dichotomy operates between persons within a generation and between persons of different generations, but its strongest manifestation lies in the distinction of relatives through the father from relatives through the mother. The mother and her sister are equivalent in terminology and behavior but the mother's brother is distinct in terminology and in behavior. The same is true of the father in his relation to his brothers and to his sisters. These various sex distinctions in the terminology and behavior have been mentioned in the descriptive section on kinship distinctions so we will not dwell on them here. The chief point to remember is that relatives through the father are more to be respected than relatives through the mother.

Age as a factor of social distinction has already been mentioned in the same section. The older brother is invested with a considerable degree of the social superordination of the father, and the younger brother must take a subordinate position as the protected one. The age distinction applied to brothers are extended to cousins and other "brothers."

FUNCTIONING OF THE CLAN

The role of the clan in preferential mating has to a considerable extent been indicated by the implications in the discussion on the role of the domestic family. Preferential mating is really an affair between an individual and persons belonging to specific clans or a clan-individual relationship. The configurations already established in the domestic family are extended to the whole clans which happen to include the persons standing in certain familial relations to age.

The clan is the exogamous social unit and is also a reciprocity mechanism. The severity of the ancient laws against marrying within the clan have been relaxed, but a survey of present-day marriages shows that there are still very few marriages of this type. And with good reason, for it does not take much inquiry into the mechanics of the Cherokee kinship system to show that marriage within one's own clan would play havoc with the elaborate mechanism of reciprocity set up by the clan to deal with disturbances in balance of numbers caused by deaths, births, and marriages.

The nature of the reciprocity between clans can best be shown by an hypothetical example, in which the balance of losses and gains is struck in a typical manner. In the accompanying diagram (fig. 54) four clans are involved and some dozen individuals serve as actors in the drama. The following are the steps involved in the process:

1. The original solidarity of clan I of ego's paternal grandfather was broken by the loss of the grandfather X when he married ego's paternal grandmother Y of clan II. X was "lost" in the sense that he went to live with his wife's people and no longer hunted with, or fought in company with, his own clanspeople.

2. Ego's father A was brought up as an integral member of clan II, but he ought to marry back into his father's clan to redress the original loss of his father to that clan. But the incest regulations will not allow him to marry into his father's clan. In consequence of this he marries ego's mother B of clan III with a consequent loss of one member to clan II.

3. Ego (male) is brought up in his mother's household as an integral member of clan III. But the father of ego is reminded throughout his life of the loss suffered by clan I (through the marriage of ego's grandfather X to ego's grandmother Y of clan II), by the attitude of extreme respect and solicitation which he is compelled to maintain toward clan I. His whole demeanor throughout life toward clan I was as if he owed it something, and circumstances are made to appear as if an exchange had been only half completed.

The only way out of this impasse and to render justice to the original clan I, which has given one of its members and received nothing in return, is for ego's father A to give ego of clan III to a woman of clan I in marriage and by this act complete the exchange. The way in which this is brought about is by the indirect joking relationship which exists between ego's father, A, and ego. A takes advantage of this privilege and jokes in an indirect fashion with ego. "You must marry my aunt," he says to ego. At first ego does not understand that it is his

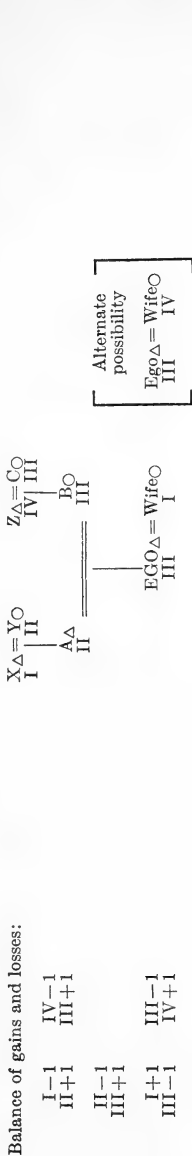


FIGURE 54.—Balance of marriage exchanges between clans. Key: Roman numerals refer to clans; =, the marriage relationship; Δ , Δ , conventional male and female symbols; capitals refer to lineal ascendants of ego.

father's paternal aunt's clan (I) into which he must marry. He thinks only of the old and ugly woman whom his father calls "aunt" (*giloki*) and whom he (*ego*) calls "grandmother." In time *ego* overcomes his shyness after continuous joking by his father on this subject and begins to joke with this "grandmother" whom his father tells him to marry. In time he will meet a girl of his own generation who is "grandmother" to him and belonging to clan I, and he will marry her after becoming acquainted through privileged familiarity. Then the exchange is completed, and clan I has been recompensed for the loss of *ego's* grandfather X through X's marriage.

Ego's father, A, does not concern himself about the loss occasioned to his own clan II by his marriage to *ego's* mother, B, of clan III. *Ego's* respect for clan II will remind *ego* that he should instruct his own children to marry into clan II and recompense the balance with that clan. This process can thus be seen to run on indefinitely in the agnatic line and to act as a principle of reciprocity between clans preserving the balance which is upset by the marriages of the male members of the clans.

In the same way as the foregoing the mother, B, of *ego* respects *ego's* maternal grandfather, Z, because her father's clan, IV, has suffered a loss by the marriage of Z to C of clan III, her own clan. So she will compete with *ego's* father, A, in joking with her son indirectly and tells *ego* that he must marry her paternal aunt, of clan IV. *Ego* may then become familiar with this class of *gilisi* ("grandmothers") and marry into clan IV. This will complete another exchange. In the normal family of four or five brothers and sisters *ego* ordinarily possesses, some half will marry into the father's father's clan and the other half into the mother's father's clan. Thus the balance is preserved. The sister of *ego* will likewise marry into her father's father's or mother's father's clan but the element of compensation is not so apparent here, since the children follow their mother's line and not the father's. In this case a restatement may be needed in broader principles and the marriage of a woman be regarded as part of a still wider principle of balance or reciprocity in which both patri- and matrilineal lineages are satisfied in exchange.

Regarding those persons of his own generation with whom *ego* may actually marry, the following may be said: The clan affiliation is the prime consideration in marriage, not the actual lineage. Theoretically, in his own generation *ego* can marry either (1) father's father's sister's daughter's daughter, (2) mother's father's sister's daughter's daughter, or (3) mother's mother's brother's children's daughter. Two persons of opposite sex and different clans may both be *giDuDu* ("grandchildren") to the same clan and may, in the absence of other modifying factors, be *giDuDu* to each other and so marry each other.

FUNCTIONING OF THE DANCES

The role that the Cherokee dances play in the drama of preferential mating is in some points quite clear and in other respects obscure. It is fairly certain that the chief occasions of social contacts with privileged familiarities ripening into marriages of the preferential type is the dance. But the time of appearance and staging of the dances involves other less understood relationships.

The dances originally occurred at intervals which appear to have corresponded with the cyclic ebb and flow of the tides of human desire for contacts with fellow humans. One of the most clearly recognizable of these cyclic tides of feeling in Cherokee Society are those connected with the female menstrual period. Regularly the male is seized with feelings of extreme revulsion and a desire for avoidance of the menstruating female. This feeling takes the form of strict monthly taboos and restrictions on the latter which find reflection not only in customs but also in the magical prayers of the Cherokees and even their myths. Anciently the Cherokee, as well as other Southeastern Indians, held monthly dances to celebrate the periodic social purification from uncleannesses of the whole community (see third part of this paper, *The Former Society*). The primary significance of the dance of that period was in connection with the ritual sanctions of purification. At the present time the dances have lost this regularity and ritual significance but retained its function of bringing men and women together after separation.

The dance today is an expression of neighborhood solidarity in which the whole family participates. Participation in the dance puts the individual in rapport with the rest of the community. Those who have offended others have their sins pointed out to them by satirical references in the dance. This act on the part of clan brothers functions as a satirical sanction to correct faults and purge differences from the community. The reuniting of families, who have lost a member by death, with the rest of the community is done through the functioning of the dance also. Therefore, the dance with its ritual sanctions acted as the primary channel for familiarity behavior of the socially approved modes.

FUNCTIONS OF THE KINSHIP USAGES

Kinship usages merit particular notice as a contributing factor to the system of preferential mating. Of these usages the most important is privileged familiarity.

Privileged familiarity among the Cherokees does not root itself in any one specific function, nor does it arise from any one particular

principle. Rather than existing as a unitary phenomenon, it seems to stem from a series of kinship usages with varying implications.²⁴

Privileged familiarity is, of course, the logical antithesis of the avoidance relationship. Between absolute avoidance and extreme familiarity there is a whole gamut of relations between pairs of relatives. We generalize the opposite poles of behavior as approach and avoidance. Among the Cherokees absolute avoidance is rare and is confined to magical taboo situations wherein direct kinship considerations are of minor import. But the modified form of avoidance known as respect is a characteristic trait of Cherokee kinship usages. Respect is used in this discussion in the sense of that type of behavior which channelizes within certain sharply limited areas the contacts between a pair of relatives. Privileged familiarity, on the other hand, is understood as that behavior between persons which is utterly unrestricted in its freedom and allows of contacts of all descriptions.

Privileged familiarity between two persons in the Cherokee kinship system is not distinguishable from the so-called joking relationships. Where the pranks and raillery between relatives exist in a stereotyped form which can be recognized on any occasion as a definite cultural trait, we can speak of them as joking relationships. These are never more than condensations of amorphous familiarities within constant forms. Needless to say, joking relationships, as understood here, shade over into the respect relationships. Such a case occurs in the case of indirect joking between father and son and in joking with the man who marries the father's sister.

There are at least five types of present-day joking among the Cherokees. These are the following:

1. Mutually derogatory joking between clan brothers before each other's children.
2. Joking by maltreatment of the man who marries the father's sister.
3. Joking with grandparents or with grandchildren through teasing or derogation.
4. Joking of a son by his father concerning the father's paternal aunt.
5. Gentle joking of the mother's brother and daughter's husband.

From these examples it can be seen that the joking relationship exists in varying contexts and even appears between relatives who should be ordinarily respectful to each other. Joking appears from these examples to be allied with potentiality of sexual relations, social sanctions, and social opposition.

First, as to potential sexual relations. It has been shown in the section on preferential mating that the relationship of alternate generation clans to the individual ego is one of teasing and familiarity. It

²⁴ The Cherokees, as the present writer encountered them, were a cheerful people much given to fun making. Ziegler and Grosscup in 1883, however, found the Cherokees "incapable of joking" (cf. Ziegler and Grosscup, 1883, pp. 5-42).

has also been noted that obscenities and sexual references abound in this type of familiarity so obtrusively that their meaning is only too clear. Of course, the obscenities occur not only between persons of the opposite sex, but also between men. This implies some sort of homosexual tendencies latent in the culture—a fact noted for the Southeastern area in general by Swanton.

Potentiality of sexual relationships appears in the joking between siblings' spouses and spouse's siblings. Joking expressions are used for these relatives which imply this potentiality. The wife of a brother is called "wife," and like expressions occur. Sibling's mates, it must be remembered, are one's own potential mates because they are presumably in the alternate generation relationship to one's self as well as one's siblings.

The social sanctions are involved in the joking relationship through the fact that joking between clan brothers is typically functional in the sense of a ridicule sanction to cause persons who are erring to repent and "toe the mark." Every fault of the other person is held up to view, and a return volley from him of the same kind of humor is invited. This type of joking enforces the solidarity of the clan because the children of the jokers are compelled to speak up and to defend their fathers, who are thus engaged in twitting each other. It is to be noted in this connection that joking occurs between all types of brothers among the Cherokees and not merely between brothers whose fathers are of the same clan as among the Crow.

The indirect joking between parent and child is allied with social opposition. As has been stated in the section on kinship principles, the parental generation is in a position of social opposition to the generation of ego. Between ego and all persons of the parental generation the relationships are not reciprocal, and the joking by the father of the son is an expression of the social opposition between them. This joking cannot be direct because it is not truly reciprocal. Neither is the joking of the father's sister's husband reciprocal. This man has no comeback when his wife's brother's children attack him. Likewise to the father-son joking, the mother's brother in joking with his sister's children jokes about some third party in a clan which is familiar to the person joked.

In the father-son joking two objects are achieved: (1) The father is enabled to joke with his son whom he cannot ordinarily be familiar with; (2) he can have a bit of fun at the expense of his own father's clan, which he must ordinarily respect. The son attempts a feeble kind of reciprocal joking and tells his father that he should not have married into so unworthy a clan as his own.

In the joking with the father's sister's husband the following functional relationship is involved: The father's sister's position with ref-

erence to ego is uncertain. She has qualities of the father, father's mother, and own mother combined. She is of the ascendant generation, and, in the case of the male ego, of a different sex. She is always of a different clan from ego. It can be seen that she is separated from ego by opposition barriers. She cannot be joked, as she is of the father's clan. Therefore, the uncertainty of the relationship centers on the man who marries her and is of a different clan from the father's. This man can be joked with by the tobacco joke. This joke is nonreciprocal on the part of the recipient and can be only indulged in once between the same two parties.

Opposition and privileged familiarity are again allied in the joking of the ball dance. The joking against the opponents consists in a man joking with his fellow clansmen in the enemy town in the absence of the persons joked. This weakens the opponents by setting up a magical channel of familiarity as we shall see later in the section on magical extensions. This joking may be against the opponent town as a whole as well as against the fellow clansmen.

At this point it seems desirable to reemphasize a connection which has already been mentioned several times in passing, namely, the association of dancing with privileged familiarity. Undoubtedly, the behavior of privileged familiarity occurs in all of the activities of everyday life among the Cherokees, such as visiting, cooperative labors, festival occasions, the ball game, and the like. Its fullest expression, however, takes place on these periodic occasions wherein social intercourse is foremost in the minds of the participants, which are the dances.

The functional significance of the dance with reference to privileged familiarity can be stated, then, as follows: The dances are the principal means by which privileged familiarity between relatives brings about acquaintanceships which eventually ripen into matings of the preferential type. Not only do the familiarities of the sexual type find their best expression in the dances but also the familiarities of the ridicule sanction type also seem to be brought out in fullest form on these occasions. These occur in the Eagle and Friendship Dances as already noted.

SOCIAL SANCTIONS

The social obligations expressed reciprocally between relatives find their extended counterpart in the social sanctions of the wider integrations of culture. The social sanctions act as means of social control within the group and also to control the relations of members of opposition groups.

Diffuse sanctions are those loosely organized means of control which reside in public opinion. In the case of the Cherokees, this type of sanction operates mainly within the boundaries of the clan. The function of moral reprobation for certain types of violation of established

usages is performed by one's clan brothers. The mechanism involved consists of an extensive use of ridicule in connection with the so-called satirical sanction. Jokes of this type between clan brothers are always being made. One member will twit another about his achievements and abilities, and the other will reply. Any violation of the principle of preferential mating such as marrying into the father's clan or even with one's own clan becomes the material for endless joking by one's clan brothers.

Diffuse sanctions of wider type are often shared with white people. Thus it is held that association with negroes or the possession of negro blood is somewhat of a stigma, belief in the Christian deity is a requisite for holding office in the band government, and other opinions are shared with the southern mountain whites.

The sanctions of an organized nature are somewhat divided in their appearance, some occurring in connection with direct white influence such as the state and county government, and others occurring as age-old ritual sanctions inherited from the past. The ritual sanctions will be mentioned more fully in the section on Political Change (p. 365).

Premial sanctions are to be found in the rewards offered for the best products of home make in the annual fair and the stimulus likewise accorded to the winners in the dance contests and ball game matches. The betting which takes place in many of the games and contests of the different forms of sport offers a sort of premial sanction for certain conduct.

The retaliatory sanction functions today through the medium of the conjurer. The actual mode of action in this case consists in the employment of magical forces to cause severe disease and even death in opposition groups. This form of sanction will be discussed more fully in the section on magical extensions of social principles. Likewise the formerly wider and more important forms of the sanction principle as they appeared in such organized retaliatory measures as blood revenge and war will be postponed for discussion in the section on Political Change.

Infractions of social usage of today may be divided into private and public delicts. The private delicts consist of cases between individuals while public delicts concern society and individuals. Such present-day private delicts as murder, theft, and adultery, now punishable only by the white man's laws, were once accounted public delicts requiring clan revenge. Accusation of a man for contributing to illegitimacy in birth may be brought forward and used as grounds for support of the child according to the State law but this is not often successfully proved. The influence of white laws in this and other respects is resisted by the Cherokees and the solidarity of the

tribe appears in a feeling of collective responsibility to see that no member of the tribe shall be convicted of a crime on the testimony of a fellow tribesman.

Some of the more public delicts, however, are efficiently dealt with by the State laws. Such is the case with public intoxication which, on conviction, carries a penalty of a period of forced labor in road building with the chain gang. White sanctions are apparently in the full way of adoption, but many of the old sanctions connected with the segmentary divisions of society and their maintenance die but slowly. The satirical sanctions may be expected to last as long as the clan.

Social sanction mechanisms of a ritual type appear in certain of the dances. The ancient Medicine Dance or Physic Dance involved a cleansing or purification at an all-night affair at which the physic was drunk freely. This type of dance was current on the reservation until quite recently and may be regarded as truly a section of the contemporary culture.

Going to water occurred anciently and still occurs with some of the dances such as the Ball Dance. This allied a purification function with the participation in the dance. It was thought that when some person was weak and the conjurer was conjuring in an effort to divine a further life ahead of that person, an all-night dance in which no one went to sleep would help the cause of the weak person.

In the case of a death in a family, the final act in the reuniting of the bereaved family with the rest of the town was the giving of a dance in which the persons who had been mourning would turn their faces upward and laugh again. In this way the plaguing spirit of the dead one would be cleansed from the mind of the mourner and he or she would not be in danger of dying also.

MAGICAL FORMULAS OR PRAYERS

James Mooney and Frans Olbrechts have brought to the attention of the world some of the extensive and important lore of the Cherokee conjurers as it is expressed in the sacred formulas or prayers. The manuscripts of these prayers were originally written in the characters of the Sequoyah syllabary and in the western dialect of Cherokee by the conjurers for their own use. They are of uncertain age and often refer to situations of an antique period.

Each written prayer consists generally of two parts. The first part consists of directions for a practical bringing about of certain results, such as the use of herbs and hot applications to cure specific diseases. The second part consists of a magical invocation or spell designed to bring to bear the supernatural forces which will effect desired results. The formulas have to do with every question of concern in

everyday Cherokee life, such as the curing of disease, success in love affairs, obtaining good crops, and protection from evil spells. The conjurers who employ the prayers are a class of shamans or medicine men who operate as individual practitioners.²⁵

The comparative folklore student, Frazer, has classified the forms of Cherokee magic as varieties of contagious or homeopathic magic including both under the category of sympathetic magic. He understands sympathetic magic to be the operation of one magical force upon another, either directly through contagion (contagious magic) or through the homeopathic effect of a cause-and-event sequence (homeopathic magic). Contagious magic is exemplified in the practice of eating animals whose qualities are desired to be added to one's self. Homeopathic magic is exemplified in the belief that to dream of a snake bite results in the real symptoms of snake bite and requires the cure for a real snake bite. Frazer (1922-25) also finds other types of universal traits, such as the propitiation of animals, an annual expulsion of evils, and the invocation of vegetation spirits.

The points adduced by Frazer from Cherokee culture show that the cultural inheritance of the tribe is capable of analysis on a comparative basis with the rest of the world. It will be of advantage, however, if some attempt were made to relate these magical elements in a functional way with the social principles in Cherokee culture.

Before proceeding to make this correlation in the case of some important traits, it might be worth while to note that Mooney (1900, pp. 250-252), whose interests were rather sharply limited to the field of folklore, contributed some remarkable functional connections within this field between medical and magical practices and the mythological complex associated with these. He pointed out such valuable connections, for example, as that between the theory of blood revenge on the part of animals and the causes ascribed to certain diseases such as rheumatism, the mythological explanations for certain dances, and others. He was inclined to attribute most of Cherokee magical practice to a half mystical "theory of resemblances" in which like properties in objects were used as a basis of treatment in medicine by homeopathy and in taboos of possibly harmful objects and persons.

FUNCTIONS OF THE FORMULAS

From the viewpoint of the present study, the Cherokee prayers can be said to bear important functional relations to the other parts of Cherokee social organization. The elementary principles of opposition, reciprocity, and solidarity appears constantly in the wording of

²⁵ Mooney collected 7 manuscript series of formulas in his field work, comprising several hundred in all. The present writer examined 193 formulas while in the field and made synoptic notes on them.

the formulas. The principle of rivalry or opposition appears in the theory of the origin of the world constructed by the conjurers. According to the account which is to be pieced together from the disjointed sections recorded in the different prayers and myths, the world was created by the conjurers and the present condition of things is a direct result of the struggle for power between conjurers. Each conjurer endeavors to obtain mastery over all the others by fair means or foul. It has already been made clear that the ball game consists largely in a struggle between the powers of conjurers in neighboring villages. In the ball dance a magical familiarity weakens the fellow clansmen in the other village. But, even in the ball game, the principal weapon in conjurer rivalry is the magic weakening of the other side by means of formula repetition. The chief powers that a conjurer uses in his struggles with rivals are disease and death. In order to work his magic, the conjurer often takes the form of a witch, man killer, a raven, owl, or a flash of blue light. These are the forms for which the average Cherokee native is most frequently on the lookout. One of the characteristic states produced by magical incantation in the formulas is that of being blue or lonesome. This consists in a state of isolation inflicted on an individual during which no one will have anything to do with him. Left in this state for very long, he pines away and dies.

The principle of reciprocity appears in the formulas in several aspects. In the first place, the recital of a prayer or formula on the part of the conjurer requires some sort of recompense to him, *ugistati*, which is generally some garment, handkerchief, deerskin, moccasin, or cloth. This payment is more necessary in the medical than in the other formulas as a rule. There is another form of reciprocity in the balancing of collaborators against antagonists in the struggle against disease. For each ailment caused by a definite animal there is a corresponding plant remedy and animal enemy of the disease cause. There is reciprocity also in the form of ritual sanctions which appear in the formulas. The state of uncleanness incurred by the violations of taboos requires certain balancing acts to remedy the dysphoria, such acts as "going to water" and various additional taboos. The retaliatory sanctions incurred by the killing of animals and causing them to seek blood revenge on human beings as a result can only be avoided by compensatory acts or prayers. Such is especially the case with such sacred or totemic animals as the deer, bear, wolf, and eagle.

The principle of social solidarity appears to be exemplified in the attractive medicine of the formulas. As we shall see in the ensuing discussion, attraction forces are used to establish solidarity with beneficent forces and with desired objects such as women, wild game, plants, and the like. Some of the sacred formulas mention clan and kinship affiliations. These references, when they occur, appear to re-

inforce the principles already adduced concerning kinship structure, and also furnish links in function between the formulas and the social groups.

LOVE FORMULAS

After this general mention, the easiest approach to the functional comprehension of the sacred Cherokee formulas lies in a detailed consideration of certain of the main types of formulas. One of the most important of Mooney's classes of sacred formulas is that group having to do with "living humanity" (Yu we hi), a euphemism for love charms. The accompanying formula taken from Mooney's published list is an example of this type of magic and demonstrates effectively its social function.

CONCERNING LIVING HUMANITY (LOVE)

Kû! Listen! In Alahi'yî you repose, O Terrible Woman, O you have drawn near to hearken. There in Elahi'yî you are at rest, O White Woman. No one is ever lonely when with you. You are most beautiful. Instantly and at once you have rendered me a white man. No one is ever lonely when with me. Now you have made the path white for me. It shall never be dreary. Now you have put me into it. It shall never become blue. You have brought down to me from above the white road. There in mid-earth (mid-surface) you have placed me. I shall stand erect upon the earth. No one is ever lonely when with me. I am very handsome. You have put me into the white house. I shall be in as it moves about and no one with me shall ever be lonely. Verily, I shall never become blue. Instantly you have caused it to be so with me.

And now there is Elahi'yî you have rendered the woman blue. Now you have made the path blue for her. Let her be completely veiled in loneliness. Put her into the blue road. And now bring her down. Place her standing upon the earth. Where her feet are now and wherever she may go, let loneliness leave its mark upon her. Let her be marked out for loneliness where she stands.

Ha! I belong to the (Wolf) Clan, that one alone which was allotted into for you. No one is ever lonely with me. I am handsome. Let her put her soul [into] the very center of my soul, never to turn away. Grant that in the midst of men she shall never think of them. I belong to the one clan alone which was allotted for you when the seven clans were established.

Where (other) men live it is lonely. They are very loathesome. The common polecat has made them so like himself that they are fit only for his company. They have become mere refuse. They are very loathesome. The common opossum has made them so like himself that they are fit only to be with him. They are very loathesome. Even the crow has made them so like himself that they are fit only for his company. They are very loathesome. The miserable rain-crow has made them so like himself that they are fit only to be with him.

The seven clans all alike make one feel very lonely in their company. They are not even good looking. They go about clothed with mere refuse. They even go about covered with dung. But I—I was ordained to be a white man. I stand with my face toward the Sun Land. No one is ever lonely with me. I am very handsome. I shall certainly never become blue. I am covered by

the everlasting white house wherever I go. No one is ever lonely with me. Your soul has come into the very center of my soul, never to turn away. I . . . take your soul. Sgë! [Mooney, 1891, pp. 376-377.]

In the first paragraph a solidarity with certain benevolent spirits between himself and themselves is asserted by the reciter of the formula, and a preliminary statement of the reciter's own attractiveness and charm is made. The second paragraph sets up barriers of avoidance between the woman whom the reciter desires to conquer and the rest of the world of humanity. Blueness and loneliness are to be her lot until she recognizes her true interest, which is with the reciter of the charm. In the third paragraph the reciter begins to set up a bond of familiarity between himself and the woman desired. He names himself and his clan and reminds her that she has been allotted to his clan in marriage from the beginning of the world, and that he alone of that clan is suitable for her as a mate. The indication of a preferential mating with a given clan seems quite convincing from this paragraph. The fourth paragraph creates a barrier of avoidance between the reciter and the rest of humanity. The rest of mankind are compared to noxious animals and are made repulsive and loathesome. The fifth paragraph ends the prayer in a reiteration of the assertions of the first paragraph, the charms and attractiveness of the reciter, and ends with a statement of solidarity by identification, with the woman of his choice.

It can be seen from a perusal of the accompanying love formula that several of the active principles already discovered in the social organization are also involved here.

1. Social solidarity by means of attraction magic is evoked through an identification of the reciter's personality with the personality of the desired woman or with the helpful supernatural essence.

2. Familiarity with one's rivals is used as a means of derogating them and elevating one's self, a common practice as we have seen in the joking between clan brothers in the Friendship and Eagle Dances.

3. Social opposition barriers by means of forces of repulsion or avoidance are set up between the desired woman and all possible rivals in the world and she is made very lonely and blue. In such a state a person is avoided by everyone and he or she soon pines away and dies. Opposition forces are set up between the reciter of the formula and his rivals as he compares the last to noxious creatures and repulsive elements.

4. A predestined or predetermined marriage prescription with certain clans seems to be intimated. The intense jealousy of other men of his own clan on the part of the reciter would seem to indicate his realization of their strong position as possible rivals.

The use of attraction medicine is most frequently during the night. A young man sings his attraction song in a low voice about midnight while facing in the direction of the girl's house. She will then dream about him and become lonesome for him unless she has fortified herself, on going to bed, with counter spells. The next time she meets the

young man she is irresistibly drawn toward him. She will then become attached to him by strong and permanent bonds. Thus a strong man and wife solidarity is set up through the agency of the love charms. No man among the Cherokees need be long without a wife with such powerful magic at his disposal.

After he has gained a wife, however, his labors are not over. He must retain her only by constant spells, especially if she be at all attractive and liable to be subject to the magical spells of male rivals. In order to retain a wife, the man must affirm the solidarity existing between himself and his wife in a magical formula and anoint her breast, while she is sleeping, with his spittle.²⁶ In this rite he magically unites the essences of his wife's soul and his own soul in a bond of great solidarity and repels rivals by likening them to noxious creatures.

Sometimes, in spite of the man's best efforts, the woman will be attracted away from him by the superior magic of his rival. To remedy this and recall the woman he uses a prayer reaffirming his attractiveness and, allying himself with the goddess of fire, he reasserts the solidarity of the woman with himself.

The rival who is endeavoring to detach a man from a woman makes use of negative love prayers. These are of two types: (1) Designed to separate a man and wife preparatory to uniting the wife with himself through his own attractiveness, and (2) to render a man unattractive so that no woman will want him.²⁷ In the case of separation of a man and wife, each is likened unto a noxious animal and a repulsion is set up between the conjugal pair. The wife will then leave her husband or vice versa, unless counterspells are resorted to by one or the other of the two. In the spells for rendering a man unattractive it is generally the purpose to render more humble some young man who is proud and boastful of his accomplishments with women. When he is rendered unattractive no one will speak with him, joke with him, or dance with him.

In some cases a man's love spells designed to attract a given woman fail to move her. The man's love then turns to hatred and a desire for revenge. He may practice a spell of unattractiveness on her and by making her similar to some noxious animal make her lonesome and repulsive to all men. Or he may continue to ply her with love spells and finally succeed in making her fall foolishly in love with him and go through many undignified acts to show her passion. Thus he attains revenge on her.

The young man who wants to be popular resorts to various charms to enhance his attractiveness at the dance and to make his voice as

²⁶ Mooney, 1891, pp. 380-91. Formula for retaining a wife.

²⁷ Mooney, 1891, pp. 381-382. Formula for Separation of Lovers.

singer liked by the people. He may also want to increase his popularity in the council. In order to do this he identifies himself with the sun or some other great magical personality while decorating himself with red paint (*wodi*).²⁸ Ugly men often have to resort to these spells in order to attract a girl for a wife. The attraction force of the caller or the singer at the dance has the effect of acting as a power for social cohesion, bringing more people to the dance and consequently increasing group familiarity. For people will always want to dance with the attractive man and joke with him. Hence, the Cherokee feels keenly the necessity for this social attribute. The prayers affirm an attractiveness of the reciter with all of the seven clans, and even the respect clan. Attractiveness is also desired when visiting in a strange village. Therefore, a formula exists to enable a person to establish friendly relations on a visit.

DISEASE FORMULAS

Next to the love formulas in importance, if not equal with them, are those designed to cure and remove disease. Mooney (1891, pp. 367-368) gives a technical term for a class of diseases in the Cherokee nosology which are particularly important from a functional standpoint, the *Tsundayeligaktanuhi* diseases. This term he defines as "the enthusiastic outburst of sociability when two old friends meet," really meaning, he says, "an ordeal." It can be seen that a euphemism is herein employed for a very dangerous type of disease, which is often the result of the concentrated hate and revenge arising from quarrels between persons.

Mooney does not explain why he calls these "ordeal diseases" beyond mentioning that these may be sent to a man by a friend or even by his parents in order to test his endurance and knowledge of counterspells. At a later date Olbrechts²⁹ encountered the same type of disease which he terms *ayeligogi*, or "simulators." These diseases resemble other diseases in their symptoms but ordinary treatment utterly fails in these cases. To follow ordinary diagnoses in these cases is highly dangerous because the diseases are of a totally different nature. It is said that two parties often wage battles of weeks or months in which they pester each other with various *ayeligogi* diseases. Olbrechts, however, finds himself unable to confirm Mooney's data concerning friends and relatives sending each other these diseases "as a joke" to mutually test their knowledge and aptitude to ward off such attacks.

It might be said that what appears here is an example of the magical establishment of a privileged familiarity as a basis for disease

²⁸ Mooney, 1891, p. 379. Formula in Preparation for a Dance.

²⁹ Mooney and Olbrechts, 1932, pp. 33-34. In some cases ordinary diseases may simulate a "simulator" disease (*ibid.*, pp. 250-251).

transmission between persons or groups in social opposition. Disease can be regarded as in its essence a condition in which a magical channel of familiarity allows a harmful agent to be sent from a sorcerer to his victim. In order to check this familiarity, a series of avoidances or taboos must be set up between the two objects or persons involved. The person who is sick or unclean must be avoided and must in turn avoid certain acts and certain foods until he is well.

THIS IS THE MEDICINE (IF) SIMULATORS HAVE MADE IT RESEMBLE IT

(I. e., a Real Sickness)

Now, then! Yellow Dog, thou wizard, thou art staying toward where the sun land is. Thou wizard, nothing is overlooked (by thee).

Maybe it is a ghost that has caused it, or maybe it is the Purple Man that has caused it. But it has been said falsely—it is merely the Simulator who has made it resemble it (a real sickness).

But now its track has been found. It has been undone, and not for a night (but forever). It shall bury itself into thy stomachs. They have made thee filled; it has become so again. It is the very thing thou eatest. He has put the important thing under him, (but now) relief has been caused.

This is to treat (them) with, (and) which has to be given them to drink. Pine (tops) should be boiled. And beads, white and black, one of each (should be used with it). [Olbrechts, 1932, pp. 187-188.]⁸⁰

We have already seen how the magical familiarity set up by the singer at the ball dance in joking with the opponent town weakens that town and its ball team just as a disease weakens a person. Likewise in this connection it might be noted that the conjurer called in to treat a disease establishes a magical familiarity with the causal agent of the disorder by belittling it. A regular scale of depreciation exists. A disease caused by a rattlesnake, a really dangerous creature, is referred to a frog or some other insignificant animal (Mooney, 1891, p. 352).

The flow of menstrual blood at periodic intervals sets up a magical familiarity dangerous to all who come into contact with it. A female in the state of menstruation must be avoided (Mooney and Olbrechts, 1932, p. 34). One must not eat anything cooked by her, or touch any object that she has touched, or even walk along a trail over which she has traveled. She must not be allowed to wade in the river near where the fish traps are set or she will spoil the catch. If she should walk through the cornfield, she will stunt and injure the crops. Even the husband of a woman in this condition is, by virtue of his relationship to her, compelled to avoid other people.

The violation of taboos or compulsory magical avoidances, whether such violation be voluntary or involuntary, will lead to the establish-

⁸⁰ Mooney and Olbrechts also give three other examples of this type of disease (1932, pp. 172-173, 256-257, and 216-217).

ment of harmful channels of familiarity with the causal agents of disease. To urinate in the river or spit in the fire constitutes breaches in taboo which inevitably result in disease. To dream of being bitten by a rattlesnake is sufficient to set up the symptoms of an actual snake bite.

In the case of omens as in others, the bad effects of those are only to be averted by the establishment of avoidance relationships with the causal agents. If a dog barks for a long time it is a sign that the inmates of the house may die. To avert this effect the master of the house says, "You die first!" which makes an exchange and avoids the evil consequences of the omen. Formerly, it is said, the dog was killed on these occasions.

In every case of disease there are friendly agents and enemy agents. The purpose of the magical formulas to cure disease is to attract the friendly agents and repel or expel the enemy agents. The friendly or helpful agents are attracted by channels of familiarity and identification being set up between them and the patient. The enemy agents are expelled and kept at a distance by avoidance formulas and with the help of the friendly agents, which latter are generally the natural enemies of the creature causing the disease. Mooney and Olbrechts (1932, pp. 44-50) give an extensive list of disease agents and curers, enumerating in addition all of the collaborators and the antagonists of the patient in each disease. This seems to bring out the fact that in the causation and cure of disease opposition forces between two social groups are constantly at work. In one disease the seven fairy clans are said to be playing ball in the stomach of the patient, which gives rise to the symptoms.

The antagonism of the unfriendly agents to mankind is explained as due to the operation of the law of blood revenge. The ghosts of those animals who have been slain by the human hunter warn their friends of their own species that they must avenge their deaths on mankind. When a deer is killed the hunter must take special precautions to prevent the deer ghost from following him into camp for if it does rheumatism will strike him down. Therefore, a special avoidance prayer is pronounced and a fire is built by the hunter on the trail in back of him to stop the deer ghost. Like precautions must be taken in the slaying of an eagle or a wolf, both of which operations were formerly the function of a special conjurer versed in these protection prayers.

The retaliatory sanction of blood revenge is not the only sanction entering into the theory of disease. Some very obvious sanctions are present also. The man who leaves his wife and children for another woman may become subject to a disease manifesting itself as extreme sore throat. As we have seen, the violation of ritual

sanctions surrounding certain acts compels a cleansing in order to reestablish the avoidance and original freedom from the disease.

Various purificatory rites must be gone through by the patient in order to rid himself of the elements of the disease. These consist of sweatbaths, bleeding, scratching, vomiting, and going to water for lavations. In order to help out these procedures, it is also necessary for him to avoid certain foods and the opposite sex. To impart the qualities of the friendly agents to the patient, decoctions of herbs are rubbed or blown on him generally at sacred intervals of from four to seven times.

The most extreme and hurtful phases of disease are those that arise in connection with the opposition between human and human or between human and supernatural forces. The ordinary native must be constantly on the lookout for plotters, witches, sorcerers, and conjurers possessed of extensive and very evil powers. When sickness attacks a person, the first inference is always that a conjurer or conjuring spirit has launched an attack on the patient which must be answered by a strong counterattack on the part of the patient and his friends. Among other devices designed to ward off the evil effects are those formulas which render the enemy conjurer confused, or make him forget what he is doing, or even make him become actually friendly instead of hostile. A confused state can be induced in the enemy conjurer by identifying him with animals such as the rabbit, which hops about witlessly. He can be separated from his powers and be put into a black fog in which he forgets all of his repertoire of magical powers. Attraction magic is sometimes so strong in its effects that the conjurer can be brought around to a friendly attitude by it.

Needless to say, all of the deaths and diseases attributed to the conjurer are due either to secondary rationalizations of preexisting disorders or to the fears aroused by the discovery that a plotter is actually using his magic to one's detriment.

The use of death-producing formulas to bring about the killing of a person gives rise to certain questions.³¹ We cannot, in our own culture, begin to appreciate the enormous force that ritual sanctions have in determining the course of events within small communities such as the villages of the Eastern Cherokees. The violation of some simple taboo, or the accidental encountering of some slight ill omen, may give rise to a weakened constitutional condition which becomes ready prey to the superstitious imaginations of those who are in attendance. All of the old persons of the neighborhood are regarded with suspi-

³¹ See Mooney (1891, pp. 391-395) for characteristic death-producing formula with the use of beads and spittle.

cion as being possible witches anxious to acquire by magic some of the life of the sick man to add to their own span. There is the added possibility of clan or family revenge. The whole problem of social opposition magic resulting in deaths remains awaiting further investigation.

The best specific against disease known to the Cherokees is the use of protection prayers and prayers for long life. Divinations are constantly being made to ascertain the probable future length of life reserved for each person in the community and, where there is any danger of a person's dying in the immediate future, measures are taken to counteract the danger.

It has just been mentioned above that the motive of theft enters largely into the calculations of the natives in attributing reasons for the activities of witches and wizards. The conjurer and disease producer are always hovering around the sick bed in order to add some life to their own span of existence. As we shall see presently, the motive of theft is strong also in the myths. This motivation of theft would seem to tie up with the personal delicts punishable by certain of the social sanctions.

There are two classes of particularly dangerous causers of disease. These are the man killers and the witches (Mooney and Olbrechts, 1932, pp. 29-33). The man killers are to be feared only when their anger has been incurred through some violation of taboo, or a joke, and some act of familiarity has established a channel of force with them. They seem to be some type of male spirit whose disease-producing activities against human beings are definitely exact and for specific reasons. These can be counteracted by the proper spells. On the other hand, the activities of the witches are far more nefarious. They are naturally of a base, mean disposition, and are always attacking human beings on every and any occasion. They seem to be identified with old persons in the community, male or female. Formerly, as we shall see later, the crime of witchcraft was one of the most serious charges possible among the Cherokees.²²

To summarize this discussion on the Cherokee theory of disease, it may be said that, according to the evidence, disease is thought to be the result of the violation of social sanctions or as simply a form of social opposition between humans or between humans and supernatural forces. It is necessary to combat diseases, then, through the reestablishment of the broken taboos, or to impose new ones so that the social sanctions can be restored and social well-being regained. The opposition of the witches and evil forces must be overcome by the establishment of solidarities between the patient and the natural antagonists

²² Especially the bringing about of a death by magical means. See Mooney (1891, pp. 391-395).

of the causal agents of the disease. The retaliatory sanction of blood revenge on the part of offended animal ghosts must be satisfied or averted by magical processes.

OTHER FORMULAS

The same forces of attraction and repulsion which are invoked in Disease and Love Magic are also to be found in the magical formulas devoted to other purposes. When the hunter goes after bear, deer, or fowl he uses certain prayers to attract the game to where he can shoot it. These prayers have a magical attraction effect and are sung in a low-pitched voice. When animal traps, such as bear traps, otter traps, raccoon traps, squirrel traps, rabbit traps, and bird snares, are set out they must be accompanied with certain spells to assure their success in attracting the game. In all hunters' formulas the fire is the chief deity appealed to, although the great terrestrial hunter, Kanadi (called sometimes "the river"), is also helpful. Both of these beings are full of attraction for the game, and the hunter endeavors to identify himself with them. The following is a typical hunter's formula from Mooney:

CONCERNING HUNTING

Give me the wind. Give me the breeze. Yû! O Great Terrestrial Hunter, I come to the edge of your spittle where you repose. Let your stomach cover itself; let it be covered with leaves. Let it cover itself at a single bend, and may you never be satisfied.

And you, O Ancient Red, may you hover above my breast while I sleep. Now let good (dreams?) develop; let my experience be propitious. Ha! Now let my little trails be directed, as they lie down in various directions (?). Let the leaves be covered with the clotted blood, and may it never cease to be so. You two (the Water and the Fire) shall bury it in your stomachs. Yû! [Mooney, 1891, pp. 369-370.]

In the case of formulas designed to attract fish every device is used to cause the fish to move toward the fishhook or into the fishtrap. The fishhook may be anointed with spittle after certain leaves have been chewed which exercise an attraction power. The prayer is often directed to the fish to travel over his water trails to the trap. The following is a specimen from Mooney:

THIS IS FOR CATCHING LARGE FISH

Listen! Now you settlements have drawn near to hearken. Where you have gathered in the foam you are moving about as one. You Blue Cat and the others, I have come to offer you freely the white food. Let the paths from every direction recognize each other. Our spittle shall be in agreement. Let them (your and my spittle) be together as we go about. They (the fish) have become a prey, and there shall be no loneliness. Your spittle has become agreeable. I am called . . . Yû! [Mooney, 1891, p. 374.]

The gathering of medicinal herbs such as ginseng requires the recital of certain attraction formulas to attract the gatherer to the place wherein the ginseng is growing most abundantly. Here, as in the other cases of economic ceremonies, no luck greets the hunter who neglects the sacred formula.

Allied to the economic formulas are those devoted to finding out lost things and for divining other events. A pebble, straw, bread ball, or brown stone is suspended on a string, and the direction of its swinging will indicate the position of the lost object. The diviner repeats the following:

I HAVE LOST SOMETHING

Listen! Ha! Now you have drawn near to hearken, O Brown Rock; you never lie about anything. Ha! Now I am about to seek for it. I have lost a hog, and now tell me about where I shall find it. For is it not mine? My name is . . . [Mooney, 1891, p. 386.]

Weather-control formulas are resorted to principally in order to prevent bad wind storms, to induce rain after a drought, or to stop rain after a prolonged period of it. A typical wind-averting formula given by Mooney compares the storm to an eager husband pursuing his wife. The reciter of the formula averts the storm, telling it that the wife has gone in some other direction. Here again the social relationship is applied to explain a natural phenomenon.

Some of the formulas are concerned with forms of social opposition such as war and ball play. The war formulas are in the main forgotten and only a few survive.³³ Their general tenor is a theme involving confusion of the enemy in the black fog and the likening of the reciter of the formula to some small bird which is able to dodge shots with ease. The ball play formulas have to do with the strengthening of ball players when they go to water for purification through ritual sanctions (Mooney, 1891, pp. 396-397). The home team is compared to swift animals and identified with them; the enemy team is identified with slow and clumsy animals. This weakens the opponents and strengthens the home team. There is, in general, a close resemblance between the ritual sanctions surrounding war and the ball play.

One element occurring in the formulas which clearly reflect actual social relationships is kinship. Such is one of the formulas described by Mooney as "To Make Children Jump Down." It is designed to assist in childbirth, and runs as follows:

³³ Mooney (1891, pp. 388-391) gives an example. The present author's informant possessed two war formulas in 1932.

THIS IS TO MAKE CHILDREN JUMP DOWN

Listen! You little man, get up now at once. There comes an old woman. The horrible [old thing] is coming, only a little way off. Listen! Quick! Get your bed and let us run away. Yû!

Listen! You little woman, get up now at once. There comes your grandfather. The horrible old fellow is coming only a little way off. Listen! Quick! Get your bed and let us run away. Yû! [Mooney, 1891, p. 363.]

This formula is described by Mooney as an expression of kinship usages. The male child is frightened into being born sooner by being told that its grandmother is coming and is only a short distance away. This seems to be related to the idea that the male child is often frightened by an old grandmother telling him that he will have to marry her when he grows up, shriveled and ugly though she may be. This is, of course, the indirect joking of the son by his father in a new guise. In the same manner the girl child is told that the maternal grandfather is coming. This person is a privileged character in the community so far as teasing the children is concerned and is greatly feared by them. Thus it can be seen that the joking relationship between grandparents and grandchildren is employed in a magical rite for expediting a speedy childbirth.

In general there seems to be some connection with magical powers and old persons or grandparents. As we shall see below, the most powerful forces in Cherokee cosmology, the fire and the sun, are regarded as grandparents. The fire is given a variety of names in the formulas, "ancient red," "ancient white," "grandmother," etc. This element is a powerful and magical grandmother and one dare not be familiar with it as one is with the human grandmother. Any lack of respect for the fire will result in immediate disease. If one spits on the fire his teeth are going to fall out, if he urinates on the fire worms will attack his bladder. In this case, as in others, disease is looked upon as the operation of a sanction mechanism. The fire is invoked to protect her grandchildren in the house and bits of charcoal are tied about the necks of the children so that their magical grandmother will look after them and not allow them to become lost. Grandmother fire is the old woman gathering wood after which one of the present-day Cherokee dances is named. When a sacred new fire is kindled it is very powerful and may be used in witchcraft to cause the death of an enemy. Ritual sanctions are closely tied up with the kindling of the magical new fire. It must be constantly fed on a special diet of liver, otherwise it will become dangerous and "go after" its owner, and cause illness. Existing in the same way as fire, but not looming to such importance in the relationship with humans, is the grandmother sun. She is appealed to in various rites for love attraction and the cure of certain diseases.

The moon is regarded as a strongly protecting elder brother or sometimes as a maternal grandfather. He is the especial protector of ball players just as the fire is of the hunter. He has a strong influence over women and is appealed to by the young man who is painting up in preparation for the dance.

There is one other important relative in the magical kinship system of the Cherokees. This is *agawe'la*, "the old woman of the corn," who is also regarded as a mother. Various myths and rites cluster about this figure whose importance in the past was undoubtedly much greater than now.

Certain other beings are related to the Cherokees in the manner of human beings although their exact relationship status is vague. Such beings are the man of the Whirlwind, the Rain-maker (*agandiski*), the Cloud People who often come to visit humans, the Red Man of Lightning, the Thunder Men, the Snow Man, the Hot and Cold Weather Men, the Rainbow Man, Hail Man, Frost Man, Waterfall Man, and last but not least, the Long Man of the River. One must always respect these persons and never joke with them.

Certain unexplained relationships occur in the invocation of spirits which cure apoplectic fits. Two of the spirits so invoked are "my father" and "my mother's brother." Evidently there is a linking in function of these two male ascendant generation persons in some manner not now remembered.

Regarding the relationships existing between the persons who send diseases on each other, it is difficult to speak accurately. Mooney mentions that the *ayeligogi* diseases might be sent by one's parents in order to test one's aptitude to ward off attacks of magical disease. It is also possible that clan revenge may still function as a retaliatory sanction by way of the magical disease route. It is certain that personal revenge functions by this means. Magical relatives such as the fire or the river send diseases for slights and insults. Conjurers send diseases to each other when in rivalry over a woman.

The linking of one's clan with one's personal name occurs in the love formulas in particular. In these prayers, as we have noted, the woman is reminded that, of all the seven clans,³⁴ she is destined to marry only into the clan of the reciter.

In summary, it will be seen that the kinship relations appear to be reflected to some extent in the magical formulas, especially those formulas which have to do with disease and love motives, and occasionally in others.

³⁴ The totemic aspects of the Cherokee clans, to which previous reference has been made, are unclear. The number of sacred and taboo animals was anciently quite large. At the present time there is no definitely expressed relationship between groups and totemic objects. See Frazer (1922-1925, vol. 3, pp. 182-195) for a negative view in Cherokee totemism.

MYTHOLOGY AND ITS FUNCTION

One element remaining in Cherokee culture capable of being closely connected with the social structure is the mythology. The mythical lore of the Cherokees has to do primarily with explanations of the present world in terms of happenings in the past. Most of the events recounted in the myths relate the adventures of various animal deities in the usual fashion of North American Indian and other primitive folklore. Much of this material could be paralleled, if not duplicated, by corresponding stories from the other tribes of the Southeastern area of the United States.³⁵

The animal species are pictured as organized into a society resembling that of the Cherokees themselves and as being possessed of town houses, towns, trails, and the like. The animals of today live in clans, each species being a single clan, and these clans are pictured as frequently meeting together in council to decide on important enterprises. Yet the animals of today are not as great as those of the past, who appear to have been powerful conjurers in disguise. The clan councils administer penal sanctions and enforce social control among the various animal species. Yet the most important features of the latter-day culture of the Cherokees, such as fire and tobacco, are represented as having been obtained by stealing on the part of various animals at the behest of their clan councils. When certain animals were punished for their misdeeds the characteristic marks survive until now. Stealing of wives and other booty was an early characteristic of the Cherokees and one that seems best reflected in the myths. Some of the animals appear not only great conjurers, but also as great tricksters of the type of the practical joker among relatives today. The rabbit, in particular, is an expert trickster and few are the creatures who escape his pranks. The animals' clans are perpetually at war with human beings as has been mentioned before in the discussion on the theory of disease. This war amounts to a conflict involving blood revenge for all of the animals slain by man, either as game or crushed as worms heedlessly beneath the tread of human feet.

The extensive collection of Cherokee tales made by Mooney was classified by him under seven groups, namely: Cosmogonic, quadruped, bird, snake-fish-insect, wonder stories, historical traditions, and miscellaneous (the last being mainly explanations of topographical designations). This classification is based on the formal subject matter of the myths rather than on the story themes contained in them. For the purposes of a functional study such as this, the internal relationships between the characters in the myths are of more importance than

³⁵ Mooney (1900, pt. 1) must be read at least in part before attempting to understand the generalizations derived in this discussion. Lack of space forbids the inclusion of even some of the shorter myths in this discussion.

the actual animals involved. It is possible to conceive the social relationships described in the myths as types of the actual relationships to be found among the Cherokees themselves. It is in projection of various types of human relationships into the animal and mythological world that value inheres in the myths in a functional interpretation.

TABLE 7.—*Elements in Cherokee myths*

Title of myth	Explanatory	Trickster	Amatory	Kinship	Theft	Revenge	Corresponding myth in Mooney's list (1900)
1. Otter and the Rabbit.....		X					Myth 17, p. 267.
2. The Crane.....	X	X					
3. The first Elk.....	X		X				
4. Marriage of the Corn and Bean.....	X		X				
5. The Lion and the Rabbit.....		X					Myth 77, p. 329. Myth 3, p. 242. Myth 67, p. 319. Myth 75, p. 325. Myth 19, p. 269. Myth 16, p. 266. Myth 26, p. 275. Myth 40, p. 289. Myth 83, p. 343(?) Myth 84, p. 345.
6. The Bear's Short Tail.....	X	X					
7. The Great Leach.....	X					X	
8. The Woman of the Corn ¹	X			X		X	
9. Stonecoat.....	X						
10. The Bear Clan.....	X			X			
11. Turkeys and the Rabbit.....	X	X					
12. Rabbit and the Mink.....	X	X					
13. How the Deer got his Horns.....	X	X			X		
14. Terrapin's whistle.....	X	X			X		
15. The Beaver Wife.....			X				
16. The man who married the thunder's sister.....			X				
17. Story of Oconaluftee.....	X		X	X			Myth 63, p. 311.
18. Creation of man ²	X						
19. Isayl and the thunder boy.....	X	X					
Summary of number of occurrences of element.	15	9	5	3	2	2	

¹ This myth appears in the Payne Manuscripts also.

² This myth appears in the Payne Manuscripts and elsewhere.

Table 7 (above) consists of an enumeration of the elements in a group of some 19 myths collected by the writer at Big Cove in 1932.³² The explanatory element looms as the largest single factor in this random sampling. The explanatory element, however, involves several subordinate elements which constitute the means of explanation. These subordinate elements are those important social relationships such as jokester trickery, revenge, love, and family relationships.

The jokester-trickster element consists of practical jokes played on each other by the animal actors of the mythical drama. The rabbit is the type trickster of the Southeastern woodlands and in the Cherokee myths he tricks the otter, 'possum, turkeys, wolf, flint, and the deer. He is in turn tricked by the terrapin and the deer. Other animals also play tricks. The wolves, in particular, are very gullible and are tricked not only by the rabbit but also by the terrapin and

³² This series of myths is still in manuscript but will appear later as part of a formal study of Cherokee ethnology by the present writer.

the ground hog. The terrapin is also gullible for he is tricked by the turkey and the partridge.

The trickery and practical jokes between the animals are quite frequently reciprocated, one animal returning with interest the tricks of the other. The favorite mode of trickery is for one jokester to lure another into a situation in which the latter is made to appear ridiculous and loses something of value. In this way the bear loses his tail, the otter his coat, the deer his sharp teeth, and the 'possum his furry tail.

The trickster element is closely similar to the joking between relatives which, as we have seen, is so important in the social structure. The joking of the myths is not between close relatives, it is true, but the forms of the relationship are such that one is forceably reminded of the joking between kinfolk. In this connection we should recall the famous tobacco joke between the man who marries the father's sister and the children of the wife's brother.

Closely allied to the trickster element is the motive of theft. Theft of souls and life span plays an important part in explaining the motives of witches, as we have already seen in the formulas. In the mythology the important culture elements possessed in later times by the Cherokees, such as fire and tobacco, are represented as having been stolen by the great animals of the past from some far country. In the trickster myths subterfuges are used by the deer to steal the rabbit's horns and the quail to steal the terrapin's whistle. In this connection it would be pertinent to note that the Cherokees were formerly a predatory mountain people given to swooping down on the lowland tribes of the east and south in search of booty and perhaps wives.

Revenge appears in the myths as a life for a life principle in the killing of Stonecoat and of the monster leech. Many of the historical and animal myths of Mooney's list involve revenge motives. It is possible to see in the revenge motive a connecting point with the blood revenge or retaliatory sanctions of the earlier Cherokees. Even today the principle of rivalry and revenge is predominant in the relations between the conjurers. Struggle for power and for women leads to injury and revenge on the part of the various parties involved in the magical rivalry of conjuring.

The amatory element appears in the myths in several guises. Some of the animals are seeking after wives and go through various adventures in their search. The love element appears in other cases in which explanations of present-day conditions are made. This resembles the love element appearing in the sacred formulas but no special indication of preferential mating occurs in the myths. Likewise the kinship element appears in several of the explanatory myths and al-

ways in a rather generalized form without important connections with the kinship structure described in this paper.

The Cherokee myths, then, can be said to represent, under the guise of a predominantly explanatory element, a series of social relationships which are also found to underlie the social structure of the tribe. These social relationships unite the myths with the rest of Cherokee culture in a functional relationship. The myths express the rationalized explanations of the existing world in terms of familiar social mechanisms known or recognized by all of the persons in the tribe, both the raconteur and the listeners in this case.

The various usages which constitute the core of Cherokee social organization at the present time have now been reviewed in their functional aspects as part of a complicated interarticulating mechanism for the perpetuation of the clans through preferential mating. Each type of institution and usage was shown to have a definite role in connection with the system as a whole and to serve as supporting links in the chain of events leading from one point in the community and individual life cycle back to a similar point in the cycle. This set of usages can be said to constitute a specific social pattern for the Cherokees.

SUMMARY OF THE PRESENT-DAY CULTURE

The important points to be derived from the foregoing discussion of the Functions of the Present-Day Traits have to do almost entirely with the problem of preferential mating and the kinship usages that surround it. An attempt will now be made to generalize and to summarize in brief fashion the functional relationships just presented under the headings of social opposition, social solidarity, and social reciprocity.

SOCIAL OPPOSITION

The principle of social opposition always involves by implication some degree of the inverse principle of social solidarity, and since the two phenomena are so closely allied in appearance they will be treated here together.

We have already discussed the appearance of social opposition within the individual Cherokee family and shown how the principle appears in the relationship of contiguous generations, older to younger siblings, in the nonreciprocal nature of some pair relationships, and in the sexual dichotomy. It remains for us here to sketch the outlines of social opposition as it occurs in nonkinship groups either as an extension from kinship or as an analogous phenomenon to that occurring within kinship relations.

The organized opposition between groups occurs in its clearest form in the sports, particularly in the ball game. In the ball game the opposition involves a rivalry not only of the teams and the towns

but also of the conjurers in the rival towns and the fellow clansmen in the two localities. The rivalry between the conjurers was discussed in the section on extensions in social opposition. The opposition between clan brothers, already noted in several contexts, is of great significance for the participants in the game because it has a magical influence over the outcome of the game. One singer in the ball dance will look toward the enemy town and say, "Your town is no good. Your team is going to lose the game." Thus he weakens the opponents, even though they are out of sight and hearing from him.

The opposition involved in the ball game is very intense. A regular melee occupies the greater part of the game and the number of serious injuries incurred is quite large. Yet the fighting is all accepted in good spirit as part of the fun of the game.

A different type of social opposition develops in the woman's football game, the vine-pulling game, and the basket game. In these sports the women are generally aligned against the men. In each game the stakes are constituted by the products most characteristically associated with each sex's daily activities. If the men lose they are compelled to hunt for squirrel, rabbit, or some other game for a feast. If the women lose they are compelled to bake bread and beans for a feast. This sexual dichotomy appears in other contexts as, for example, in the tendency of the women and men to congregate in separate groups at all public gatherings and the relegation of some of the dances to either one or the other sex.

Another, somewhat artificial, form of town opposition develops in the competition for prizes at the annual fair. This is especially a phase of the competition of dance teams from Birdtown and Big Cove. A regular feud has developed between these two towns with reference to the excellence of their respective dance teams.

At the annual Thanksgiving Day match hunt in Big Cove two opposition groups are always involved, one from one side of the river and the other from the opposite bank. The losers are forced to do the work of preparing the dinner. This form of competing opposition was formerly common in all of the Cherokee towns.

Since war has disappeared, the greatest form of social opposition without the Cherokee group has disappeared. The Indians have retained, however, a strong measure of group solidarity and resistance to white laws as we saw in the section on the economic situation (pp. 213-214). The opposition is not organized but represents a spontaneous nonparticipation feeling of separation from the surrounding white world.

In summarizing the main points of social opposition, then, it can be said to be found in various forms of intertown and intersex

rivalries, but that its most manifest social function is in connection with the maintenance of the peculiar features inherent in the preferential mating of relatives.

SOCIAL SOLIDARITY AND RECIPROCITY

Turning to the principle of social solidarity, we find that it also stems largely from a kinship base and by extensions becomes more widespread in its manifestations. The solidarity of the individual town is maintained by the local organization of ball and dance teams, the commonly shared councilman, and farm organizations. A more effective solidarity is that of the local neighborhood. This is manifested in the mutual aid societies, the local cooperative enterprises, and the dance groups. There are two typical dance groups which come to the fore in this connection, the group meeting in Raven in Big Cove and the Adams Creek group meeting in Birdtown.

Social solidarity within Cherokee society can be said to be maintained by various interlocking groups. The segmentary groups such as the family, lineage, and clan are the primary manifestations of group solidarity. These have never been broken down by white culture although they have been greatly modified. Secondly, there are the groups founded on social reciprocity, the gadugi, poor aid societies, and local cooperative enterprises. These are aboriginally remnantal organizations which function but feebly today and seem to be destined to soon disappear. Thirdly, there are groups whose solidarity is founded on their function as agents for maintaining the social sanctions. These are the town organizations and the Governmental system of the Band itself. These last have completely lost their aboriginal flavor and appear to be some sort of copy of the institutions of the white man.

The most outstanding example of reciprocity in Cherokee culture is the reciprocity between clans in connection with the system of preferential mating whereby the balance of loss and gain is maintained. This is but one of several important manifestations of this principle, however.

The balancing of complementary forces is apparent in the marriage relationship, in the forms of economic exchange of goods and services prevalent in Cherokee society, and in the cooperative enterprises. The process of evening up of social exchanges is a well-marked fact. The mutual assistance of husband and wife within the household is a primary manifestation of reciprocity. The man of the family performs the operations of hunting, fishing, fuel gathering, and land cultivation. The woman of the family attends to the household duties of cooking, mending, washing, and child rearing. The reciprocity of this arrangement is recognized by a symbolism

in ritual among the Cherokee, the man being identified with meat and game while the woman is identified with corn and bean food or bread. Therefore, in all games between the sexes the women bet bread and the men bet meat.

Reciprocity in exchange of goods and services appears in clear form in the various local or neighborhood cooperative enterprises. The gadugi is a company organized for the purpose of mutual exchange of services and earning of money. Mutual aid between neighbors often takes the form of helping in the digging of each other's potatoes and helping each other in the harvesting. The poor aid society functions as a form of mutual aid among neighbors when sickness or death disables one of the families. Payment for these services is, of course, expected, either in kind or in return services. Sometimes a group in a neighborhood will go together to build a house for some poor person or build a footbridge for common use.

A more extensive type of reciprocity occurs in the cooperation of a whole town in helping out the cultivation and improvement of some particular conjurer's farm in order to secure in return his aid to conjure for the ball game and obtain a magical success.

Reciprocity in the form of true economic exchange consists of the changing of land, improvements, and goods. Land use is acquired by the individual in a number of ways—homesteading, inheritance, purchase, swapping, or renting.

The theory of homesteading expresses an economic exchange of reciprocity although, perhaps, the practice does not entirely live up to the ideal. According to the principle of the laws, the Band grants the use of a homestead to a member of the Tribe who is a proved Cherokee and who promises to improve the land by building a house on it and cultivating it. In some cases, however, improvement of the land is very slight and squatter sovereignty is far from unknown.

The theory of inheritance involves another type of ideal reciprocity. A person who acquires a claim of land by homesteading acquires only the use of the land, not the ownership. But all improvements made on the land are owned outright so that ownership land becomes de facto if not in law. Theoretically, the homestead is willed to that person who "takes care" of its original owner in his last days. Generally this implies that ultimogeniture, or youngest son inheritance, prevails and so it is in the main. However, almost any relative, and even a perfect stranger can take care of the aged owner of a homestead and thus acquire the land at his demise. There is an exchange, then, of "taking care" for a land tenure. One might well ask, "What becomes of the other children of the family?" The answer is that they go out either to stake out new homesteads for themselves or leave the reservation.

Outright purchase is a common form of acquiring land improvements and tenures. This is the means by which the more thrifty "white Indians" have been able to acquire huge holdings in Big Cove, Wolftown, and Birdtown. As these people advance, the native Cherokee is pushed farther and farther up the slopes toward the inhospitable tablelands and mountain ridges. The reciprocity of the buying and selling of land lies, of course, in the exchange of land for cash.

Swapping is a fairly common form of exchanging homesteads. In some cases one native will want to move to another town and he is able to find some other family that wants to move to his own town. In many cases owners desire to move nearer to relatives or to higher land away from the white settlements. Swapping is carried on not only in land, but also even more extensively in mobile goods such as household articles, written prayers, and the like.

Quite a number of the Cherokee families rent their land from other fellow tribesmen. In this case a money rent is paid as a rule. All improvements made by renters are held to belong to the original owner, not the renter. This is a reciprocity of exchange for use.

The relations of the Cherokee to the white Government are an example of economic semidependence owing to lack of full reciprocity of the relationship. The average Cherokee family does little more than provide itself with a mean type of shelter, a small margin of corn and bean food, and scant fuel. Articles of apparel such as shoes, sweaters, and the like are often supplied by the white Government. In addition to the supplying of life necessities, the white Government also supplies educational, health, and agricultural services. In return the Cherokees render little beside some native products such as old-time artifacts and native dances and entertainment at the annual fair.

The segmentary organizations of the Cherokee are permeated throughout with the principle of reciprocity. The effects of the dual organization of the aboriginal society will be discussed in the section on Political Change. The relationships of the various kinship pairs involve different kinds and degrees of reciprocity. The terminology reflects the differences between the less reciprocal (nonreciprocal terms) and the more or less completely reciprocal (self-reciprocal terms) relationships as we have seen in the section on kinship integration. In general, it may be stated that relationships with persons of one's own or the alternate generation are reciprocal and that relations with the contiguous (parental or children's) generations is nonreciprocal. Reciprocity appears in the symbolism of certain of the dances. In the Corn Dance the cooperative labors of the two sexes in planting are symbolized in various motions. In the Green Corn Dance there are certain dances performed by one or the other sex which symbolize

their respective labors in the harvest. In the Coat Dance the coat denotes the trading of a cloth payment for a bride.

Summarizing the manifestations of reciprocity, then, its primary forms can be said to lie in the exchange between clans in marriage, in cooperative societies, in economic exchange, and in the relations between kinship pairs. Through the agency of its function in clan-marriage exchange, reciprocity is tied up with the important nuclear complex in Cherokee society consisting of preferential mating, privileged familiarity, and the like. Through economic exchange, moreover, reciprocity is allied with social opposition between rival groups such as men and women, town and town, etc. The solidarity of groups is also bound up with group sanctions and reciprocity.

SOCIAL INTEGRATION

By way of summary of this discussion on functions, it can be stated that the meaning of Cherokee social institutions and structures is to be sought in a series of principles or agents which, taken together with a set of special principles associated with this particular area or tribe, constitute the basis of the present-day functioning society. The active agents in Cherokee society today consist of social opposition, social solidarity (both opposition and solidarity being possibly different facets of the same thing), social reciprocity, and social sanctions. Upon these is overlain a series of special principles such as preferential mating, privileged familiarities, and the segmentary divisions. Preferential mating is by far the most important of these.

The kinship system of the Cherokees involves a series of social solidarities and social oppositions. The solidarities are built up from equivalence of brothers and equivalence within the clan and these are articulated with the opposition of parental generation to ego's generation to produce a mechanism allowing for preferential mating. The solidarities and oppositions within the individual family are extended to the social structure as a whole.

There are three main types of pair relationships among the Cherokees and these are (1) parent-child, (2) brother-sister, and (3) grandparent-grandchild. The perpetuation of a complicated system such as the Cherokee depends upon its ability to adapt itself to the changes arising from the deaths, marriages, and births of its individual members. Provision for these necessary occurrences is made in the preferential mating system through the fact that lineages are kept in close contact with each other. Marriage is made an interlineage affair and death is provided for by the production of new family groups. The generation of new families is brought about through a mechanism consisting of (1) privileged familiarity of satirical, intersexual, and indirect types; (2) a reciprocal arrangement between clans for ex-

changes in marriage of their respective members; (3) a definite system of preference in mating by individuals for certain clans; and (4) the enforcing power of certain strong social sanctions.

The system of preferential mating prevailing among the Cherokees is probably the most important and pivotal item in the entire integration. It is effected through the agency of that exogamous segmentary group, the clan. The special principle of preferential mating among the Cherokees allows marriage only with persons who are in the clans of ego's father's father or mother's father. This is to say marriage is allowed only with the mother's father's matrilineal lineage and its corresponding clan, or with the father's father's matrilineal lineage or clan. It is forbidden to marry into one's own matrilineal lineage or clan, and the same taboo exists with reference to one's father's matrilineal lineage and clan. Thus, it can be seen that Cherokee kinship lays stress on four lineages in tracing descent.

Closely allied with the special principle of preferential mating is the special principle of privileged familiarity between certain relatives. Limited to its two main aspects, privileged familiarity can be said to be that form of close contact between relatives which functions as a means of establishing marital relationships through intersexual interchange and in promoting clan solidarity and conformity through the satirical sanction.

Reciprocity in marriage between clans is established through the marriage with one's grandfather's clan which has lost a member through the previous marriage of one of its male members into ego's father's or mother's clan. The return or exchange marriage is effected through the agency of one's father or mother whose indirect familiarities are correlated with ego's later marital inclinations.

Social opposition appears in its most organized form in Cherokee sports. These forms of opposition may be a possible development and extension of opposition within the immediate family and clan. Social opposition within the family operates to prevent marriage with the father's clan through the barrier of parental generation superordination (plus sexual barriers in case of female ego), and with the mother's clan through the same former barrier, plus the sexual barrier in the case of male ego. Social opposition is thus seen to be that force which prevents marriage between certain lineages and clans.

The principle of social solidarity is manifested mainly in that segmentary division of society known as the clan. Clan solidarity allows an identification between the social functions of the members of a given social segment, so far as kinship usages and preferential mating are concerned. The social sanctions within this clan group are largely of the satirical type, and serve to promote solidarity also.

Other forms of social solidarity built up on a reciprocity basis include the cooperative societies and the usages connected with them. These are a valuable adjunct to the economic organization of Cherokee society and prevent it from becoming totally dependent upon the white men.

Social sanctions manifested in the form of group obligations are of two types, satirical sanctions with the kinship usages surrounding the segmentary divisions of society, and the sanctions build up by the agency of the band organization with the influence of the white man. These latter do not function with a maximum degree of efficiency, and tend to be disregarded.

Social reciprocity manifests itself among the Cherokees mainly in two forms, through the types of economic exchange, and the cooperative societies and enterprises. The various forms of economic exchange, such as inheritance, homesteading, and swapping, all involve theories of mutual reciprocity in exchange between participants. There are also forms of reciprocity surrounding various phases of the marriage relationship.

A functional study of a given culture must necessarily be limited to a synchronous aspect in order to avoid confusion with comparative data from the past. However, after a synchronic analysis has been made of a culture, it is perfectly legitimate to depart in two directions, namely, (1) to endeavor to obtain pattern variations between the tribe in question and other tribes of its immediate neighborhood, or (2) to attempt to correlate the synchronic material with diachronic data derived from a survey of historical forms of integration within the tribe. The present study will follow the latter course.

TABLE 8.—Principles of Cherokee social organization

Social solidarity	Social opposition	Social reciprocity	Social sanctions	Privileged familiarity	Preferential mating
<p>I</p> <p><i>Segmentary groups</i></p> <ol style="list-style-type: none"> 1. Family: <ol style="list-style-type: none"> a. Within generation. b. With alternate generation. c. With parents. d. Pair solidarities. <ol style="list-style-type: none"> 2. Lineage and clan: <ol style="list-style-type: none"> a. Within clan. b. With grandfather clans. 	<p>I</p> <p><i>Family</i></p> <ol style="list-style-type: none"> 1. Generation. 2. Age. 3. Nonreciprocal relationship. 4. Sex. 	<p>I</p> <p><i>Cooperatives</i></p> <ol style="list-style-type: none"> 1. Gadugi. 2. Poor aid society. 3. Farm organization. 4. Miscellaneous. 	<p>I</p> <p><i>Organized</i></p> <p>Town. Band. United States Government. North Carolina.</p>	<p>I</p> <p><i>Joking relationship</i></p> <ol style="list-style-type: none"> 1. Between brothers. 2. Tobacco joke. 3. With grandparents. 4. Indirect—son by father. 5. Gentle joking. 	<p>I</p> <p><i>Pedigree evidence</i></p> <p>Marriages. Sororate. Levirate.</p>
<p>II</p> <p><i>Reciprocity groups</i></p> <p>Gadugi. Poor aid society. Farm organization.</p>	<p>II</p> <p><i>Sports</i></p> <ol style="list-style-type: none"> 1. Ball game between towns. 2. Games between sexes. 3. Competition for prizes. 4. Match hunts. 	<p>II</p> <p><i>Economic exchange</i></p> <ol style="list-style-type: none"> 1. Barter. 2. Trade. 3. Rent. 4. Inheritance. 5. Homesteading. 6. "Gifts." 	<p>II</p> <p><i>Diffuse</i></p> <p>Satire. Joking. Myths.</p>	<p>II</p> <p><i>Ritual and other</i></p> <p>Results of taboo violation. Tuckster motif.</p>	<p>II</p> <p><i>Kinship usages</i></p> <ol style="list-style-type: none"> 1. Privileged familiarities: <ol style="list-style-type: none"> a. Intersexual. b. Satirical. c. Indirect.
<p>III</p> <p><i>Sanction groups</i></p> <p>Town. Dance groups. Band. Ball teams. Attraction medicine. Identification in prayers.</p>	<p>III</p> <p><i>Opposition to whites</i></p> <ol style="list-style-type: none"> 1. Attitude toward laws. 	<p>III</p> <p><i>In marriage</i></p> <p>Wedding feast. Bride's acceptance. Exchange between clans.</p>	<p>III</p> <p><i>Miscellaneous</i></p> <p>Ritual of dance. Ritual of ball game. Theory and cure of disease.</p>	<p>III</p> <p><i>Dance as vehicle</i></p> <ol style="list-style-type: none"> 1. Types of dances. 	<p>III</p>
	<p>IV</p> <p><i>Magical</i></p> <ol style="list-style-type: none"> 1. In ball game. 2. Ayellogi disease. 3. Taboos. 4. Blueness and loneliness in conjuring. 				<p>IV</p> <p><i>Clan</i></p> <p>Regulates extension of kinship and marriage.</p>
					<p>V</p> <p><i>Sanctions</i></p> <p>Prevent violation and encourage correct forms.</p>

THE FORMER SOCIETY

INTRODUCTION

The first part of this monograph was devoted to a descriptive and functional treatment of the present culture of the Cherokee and to the derivation of explanatory principles therefrom. In view of the fact that the present-day culture of the tribe is the result of the contact and commingling of aboriginal and European elements, it would seem desirable that some sort of separation be made between these two streams of cultural influence through a survey of the historical records. In addition, it would seem that an extension of Cherokee culture backward in time would be also a prerequisite for a comparative study of the Cherokee with the other tribes of the Southeast. In the third place, a study of the ancient culture of the Cherokee is valuable as an index of culture change and stability of type.

THEORIES OF ORIGINS

Of merely antiquarian interest are the numerous early theories ascribing a similarity between the ceremonial and social organization of the Cherokees and that of the ancient Hebrews. It was not until the work of Haywood in 1823 that a serious study of Cherokee origins was attempted. Haywood was a diffusionist, a forerunner perhaps of Elliot Smith. According to the Haywood (1823, pp. 231 ff.) historical reconstruction, two streams of culture and probably two races coalesced in the distant past to form the Cherokee tribe as it was found by the whites. The earlier of these two groups built mounds, made idols, performed human sacrifices, built walled wells of brick, erected fortifications, worshipped the lingam, revered the sacred number seven, and lived under despotic princes. These people were from southern Asia and bore a culture affiliated with that of the ancient Hindus and Hebrews. Their domain was coincident with that of the earlier Natchez people who at that time ruled the major part of the Lower Mississippi and Gulf Coast areas. Whether he thinks the Natchez of later times were a remnant of these particular people or not, Haywood does not make clear. Later, he postulates, there came a band of savages from the north, originally from northern Asia, democratic in organization and possessed of an efficient military organization. These people possessed themselves of the country of eastern Tennessee and gradually amalgamated with the aborigines to form the Cherokees as they are historically known.

This theory of northern and southern influence can be said to sum up all subsequent thought on the origin of the Cherokees. Most of the theories have laid stress either on influences from the north or influences from the south.

Documentary evidence for an Iroquois affiliation for Cherokee speech had been adduced before the time of Haywood by Benjamin Barton (1798, p. XLV). The similarities between Cherokee and the Iroquois speech were first adequately treated by Horatio Hale (1883, vol. 5) in a short paper. In our own day, Frans Olbrechts has been working on a comparative study of the Iroquois tongues with a view to definitely relating the Cherokees within that group. Cherokee speech shows little or no direct affiliation with the other tongues of the Gulf Region or the Muskogean Linguistic family. Therefore, a strong affiliation with the northern tribes of the Iroquois is established.

Documentary and folkloristic evidence for a northern affiliation of the Cherokee was reviewed by W. W. Tooker in 1898 in a paper on the Rechaecrian Indians of early Colonial Virginia. Tooker (1898, vol. 11, pp. 261-270) is inclined to see a mixed group of Cherokees and Algonkians in early Virginia as evidence for a more northerly position for the original Cherokees. His method of basing history on oral traditions is open to question.

Cyrus Thomas in 1880 studied the Cherokee with a view toward disproving their historical erection of mounds but was compelled on the basis of his evidence to reverse his opinion and to develop an extensive historical reconstruction for the Cherokee Tribe tracing their course of migration back as far as Lake Superior or at least to Iowa (Thomas, 1890). His evidence lay in the distribution of certain types of mounds, platform pipes, and engraved shellwork, together with the traditions of a northern origin for the Cherokees already cited. The folly and sterility of historical reconstructions is nowhere more lamentably illustrated than in this paper, which is a monument to misdirected energy.

Another example of historical reconstruction on an archeological basis is to be found in the extensive studies of M. R. Harrington (1922) in Eastern Tennessee. On certain sites in this region he reports finding three strata of distinct cultural types. The lowest bore resemblances to a generalized "Algonkian," the second was possibly of "Siouan" affinities, while the third bore artifacts of a definitely Cherokee cast. Within the Cherokee stratum a succession of pottery types was observed from bottom to top leading gradually from a "Mississippi" type to a "Southern Appalachian" type. This would lead, he thinks, to the hypothesis that the Cherokees were migrants from the west or from the Ohio region who later abandoned their original pottery for Southeastern types after contact with the latter culture. The

present-day Cherokee, it might be observed in this connection, are wholly dependent on the neighboring Catawba for pottery techniques. On the other hand, the original Iroquois triangular unnotched arrow point and the grooveless celt were retained throughout Cherokee history, Harrington finds.

Of a somewhat different type is the work of F. G. Speck (1920) on the Southeastern affiliations of the Cherokees. It was already noted by such early writers as Adair and Bartram that the Cherokees resembled other tribes of the South in many ways. In later times both Mooney and Swanton noted the resemblances of this type and Swanton (1928) goes so far as to class the Cherokees as a cultural subtype of the Creeks. Speck, after a study of the decorative art motifs and basketry of the Cherokees, found that the Cherokee shared such complex techniques as the double-weave basketry with diagonal twills with the tribes of the Lower Mississippi but that in general poverty of design and coarseness of work the Cherokee compares unfavorably with the latter. In certain curvilinear and scroll designs the Cherokee work shows Creek and Choctaw affinities.

Speck applied the age and area concept of Wissler to this material and finds that two principal lines of radiation were taken by culture elements spreading from the Lower Mississippi, one up that river and the other along the Gulf Coast and up the Atlantic Coast and the neighboring Piedmont to the North. The Cherokees he regards as peripheral to the main Southeastern tribes.

It seems possible that the age and area concept, thus applied, may ultimately explain many of the resemblances between the Iroquois and the Cherokees if a diffusion from the latter northward was found a plausible theory. But many complications remain in connection with the whole Southeastern area, and the best that can be stated at present is to say that the Cherokees appear to share in the typical traits of the Southeast to a greater degree than they do in those of any other group. It is to be hoped that later studies on the social organizations of the southeastern tribes may bring more relationships to light than have been found hitherto.

EARLY HISTORICAL RECORDS

The earliest glimpse that we have of Cherokee culture is from the scattered notations from the De Soto Expedition of 1540 (Hakluyt, 1851, p. 60). These narrators record the province of Chalaque as being inhabited by a poverty-stricken race subsisting on roots, herbs, service berries, and such game as deer and turkey, which they shot with the bow. These miserable savages were clothed in a few skin garments made mostly of deer hide and wore feather headdresses. They lived in palisaded villages and possessed a barkless native dog.

The next view that we obtain of the Cherokee is from Bartram, Adair, and Timberlake some two centuries later. The Cherokees of the middle eighteenth century as pictured by these writers were a people living in scattered settlements on the waterways of the southern Appalachians. The towns were at considerable distances from each other because level tracts of as much as 450 acres were rare and the rugged topography furnished few suitable sites for extensive settlements. Where settlements did occur, it was necessarily on the banks of some stream. The rivers were used in every important religious rite as well as in fishing, fowling, and the stalking of deer.³⁷

The Cherokees of this period resided in square houses of poles or logs often containing three rooms and built one or two stories high.³⁸ These dwellings were plastered inside and out with grass-tempered clay and were roofed with chestnut-tree bark or long broad shingles. In the roof a smoke hole was left. Houses were constructed by the men. Within the ordinary dwelling there was little furniture aside from beds consisting of a few boards spread with bear skins. Basketry of great excellence was used and also pottery, both made by the women. A small sweathouse stood opposite the front door of each dwelling and within the sweathouse a fire was kept constantly burning. The use of the sweathouse for sweating was a means of purifying from disease.

The household was the domain of the female sex. Here the feminine arts of a culinary nature were pursued. The most common food was corn bread which was baked in ash-covered dishes on the hearth. Meats were brought in by the men, and the women prepared them by frying, roasting, and boiling. Everything was overdone, complains Timberlake. Various preparations of potatoes, pumpkins, hominy, boiled corn, beans, and peas were served up in small flat baskets of split cane. The many duties of the women included not only the care of the house but also wood gathering, child care, assisting in planting, cultivation, and the harvest, and other tasks. The chief cultivated plants were melons, maize, beans, tobacco, peas, cabbages, potatoes, and pumpkins.

Clothing was manufactured by the women and consisted of skin loincloth, buckskin shirt, buffalo robes, textile robes with feather decorations, moccasins, and cloth boots. Great attention was paid to body decoration and the skin was painted or tattooed with gunpowder pricked in the shape of various patterns. Ears were split to enormous size with silver pendants and rings, labrets were worn,

³⁷ The deer came down to the banks not only to drink but to lick the salty moss of the stream banks. See Adair (1775, pp. 226-256).

³⁸ This and the remaining material in this section are mainly from Bartram (1853, p. 296 ff.) and Timberlake (1929, pp. 57-102).

and wampum collars of clamshell beads were strung about the neck, armlets and wristlets about the arm, and silver breastplates on the bosom. All of the head hair of the men was plucked out save for a small patch from which grew the scalplock, which latter was ornamented with wampum of shell and beads, feathers, and stained deer's hair.

The activities of the men were varied. Arrow pointing was done by cutting triangular bits of brass, copper, and bone and inserting them into the end of split-reed arrows. Deer sinew was wound around the split end and drawn through a small hole in the head and then the sinew was moistened. The wood of the bow was dipped in bear's oil and then fire seasoned. Bear's gut was used for the string. The chief animals shot with the bow were bison, deer, turkey, opossum, squirrel, partridge, and pheasant. Horses and hogs were kept by the more civilized Cherokees. The blowgun was used to kill small game, such as birds and rabbits. This was a hollow reed of cane through which were projected small darts by the breath. Fish were caught in a variety of cleverly devised water traps and were also speared and caught with bait and hook. A most simple method of catching fish lay in scaring the fish into shallow ponds, from which they were dipped out in baskets. The men also made dugout canoes by the use of fire and tools from large pine or poplar logs 40 feet long by 2 feet wide. The bottoms of these canoes were flat and the sides plain and alike, as were the ends.

Warfare was a major event in the life of the Cherokee of this period. On the warpath the brave painted himself with black and red paint and the priest hoisted the red flag. At the end of a war the white flag of peace was hoisted, the bloody hatchet buried, and the peace pipe smoked. The calumet ceremony involved the smoking of tobacco in red and black stone pipes cut out of stone by tomahawks and then fired. The stems of these pipes were 3 feet long and adorned with quills, dyed feathers, and deer's hair. The weapons used in war were guns and knives. The bow, spear, and tomahawk were passing or had passed into oblivion.

Councils were held in large town houses capable of containing 500 people. These immense seven-sided structures had peaked roofs and were supported on concentric circles of wooden pillars. Rafters were laid across these posts to support the roof of earth and bark. Around the walls were sofas or benches covered with woven oak or ash splint mats and arranged in the form of an amphitheatre. In the center of the rotunda or open space in the center a fire was kept burning.

Dancing was a prominent feature of Cherokee life at this period. According to Timberlake, the principal feast of the year was the Green Corn Festival, and this consisted of a slow dance and singing

before the town house in the public square. He noticed other dances pantomimic of the habits of bears and the taking of pigeons at roost, and the physic dance at which the drinking of a physic decoction was followed by yells and efforts to frighten off evil disease spirits. For relieving the poor a war dance was held, and all of the participants in the dance contributed to a common fund of goods, which were later distributed to the indigent. The war dance consisted in one man giving a solo dance while he recited his individual exploits and derogated others. The war dance with contributions was also used to reward extraordinary merit, such as bravery in war. Other types of social dancing accompanied the ball play.

The ball game or racquet play consisted of a form of lacrosse and was played in a manner not different from that of later times. The only other important game was nettecawaw or chunky. This consisted in the darting of poles at rolling disks of stone, with the score depending on the distance of the spot where the pole hit from the center of the disk. The games were of social significance in that huge stakes were laid on them and sometimes even personal freedom and wives were lost in the betting.

The political system of the Cherokees had a combination of aristocratic and democratic features. At the head of each village was a chief, chosen for merit in war or for wisdom in peace. The general assembly of warriors or civilians elected the chief. He was assisted by a council of wise men. Because of the strongly military outlook of the Cherokees, there were developed two classes of fighting men: (1) Warriors who had achieved various titles for acts of bravery such as man killer or raven; and (2) plebian fighters who were not distinguished. There was also a class of titled females called Pretty Women who were delegated with the tasks of deciding on war and peace at certain times and on the fate of prisoners.

The early writer, Adair, noticed the skill with which the Cherokees treated various diseases, all of them with considerable success except smallpox. Magical formulas were used to protect the patient from the harmful influences of evil spirits. Timberlake, quoted by Olbrechts, mentions the protective prayers which were sung by the Cherokee "Ostenaco" when setting forth on a journey to England.³⁹ Magical songs were also used to obtain revenge on the enemy, for when a Cherokee captive was being burned at the stake he would recite a song of his achievements and boast that his friends and relatives would soon arrive to avenge his death. At each mention of an exploit he would cleave a notch in a post with his tomahawk.⁴⁰

³⁹ Mooney and Olbrechts (1932, p. 149) quoting from Timberlake (1929, p. 98).

⁴⁰ Mooney (1900, pp. 365, 491-492). A Cherokee Death song was current in London in 1783 which is the subject of an extensive discussion in The Death Song of the "Noble Savage," by H. B. Jones (1924).

PAYNE-BUTRICK MANUSCRIPTS DATA

The published data on early Cherokee culture is scattered and extremely fragmentary, as can be noted from the points presented above. Considerable archeologic work has been done to substantiate historical records but without adding anything to our scant knowledge of the aboriginal culture. It is fortunate that there is in Chicago some rather valuable manuscript material collected by John Howard Payne from various residents and travelers in the Cherokee Country of northern Georgia about 1835, just previous to the removal of the tribe to Oklahoma in the west. The data thus collected is principally from the pen of the missionary, D. S. Butrick, and although marked by the peculiar missionary bias of its author, presents a fair sketch of salient points in early Cherokee Culture which were later found by other investigators among the Cherokees and other tribes of the Southeast.⁴¹ It is possible that a comparison of the data from Butrick and the other minor published observations on the Cherokees with the data from the present-day social organization herein presented may be of value in the establishing of trends of culture change within this group.

The sympathetic soul of John Howard Payne was stirred to its depths by the misery of the Cherokees among whom he sojourned in 1835. Believing that these Indians had suffered more than their share of wrongs and indignities from the white man, Payne rushed to their defense and became involved in the political controversies of the time with the State of Georgia and the Federal Government. The result of Payne's inquiries into the subject of Cherokee history and rights was the accumulation of a large amount of manuscript material consisting of correspondence on the subject of Cherokee history, antiquities, and rights, dating back almost entirely to the period just preceding the removal in 1830. This collection of papers was bound together in 14 volumes and is to be found at present in the Ayer Collection of American Indian Lore in the Newberry Library of Chicago. Of the 14 volumes, only 4 contain ethnologic data of importance. The latter consists of some 715 manuscript pages contained in volumes 1, 3, 4, and 6.

Volume 1 is entitled "Traditions of the Cherokee Indians" and contains a fairly well organized summary by Payne himself in 170 manuscript pages of parts of the other manuscripts dealing with origin legends, lore of the moon and corn, the uses of the divining crystals, shamanistic practices, moon festivals, and vegetation rites.

⁴¹ Butrick's essential observations are corroborated in the descriptions of Haywood (1823) and Washburn (1869).

Volume 3 is entitled "Notes on Cherokee Customs and Antiquities" and consists of 128 manuscript pages of original field notes made by the missionary D. S. Butrick concerning many different topics, with much repetition and lack of order. The matters treated are often very sketchily described and consist of divisions of time, social organization of villages, clan names, shaman training, mourning customs, dividing crystals, training of hunters, sacred things, the meaning of dreams and omens, the beliefs concerning a future life, the mode of tonsure, war customs, uncleannesses, treatment of snake bite, women's dress, and the Cherokee calendrical festivals.

Volume 4 contains "An Account of the Customs and Traditions of the Cherokees," by D. S. Butrick, in 378 pages of manuscript. The subjects treated consist of even more extensive descriptions than are contained in volume 3. The matters dealt with are traditions of origin, ceremonies and rites, government and social organization, priests, variations in dress and ornament, the different types of food, war and weapons, economic matters, musical instruments, crime and punishment, the ball play, etiquette and manners, death and burial, the council house, marriage and the family, training of hunters, religious beliefs, houses and household organization, furniture, birth and education, uncleanness, omens, taboos, making of glue and soap, and the close number of similarities between the ancient Hebrews and the Cherokees. This extensive series of notes are much scratched and crossed out as if they had been recopied and discarded at a later date after the original writing.

Volume 6 contains a short paper entitled "Sketches of Cherokee Characteristics," by J. P. Evans, in 39 manuscript pages. The subjects treated in this sketch consist of a few points on social organization (towns, clans, superstitions, and ceremonies), the dress of men and women, the dwellings, and a few observations on the physique, diet, ball play, and dances.

The results of the present writer's study of these manuscripts are summarized in the following two chapters in which the peace and war organizations of the Cherokees are sketched and contrasted. The first of the two chapters outlines the positions and duties of the white or peace functionaries and the general social features connected with these, the calendric ceremonies and the ball play, together with various items of social importance in the individual's life cycle such as birth, marriage, sickness, and death. The second of the two chapters treats of the red or war functionaries and their duties, together with the military procedures and rites involved in organizing, conducting, and concluding a war expedition.

THE WHITE ORGANIZATION

OFFICIALS

The essential national officers in the White or Peace organization consisted in the following:

1. The chief of the tribe or "high priest," who is variously called uku, ookah, and other ceremonial titles.⁴²
2. The chief's right-hand man.
3. Seven prime counselors representing the seven clans.
4. The council of elders.
5. Chief speaker.
6. Messengers.
7. Under officers for particular ceremonies such as 7 hunters, 7 cooks, 7 overseers for each festival, 7 firemakers for new fire, Jowah hymn singer, 7 cleansers, and the attendants at the Ookah Dance.

The above officials were those occurring in the principal town and served as officials for the whole tribe also. In each of the larger towns of the tribe the same series of officials were repeated with the exception of those listed under 7 since most of the ceremonies were held nationally. The officials in all of the towns outside of the capital were subject to the will of the high chief and his seven counselors and were often incorporated with them in a governing group when grave decisions confronted the tribe.

The office of white chief or uku was the highest in the tribe. Although each town had a white chief of its own, the white chief of the capital town was regarded as the chief of the nation. His office was more generally hereditary than elective, being transmitted from a man to his oldest sister's son. The wife of the uku was of a station near to his own and might take his place until a new successor was elected if he should die suddenly.

When an old uku died he was laid out in state for a period in order to remind his pupils and assistants of his instructions. His right-hand man then consulted with the council of seven clan heads of the metropolis and together with them appointed a time for the selection of a successor. Messengers were at once despatched to notify the town white chiefs throughout the nation to meet and inaugurate a new uku. This messenger carried strings of hemp braided into as many knots as there were nights previous to the meeting. Each town white chief on being notified sent his own messenger to the candidate of his choice requesting him to accept the appointment. Generally the candidate was a relative of the late uku and had been agreed upon in advance of the death of the latter. At the appointed time the white chiefs of the various towns assembled at the metropolis in front of the dwelling of

⁴² ugutuyi is an archaic word still remembered by the Cherokees meaning "highest," "furthermost excellence." ugawiyu means "chief" today.

the candidate. The latter was then inaugurated with elaborate ritual. The candidate must first undergo a 7-day fast.

Certain persons were selected to prepare a platform constructed from a kind of strong and tall weed, together with an official white robe and a white staff or scepter. Sometimes deerskin painted yellow and a yellow cap ornamented with yellow painted feathers was prepared. These having been made ready and put in the council house, a vast multitude went to the house of the candidate on the seventh day of the latter's fast. The platform was brought near him and he, having been anointed on the forehead with chalk or white clay and deer's tallow and invested with his white robes, leaped onto it holding his scepter in hand. The platform was then raised high by means of four props and the candidate, preceded by one-half the company and followed by one-half, all singing as they went, was carried to the council house. They halted three times on the way. The people entered the council house and took their seats quietly. On reaching the council house the group bearing the candidate walked four times around it and then stopped at the door to let down the platform to within 3 feet of the ground. An appointed person then took the candidate on his back and carried him to the appointed white seat in the back of the council house, between two other white seats. This white seat was covered with white dressed deerskin, and the ground before the seat was spread with a matting of cane and then covered with a large buckskin dressed white.

The speaker then came before the assemblage and made a lengthy address at the end of which he directed the people to salute the new chief. The people then arose and all filed past the candidate repeating a formula to which he replied. Then all returned to their seats and sat in silence for the rest of the night. At daybreak the new uku made an address to the people in which he promised to exercise his authority according to the divine will and to bind the hearts of his subjects by kindness. All of the people pledged obedience to him. The right-hand man handed the new uku an eagle-tail fan and some old tobacco as signal for him to commence smoking with the other white chiefs in token of solidarity and friendship. The calumet pipe was then passed from mouth to mouth to celebrate the cementing of relationships at the occasion. At noon the younger people withdrew. The new uku then arose and put his scepter over his right shoulder. Two men put their hands under his arms and supported him as he walked to the door and from there to his house where his official dress was taken off and the ceremony was ended.

Next to the white chief in importance were the seven prime counselors. These were the chief men of each of the seven clans in the metropolis and were white officials. Their consent and advice was necessary for most of the official acts of the uku. Their offices were probably hereditary in much the same manner as his own.

In addition to the uku and his seven counselors there was a council of elders or old men, sometimes called "beloved men," who resided near the council house and who wielded considerable power among the younger people. These were men who had served long and bravely in the wars of the tribe and who had retired to a well earned position of rest and security.

Regarding the manner of appointment of the chief's right-hand man, the chief speaker, the messengers, and the under officers of state there is no definite statement. There were, in each principal town of the tribe, as has been noted, the same group of white officials and the town chiefs were inducted into office in much the same way as the uku of the metropolis.

The functions of the white chief and other white officials were rather varied. When any emergency or decision confronted a town the white chief blew his trumpet to assemble the counselors and people at his house. The trumpet used on this occasion was of special make and could be used by no person except the chief. When the assembly was completed, the white chief, his right-hand man, and the seven white clan counselors constituted the civil and religious tribunal of the town. This court decided on all inferior matters and attended to such religious matters as it was possible for the individual towns to decide. In very small villages where no such court existed the people called in the nearest town chief and his counselors to their assistance.

In the capital town of the tribe there was a national council consisting of the uku, his town attendants, together with the white chiefs of the lesser towns and their attendants. This national council was convened by the newly elected uku before a Green Corn Feast and, on emergency occasions, through the raising of the uku's standard, which consisted of a long white pole with a bird carved or painted near the top and bearing a pennant at the latter point made of white cloth or deerskin, 4 to 5 yards in length, painted with red spots like stars. In cases of great emergency, such as a sudden attack from without, the national council would select the officials to conduct the war after divination of the extent of the emergency had been made from the movements of tobacco smoke.

In the courts of the towns public criminals were brought before the bar and, after their cases had been stated by the town chief's right-hand man, the accused defended themselves as best they could. The judgment of the court was then given and immediately executed. Public criminals were stoned, killed with some weapon, or taken to a high precipice with elbows and feet tied behind and then cast headlong to be dashed to pieces on the rocks below. For private offenses the law of retaliation was strictly observed.

Private injuries were mainly settled by means of the law of blood revenge, the brother or nearest male relative of the victim revenging the injury by inflicting a like hurt on the offender or a member of the offender's family or clan. This retaliation might be avoided by the defendant in two ways. First, he might settle with the family and clan of the injured party by payment of goods or other compensation, if there was some doubt as to the purposeful intent of the injury. Secondly, he might flee to one of the four white towns of the tribe wherein no blood could be shed and remain safe from revenge there. If the offender was within sight of a white chief or within his dooryard, he would also be safe. He then appealed to the chief to save him. The latter would then follow one of two courses depending upon his own judgment of the case. He might send his messenger or blow his trumpet to call the whole town together and in their presence declare the man acquitted, or hold a regular court before which the defendant was brought and tried. If the examination showed that the guilt of the defendant was clear, he was not publicly condemned but was privately exposed to the shafts of death either in battle or in some other way so as generally to be soon taken away.

According to Nuttall (1819, p. 189) the brothers of a murderer would often dispose of him in order to save one of themselves from blood vengeance. Accidental deaths could be recompensed by a scalp from a prisoner or enemy. "Towns of refuge" were those inhabited by a supreme chief. No blood could be shed in these towns and manslaughterers fleeing there could excuse themselves and profess contrition.

From Haywood's account, it would appear that the father of a family could not punish his children since they were of a different clan from his. If he should kill them, he would be subject to clan revenge on the part of his wife's clan. The mother of the children could, however, kill them. Accidental killings could be punished by death through clan revenge or satisfied by a present. Always the nearest relative was punished if the culprit was not available. (See Haywood, 1823, section on laws and customs of the Cherokee.)

Gregg mentions that the entire clan was responsible for the crime of one of its members and there were no exceptions. Satisfactory communication could almost always be obtained because the relatives themselves would bring the fugitive to justice in order to avoid the punishment falling on one of them. (Gregg in Thwaites, 1904-07, vol. 20, p. 311.)

Washburn (1869, p. 206) states specifically that it was the function of the older brother to inflict clan revenge. The older brother together with the mother's brother exercised more authority over

the family than did the father since the latter was of a different clan and was afraid of hurting his children for reason of the likelihood of blood revenge on the part of their clan.

Beside their political and judicial functions, the white chiefs were also the solemnizers and presiding agents in marriage. The parents of a couple to be married consulted the chief and asked him to divine the fortunes of the proposed union. This the latter did through observing the movements of two beads caused by involuntary twitchings of his hand while he held the beads in it. If the beads ultimately moved together the marriage would be a success, but if they moved apart separation was bound to be the outcome of the union. In the event of unfavorable omens the match was called off and new partners were sought by the parties concerned. The prospective wife of the town white chief had to be passed on by the seven counselors as to her unblemished character.

The white officials of the tribe had, in addition to the numerous secular and private functions, the priestly function of acting as the regulators and chief performers in the periodic tribal ceremonies now to be described.

MAJOR CEREMONIES

The ceremonialism described by Butrick is extensive and in many respects difficult to understand. Elements of both lunar and solar calendrical reckoning are to be found, but the most noticeable are the former.⁴⁸ A monthly ritual of purification seems to have been a common basis for several of the most important ceremonies. The lunar purifications at new moon would seem to coincide with the periodic menstrual separation of the women and the rites which acted to remove the uncleanness of that periodic event.

The ceremonial period of the year included the months from August to November, inclusive. In this period occurred two agricultural ceremonies, and two great purificatory ceremonies. It will be noted that the Cherokees reckoned the year in two parts: The first was from the Great New Moon Feast of October to that of April (the 7th) and included the winter (*gola*) months; the second commenced with the first new moon of spring in April and ran to the great new moon of October again (the 7th) and included the summer (*gogi*) months. Thus the two important new moons were in each case seventh in a continuous series reckoning from the other, each ended and each began a new season, and both served as the boundary points of the chief periods of the year, winter and summer.

Each of the two important new moon festivals was marked by ceremonial hunts, dances, lustrations, divinations, and a feast. Each

⁴⁸ J. Haywood (1823), section on Computation of Time and Moon Feasts of Cherokees.

was succeeded a short time after by a festival in which new fire was made to renew the seasons. Of these two succeeding festivals undoubtedly the most important was the one which succeeded the fall new moon (Cementation Feast).

The two main new moon festivals as well as the lesser ones, seem to have been in the main purificatory of periodic uncleanness and protective against harmful forces. It is possible to see in the dances that accompanied these rites the periodic renewal of familiarity and solidarity between men and women after the latter had been segregated due to their necessary monthly uncleanness.

A significance of a similar kind with the added feature of disease exorcism would attach to the new fire festivals which succeed the two main moon festivals. The Cementation or Reconciliation Festival involved primarily the idea of the removal of all uncleanness and thereby also removed all possibility of disease. In order to accomplish this double feat a series of ritual sanctions were invoked at this festival. Cleansers were appointed to clean all the houses of the town, commencing with the council house, seven articles were cleansed as a symbol of all household belongings, differences between people were forgotten, and even cases of blood revenge lapsed, as no uncleanness must remain within the society. All old clothes were thrown away and new ones were donned. To bind this exorcism of all the causes for difference between people many would swear vows of eternal friendship and solidarity with other persons and exchange clothes with them. Finally, the making of the new fire signified the beginning of a new life in the community free from all of the impurities of the old life. The festival was sealed with the usual fasts, lavations, divinations, scratching, and drinking of decoctions boiled in a pot. In later times forms of the propitiation festival were used in times of epidemic in the so-called "physic dances" in which disease was combatted and uncleannesses removed.

The two Green Corn Feasts resemble each other and both were concerned with the ripening and harvesting of the corn and the rite of eating it. The details of these rites do not seem to have been well recorded but there was some fasting before the ceremonial partaking in the new corn.

There were six greater festivals. These were held at the council house in the capital town where the seven clans assembled at the behest of the uku and his seven prime counselors. In addition to the six greater festivals there were also minor local festivals celebrated at each quarter of the year, at each new moon, every 7 days (quarter month), and on each occasion of calamity or epidemic. In addition to these the ookah dance was given every 7 years in which the uku (here entitled ookah) performed a sacred dance. The following were the six greater festivals:

1. *The first new moon of spring.*—This was celebrated when the grass began to grow and had no special title. The present-day Corn Dance, called *adan wisi*, or "they are going to plant" (*Yontonwisas Dance of Mooney*), may be descended from this rite of March.

2. *The Preliminary Green Corn Feast.*—This is entitled "sah-lookstiknee keehstehsteeh" in the Payne Manuscripts and is rendered *selu tsunistigistiyi*, or "roasting ear's time," by present-day informants. It was held in August when the young corn first became fit to taste.

3. *The Green Corn Feast.*—This is called *tungnahkawhooghni* in the Payne Manuscripts and is rendered *donagohuni* by present-day informants. The ripe or mature Green Corn Feast succeeded the Preliminary Green Corn Feast of August in about 40 or 50 days in the middle or latter September when the corn had become hard or perfect and is still held today.

4. *The Great New Moon Feast.*—This is called *nungtahtayquah* in the Payne Manuscripts and is rendered *nuwati egwa*, or "big medicine," by present-day informants. This festival was held at the first new moon of autumn in October when the leaves had begun to fall into the waters of the rivers and impart their curative powers to the latter. This was identical with the medicine dance of later times.

5. *The Cementation or Reconciliation Festival.*—This is called *ahtawhhungnah* by Payne and is rendered *adahuna*, or "woman gathering wood," by present-day informants after the dance of that name. This festival succeeded the preceding one after a lapse of 10 days at the end of October and was connected with the making of new fire.

6. *The Exalting or Bounding Bush Feast.*—This is called *elahwahtah laykee* in the Payne Manuscripts and is rendered *alivatadeyi*, or "pigeon dance," by present-day informants. This festival occurred in December and was characterized by the use of spruce or pine boughs.

CEREMONIAL PROCEDURES

The procedure in the first festival was as follows: The seven prime clan counselors of the metropolis met at the national heptagon or council house. Certain selected "honorable women" performed a friendship dance in the public square before the heptagon at the same time. At their meeting the counselors reckoned the number of nights from the last new moon and consulted a divining crystal to determine the time of the appearance of the first spring new moon. After these matters were attended to, the counselors despatched a messenger throughout the nation to announce the new feast.

Meanwhile preparations were being carried forward in the metropolis itself. Certain hunters were appointed to provide meat for the feast. These persons went out and killed what game they could, such as deer or turkey. One buck deer was dressed whole, the skin, entrails, and feet being removed and the head, liver, lungs, and heart left intact. The skin was then cleaned and made white for the festival. Similarly a doe and fawn skin were prepared. The seven counselors now finished their work by selecting seven men to have charge of the

feast and seven men to oversee the cooking. The altar in the center of the national heptagon was repaired by the uku's right-hand man. The altar was a conical shaped mass of fresh earth about which at the top a circle was drawn to receive the fire of sacrifice. The inner bark from seven different specified trees was laid on the altar ready for use. The seven specified trees were white oak, black oak, water oak, black jack, bass wood, chestnut, and white pine, and the bark from these had to be free from rot or worms.

On the evening of the new moon's appearance, all of the populace assembled from every quarter of the nation and the delegated hunters brought in their meat and placed it in the storehouse on the west side of the national heptagon. The hunters delivered the white dressed buck, doe, and fawn skins to the presiding agents of the ceremony. Some of the general visitors at the ceremony brought game also. The early evening of the first assemblage was devoted to a friendship dance performed by the women. That night all retired early in order to be fresh for the day that followed.

Early in the morning the entire population crowded in and around the national heptagon and the three white dressed skins before mentioned were picked up by the uku's right-hand man and spread near the altar fire with the head nearest the flame. Blood from a freshly killed bird was then sprinkled on the buck skin and the divining crystal was placed in the blood and the flowers of old or wild tobacco were dropped on the buckskin. At this point the entire population went to the river and the priest or uku came also with his assistant carrying deerskins. A series of 6-inch sticks were stuck into the ground along the river bank. It became then a bad omen for anything to come out of the river opposite the space between the sticks on the bank. All of the people then plunged into the water seven times with their faces eastward. The priest on the bank unrolled the skins and displayed the divining crystal and placed these on a platform or table together with medicinal roots. After leaving the water the people all walked by the table, touched the crystal with the fore finger wetted from the tongue, and took a piece of medicinal root from the table. The officials followed the common people in this rite and came out of the river last. This concluded the ceremonies of the second day and the third was devoted entirely to fasting. The fourth day was the final one. The people assembled at the national heptagon at sunset and the presiding priest flung flowers of old tobacco on the fire along with a piece of buck's tongue. The manner of behavior of these substances under the action of the fire's flame was used as a means of divining the future. The buck had been dressed whole and the meat eaten entirely together with a stiff mush of newly pounded

meal. That night was entirely spent in the friendship dances given by the women and concluded the ceremonies.

Soon after this festival of the first new moon of spring, the seven prime counselors appointed a sacred night dance, sending out a messenger to assemble the people. On the seventh day after the issue of this order new fire was made by seven chosen men after the populace had spent the night of the sixth day in a religious dance. The hearth was carefully cleaned and repaired. A hole was made in a block of wood into which goldenrod was dropped and then a stick was whirled rapidly about in this until the goldenrod caught fire. From this fire specially kindled a portion was taken to every house by women who waited around for the purpose. Old fires were everywhere extinguished and the hearths cleansed of old ashes. After new fires had been lighted throughout the country, sacrifices were made in them of the first meat killed by the members of the households to which the fires belonged. Scratching of long gashes with flint and fishbone was administered freely during this rite. The medicine root used at the previous river bathing was chewed and rubbed on the skin and the same root was retained for each new moon rite of the year. The three white dressed deerskins were also brought out and presented to the priest who had presided at the festival of the first new moon.

The second great festival, the Preliminary New Green Corn Feast, was held in midsummer and at the time of the simultaneous ripening of the corn, or maize, throughout the nation. When the corn was found ripe, a messenger was despatched to gather seven ears, bring them back to the counselors, and assemble the people. A 6-day hunt was decreed for the hunters and the seven prime counselors fasted for 6 days at the national heptagon. When the hunters had shot the first buck, they cut a small piece from the right side of the end of the tongue. On the evening of the sixth day, the populace assembled at the national heptagon bringing in fresh ears of corn while the hunters brought in fresh meat. This night was spent in an all-night vigil and religious dance. On the seventh day, the festival began with the delivery of the seven ears of corn to the uku. New fire was made by a firemaker on the altar from bark of seven selected trees. Leaves of old tobacco were sprinkled on the fire and omens were taken from this. The uku placed the seven ears in the fire also with the piece of deer's tongue and then prayed that the sacrifice might be acceptable. After this rite the uku and his seven counselors fasted for seven more days and the populace then assembled for another general 1-day fast which completed the second festival.

The third great feast was the Mature, or Ripe Green Corn Feast, and was held in September 40 or 50 days after the preceding festival. First, the seven counselors summoned the honorable women for a

religious dance and then fixed the festival for some time later. The usual pattern of behavior occurred, the hunters being sent out and special officers appointed to order the festival. An arbor of green boughs was framed in the sacred square of the national heptagon wherein a beautiful shade tree was located. A large booth was erected and seats laid out. On the evening prior to the festival day, the hunters and the people assembled and everyone took a green bough for the rites of the next day. All then retired early. On the ensuing noon the people paraded with green boughs held overhead. The uku who presided at this rite was given the special ceremonial title of Netagunghstah and was elevated on a platform held up by carriers and was dressed in a white robe with leggings, moccasins, otter skins on the legs, and a red cap on the head. Altogether this festival lasted 4 days and women were excluded from the sacred square during the dances. In the evenings they might mingle in the social dances, however. This festival was the most deeply rooted rite that the Cherokees had and lasted the longest. It was said to have been connected at one time with a festival of green boughs which was more distinctive and exclusive in its characteristics.

The fourth great festival, or great new moon of Autumn, followed the new moon's appearance when the leaves began to yellow in the fall. The Cherokees fancied that the world was created at this time and they regulated their series of new moon feasts by it. There is some evidence, however, that the Cherokees originally began their year with the first new moon of spring. The counselors carefully counted the number of nights from the last new moon and, if it was cloudy weather, they resorted to the divining crystal to ascertain the time of appearance of the new moon for autumn. Seven nights previous to the event they sent out hunters to hunt, seven men to prepare seats, tables, and in general order the feast, and seven honorable women to get the provisions ready and to cook them. The end of the tongue of the first deer killed was carefully wrapped in old leaves and given to the presiding priest together with seven deer-skins. The entire population met and each family brought seven or more ears of hard corn, dried pumpkins, and samples of every crop which were all given to the priest. The women gave the sacred religious dance and no one slept that night. The next day the populace assembled at the river and bathed seven times in the same manner as at the first feast of spring. The deer's tongue wrapped in leaves was consumed in the fire and omens were invoked with the sacred crystal. Then followed feasting. The event lasted only 1 day.

Some 10 days after the ceremony just described came the Propitiation or Cementation Festival, which was the greatest of all the annual celebrations being listed. A day or two after the Great New Moon

Festival the seven prime counselors withdrew to the national heptagon to decide on the time for the Cementation Feast. Seven days before the event, after a solemn address by one of the counselors, a messenger was despatched to call the people. Seven women (possibly the wives of the seven counselors) were selected to lead the dance and seven musicians to aid them. One person was appointed from each clan to assist these and to fast for 7 days. Seven cleaners were appointed to clean out the national heptagon, seven men were sent out to hunt game, and seven to seek seven different articles for purification. A special fire maker was appointed to make holy new fire and six assistants were given him. A special attendant was appointed to dress and undress the Jowah hymn chanter while he performed his sacred ablutions and duties. If the old Jowah hymn singer had died, a new one was appointed for life.

All of these officials commenced a fast 7 days before the festival and the hunters went forth in quest of game as in the other feasts. The seekers after seven articles of purification returned with branches of cedar, white pine, hemlock, mistletoe, evergreen briar, heartleaf, and ginseng root. In later days other articles were purified such as mountain birchbark, mountain birch sprig, willow roots, swamp dogwood roots, and spruce pine. These were all fastened in a cane basket expressly fashioned for the purpose on the evening of the sixth day after notice of the festival had been sent out. These articles were then stored away in the treasure house west of the national heptagon along with the produce of the hunt.

On the evening of the sixth day after the notice, the people gathered at the national heptagon and the women performed a dance while four musicians sang in turn. All retired early that night to sleep, for the festival proper began the following day.

The first event was the making of new fires by the seven fire makers from seven different kinds of wood, namely blackjack, locust, post oak, sycamore, red bird, plum, and red oak. The seven cleansers began at the same time to exorcise the houses of the town. These cleansers had a prescribed costume of which the most noticeable feature was a scarf on the head decorated with a set of fur tassels from the white fur on the underside of a deer's tail.

The heptagon had been previously swept clean, old ashes removed, and the earth in the altar renewed so that the latter stood 1 foot high again. A bench of planks had been also constructed at the side of the altar to hold the white dipping gourds, and sacred white purifying caldron. The whitened bench was covered with dressed buckskin whitened with clay. Overhead a buckskin canopy protected from the weather. As soon as the new fire had been kindled by friction of two sticks, it was taken from the makers by the aspergers and kindled

on the altar. Then the sacred caldron was placed there and an asperger walked around four times crying out as he took the gourds, filled them, and poured the water into the caldron. At this time the uku (called in this rite by the title of "oolestooleeh"), together with his assistants, proceeded to the treasure store house and got the seven articles for purification. Then he passed around the fire and sprinkled tobacco on it as he waved the wing of a white heron over it to waft the smoke in all directions as he prayed. He repeated this prayer four times and then placed the basket for purification in the caldron where it was watched day and night. The seven cleansers kept constantly renewing the fire on the altar because at the dawn of the first day every fire throughout the nation had been extinguished by the women and every fireplace cleansed of all ashes. The women then came to the national heptagon as soon as the new fire was made and supplied themselves with a portion of it for their hearths. No food was tasted that day until the new fire had been made and a portion of the first meat cooked offered as sacrifice.

Seven attendants now appeared, each with a white wand of sycamore, which were handed to the seven exorcisers for their duties. The leader of the seven cleansers now went out and struck the eaves of the roof of the storehouse with his rod and then sang a song. He then struck similarly all of the houses of the metropolis as did his followers. Then the meat from the hunters' stores was distributed for cooking.

An attendant called the Jowah hymn singer from his seat by name and invested him with his white robes, placing also in his hand a white gourd filled with pebbles (or a shell similarly prepared) and fastened on a stick. The singer rattled the gourd and sounded a few preliminary notes. He now began his song of seven verses, each repeated four times in seven different tunes. He then again rattled the gourd and retired for disrobing. The seven cleansers took the white gourds and dipped out water from the caldron and passed some to each head of a clan and on down until all had drunk and rubbed a little on their breasts. The Jowah hymn was then sung by the singer a second time. Following this came the previously noted bathing rite in the river by all the people, each person bathing seven times and alternately facing east and west. Some persons entered the water with old clothes on and let them float away while others changed clothes afterward.

The oolestooleeh prepared the sacrifice on the altar. First a deer's tongue and a piece of old tobacco were put on the fire. If the tongue popped, it meant death for someone during the year. A bluish or slowly ascending smoke meant sickness. The oolestooleeh then set the divining crystal on the deerskin and prayed. If health was to reign

the crystal would be clear but if sickness was due a smokiness would appear along with the faces of those designated for it. Toward sunset the chanter again gave the Jowah hymn. The great speaker called for cooked meat, bread from new corn, mush, hominy, potatoes, beans, and the like for a big feast. The officials, however, could not eat until dark. The Jowah singer ate once after dark every 24 hours during the four days of the feast. He had to bathe seven times before eating and at daybreak. The evening of the first day there was a religious dance until midnight and some of the women kept an all-night vigil or danced until dawn.

The remaining 3 days of the festival were passed in much the same manner as the first. On the second day the Jowah hymn was not sung, and the officials alone fasted. The third and fourth days were about the same, except all of the events of the first day were repeated on the fourth. Fasting was a noticeable feature of this ceremony, the officials fasting 10 days in all and the people fasting on the first and fourth days of the festival, even infants fasting until noon. All-night vigils were maintained on the first and fourth nights, and at the end of the rites all put off old garments and put on clean ones. Every one on 2 different occasions plunged 7 times into the river, or 14 times in all. On the morning of the fifth day sacrifice was offered again, and then the oolestooleeh took the purified articles from the caldron and put them away in a buckskin, exclaiming, "Now, I return home." He then departed, followed by the other officials.

The Propitiation Festival was the subject of local variation in later times, especially in the manner of lighting the new fire. The term "physic dance" was later given to the rite of purifying the house, "physic" meaning a conciliation or expiation. Diseases requiring a physic had been sent from above to punish some offense among the people. A circle was sometimes laid about the altar of seven different kinds of wood curiously laid and by seven strings of white beads, each of the latter representing one of the seven clans and each placed there by one of the clan members and pointed toward the wood. Originally, say the Cherokees, the seven clans were commanded to feed the fire with their flesh, but wood was later substituted for this. The fire maker then produced two pieces of dry bass wood and put goldenrod between them. Two others then took hold of the wood and spun it around to produce fire by friction.

The Propitiation Festival was instituted to cleanse all and to bind all together in a vow of eternal brotherhood. Passionate friendship was sworn between young men, and these vows were plighted in public by the solemn exchange of garment after garment until each was clad in the other's dress.

The ancient Propitiation Festival involved the swearing of friend-

ships between men and between men and women of different clans. No sexual relation could be allowed between persons swearing such friendships. Between these friends, however, there was a sharing of everything. They would, perhaps, exchange garments and goods, giving each other one garment after another at the friendship dance. Young men and young women might be prevented by the marriage restrictions from marrying, but they could swear friendship at this rite. There could be no secrets that were not shared together by these friends.

The last ceremony of the six annual ones was the Festival of the Exalting, or Bounding Bush, which occurred in the winter after the Propitiation Ceremony. A group of people assembled in the evening before the fire, and a man chosen for the purpose appeared with a box and danced slowly around the fire singing as he danced. Each person present threw a piece of tobacco into the box and the man then disappeared. A parade of alternately two men and two women then marched along abreast; the two forward men had in the right hand a hoop with two sticks in it crossing each other at right angles in the center and on the ends of the sticks having white feathers attached. Two men in the middle and two men in the rear also carried hoops and sticks while all of the rest held in their right hands green boughs of white pine. For 3 nights this march ended the dance and the green boughs were carefully deposited among the consecrated things until the repetition of the dance. On the fourth night a feast was held after dark. At midnight, the man with a box reappeared and sang four times a refrain, while each person took from the box a piece of the tobacco. Then each plucked off some of the pine needles from the bough he or she carried and crushed them in the hands with the tobacco. All of the people next stood in a circle around the fire and then each singer walked toward the fire as if to throw in the tobacco and the needles. As he sang he hesitated but finally threw the tobacco and needles into the fire, at which the rite was ended.

The uku offered sacrifice at a peculiar rite which was celebrated every 7 years and which did not resemble the other festivals celebrated annually. At this septennial rite the uku took the title of ookah and performed a sacred dance of thanksgiving. The main procedures were as follows. At about the last of summer or early autumn, at the commencement of every seventh year, the people assembled at the national capital from every quarter for the rite. The precise time was set between the ookah and his seven counsellors. Messengers were despatched throughout the nation to notify the people beforehand. The seven hunters were sent out to hunt for 7 days prior to the festival and meat was brought in on the seventh night and distributed throughout the metropolis for public use. On the same evening all

of the nation assembled at the heptagon. The usual officials attended to the details, seven men to order and direct the banquet, women to superintend the cooking, and certain special ones, such as the aged and honorable women, appointed to warm the water for the bathing of the ookah, two men to dress and undress him, one man to fan him, one man to sing for him and lead the music, and one man to prepare his seat. Under the superintendency of this last, a structure was raised midway between the abode of the ookah and the heptagon consisting of a tall throne with a canopy and footstool, all made white for the occasion. A similar structure was set up in the public square, around which a broad circle was marked out, swept clean, and kept from unconsecrated feet.

The festival began on the eighth morning after the preparations had begun with all of the officials led by the seven counselors proceeding to the abode of the ookah singing. Arriving there, they found the honored matron waiting with warm water. One person took off the ookah's clothes while another bathed him in warm water. The ookah then received his garment of yellow and climbed up on the back of his attendant and, with his fanner carrying the eagle-tail fan and a musician on the sides and preceded by one-half of the priests and followed by the other half, was carried to the canopied white throne. Here, after a pause, the journey was resumed to the sacred square. Here the ookah sat all night in state attended by his second, his speaker, and the counselors. All kept a vigil in silence while the populace danced in the heptagon.

The morning of the second day the ookah danced in the guarded circle a slow step while the fanner and musician stood by, the rest of the assistants following and imitating his steps. No woman was allowed in the vicinity. In the afternoon the ookah directed all of the rest of the people to feast but fasted himself with his suite until sunset. The ookah and his court then ate and was carried home and disrobed. The third day was marked by the same proceedings except that the bathing was omitted. On the fourth day the ookah seated on his throne was consecrated by his right-hand man, and invested with sacerdotal and regal power, thus ending the ceremonies. Whenever seated on the white ottoman in his official duties he wore only a white dress. During the ceremonies of the entire festival, the heptagon had to be purified if a polluted person transgressed and the ookah saw him. If anyone touched an unsanctified thing during the festival he was excluded and no drunkenness was allowed. The limbs of the young men were gashed with sharp flints and any flinching was berated highly. The general bearing during the festival was considerate and the discipline perfect, there being no need of reproof.

YEARLY CYCLES

The ancient Cherokees divided the year into two parts, winter and summer. Winter commenced with the fall of the leaves in September at the time of the Great New Moon Feast, and corresponded with our fall and winter. Summer commenced with the first new moon of spring in March and corresponded with our spring and summer. There seems to have been some confusion as to which of the two was regarded as commencing the year but the general attitude in later time seems to have accorded the new year to September.

Days were reckoned from sunset until sunset. When a person was fasting he ate just before sunset and then abstained until after sunset of the next day. If, however, there was a religious feast the next day preceded by a sacrifice, the people ate just before sunset in order to honor the orb of day.

The first business of spring was to prepare the fields and to plant corn, beans, and other crops. The time for this was determined by the uku and his council in order that the fruits of the fields might ripen everywhere at the same time. Old corn was used instead of new at the feast of planting the first corn. In order to secure good crops the weather must be favorable.

The means resorted to in order to affect the weather were almost innumerable and as obscure as they were numerous. There were rites for rain, for warm and cold weather, and the like. In case of a dearth of rainfall, the people assembled at the town council house and had the conjurers appoint a ceremonial occasion. The usual pattern of seven hunters and fasting for 7 days was employed. The conjurer took the deerskin brought in by the hunters and put it beside swan's feathers on the waterside. He then prayed to the creator or moon to darken the sun's face and then shook the terrapin shell with pebbles inside to resemble thunder. He then prayed to the little men (thunders) of the north and the greater man (thunder) of the west to come with clouds. Finally he prayed to the woman of the east to send rain in plenty without thunder. If rain should be too abundant, a piece of tobacco was offered to the woman of the east imploring her to stay the torrent. When the weather was too cold the people assembled at the council house and named seven managers who collected wood for a new fire. Then tobacco was sacrificed in the fire to the woman of the east and an all-night dance was held for her. When the weather was too warm the conjurers prayed to the man of the north to send his cold and cool the air. Spanish oak and ivy leaves were sacrificed at the same time.

BALL PLAY

Closely allied to the calendric ceremonies just described was the rite of the ball play. This game was called the friend or companion of battle because all the energies of the combatants were called into play and was ranked next to war as a manly occupation. In each town of note a respectable man was selected to attend to the ball play. Anciently the priests had but little to do with the ball play as it was not directly connected with religion.

The young men of a village consulted their head man for the ball play and sent a challenge to a certain town or district by one or two messengers. The players were selected by the manager and by seven counsellors. A man must be of good character to play. When a match had been arranged between two teams, an elderly man was selected to lead the ball dance and another man was selected to sing for the players, another to whoop, a musician to play for the seven woman dancers, and also a conjurer. Seven men were appointed to wait on the conjurer and seven women to provide food for the all-night dance on the seventh day of preparation.

An open place in the woods was found and a fire was lit there. The party assembled about dark and seated themselves some distance from the fire. The director of the dance called the players forward and whooped. This was a war whoop and was the signal for the dance to begin. Then the dancers paraded around the fire making the motions of playing the ball game, with their ball sticks. The musician led the dance with his gourd rattle. After circling the fire four times the dancers rested on the same note with which they had begun to dance and sat down for half an hour. After awhile a new dance began and then another intermission. After four dances they went to the water for ritual bathing.

The next morning they all again went to water at daybreak and during the day they watched each other to see that none of the taboos for ball players were violated. The taboos and rules of the ball game were as follows:

1. No player could go near his wife or any woman during the 7 days of the dances and training. Some scratched themselves in order the better to fit themselves for the play. They could not associate with women for 24 days after being scratched.

2. The players must eat no meat nor anything salty or hot. They must eat only corn bread and drink parched corn broth.

3. Their food must be received from boys who took it from women who had set it down some distance off. The seven men with the conjurer could eat only food prepared by the seven women.

4. The seven women officiating as cooks must not be pregnant nor afflicted with any uncleanness.

5. The seven men assistants to the conjurer might be married but their wives could not be pregnant nor on any account unclean.

6. If any player had a pregnant wife, he must keep behind the other players in the dancing and marching.

7. No woman must come to the place of dance of the ball players nor walk a path that the players had to walk during the 7 days of training.

On the second day of training the players killed a squirrel, without shooting it, for the ball skin. A man selected from the Bird Clan took the skin, dressed it, stuffed it with deer's hair, and then placed it in the deerskin of the conjurer to stay until the play was over. On the seventh night the players danced seven times instead of four and the seven women danced the whole night a short distance away. Their musician accompanied his voice with the drum.

On the morning of the eighth day just at sunrise the whooper raised his whoop and the players, standing in a cluster with their faces toward the ball ground, responded four times with a cry. Then all plunged in the creek seven times and started toward the ball ground. The conjurer laid down the deerskin and the conjuring apparatus and the players laid down the articles which they had bet. The conjurer gave a certain root to the players to chew and rub on their bodies. He also gave red feathers to the players to wear in their hair. The leading player took the ball and kept it until the play commenced.

An influential player then spoke to the players urging action. They marched forward to meet their antagonists in the middle of the field. Four men were selected as marshalls to keep order and to see that no detail was overlooked. Two others were chosen as tallymen. Each talleyman had 12 sticks, one of which he stuck in the ground as the ball was carried through by his side. A score of 12 runs to a tree or other goal won the game. A circle was made in the ground to show the players how far to approach. As the opening speech was being made by one of the overseers he suddenly tossed the ball into the air and the game began. When one side had gained the victory the spectators extolled the players in every way possible. On the way home the players kept together in good order.

The ancient ball game can be seen to have been from this description quite similar if not identical with the game as it is played today. The same ritualistic elements which allied it to war existed at that time. The players were separated just as warriors were, from the ordinary life of the community and had to be purified from all uncleanness or contamination. The same rivalry between villages and the same conjuring magic characterized the game in the ancient period as characterizes it today.

MARRIAGE

The final topic in this discussion of the white organization is the individual life cycle and its social aspects. The life cycle includes such features as marriage, the household, child training, treatment of

sickness, invocation of protective powers, unclean things, sacred things, and the treatment of death. Inasmuch as the white officials or "priests" were all important in the rituals connected with these matters, the latter are included in the discussion on the white organization.

Features of the ancient Cherokee marriage regulations have been mentioned by several authors. All describe polygyny as common, yet stress the importance of female relatives in the man's selection of a mate. According to Nuttall, when a young man contemplated marriage he declared his desire through a female relative who conferred with the mother of the woman. If the mother disapproved she referred the case to her brother or oldest son to say so. If the mother's consent was obtained, the young man was admitted to the woman's bed (Nuttall *in* Thwaites, 1904-7, vol. 13, pp. 188-189).

According to Haywood's account, the marriage contract is a purchase. The suiter either devotes his services for a time to the parents of the maid whom he courts, hunting or assisting in the making of canoes, or he offers them presents. The woman has not the power of refusing if her parents approve the match. The price that the man pays generally consists of wearing apparel, with which the bride is dressed out. On the appearance of the bridegroom she is stripped of this raiment by her relations, who claim it, and in that state she is presented to him as his wife (Haywood, 1823, p. 280 ff.).

The marriage preliminaries were settled by the mother and one of her brothers on each side, according to Washburn (1869, p. 206 ff.). Generally there existed a previous attachment between the parties but very often the bride and groom were not consulted at all. The whole town convened. The groom feasted with his male comrades in a lodge a little way from the council house. The bride and her companions feasted a little way from the council house on the opposite side. The old men took the higher seats on one side of the council house and the old women took the higher seats on the opposite side. Then came the married men below the old men and the married women below the old women. At a signal the groom was escorted to one end of the open space in the center and the bride likewise at the opposite end. The groom received from his mother a leg of venison and a blanket and the bride received from her mother an ear of corn and a blanket. Then the couple met in the center and the groom presented his venison and the bride her corn and the blankets were united. Thus the ceremony symbolized the respective functions of the man and the woman in the Cherokee household. They then walked alone and silently to their cabin. Divorce was called "dividing of the blankets."

According to Butrick, the consent of the parents was absolutely necessary to obtain a girl in marriage. The priest also must be called

upon to divine the future course of the marriage and, if the omens were bad, the marriage was forbidden. If a marriage was approved, the bridegroom and the bride's brother exchanged clothes and possessions. A kind of engagement also existed whereby, after a girl's first separation and with her parent's consent, a young man brought her venison and presents and if she was unfaithful she was considered an adulteress. Adultery alone could break a marriage and the priest was often called in by anxious husbands to divine if their wives had been unfaithful or not.

All authors concur in describing the laws against marriage within the clan as of the strictest degree possible. Anciently the death penalty was the inevitable result, and this was inflicted by the offended clan itself. In the early nineteenth century, whipping was substituted for the death penalty, and somewhat later formal penalties were abolished altogether. (Lanman, 1849, p. 93 ff.; Haywood, 1823; Gregg in Thwaites, 1904-7, vol. 30.) Adultery was also punished severely, either by death or disgrace if a woman were the offender. Adultery, if proved against a wife, would cause her to lose all her possessions and be turned out of the house. In any other case of a separation the possessions were divided equally, and the children went with and were provided for by the mother.

The chieftainship could be transmitted, like the clan, only in the female line. The son of a chief could never inherit his power and was not regarded as of royal blood nor even as next of kin to his father. Instead, the power went to the son of the chief's oldest sister (Haywood, 1923). This would point to the clan head as being the original chief political official.

The mother had little difficulty in childbirth. She was generally assisted by the grandmother and mother, no men being allowed present except the priest. If the child fell on its breast it was a bad omen, if it fell on its head it was a good omen. If the omen was bad, the child was thrown into the creek and then fished out when the cloth over its head had become disengaged. The child was waved over the fire after birth or held before it, and a prayer was made to that element. Children were bathed at birth and every morning for 2 years. On the fourth or seventh day after birth, the child was bathed in the river by the priest, who prayed that it might have long life. The parents were excessively indulgent with their children, and the latter had great affection for their elders. They were named at the sixth or seventh day.

The ancient houses were of split sticks laid in the mud, the ends being made fast by means of gutters in the side of the posts. The household fire was lighted in the middle of the building, and a hole was left in the roof above it for smoke to get out. On the side of the

house were small holes 1 foot square for windows. There were beds on the side and the back ends of the house 3 feet high and covered with cane fastened together, or some other kind of mattress. There was a separate house for the females, who always retired when visitors arrived. A whole settlement was made up of near relatives, and the family connections generally settled together. The head of a village always invited strangers in, and his wife their wives.

Within the household no male could carry water. The women prepared food, did the washing, and assisted in the fields. Formerly a whole town enclosed a large field, of which each family had a particular share, indicated by land marks. In all the towns men and women worked together first in one part, then in another, according to the direction of him whom they had selected to manage the business and whom they called in this respect their leader. Individual fields were separated from each other by ridges of earth, stones, or posts. Except when they were employed in the common fields the men did little save hunt. Generally the women gathered wood for the cooking except for the assistance of the old men. The women also carried water for family use, pounded corn, and did the washing.

EDUCATION

Training of children for definite occupations was extensive and thorough. Two types of employment, in particular, demanded years of training and special tutoring, the priesthood and hunting. The descriptions given of the former are fairly detailed, those of the latter are meager and not clearly set forth.

The priesthood was to some extent hereditary, but there was always a selection and weeding out of the less likely candidates. The priests were given forenotice to receive a new candidate. First, the consecrated drink was administered by the parents, who fasted and tasted only of a certain root for 7 days in order to give the child magical powers. In the case of a child so designed for the priesthood, the mother would always deliver it to the care of the grandmother or some other aged matron to preserve its purity during her monthly disqualification.

The boy designed for the priesthood was not allowed to wander about like other children and was supervised as to his eating so as to run no risk of uncleanness. The priest always kept the boy in view. He was given a knowledge of tabooed things. A child intended as chief speaker in war could eat no frogs, nor the tongue or breast of any animal. Generally the training for the sacred office began at about 9 years of age. The boy was led by the priest at daybreak to the mountain top and, after a purifying drink had been given him, he had to follow the course of the sun with his eyes for a whole day. Nights

were then spent in walking with the priest and in receiving knowledge concerning the lore of the priests. The use of the divining crystal was taught in a secret place, and various formulas and prayers.

When the boy's first 7 days' training and his fast had ended, the priest consulted the crystal to see what would be the boy's future. He set the stone in the sun. If an old man appeared in it, success was assured. If a man with black hair and beard appeared in it, the boy's career would be a failure.

Only as many as seven boys at a time could be tutored by the priest. At his death an aged priest gathered all of his pupils about him and presented his crystal to one of them. All of the secrets imported by the priests to their pupils were sacred, and to reveal them meant death.

In the case of young men preparing to be hunters, the rites were somewhat different but are even less known. The boy went to certain priests at the beginning of the year in September or March and separated himself from women and other worldly affairs for 4 years while he was training. The use of the divining stone in hunting was taught to the pupils and also the sweatbath was taken by them. The melt of deer was sacrificed, and a ceremony was taught which was to accompany the opening and the closing of the hunting season. Houses were sometimes cleansed and new fire made in them at this time by hunters after a hunt. Sweating in the sweat house was followed by a cold plunge into the creek. During hunting expeditions the hunter could have no intercourse with his wife or other women. Although the priest could accompany the chief hunters whom he had trained, he often authorized the latter to perform sacrifice in his stead. Magical decoctions of plants were also drunk in these ceremonies.

TREATMENT OF DISEASE

The treatment of disease was generally a phase of the ceremonialism described under the physic dance, or Propitiation Festival. In cases of epidemics, the town assembled and requested the seven counselors of the town priest to make arrangements for stopping it. The counselors selected a Jowah hymn chanter and a regular set of seven officials and a priest to direct the ceremonies, which commenced on the evening of the seventh day next ensuing.

The presiding priest went in pursuit of herbs and roots for the occasion which must be the same as the articles of purification, seven in number. A prayer was offered as each root was gathered and the seven kinds of wood were arranged about the altar in a circle. The wood was kindled by flint or fire sticks. After it had burned for a while, this fire was put aside to make a new fire for boiling the herbs.

A little before sunset of the seventh day the people assembled in the town council house and the ceremony began. Each clan sat together and officials occupied the center, the presiding priest (ooleestooleeh) and his right-hand man with cane matting for their feet, and the seven counselors and the speaker. The latter officials occupied the two ottomans on the right and left. The hearth was cleaned of the old fire and new fire was made in its place. Hunters brought in a buck, doe, and fawn skin, the white caldron was set up and the herbs dropped in. The seven counselors took turns watching it boil. The women and girls performed circle dances and the Jowah singer called in the seven cleansers.

At sunrise the next day the seven counselors drank with gourds from the caldron and the same ceremonies were repeated as the day before. At the setting of the sun a sacrifice was made by the presiding priest. The smoke and the sacrifice were a good omen as to health or disease. The same rites continued for 7 days. On the eighth day the herbs were taken from the caldron and the meeting closed.

The rite to avert smallpox was a form of the physic dance. Two invisible spirits were regarded as the cause of the disease, one having red spots and the other having black spots. The people assembled and the conjurer built new fire with bass wood and goldenrod weed with which herbs were boiled and the decoction drunk. There were fastings, vigils, and dancing as in the other rites. These rites continued for 7 days and on the seventh day there was a prayer to the setting sun, the owner of fire, and then all broke their fast. A portion of the fire kindled on this occasion was preserved for life by the keeper and was considered to be sacred and untouchable and not to be lighted from nor any coal extinguished in it.

The Cherokees of ancient times had various charms, incantations, sacrifices, and prayers for removing and keeping off sickness. The charms sung or whispered (in the case of common diseases). On going to bed a person might repeat a song as follows:

Let my soul be in the first heaven,
Let my soul be in the second heaven, etc.
(on up to the seventh heaven.)

In the case of snake bite there was a prayer in which the shaman invoked the men of the four directions while walking around the patient. He then used the beads to divine the course of the disease and, if the omens were unfavorable, he brought in an animal whole and unblemished for a sacrifice. Then he divined again and, if the omens were still unsatisfactory, the divining crystal was set in the sunlight and the final decision was made from seeing a man sitting upright or lying prostrate.

In some sicknesses the deer tongue sacrifice was resorted to. It was split into two halves, the left hand was called "the enemy" and the right hand was called "the friend." These were thrown in the fire and the piece that popped first was the conqueror. The fire of the sacrifice was regarded as part of a greater fire above (not the sun), and the sacrifice meant that news was traveling to the great fire above in the smoke.

In general, the ceremonies for keeping off diseases involved the cleansing phases of the propitiation festival such as house whipping, dances by seven women, Jowah songs, new fire making, sacred hunts, and the like. The seven sticks in the new fire represented the seven clans. Seven men with handkerchiefs tied around their heads and white fur of deer's tail stuck into the handkerchiefs, each took a stick of green elder 3 to 4 inches long with the bark removed. Then they struck the roofs or sides of the townhouse with the sticks and did likewise to the other houses in the town.

MYTHOLOGY AND BELIEFS

Various protective powers, spirits, and substances were involved in disease and other misfortunes. Although the sun and the moon were considered supreme over the lower creation, the most active and efficient agent appointed by them to take care of mankind was supposed to be fire. When, therefore, any special favor was needed it was made known to fire, accompanied by an offering. Fire was the intermediate being nearest the sun. The same homage was extended to smoke, which was deemed fire's messenger, always in readiness to convey the petition on high.

A child immediately after birth was sometimes waved before fire. Children would be brought before the fire, and its guardian care entreated for them. Hunters, also, would wave their moccasins and leggings over fire, to secure protection from snakes. It was a custom also to put chickens, as soon as hatched, into a basket and wave them over the fire to protect them from snakes.

Various traditions are mentioned as to the origin of fire, which was supposed to have been like a man, an active and intelligent being from on high. The fire of the council house was descended from the original fire but was destroyed by enemies, hence sacred new fire must be made on occasions of importance, as has already been mentioned.

The sun and moon were regarded as the creators of the world. The sun was generally considered the more powerful and was supposed to give efficacy for curing to roots and herbs. If the sun did not cure the ailment, the suppliant turned to the moon as the power controlling the disease. There were many prayers for welfare made to the sun and the moon since they were such powerful protectors.

In the center of the sky at the zenith was the abode of the Great Spirit. He was supposed to have created certain lines or points on earth in the four directions and to have stationed at these points beings of different colors. In the north was a blue man, in the east a red man, in the south a white man, and in the west a black man. These beings are vice regents for the Great Spirit and supplications are directed to them in regular succession. There were other sky beings, such as the morning star, who was a wicked conjurer, and the eight brothers or Pleiades.

There was a belief in the transmigration of souls and in haunted places. When anyone died, the spirits hovered around and must be fed. Knockings occurred in various places due to witches.⁴⁴ For these tobacco smoke was a great remedy. Several classes of spirits dwelt in the earth.

1. The *nanehi* dwelt under water, in the ground, rocks, and the mountains and could be seen only at night. They were characterized by eyes on the ends of horns.

2. Another class with larger bodies have eyes extending up and down and live in the mountains.

3. Still another group, the *ukase*, throw rocks and clubs at people at night but never hit them.

4. *Utselunuhi* are transformation spirits or ghosts of the dead who hover about the scenes of their earthly life before taking their departure.

There were five different sizes of divining stones used in ancient times. The largest was used in war divination; the next largest for feasts, purification, and divination concerning sickness; the next for hunting; the next for finding things lost or stolen; and the smallest for determining the time allotted for anyone to live. These curious stones were crystalline quartz and six-sided, coming to a point at one end like a diamond. They were called "lights," and were important in ritual.

SACREDNESS AND UNCLEANNESSES

Certain events in life were regarded as dangerous to the well being of people and were hence the subject of some special usages and restrictions. These events were called "uncleanesses" by Butrick and were exemplified in a number of different taboos of which the following are the most notable:

Women were regarded as being unclean while pregnant and for 7 days after childbirth. Rites of bathing in the river and priestly ministrations were necessary to cleanse and dissolve this uncleanness. A like taboo was laid on women in their monthly separations. A woman who was unclean was not allowed to associate with the rest

⁴⁴ C. Washburn (1869, p. 133) gives an interesting account of the later development among the Western Cherokees of the treatment of witchcraft as a public delict.

of the household. Formerly a special house was built for women in this state but latterly a special room in the house was reserved for them. Rules for special bathing were likewise prescribed for men who had any night impurities. Certain of the more careful persons in the tribe resorted to a daily morning prayer on awakening. This was supposed to purify from any uncleanness incurred during the night. It was followed by bathing in the river.

Death was the occasion of uncleanness in all who had anything to do with the dead person either through kinship or through handling the corpse. The rules in connection with this uncleanness will be considered further on page 347.

Certain foods, especially the meat of predatory and nocturnal creatures, was regarded as unclean, since these creatures were subject to blood revenge on the part of their victims. Anciently the Cherokees would not eat foxes, dogs, wolves, snakes, moles, pole cats, opossums, buzzards, crows, cranes, fish hawks, eagles, owls, hoot owls, wood cocks, eels, catfish, or garfish. The meat of chickens, turkey, cattle, deer, buffalo, and bears was regarded as perfectly suitable as a rule. Females, when in their separations, could only take hominy and a thin drink.

Of a character somewhat similar to uncleanness was the sacredness which attached to certain places, persons, things, and events. A priest's house or door was sacred and any refugee from blood revenge might find safety there. The west half of the council house was holier than the rest and no woman was allowed therein. Also the space above the white seats were still more sacred, and none could sit there but the highest officials. Mountains were more sacred than low ground and Mount Ketunho the most of all. The mountains were probably more sacred because of the game which resided therein. Ground under the water was more sacred than open ground because the water was regarded as cleansing in its action. Places of refuge were sacred because no blood could be spilt there. Men were more sacred than women (possibly because of the numerous taboos on women already mentioned). Indians were more sacred than white men because Indians were the chosen of God. Priests, again, were more sacred than other men and their garments and pipes and wives were holy also. This holiness was allied with the general aura of magical power which surrounded the priests. Holy fire was sacred and no torches could be lit from it nor any cooking done with it. Holy fire could not be handled by a woman. The ark was likewise holy and no one but the priest or his right-hand man might carry it. Needless to say, no woman could touch it. The council house was more holy than other houses. December and January were the

most holy months. The most holy of the ceremonies was the Green Fruits Feast and after that the New Moon Feast of September.

The general character of Cherokee sacredness is definable as that quality which separates the object, person, or thing from the rest of daily affairs and requires handling in a special manner. Uncleanness likewise fits into this definition, with the added qualification that a certain amount of social dysphoria or malaise is involved in the latter which requires a treatment calculated to restore euphoria or well-being by dissolving the uncleanness. As we shall see later, both uncleanness and sacredness correlate with the attitudes of familiarity and respect characteristic of the social situation.

The general treatment of uncleanness which accompanied disease was also a feature of the usages surrounding death. The head of a family, on being convinced that he was near his end, summoned his children and gave them advice and repeated such ancient traditions and customs as he deemed important. Just previous to his death all were sent away except the doctor and adult relatives.

At the death the males did no weeping, but the wailing of the females was excessive, and their doleful lamentations repeatedly called the relative name of the deceased. This was sung rather than spoken, and in an exceedingly mournful tone of voice. The expressions of grief were greater or less according to the circumstances. Sometimes the mourners were entirely unconsolable and went weeping to the grave.

In each town there was a man appointed to bury the dead. This man came to the house of the deceased and buried the corpse. The most ancient custom was to bury the corpse in the house directly beneath the place where the person died, except in the case of a distinguished chief, and in this case he was buried under the seat that he usually occupied in the council house. When the corpse was not buried in the house, the undertaker took the body and carried it himself to the place of interment, followed by the relatives. Sometimes the corpse was laid by the side of a huge rock, covered over, and then stones heaped on. Sometimes a grave was dug in the earth. Frequently the whole of the clothing of the deceased was buried with the corpse.

The burial completed, the funeral procession returned and the man who buried the corpse entered the house alone, took out the gourds and what furniture happened to be in the house when the person died and, carrying them away, either broke up, buried, or burned them. He then took out all the old fire ashes and wood from the house and made new fire with cedar boughs and goldenrod weed for future use. He then took the family (after they had taken an emetic) to a stream where all plunged seven times, alternately facing east and west. Then, putting on clean new clothes, they remained in a state of separation in a camp,

being unclean for 4 days. A medicine was made for the family to drink and to sprinkle themselves with.

The family then returned to the house and directly the priest's right-hand man sent messengers to them with a piece of tobacco to enlighten their eyes and a strand of beads to comfort their hearts and requested them to take their seats in the council house that night. The family repaired there and all the town met them and took them by the hand as a token of affection. Then the mourners could return home while the others continued the dance. In case the deceased was a husband, his widow remained single for a long time and for 10 months let her hair grow loose without dressing or taking any particular care of it. Moreover, she did not wash or take any particular care of herself and clothes were thrown carelessly about her. Some mourned for a fixed period of 7 days. Often, if a husband had died, the widow was given to his brother or nearest relative unless she was very much opposed to him.

A sacrifice was sometimes made and a divination made of the occurrence of new deaths from the popping of the meat. The chief priest of the town often comforted mourners and feasted at the house of mourning. The head man of the town sent out hunters who brought meat for the bereaved family. The priest who officiated at the mourning was paid in clothing for his services.

THE RED ORGANIZATION

OFFICIALS

The principal officials in the Red, or War, Organization of the Cherokees were the following (these officials in the capital town were duplicated in the lesser towns):

1. Great Red War Chief, or Captain (Skayagustu egwo),⁴⁵ or "High Priest of the War," who was sometimes called "The Raven" as he scouted forward when the army was on the march and wore a raven skin about his neck.
2. Great War Chief's Second, or Right-Hand Man.
3. Seven War Counselors to order the war.
4. Pretty Women (War Women) or honorable matrons to judge the fate of captives and the conduct of war.
5. Chief War Speaker, or "Skatiloski."
6. A Flag Warrior, or "Katata kanehi," to carry the banner.
7. A Chief Surgeon, or "Kunikoti," with three assistants.
8. Messengers.
9. Three War Scouts or titled men:
 - a. The Wolf wore a wolfskin about his neck and scouted to the right of the army when on the march.
 - b. The Owl wore an owl skin about his neck and scouted to the left of the army when on the march.

⁴⁵ Skayagusta means Captain, a boss, or a person well dressed, and is used today by a man in reference to any male member of his father's clan.

c. The Fox wore a foxskin about his neck and scouted in the rear of the army when on the march.

10. Sometimes a special War Priest was appointed to take over the divinity and other religious functions of the Great War Chief.

11. There were a great number of under officers such as drummers, cooks. Certain special priests who had killed an enemy were called *osi tahih* and alone superintended the building of sweat houses.

The Great War Captain was generally elected to office. The warriors having nominated a candidate, his name was sent to the Uku and his white counselors for approval. If the approval of the latter was secured, the candidate was duly notified to assume his new office. He was consecrated at the first Green Corn Feast after his nomination except in cases of emergency in which event he was consecrated after 20 days. The predecessor in office directed the ceremonies. Persons were appointed to prepare his seat, which was a stool with a back 4 inches high and painted red. Others were appointed to wash the candidate and to dress him in his official red robes. Superannuated warriors of high rank were appointed to conduct him to his seat. One walked before the candidate carrying the red war club, one at his right hand carrying a handful of red paint, one at his left hand carrying an eagle feather painted red, while still another walked behind him. The day and night previous and the day of his consecration, the candidate and his four counselors neither ate nor slept and could do neither until midnight of the following night. The dress of the candidate and his four assistants was all red.

The candidate on reaching the council house took the central red seat directly before the white seat of the Uku facing east and when he was seated the attendant who had preceded the candidate stepped up and placed the red war club in his hand. Then the assistant who had walked on the left put the eagle feathers on his head. The quill of the feather had been previously inserted into a small cane 2 inches long painted red and this cane was fastened to the hair on the crown so as to cause the feather to stand out on the head. Then the paint carrier of the right hand stepped up and with the forefinger of the right hand made seven stripes alternately red and black across the candidate's face and one red stripe from the forehead down along the nose and chin to the breast, together with various other stripes.

The retiring captain now made a speech in which he commanded obedience to the new captain and warned the warriors never to go to war without his knowledge and directions. This was followed by a speech from the candidate in which he promised to be humane in war but proclaimed the necessity of defending the tribe from its enemies. All the assembly then filed by the new captain, took him

by the hand, and called him "uncle." The new war chief and his retinue continued in their seats all of that day and night until the next noon. They also fasted until the afternoon, but the young warriors and others had repaired to seven houses in the town to eat previously. After the counselors had broken their fast, strangers and others could eat in the council house. The inauguration was then ended, and the new chief left the council house.

When the next war came, the young war chief called a council and the old war chief brought forward his bow, arrow, quiver, helmet, shield, and bracelet, all painted red, and delivered them to his successor. The old chief next took off his raven skin and put it about the neck of his successor. The head and neck of the skin fell on his breast while the end of the wing and tail were fastened about the back of his neck with red strings tied to the ends of the feathers. Eagle feathers painted red were the war chief's badge of distinction and there were as many red stripes on the eagle feathers as there were enemies whom he had slain. In war the great war chief was never to retreat but be carried back by force in case of reverses.

The seven red, or war, counselors were appointed at each war by the common consent of the warriors. These red counselors were distinguished by a small round object wrought of two small eagle feathers painted red and attached to the tuft of hair left on the crown of the head. They assisted in the preparations for war and were generally necessary for all acts of the war captain. The dress of the counselors and speaker were not as red as that of the war captain.

When a messenger died or became superannuated, the war captain nominated a successor. There was a rite of ordination wherein a staff 3 feet long was wound from end to end with a long strand of beads and given to the nominee, who took it and ran around the council house repeating a formal ritual. The messenger could always be distinguished by his staff.

The war women were certain old and honored matrons high in the councils of the clans who were delegated with the task of deciding on the fate of captives in war. These women were also allowed a voice in the councils for deciding policy in war.

WAR PROCEDURE

War was a form of blood revenge for relatives killed by some other nation. It was determined by the council to comfort those who were now mourning for their friends who had been killed by such and such a nation and whose blood had not been revenged. The general season for offensive and voluntary war was in the spring or fall. The Great War Chief and his right-hand man consulted

together. The consultation was an expression of opinion to which the whole nation had to give consent. The chief voted for war and, if the others assented, he went out in the yard, rattled his gourd, and raised the war whoop, singing a loud song of mourning for himself and his warriors. Then other officers went through the same procedure. Messengers were despatched to every war chief in all the towns of the nation. Certain warriors were asked by the right-hand man to select seven counselors to order the war.

In each town the war chief consulted with his fellows or the next in authority and, in the same manner as the Great War Chief did at first, took the gourd rattle and went through the yard raising the war whoop. Soon the whole nation was convened at the place of rendezvous or the house of the head warrior. The seven war counselors of the town then selected one of the sacred war paints to use for the present occasion, and also a red, or war, priest. The latter took charge of the sacred fire for the war and also of the war crystals used in divining the results of the war. In some cases the warriors of each of the towns chose to have a red, or war, priest from each of their respective towns.

The war chief appointed certain women to prepare provisions for the army. Provisions consisted of parched corn meal and corn bread, the latter made in long cakes about 6 inches wide and baked on the hearth covered with leaves and hot ashes. Each town provided provisions for its own men as a rule. The warriors carried their own provisions and were often heavily loaded when starting. They also furnished themselves with their own weapons and armor. The war club, and, in later times, the tomahawk, were carried in the belt. Weapons consisted of bow, arrow, quiver, war club, spear, sling, tomahawk, and knife. Armor consisted of wooden or leather shields, buffalo-hide breast pieces, and leather arm bracelets.

After assembling, a whole day and a night were devoted to prayer, fasting, and vigils. None could eat nor sleep, and no one must take anything whatever from the hand of another. A thing to pass from one hand to another must be dropped to the ground and then picked up.

Every two towns formed a company, and under officers for the companies were selected by the seven war counselors. The under officers consisted of musicians, doctors, cooks, and the like. The main officers were also selected at this time and were the following:

Three officers marched in front of the army and possessed equal powers. They were said to be able to track the enemy as well by night as by day and to be able to fly and to handle coals of fire. They could not be shot with a ball, and if an enemy approached they could throw themselves down and disappear. They had been initiated into the sacred office by looking at the sun.

First, the Great War Chief, or "Raven" (Skayagustu, "Captain"), since he had a raven skin fastened about his neck.

Second, Katata kanehi, or "Flag Warrior" (gaDaDi ganehi, "Flag Carrier"), who was considered the equal in almost all respects with the first officer. The flag was raised on a pole painted red and consisted of a red cloth or a deerskin painted red.

Third, Skatiloski, or "Great Speaker," who addressed the army on occasion.

Following these came the fourth officer, who was the Kunikoti, or surgeon (Ganikta, or "Doctor").

Each town war chief was called "skayagustu" and the chiefs headed the men of their own companies. All were marshalled under the command of the chief warriors mentioned above. In each company the seven counselors of the town war chief followed next after him along with his second and his speaker. The first of his assistants and the doctors and cooks marched behind their respective companies, while the drummers marched in the center.

On the first day after assembling, some bathed in the river and underwent purification. In the evening the war standard, a high pole painted red with a red cloth or skin 4 to 5 yards long on top, was erected and the war dance was celebrated during the night. The war dance consisted in each company following their leader in a circle counterclockwise. A little before the dawn all went to the river and plunged in seven times. At daybreak the red priest appointed for the war took some of the sacred fire and fed it with some fresh wood, and, then, as the whole staff of the army watched, cast on it the deer's tongue to divine the events of the war. If the fire burned brightly about the sacrifice and consumed it, they were destined to conquer the enemy, but if the fire went out around the meat and did not consume it, this indicated that they were to be conquered. If the meat popped east success was assured, but if it popped west it meant defeat.

A little after sunrise the red war priest resorted to still further divination, this time with the beads. The priest raised his hands and commenced to pray. He prayed to the first heaven, the second heaven, and so on to the seventh, raising his hand higher each time. As he paused a moment in each heaven he held a bead between the thumb and forefinger of each hand. If they were to conquer the enemy the bead in his right hand would seem to be alive and move, but if they were to be conquered the bead in his left hand would manifest the most life.

Still further divinations were resorted to. The magic crystal was set in the sun on a red post and all were compelled to march before it. If it did not sparkle in the sunlight as a certain person passed it, that person was thought destined to be killed and was sent home. Again, if they were to conquer the enemy, blood would flow from the left side of

the stone, and if they were to be conquered, blood would flow from the right side.

The red war priest made new fire with basswood and goldenrod. This fire was regarded as a guide and helper in the war. The red war priest called himself "the second to fire" thus making fire the principal priest. The fire for the war was placed in the sacred ark for the war. The ark was a rectangular clay object about a foot long with a lid and was destined to hold only sacred fire. There were always two arks, one kept in the council house and the other used for war.

When provisions were all secured and equipment made ready, the warriors were called to order by the skatiloski, or "speaker." He made a speech with war club in hand encouraging the warriors and telling them not to fear. Even if the omens were bad, the war was to be undertaken nevertheless. Then came the command to march and the Great War Chief commenced the war whoop followed by all of the others.

The skatiloski directed the march and the encampments and the order of procedure in all details while thus on the march. Various taboos were imposed on the warriors. On the march they might not discuss any vain or trifling subject such as women. No intercourse with women was allowed throughout the course of the war. In crossing a brook or stream all must pass over before any could drink from the stream. If anyone accidentally broke a stick or twig while marching he carried it with him until camp was made that night. During the whole expedition the warriors were required to bathe and plunge seven times at night and in the morning. If they encountered the enemy suddenly, all must await for the skatiloski to arrive. In starting to battle the warriors who passed a pile of stones added one to the pile in order to insure a safe return.

MILITARY TACTICS

The military tactics of the war were virtually decided by the red, or war, priest in all details. He was consulted as to when and where to attack the enemy and how many to kill. Whenever the war priest needed advice he set up his crystals, beads, ark, and other paraphernalia, just as he did in the council house before the army had started out, and prayed for instructions. The crystals or beads gave him advice on how to proceed. Just previous to a battle the priest would exhort the men urging them to be brave and asking any of faint heart or newly married to turn back if they wished.

At every encampment four scouts were sent out. The "Raven," or Great Chief, went forward as a spy. He wore a raven skin and if he encountered the enemy he gave a raven call to sound the alarm. The "owl" went to the right as spy, wearing the owl skin. He also gave

the owl call if he encountered the enemy. To the left went the "wolf" wearing a wolfskin, and back along the trail they had marched went the "fox" wearing a foxskin. It was generally the Raven who watched the enemy and kept the skatiloski perfectly informed as to their movements. On meeting the enemy, the Raven blew the trumpet and then the whole army gave the war whoop and rushed forward to the attack. The Raven endeavored to reach and touch a house in the village of the enemy and the standard bearer rested his standard against it.

The general plan of battle was for warriors to run forward on the right and left in two wings so as to enclose the enemy while the warriors of the center marched directly forward. Sometimes an angle ambush was set for the enemy and a few men were sent forward in the center as a decoy. Various other stratagems were used. A warrior who had killed a person or who had touched a dead body or grave was unclean for 4 days.

RETURN FROM WAR

On their return from battle the warriors stayed at the council house for 24 days in order to purify themselves before going home or associating with their wives. Every night a scalp and snake dance were celebrated and often other dances. The twenty-fourth day was devoted to fasting and early in the morning the war priest offered sacrifice, again consulting his crystal. As many moons would appear in the stone as they were to enjoy peace. Also the deer's tongue sacrifice was made, and if the offering was quickly consumed peace would be lasting.

The women danced first, in the scalp dance. They always stood quietly behind the musician until he came to a certain note. Then there was a snake dance around the fire in which they proceeded in a stooped posture and moved according to the beat of the drum. The song they sang was repeated four times. During this dance they raised their hands and made motions as if striking the enemy. The men then joined the dance. A man would dance beside a woman and hold a stick with scalps hanging from it as he danced. War songs were sung at this dance also.

In general, the return home was in an orderly fashion. The warriors sent a messenger forward to the townspeople to meet them. As the warriors approached, two men followed by the women of the village came forward to meet them singing a song in honor of the warlike deeds and valor of the warriors. The women caught up the refrain and praised the returning soldiers. Each warrior delivered his spoils to his wife or nearest female relative, who took them home while the warriors continued their march to the council house, for their purification period.

The time of purification on the return from war varied according to the bloodiness of the war. Its general length was from 4 days to 24. This purification from the pollutions incurred in the war was done by the same priests who had consecrated the warriors at the beginning of the campaign. The wounded stayed in the council house for a longer separation than the others. They might dance with the others but must always carry a kind of staff by which they were distinguished. They, like the others, could not associate with their wives until the period of purification was ended. Any warrior who violated the rule against sexual intercourse during the war was believed to have been killed in battle.

OTHER WAR FEATURES

In distinguishing themselves warriors were afterward given a new name in the general council. "Killer" was the highest name, followed

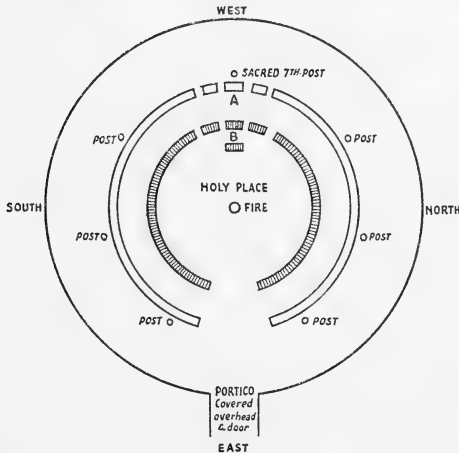


FIGURE 55.—Seating in the Cherokee Council House.

by "raven," "owl," "wolf," and "fox" in the order named. The great warrior was followed by the six next in dignity and then by seven who served as the immediate attendants. The age of warriors was 25 to 60 and those males who were under 25 were called "boys." When war officers were past age, others were appointed to take their place.

The council house in which many of the war ceremonies were held was a peculiar structure and is shown in the accompanying diagram. It was held up by seven posts set in a circle. There were seven slanting beams set on these posts and these beams met above the middle.

Side ribs were covered with grass thatching and this grass was covered with dirt and then thatch again to carry off the water. The roof was of bark with an opening for the escape of the smoke from the council fire. In the center the sacred fire always burned. On the east side was a door with a portice. On the west side of the house was set the sacred ark already mentioned. There was a shelf and rack on this side of the building for sacred things. There were several concentric rows of seats in the council house wherein the various officers were seated during the council. The seven sides of the council house were symbolic of the seven clans meeting in council.

In summary, then, war can be said to have been a ritualized recurrent event of immense importance in Cherokee society. There were three main phases, the preparation, the actual campaign, and the return. The first phase consisted in actual practical preparations of equipment and provisions as well as the divinations and magical rites of the priests. The second phase consisted of a series of stratagems and devices whereby the warriors, under the guidance of the priests and their magic, endeavored to outwit the enemy. The third phase consisted mainly in the ritual purification of the warriors for their return to the ranks of the civilians.

STRUCTURE AND FUNCTION OF THE FORMER SOCIETY

The description of the former culture which we have derived from the Payne manuscripts does not entirely make clear the workings of the various elements. Much has to be inferred regarding the workings of the former culture from analogy with present structures and functions or the structures and functions of other similar cultures.

ALTERNATION OF WAR AND PEACE

The early Cherokees lived in an alternating state of war and peace so far as their relations with their neighbors were concerned and this alternation of political states was allied with a dual organization of the tribal government into two halves, a war and a peace organization. Everyone in the tribe may possibly have belonged to one or the other organization, judging from analogy with the Creeks to whom the Cherokees seem to have been closely similar in these respects. The most characteristic feature of the dual division was its distinct set of political officials each largely independent in its activities from the activities of the other moiety.

The white organization consisted of a set of officials ranging from a supreme chief with secular and religious functions down to a minute set of petty officers for carrying on the minor business of the state. There were several so-called white towns, or "cities of refuge," where-

in the influence of the white organization was all powerful even to the extent of controlling and modifying the law of blood revenge. On the other hand, the red organization consisted of a set of officials corresponding in a great degree with the white officials except that their function was exclusively military. If either of the organizations was subject in any degree to the other, it was the military or red group as the manuscript mentions particularly that the white Uku had the power to make or unmake the War Captains. Moreover, the war officials were largely elected by popular vote at frequent intervals whereas the white officials were to some extent at least hereditary or subject to appointment by the supreme chief. Durability of structure resided in the white organization rather than in the red one.

The white officials had a variety of functions to perform. They alone possessed prayers for invoking the sun and moon and other protective spirits who could take away disease and ill health. They could separate the unclean elements from polluted persons and restore the normal condition. Their persons and belongings were sacred and were not like ordinary citizens and their possessions. The sacredness of the white officials was so great as to separate them as a class superior to the rest of the community and in some respects above the ordinary laws and usages.

The red officials had a number of very important functions also. Bravery and warlike deeds were sustained by these officials. They acquired their titles in several cases as the result of bravery in battle. The wolf, fox, and owl were set up as symbols of bravery and used as titles. For those who had performed ably in the field also certain victory and scalp dances were given as a reward in which various goods were donated to the hero being honored. This has some resemblance to the allotment of the winnings in the ball game as stakes of victory. War was an act of killing and because it involved blood was a polluting agent. Much of the ritual surrounding war was designed to deal with and remove this uncleanness. Like the hunter who had killed certain animals such as the deer, bear, and eagle, the warrior had to be purified both before and after his undertaking. As in the case of the player in the ball game, every precaution was taken to insure victory by constant invocation of protective powers over, and the dissolution of uncleannesses from, the warrior. In war, as in hunting and the ball game, the expectation of success or failure was determined by the use of various forms of divination, these mostly centering around the use of fire, beads, and crystalline talismans.

The opposition of war and peace functions in Cherokee society was similar to that existing between civil law and martial law among

more civilized peoples. The ordinary affairs of state were administered by the white organization but the extraordinary and fateful enterprise of war required a special set of officers who corresponded in a greatly magnified scale with the special officials presiding over the recurrent seasonal ceremonies.

Turning now to the special enterprises of peacetime, we find that under this heading can be included the various public events connected with the calendar and with the socially significant occurrences in the individual life cycle. In the seasonal ceremonies of the Cherokees two chief problems are dealt with, namely, the problem of food supply and the problem of health.

SYMBOLISM OF THE CEREMONIES—SOCIAL COHESION

The food problem was expressed symbolically in the rituals of all of the main ceremonies but particularly at the first new moon of spring and the two Green Corn Festivals. On these three ceremonial occasions the problem of an adequate food supply was grappled with and was, ceremonially speaking, conquered. One might see, without a considerable stretch of the imagination, that the fasting and food taboos followed by excessive feasting were symbolic repetitions of actual conditions, either formerly prevailing or still existing. In the tribe's search for food, periods of prolonged duress were followed by satiety as the season of plenty recurred.

The problem of social health and well-being was dealt with also in most of the ceremonies but particularly in the Great New Moon of Autumn and Cementation Festivals. The great new moon of autumn, like the first new moon of the year, represented the symbolic condensation of the monthly new moon rites at which times periodic uncleannesses were removed from everyone. The periodic uncleannesses were thought of as being mainly the result of the periodic recurrence of the menstrual blood. At the monthly cleansing the whole village went to the river, family by family, and bathed under the guidance of white priests. The Great New Moon of Autumn Feast had to do primarily with physical health while the Cementation Festival had the function of overcoming unhealthy conditions of rivalry and enmity within the social group and with the renewal of the life of the tribe symbolically with the making of new fire. This latter event signified that all differences were forgiven and that new and unspotted relations of amity were to be entered upon by all with no retaliations carried over. This acted to renew the bonds of social cohesion and to eliminate any elements making for conflict within the group.

The social cohesion of the Cherokee was also maintained by the ritualistic events accompanying the individual life cycle. The events of the major crises of life required purification procedures similar to

those already mentioned. The white officials presided at these ceremonies which could not be performed without them.

The Cherokee tribe consisted of a series of villages held together by several bonds of social uniformity. In each village the pattern of white and red officials was repeated in a set-up similar to that prevailing in the capital town. The villages were sometimes allowed to perform ceremonies as units at their own convenience but the majority of the tribal ceremonies were national affairs held at the metropolis. Conflicts between villages were symbolized and to some extent given vent to by means of the ball games, which resembled regular battles in their ferocity. Each village contained members of the same seven clans as did the others and this allowed a feeling of blood relationship and solidarity to extend beyond the mere bounds of a single settlement.

Concerning the clans of the former culture but little is recorded. Evidently they were seven in number and furnished the basic patterns for the white and red councils of seven which helped the chiefs in decisions of peace and war. Moreover, the descent of the title to chieftainship from a man to his oldest sister's son is such as to make us suspect the chiefs themselves represent a matrilineal succession within some one clan.

SOCIAL CHANGE

THE EVIDENCE OF CHANGE

A comparison of the records of the synchronic view of eighteenth century Cherokee culture with late nineteenth and early twentieth century culture of the tribe can be summarized under the following headings: Changes in economic integration, changes in political integration, and changes in ceremonial integration.

ECONOMIC CHANGE

First, as to changes in economic integration. These are at once the most obvious and the most fundamental of all of the changes that the Cherokee society has undergone in the last hundred years. The transformation of the people from a partly hunting and partly agricultural group of warriors into a sedentary and totally agricultural population has been the most noticeable event.

The first things to be introduced among the Cherokees were improved weapons and cutting tools of metal for the old time stone and bone implements. These importations began as early as 1700. White traders began to infiltrate into the country and to bring in white agricultural complexes as well as trinkets, whiskey, and guns. These traders took native wives and settled down in the country. Their mixed descendants soon became the ruling class in Cherokee society and exerted an enormous influence in the changing of the native culture through political leadership. These mixed families engaged in stock raising and the typical pioneer industries of the white colonial English settlers (Mooney, 1900, pp. 213-214).

The dates of introduction of the various white culture traits are not precisely known but are approximately typified as 1700 or 1710 for guns, and 1740 for horses. In the latter year a horse trail was opened up between what later became Augusta, Ga., and the Cherokee country. By 1760 horses had become exceedingly numerous and by 1775 every man had at least from 2 to 12. The cow was said to have been introduced some time after the horse by Nancy Ward. The hog was probably introduced at the same time and bees were kept for their honey from as early a date. European fruits were cultivated early (pears were introduced in 1670), and potatoes and coffee were brought in during the eighteenth century. Spinning wheels and looms were first used shortly before the American Revolution, being brought in by an Englishman in 1770 who taught their use to his Cherokee wife.

By 1791 ordinary English farming tools were in use and the plow in general demand for cultivation.

Total replacement was the order of the day. The early arts in shell, stone, and feathers seem to have vanished at the first contacts with the white men, and, by the nineteenth century, of the older arts little more than split basketry and wood carving were retained. The ancient square house of poles was abandoned about the close of the eighteenth century for the log cabin of the white pioneer, which latter has been retained up to the present time. (Featherstonehaugh, 1847, p. 287; Lanman, 1849, p. 93). About the same time as he abandoned the house of poles, the Cherokee also took on the buckskin clothing of the white pioneers. The aboriginal moccasin lingered on until nearly the close of the nineteenth century (Ziegler and Grosscup, 1883, p. 15). The disappearance of deer and bear led to changes in the meat diet in favor of pork and beef. The original vegetable staples, corn and beans, were retained in the diet and supplemented only slightly by the white man's foods.

Gradually the Cherokees became surrounded by a white man's world upon which they became partly dependent for the means of obtaining food, clothing, and shelter (Gude, ms., section on Culture Contrasts). Their own cooperative efforts became gradually more and more obsolete. By the end of the nineteenth century the neighborhood cooperatives had become almost extinct. All trade had to be carried on in terms of white man's currency instead of the skins and textiles formerly used as medium of exchange and standard of value. Cherokee boys grew up to learn white men's trades. White markets were the only ones to take their produce of the farm, pasture, or the forest.

Finally, a more subtle and far-reaching influence began to make itself felt in the economic life. The white man from the first had tended to change the natural as well as the social environment of the redskin. As the exploitation of the natural resources of the southern Appalachians became more thorough, the whole system of economy of the Cherokee was removed from his life. The wild game disappeared and little was left outside of a few rodents and small birds. Fishing became less remunerative and subject to all sorts of restrictions. Even the Cherokee's efforts to adopt live stock were subjected to hampering regulations. Lumbering interests came in from the north and bought up timber rights, with the result that huge areas became denuded of all trees. Mining and chemical interests dug into the ground and poisoned the plants over vast areas as well as polluting the streams. Finally, the water power interests came upon the scene and dams began to be built across the valleys, and lakes appeared where formerly small Cherokee homesteads had stood. Electric power became common in the towns nearby. The spread of

communication and transportation has completed the havoc with the native culture at the present time. In the middle nineteenth century came the steam railroads and the logging trains and in the twentieth century came the automobile tourists with their demand for "Indian relics." Today, while the writer was visiting Big Cove, the first telephone line was laid into that secluded valley for the benefit of the Government forest-fire fighters.

As typical of the changes that took place in the native economy, we will take the example of the cooperative companies or *gadugi*. Butrick describes the people of the village community as cooperating in each other's fields in cultivation under the direction of a headman whom they had selected from among themselves. A century later F. Starr, while sojourning among the Cherokees, found the *gadugi* virtually unchanged from the condition in which they were described by Butrick (Starr, 1899, ch. 21, pp. 140-147). But about this time there commenced a rapid series of changes in this institution. The *gadugi* began to hire out its services to white people at fixed rates by the day and became in effect an ordinary labor gang. This change in function led to a dependence on white people for wages and subsistence instead of a reliance on their own unaided cultivation of the soil by mutual aid. Consequently the *gadugi* came under the North Carolina regulations as to corporations and became subject to taxation. Unable to meet the taxes from their earnings, the *gadugi* soon declined and mostly disappeared in the opening years of the twentieth century. To this decline the Cherokee attribute the reason for the disappearance of the once prosperous farms that used to dot the hillsides of their country. The place of the *gadugi* was somewhat inadequately taken by the Farm Organizations sponsored by the Indian agent, Cato Sells. The farm organizations, one for each town, were designed to include all of the farmers of a given community in a cooperative effort to secure better crops through improvement of seed, cultivation methods, and the like.

The *gadugi* was but one of several forms of cooperation among the Cherokees which were gradually done away with under white influence. A similar case appears in the Poor Aid Society of Yellow Hill in the center of the reservation. In the late nineteenth century the American Government took over the work of the Quakers in the education of the Cherokees and began an active program of bringing the younger generation into the Government day schools. In Yellow Hill a manual training course was set up for the boys and the latter were taught to make various handicraft objects. Among other things coffins began to be made at this school and soon the whole town was supplied from this source and the coffin maker lost his job.

The office of undertaker was also made less useful and the whole of the funeral functions of the Poor Aid Society vanished.

Soon the effects of the native health and welfare service of the American Government made itself felt and the rest of the functions of the Poor Aid Society vanished also. So it has come about that the cooperative and mutual aid among neighbors in sickness and death have disappeared in favor of direct Government aid in Yellow Hill. The same thing is happening more slowly in the other towns of the reservation.

From these two examples it can be readily seen that the pattern of mutual cooperation and economic interdependence between local groups in towns has given way to direct dependence on aid from the American Government. The integration of the Cherokee society has been loosened.

To summarize, the change in mode of economic integration has been along two main lines: (1) There has been a complete change in the extractive and productive industries due to the adoption of white artifacts and techniques, and (2) there has been a transformation of exchange relationships from a relation of reciprocity between Cherokee individuals and groups to a one-sided complete dependence on outside sources for the necessities of life. These changes in economic integration have been correlated with changes in political integration and to these correlations fuller reference will be made later. Suffice it to say here that the changes in the mode of economic integration have furnished the basis for the whole movement away from native modes of integration.

POLITICAL CHANGE

The political changes undergone by the Cherokees in the last century can be characterized as in the main a series of centralizations and contractions in governmental powers. There had been a trend toward centralization from a formerly loosely integrated series of villages toward a firmly organized group within the folds of the tribal boundaries. There has been a trend toward contraction in area from a widespread sparsely settled area of seminomadic barbarians toward a small area of fairly thickly settled agriculturalists.

The original Cherokee tribe consisted of a series of 80 or more towns scattered over hundreds of square miles in the southern Appalachians.⁴⁶ These people came under the domain of one tribal chief only in times of great emergency and then most imperfectly. There was never the true unity among the Cherokee that prevailed among the closely allied Iroquois of the north.

⁴⁶ For an extensive review of ancient Cherokee towns and their population see Logan (1859, p. 206, ff).

Into this scene of loose political integration came the rival forces of English and French colonial diplomatic powers and these acted to pull the Cherokee apart in divergent interests. In spite of their superior diplomatic machine, the French were ultimately outdistanced by the English by reason of geographic, economic, and other factors of a more strategic nature. The importation of a constant supply of arms and ammunition was of prime importance to so military a tribe as the Cherokees and these things the English were able to supply better than the French because of superior resources and closer contacts between bases of supply and the Indians. A close dependence, therefore, ensued on the part of the Cherokees for the English traders.

Unfortunately for the harmony of this relationship, the Cherokee settlements stood squarely in the way of the oncoming tide of white settlements moving westward, so the inevitable result was war for the protection of their social unity. As we have already mentioned, the original settlements of the Cherokees were grouped in four divisions—the Lower, Middle, Valley, and Overhill sections. A series of wars with the whites, lasting from 1756 to 1794, resulted in the virtual annihilation of all of the Cherokee settlements of these four areas (Mooney, 1900, pp. 43-79). All of the Lower Settlements in South Carolina were destroyed in a war of singular ferocity lasting from 1756 to 1761. This war, as did the others, started with the Cherokee desire for blood revenge for their relatives slain by the English. Had the latter used a little more judgment and understanding in their dealings with the Cherokees, they might have avoided the consequences of this violation of the social well-being of the Cherokees by payment of blood money. It is an interesting commentary on the Cherokee social system that during the course of the war at the siege of Fort Loudon many of the Indian women who had found sweethearts among the English soldiers refused to allow them to be slain when they were captured and even treated them to food and drink during the siege, declaring that their English relatives would come and avenge their blood if they were slain.

The coming of the American Revolution caught up the Cherokees in a maelstrom of opposing forces and, because of their already existing blood feud with the Americans and their tradition of long friendship with the British traders and officials, they joined the latter in a fatal war against the Revolutionists. As a result, the Americans attacked the Cherokees from all sides, since by this time their native hunting grounds had been contracted to a mere salient in the American territory. From the direction of Tennessee a spirited attack by the Americans wiped out the Overhill towns; from Carolina and Georgia the Middle and Valley Settlements were badly ravaged. A

few refugees fled to the hill country of northern Georgia, where they found a haven for some years.

During a period of comparative peace and respite from 1794 to 1836 the Cherokees built up a thriving nation in northern Georgia which was governed by half castes as a dependency of the United States. This middle period saw great changes in the political integration of the tribe. The slow and persistent efforts of Baptist, Methodist, and Quaker missionaries commencing about 1805 had the effect of undermining the old system of religion and society on which Cherokee social integration was originally founded and which has been described in the Butrick manuscripts. The faith in the conjurers or priests had been sadly shaken by the great smallpox epidemics of the eighteenth century with their remorseless toll of over half the tribe and the defeats administered to the tribe in the military field had not added to the national conservatism.

The old system of blood revenge for private delicts was superseded by a system of regular civil courts about 1810 (Dubach, ms.). The death penalty for marrying within the clan was abolished in favor of simple whipping sometime later (ca. 1820) (Haywood, 1823, section on Laws of Cherokees under "Civil Customs"). Both of these changes were of tremendous import for the modification of the old system of clan rule. The clan became immensely less important in the field of political integration and clan officials lost all political functions, retaining only the ceremonial ones. Organized legal sanctions now took the place of the older diffuse rules for the control of individual behavior.

Still more fundamental in significance was the abolition of the death penalty for witchcraft and somewhat later abolition of any recognition of the crime itself. This signified a thoroughgoing change in the attitude toward public delicts and toward the interpretation of the causes of disease and social dysphoria, or malaise. The loss of faith in witchcraft meant that the old system of ritual sanctions had indeed lost its hold and was replaced by organized penal sanctions, such as laws against theft, murder, and the like.

A republican government was set up copying in its main features the characteristics of the United States Government (Dubach, ms., p. 16 ff.). There were democratically elected representatives and the usual tripartite division into legislative, judicial, and executive arms. Eight districts were established with four representatives to a district. The tribal legislature consisted of two houses, a national committee, and a national council. Four circuit judges were provided for and courts were held in each district annually, the judges being provided with a company of light horse who executed the laws. A ranger was provided in each district to care for stray

property. Taxes were assessed to pay for tribal debts, road repairs, schoolhouses, and the like. Penalties were enacted for horse stealing and such things as the liquor traffic and slavery were regulated and restricted. Polygamy was discouraged and gradually disappeared.

From this description it can be seen that the Cherokee Tribe had by 1830 gone far toward completely transforming its mode of political integration. A recalcitrant group remained who refused to accept white ways but the majority of the tribe were in a state of becoming American citizens in all but name.

The situation was not so ideal as it appeared on the surface, however, for the influx of white men from Georgia had become so great that they began a persistent clamor for the total abolition of the native Indian government and the substitution of the suzerainty of the State of Georgia. The complicated machinery of the American Federal Government began to grind and the result was that in 1838 virtually the whole of the Cherokee Tribe were transported to Oklahoma. A few escaped refugees were allowed to remain in the mountain fastnesses of western North Carolina. This scattered remnant gradually collected in small local groups under the leadership of chiefs and were finally settled under the protection of Col. Wm. Thomas on his lands along the Tuckasegee, the Qualla Boundary.

There, several towns were laid out and the chiefs settled with their small groups of followers. These towns became the towns which constitute the Cherokee Reservation today and were finally united in a second federated government about 1870. This government was incorporated under the laws of the State of North Carolina and remains virtually the same today as it was in 1870.

The chief trends in political integration among the Cherokees can be listed as (1) a loss of the power of the ancient priestly ruling class and the substitution for it of a class of individual conjurers shorn of all political powers. (2) The disappearance of the military complex and with this the whole set of social sanctions surrounding war, such as war dances, war titles, and the like. (3) The loss of the retaliatory sanction of blood revenge along with that of war and the substitution of organized legal sanctions of the law courts. (4) The decline in power of the native officials and the substitution of the power of the Indian Bureau acting from Washington. (5) The increasing dependence as political wards of the American Federal Government and increasing regulation by a hierarchy of political, educational, and welfare officials of the Indian Bureau.

In summary, then, the political changes in mode of integration have resulted in a group of people with the shadow of a government and

with formal functions rather than real ones, and with a complete dependence on the will of the party in power at Washington.

CEREMONIAL CHANGE

The changes in the sector of ceremonial organization have been, like the changes in the other fields, toward a decline and disappearance of the characteristic aboriginal traits. The ancient ceremonial cycle exists today only in scant traces in the form of a dozen or so dances given irregularly in one or two of the present villages. Most of these dances have lost all meaning and are given today in competition for cash prizes at the annual fair.

As has been mentioned previously, some eight of the present-day remembered dances have disappeared within the last 50 or 60 years. The Buffalo Dance disappeared some time after the disappearance of that animal, owing to the lack of buffalo hides for its performance. The Eagle Dance would have suffered a like fate owing to the disappearance of the eagle and the activities of souvenir hunters in seeking out and buying up eagle-feather fans, had it not been for the kindness of certain ethnologists who supplied the natives of Big Cove with a cargo of imported feathers. The Pigeon Dance may have likewise lapsed owing to the disappearance of the native American wild pigeon.

The War Dance has not been called into use since the Civil War and it is only partially recalled. This, of course, was part and parcel of the disappearance of the old retaliatory sanctions. Victory in the ball game is the only type of dance which resembles the War Dance and at the present time is in the form of the Eagle Dance.

Certain dances seem to have reached a certain stage of frolicsomeness and obscenity before they disappeared finally. The Medicine Dances were of this type and have entirely disappeared. Medicine Dances as recorded in the early nineteenth century were quite serious affairs, but, according to the testimony of present-day informants, they were mere burlesques at the time of their disappearance. The Chicken Dance has also disappeared in Big Cove for the same (purported) reason. At the present time only the Green Corn Dance retains in any measure its original ceremonial position and significance. The Ball Dances, which must accompany the ball game, are given regularly also.

The functional role of the dance seems then to have largely fallen into abeyance. The modes of ritual cleansing having lapsed and the use of native medicine and conjuring having fallen into evil days, there is little use for the dances. Spontaneous revivals have occurred from time to time in several of the villages, but the enthusiasm for the old things has lagged.

TABLE 9.—*Culture changes as gleaned from comparison of Cherokee omens in 1836 and 1932*

1. Dreams. (Payne ms., vol. 3, p. 51)	Meaning	
	18th century	1932
1. Person going west.....	He is sure to die.....	Same (within a year).
2. Eagle feathers.....	Death.....	Incantation on one's self for death.
3. House burning.....	do.....	Same.
4. Going down a stream of high water.....	do.....	Trouble.
5. Hearing a family or number of individuals singing or dancing.....	These people will soon die.....	Serious sickness for them.
6. A stream of low, clear water (when one is sick in bed) and water rises.....	Sure recovery.....	Means nothing.
7. Seeing person or animal dead.....	Death.....	Do.
8. Of marriage.....	Sickness.....	Do.
9. Hunters bearing fruits or bread.....	do.....	Do.
10. A woman.....	Game will be caught.....	Do.
11. Hunter having gunlock broken.....	Ague and fever.....	Rheumatism.
12. Water rising around a house and entering it.....	Success during the winter.....	Same.
13. Clothes in a fire.....	Death.....	Disease.
14. A person in very clean clothing.....	Sickness.....	Same.
15. Eagle or crow on the ground or flying very low.....	Death.....	Sickness.
16. Sickness and a snake.....	do.....	Same.
17. Lice.....	Snake is cause.....	Do.
18. Flying.....	Sickness.....	Boils.
19. Eating meat.....	Long life.....	Same.
	Sickness.....	Toothache.

2. Omens from actual events. (Payne ms., vol. 3, p. 55.)	Meaning	
	18th century	1932
1. Startle a fox or wolf when on a journey and have him turn around and bark.....	Death.....	Means nothing.
2. Seeing a snake or uktena when commencing a journey.....	do.....	Do.
3. To see a na ye hi (spirit of the bluffs or high mountains).....	do.....	Do.
4. To see a giant specimen of an animal when away from home.....	Death in family soon.....	Do.
5. The tsi hi li li flies overhead and lights near the house.....	One will soon meet a stranger or visitor.....	Do.
6. See two squirrels fighting and one is killed.....	A death in the family.....	Means nothing.
7. Hear wailing or mourning.....	Death of a friend.....	Do.
8. Apparition of a friend.....	Death.....	Do.
9. Hen crows.....	do.....	Trouble. Kill the hen at once.
10. If a dog talked.....	Awful catastrophe.....	Means nothing.
11. If a hominy pestle moved about the house with no one touching it.....	All in the house would soon die.....	Do.
12. Screech owl makes moaning sound.....	Death.....	Sickness for someone in the family.
13. A tree falls without a wind, the top toward the house.....	do.....	Death of a relative.
14. To hear a bird (Tso wa sku) singing.....	Enemy is near.....	Means nothing.
15. If an owl lights on a tree in town.....	Death of enemies.....	Do.
16. If warriors are out on an expedition and the people at home hear the na ye hi sound, a long and protracted war whoop.....	Victory if short whoop. Defeat if long whoop (death)......	Do.
17. A bird flies into the house.....	Visitor is coming.....	Do.
18. Whippoorwill calls in daytime.....	A witch is present.....	Trouble or sickness.
19. When a certain blue bird sings.....	There will be a storm.....	Means nothing.
20. Whippoorwill near the house.....	Death by a witch.....	Sickness.
21. When you stretch hands toward a rattlesnake, if it looks cross and evil it means that you have not long to live. If it is calm, you pick it up and then set it down.....		
If it then travels west it means.....	Death.....	Same.
If it travels east it means.....	Long life.....	Do.

A clearer picture of the causes and interactions of change in modes of ritualistic sanctions is to be seen in the case of omens. Table 9 (p. 368) gives a list of 19 omens derived from dreams and 21 omens derived from actual events, and compares their meanings as given in the Payne Manuscripts for the eighteenth century and their present-day interpretation. The lapses are shown in some 20 of the omens which have totally lost all meaning. Change of interpretation from death to mere sickness occurred in some eight and would betoken a loss of original meaning. The loss of all meaning in the 13 omens is of interest from the standpoint of the functionalist. Eight of these which were lost were concerned with war and with long hunting-trip elements which have vanished from the life of the Cherokees. Twenty of the omens remained virtually the same as the original interpretations. This would represent a lack of change in 50 percent and these are concerned with elements still functioning in the life of the Cherokees.

The greatest percentage of omens to lose their original meaning entirely occurred in the case of the omens derived from actual events. Hence one could infer a greater conservatism in the case of omens derived from dreams. This might be taken as an indication that changes have taken place in the actual life of the Cherokees at a much faster pace than have taken place in the mental outlook as expressed in dream content. The examples adduced are, of course, too few to be taken as accurate indices of these changes but they serve to furnish a basis of preliminary interpretation of the mode of change.

Still another type of change is visible in the case of the new fire rites. In the ancient culture, as was described previously, the new fire rites were public events performed by the priest at times when a renewal of the life or magic force of a family or other social group was considered necessary. We have no records of the changes undergone in the interval from the eighteenth century to the present, but we do find traces of the new fire rite today. In the present town of Big Cove several of the conjurers have practiced the use of new fire. In fact its use as a magical force is probably known all over the reservation. There is immense difficulty, however, in extracting information on this topic, which has become an esoteric matter of the greatest importance. The present Cherokees use new fire in their rites for the transmission of witchcraft power against an enemy and its effects are thought to be fatal if not counteracted in time. It can be easily seen that with such a power in their hands the conjurers could have dominated early Cherokee society.

New fire, then, has changed from a public rite of meaning understood by all of the people to a secret rite performed by the con-

jurers for their own private purposes. Its public function has become a private one. This would accord with the trend which we have noticed in the case of witchcraft in general from being a public delict punishable by death toward an interpretation as a merely private matter of no public significance.

In summary, then, it can be seen that from the examples of the dances, omens, and the new fire rite that the ancient ceremonial and ritual life of the Cherokees has declined to such a point that private significance, and that only in the case of a few of the older persons of the community, is attached to these events. Ancient public ritual has become black magic.

MAJOR TRENDS

It can be seen from the examples just adduced that there have been actually observable tendencies in the changes in the mode of integration characterizing Cherokee society at different times in its history. Incomplete as the evidence is, there is yet enough of significance remaining at the present time for use to generalize on the observable diachronic movements.

There has been a leveling of social classes in Cherokee society and removal of the divisions between priests, war officers, and commoners. At one time there may have been an hereditary class of religious officials who were delegated with the function of administering all of the ritual and perhaps many of the penal sanctions of the tribe. Women, moreover, had great power in the adjudgment of penalties for criminals and in the approval of public policies. All of this has been done away with, and there has developed a generally democratic equality, modified to a slight degree by the presence of a privileged caste of white Indians and half-castes who possess a greater amount of land or other wealth than their purer blood Indian neighbors.

A rather complete secularization of the Cherokees has taken place. Originally possessed of a government by priests, they have become the most republican of peoples, with little or no religious influence either in public office or in any occasion of common concern.

There has been a decline in the old family controls with the emancipation of the younger generation through the Government schools. The control of the parents over the marriages of their children is no longer even advisory in capacity. The clan affiliations still control choices of mate, but to a less and less degree as time progresses. The mother's brother is no longer a power in the family, and the transmission of family names for the last three generations through the father's line has tended to shift the emphasis in lineality to the paternal ancestry.

Some elements in Cherokee social integration have completely lapsed, such as the retaliatory sanctions of war, blood revenge, and the ceremonial performance of many of the ritual sanctions. The death of each old person at the present time spells the accentuation of the dissolution. The disappearance of the old complexes has been followed by a transference of function to, and replacement by, white culture traits. The place of the deer and buffalo have been taken by cattle, the place of turkey by the chicken, the bear by the hog, and so forth. In some cases there has been a transfer of function of complexes before their final disappearance. Such was the case of the gadugi and such also the fate of the *osi* or sudatories, which became potato-storage houses before their final demise.

Everything in the ancient culture has suffered diminution or abbreviation and removal from its original matrix of events. Artifacts that were once in common use, such as the flute, trumpet, blowgun, and bow, are now made in small-sized toys for children to play with. Instead of completely singing all of the songs of the dances, only the first and last and perhaps one or two of the others are now sung. The dances that were formerly too sacred to be given at any but special occasions and seasons are now performed at any time with impunity and for monetary gain.

There has been a trend away from independence, whether political, economic, or cultural, and toward a complete dependence upon the American Federal Government for all of the means of existence and for education as well.

The sequence of changes leading from the past to the present Cherokee social organization were of profound extent and lead to the consideration that it is probable, if present tendencies continue, that the tribe will be completely deculturalized, so far as aboriginal elements go, within another generation.

CONCLUSION

We have now completed a survey of two separate synchronic pictures of Cherokee culture and have, to some extent, traced the lines of change that lead from the earlier to the later culture. It has appeared that the present-day social culture of the tribe is utterly unlike that recorded for any other tribe of the Southeast and, for that matter, of North America. Only in far-off Australia, among certain tribes of the Northeast (the Ungarinyin), do we find anything remotely resembling this type of preferential mating allied with kinship attitudes extended to whole clans. It does not seem that any existing factors in Cherokee life are capable of explaining the entire meaning of this rather unusual development.

The pattern of Cherokee culture, then, has not been one of steady aspect but rather a blur of shifting relationships with changes in the external relations of the tribe. The picture presented of the present-day society gives one the impression of a compact and cohesive community with a relatively intense emphasis on kinship and descent. The picture of the ancient society is one of a widespread tribe whose national celebrations and political organization were of far reaching and many-sided importance. The age of the present-day features is entirely unknown and so far as our present knowledge reaches these may be products of certain special conditions surrounding the small inbred Cherokee communities during the nineteenth century rather than an inheritance from the pre-Columbian past.

The pattern of the former culture is not strikingly different in its social aspects from that of the Creeks or other typical Southeastern Tribes. There were many of the features of town, clan, and red-white organization which Swanton finds so characteristic of the Southeast. On the other hand, the picture of preferential mating and privileged familiarity prevailing among the present-day Cherokee is utterly different from anything we would expect to find or have yet found among the Southeastern Indians. There is quite evidently, then, no one culture type prevailing among the Cherokees from the past to the present. The double division of former times with its dual hierarchy of red and white officials is utterly lacking in the present-day culture and even the memory of it has vanished. Such contrasts are rather jolting to any hypothesis of continuity for culture patterns and, indeed, would tend to throw doubt on the value of historical inquiries in general as a means of explaining contemporary features in society.

The summary of all the preceding material would tend to indicate that:

1. The Cherokees were once possessed of a social organization resembling closely, in all external features, the social organizations of the other Southeastern tribes.

2. The Cherokees were formerly under a dual hierarchy of red and white officials.

3. The Eastern Remnant of Cherokees today are entirely bereft of the dual division and of social similarity to other described Southeastern tribes.

4. The Cherokees of today are in possession of a system of preferential mating which in its peculiarities and ramifications can be duplicated among described tribes only in Australia.

5. The historical data available on the Cherokees throws little light on the present-day social organization, which latter can be best understood by a functional analysis of contemporary features.

APPENDIX A

CHRONOLOGICALLY ARRANGED DATA SUMMARY ON CHEROKEES

1540, De Soto Narratives.	1900, Hewitt.
1714, Lawson.	1903, Haddon.
1737, Brickell.	1904, Mason, O. T.
1750, Drake.	1906, Hagar.
1756-65, Timberlake.	1906, Jayne.
1762, An Inquiry—Marrant.	1907, Parker.
1775, Adair.	1907, Owen.
1790, Bartram.	1908, Hrdlička.
1823, Haywood.	1910, Gude.
1830, Colton.	1910-25, Frazer.
1836, Payne-Butrick.	1911, Spence.
1836-41, Catlin.	1913-20, Speck.
1847, Featherstonehaugh.	1914, Eaton.
1849, Lanman.	1915, MacCurdy.
1854, McKenny and Hall.	1915, Moore.
1855, Whipple.	1916, Alexander.
1859, Logan.	1916, Heye.
1866, McGowan.	1917, Cotter.
1868, Dunning.	1918, Heye, Hodge, Pepper.
1869, Washburn.	1918, Wissler.
1870, Morgan et al.	1920, Bushnell.
1876, Jones, J.	1920-27, Spier.
1876-79, Carr.	1921, Starr, E.
1877, Clark.	1921, Barnes.
1883, Hale.	1922, Harrington.
1883-94, Thomas.	1923, Maddox.
1883-96, Holmes (1903).	1923, Schwarze.
1885, Brinton-Gatschet.	1924, Stellwagen.
1888, Pilling.	1924, Jones, H. B.
1888, Painter.	1925, Daugherty.
1889, H. F. C. ten Kate.	1926, Snyder.
1889-95, Foster.	1928, Black.
1889-1907, Mooney.	1928, Smith.
1890, Donaldson.	1928, Myer.
1891, Powell.	1928-31, Olbrechts.
1895, Downing.	1929, Mason.
1896, Brinton.	1929, Swanton.
1897, Landrum.	1931, Walker.
1898, Tooker.	1932, Gilbert.
1899, Starr, F.	1935, Bloom.

APPENDIX B
OUTLINE OF CHEROKEE CULTURE

(Alphabetical by authors)

ADAIR :

Basketry.
Disease.
Location.
Name.
Population.
Stone pipes.
War.

ALEXANDER :

Ani kutani.
Animal stories.
Cosmogony.
Cosmology.
Deities.
Legends.
Lesser deities.
Place of origin of myths.

AN INQUIRY :

Appearance.
Arms.
Domestic conveniences.
Dwellings.
Names.
Religious rites.
Shearing of hair.

BARNES :

Colors and directional symbols in
sacred formulas.
Onomatopoeia in myths.

BARTRAM :

Altars.
Ball Play.
Hothouses.
Houses.
List of towns.
Ovens.
Townhouses, or rotundas, and their
interiors.

BLACK :

Agriculture.
Appearance.
Basket making.

BLACK—Continued.

Bibliography.
Birth.
Bone and wood implements.
Canoes.
Ceremonies and dances.
Division of labor.
Dress and ornament.
Fishing.
Food and its preparation.
History.
Houses.
Hunting.
Initiation burial.
Languages.
Location.
Map.
Marriage.
Mythology.
Names.
Pipes.
Population.
Pottery.
Religious beliefs.
Social and political organization.
Stone implements.
Symbolism of division of time.
Treatment of disease.
Warfare.

BRICKELL :

Flaying of prisoner's feet.
War.

BRINTON :

Ani kutani.
Myth.
Seventh Son.
Talisman.

BRINTON-GATSCHET :

Ancient history.
Beard.
Canoes.
Characteristics.

BRINTON-GATSCHET—Continued.

Clans.
 Complexion.
 Early traditions of the Cherokees.
 Ears.
 History of Cherokee.
 Houses.
 Linguistic studies.
 Name.
 Original location.
 Origin legend.
 Polygamy.
 Relation of Cherokees to other tribes.
 Scalp.
 Social organization.
 Towns.
 War.

BRYSON :

Comments on Mooney's myths.

BUSHNELL :

Cairns.
 Stone-covered burials.

CATLIN :

A woman.
 Chief Black Coat.
 Chief Jol-lee.
 John Ross.

CLARK :

Idols.
 Pottery.

COLTON :

Identity with Hebrews.
 Language.
 Rites' history.
 Traditions.

CULIN :

Chunky.
 Dice.
 Mythology of games.
 Racket Game.

DAUGHERTY :

Color symbolism in sacred formulas.
 Mysticism and associated symbols.

DUBACH :

Chiefs.
 Council government.
 Early government.
 Republican government.
 Treaty relations with U. S. Government and Internal Government of the Cherokees.
 Village government.

DUNNING :

Archeological explorations of stone and shell objects.
 Burial cairns.
 Deer hunting.
 Pottery.
 Stone cairns.
 Vases.

DONALDSON :

Census.
 Education.
 Industries.
 Maps.
 Political organization.
 Religion.
 Schools.

DOWNING :

History.
 Race mixture in the Western Cherokee.

EATON :

Government of villages.
 Villages.

FEATHERSTONEHAUGH :

Beans.
 Boiled beef broth.
 Corn gruel with lye.
 Council house.
 Log huts.
 Maize.
 Old mine.
 Pumpkins.
 Squash.
 Striped shirts.
 Turbans.
 Wigwams.

FOSTER (Literature of the Cherokees) :

American Missions.
 Annals of victory.
 Baptists.
 Challenges.
 Folklore.
 Government changes.
 Hymns.
 Law.
 Methodists.
 Moravian influences.
 Nomenclature of persons.
 Numerals.
 Oratory.
 Pantomime.
 Periods in Cherokee literature.
 Pickering alphabet.

FOSTER (Literature of the Cherokees)—

Continued.

Prayers.

Printing in Cherokee.

Scotch.

Songs.

Spanish influences.

Symbols.

The Book.

Visions.

Whites.

FOSTER (Sequoyah) :

Ball playing.

Birth of Sequoyah.

Boyhood to manhood.

Chunkee.

Conjurers.

Cradle.

Festivals.

Games and dances.

Green Corn Dance.

Guest reception seat.

Magic.

Marriage.

Speech sounds.

Story telling.

Sweatbath.

The press.

The syllabary.

Traditions on beads.

Translations.

FOSTER (Cherokee Bible) :

Quotations from Butrick's antiquities.

Story of Cabeza de Vaca.

FRAZER (Golden Bough) :

Annual expulsion of evils.

Attracting the corn spirit.

Belief in the homeopathic magic of the flesh of animals.

Charm to become a good singer.

Charm to strengthen a child's grip.

Charms to insure success in ball playing.

Custom with children's cast teeth.

Festival of first fruits.

Foods avoided by the Cherokees on homeopathic principles.

Homeopathic magic of animals.

Homeopathic magic of plants.

Hunters ask pardon of deer they kill.

Hunters pray to eagle they have killed.

FRAZER—Continued.

Ideas about trees struck by lightning.

Lamentations after first working of the corn.

Mode of averting an evil omen.

Mode of averting a storm.

Myth of old woman of the corn.

Mythology.

No clear distinction between animals and men in their mythology.

Old woman as maize.

Removing hamstring of deer.

Respect for rattlesnakes.

Sacred Ark.

Sorcery with spittle.

Their ceremonies at killing a wolf.

Their propitiation of the eagle they have killed.

Think that to step over a vine blasts it.

Treatment of navel string.

Try to deceive the spirits of rattlesnakes and eagles.

FRAZER (Totemism and Exogamy) :

Climate.

Expulsion of Cherokee clans.

Green Corn Dance.

Houses.

Location of Cherokees' states, streams, areas, ranges.

Myth of the origin of Corn.

Sacred animals.

Sacred Fire.

Syllabary.

Totemism.

Town House.

GUDE:

Adoption of civilization.

Culture contacts.

Location.

Maps.

Somatic admixture.

HADDON :

Crow's foot ; a string figure.

HAGAR :

Celestial ancestor magic.

Comets and meteors.

Dog stars.

Horned serpent.

Legends of incest.

HAGAR—Continued.

- Myth of star origin of earthly beings.
- Names of some constellations.
- Origin of moon.
- Perils of the soul.
- Pleiades myths.
- Seven burnt corncocks.
- Venus.

HAKLUYT:

- Bow and arrow used.
- Deerskins.
- Feed on roots, herbs, and game.
- Gentle people.
- "Grouse."
- Lean people.
- No clothing.
- Poor country.

HALE:

- Language characteristics.
- Relation to surrounding tribes.

HARRINGTON:

- Archeology — Pottery implements and utensils.
- Beads.
- Bone working.
- Clothing fabrics.
- Games.
- House furnishings.
- Ornamental objects.
- Ornaments.
- Paints.
- Pendants.
- Pipes.
- Pottery tools.
- Shell working.
- Stoneworking.
- Stratification.
- Weaving.
- Woodworking.

HAYWOOD:

- Computation of time
- Country of origin.
- Hebraic rites.
- Laws and civil customs.
- Military character.
- Political government.
- Traditions.

HEWITT:

- Derivation of the name "Cherokee."

HEYE:

- Objects from mounds in eastern Tennessee.

HEYE, HODGE, PEPPER:

- Beads.
- Bone and wood objects.
- Celts.
- Nacooche valley mound.
- Pipes.
- Pottery.
- Shell objects.
- Steatite.
- Stone objects.

HOLMES:

- Basketry.
- Beads.
- Clothes baskets.
- Cups.
- Decoration.
- Disks.
- Pins.
- Pipes.
- Pottery making of Cherokees.
- Weaving.

JAYNE:

- Crow's foot string figure.

JONES, C. C. (Antiquities of Southern Indiana):

- Burials.
- Chunkey yard and games.
- Nacoochee Valley.

JONES, H. B.:

- Death Song of a Cherokee Indian.

JONES, J.:

- Burial customs.
- Rock paintings.
- Traditions.

KATE, H. F. C. TEN:

- Horned snakes legend.
- Stone shields legend.

LANDEBUM:

- Agriculture.
- Appearance.
- Basketry.
- Chief.
- Clothing.
- Fire.
- Locale by counties.
- Remains.
- Rites.
- Sacrifice.

LANMAN:

- Ball Game.
- Clans.
- Customs.
- Personages.

LOGAN:

Bezoar Stone.
 Charms against snake bite.
 Fishing with spear and net.
 Game animals and hunting.
 Legend of origin of death.
 Poisoning.
 Rattlesnake.
 Scarification.
 Skin dressing.
 Smelting settlements.
 Traps.
 Turkey pens.

MACCURDY:

Implements of bone.
 Mound in East Tennessee.
 Pipes.
 Pottery.
 Rattlesnake gorgets.
 Shell.
 Stone.

MCCOWAN:

Ketoomha.
 Nighthawks.
 Secret society of Ni-co-tani.

MCKENNEY and HALL:

Five biographies of eminent Cherokees.

MADDOX:

Cherokee theory of disease.
 Initiation to priesthood.
 Pharmacopoeia.
 Shamanistic practices.

MASON, O. T.:

Basket making.
 Ethnic varieties of basketry.

MASON, R. L.:

Cures for animal disease.
 Dividing of trees into evergreen and deciduous.
 Special trees and their lore.
 Trees struck by lightning.

MOONEY (*in Handbook*):

Bibliography of synonyms.
 Clans.
 Derivation of name.
 Early visits.
 Language.
 Later history.
 Location by states.
 Numbers.
 Origin and history.

MOONEY (Cherokee and Iroquois Parallels):

Corn legend.
 Flint legend.
 Old tobacco.
 Name for violets.

MOONEY (Cherokee Mound Building):

Tradition of mounds and green corn dances at town houses.

MOONEY (Cherokee Plant Lore):

Corn origin myth.
 Disease origin myth.
 Dividing of the trees.
 Legend of Cedar.
 Strawberries.

MOONEY (Cherokee Theory and Practice of Medicine):

Going to water.
 Names.
 Plant lore of doctors.
 Real value of herbs used.
 Scarification.
 Taboos.
 Theories of pain and diseases.
 Total number of plants used and known.
 Treatment with herbs.
 Various diseases and theories therefor.

MOONEY (Evolution in Cherokee Personal Names):

Adoption of English names.
 Samples.

MOONEY (Improved Cherokee Alphabets):

Sequoyah syllabary defective.
 Father Morice's.
 Wm. Eubank's inventions.

MOONEY (Myths of the Cherokees, 1889):

Animal cycle.
 Cosmogony and cosmology.
 Early contacts.
 Kanti and selu.
 Myths.

MOONEY (Myths of the Cherokees, 1900):

Animal stories.
 Archeology.
 Arts.
 Botany.
 Ceremonies.

- MOONEY (Myths of the Cherokees, 1900)—Continued.
- Genesis stories.
 - Geographical.
 - Glossary of Cherokee words.
 - Historical traditions of contacts with various tribes and with whites.
 - History.
 - Home life.
 - Language.
 - Local legends.
 - Medicine.
 - Nomenclature.
 - Notes and parallels to the myths.
 - Personal names.
 - Plant lore and names.
 - Religion.
 - Rites in agriculture.
 - Sacred myths.
 - Songs.
 - Sounds of Cherokee speech.
 - Various plants described.
- MOONEY (Sacred Formulas of the Cherokees) :
- Colors.
 - Contents.
 - Dances.
 - Gods.
 - Hunting.
 - Language of formulas.
 - Love.
 - Manuscripts containing formulas.
 - Medical.
 - Medical practice—
 - Bleeding.
 - Rubbing.
 - Miscellaneous.
 - Mythic references.
 - Names.
 - Pay of Shamans.
 - Plants used.
 - Rites in gathering plants.
 - Specimen formulas.
 - Sweatbath.
 - Symptoms.
 - Taboos.
 - Theory of diseases.
- MOONEY (Cherokee Ball Play) :
- Decoctions.
- MOONEY (Cherokee Ball Play)—Contd.
- Formulas repeated.
 - Going to water.
 - Legend of animal and bird ball play.
 - Omens taken.
 - Racket Dance.
 - Rattle.
 - Regimen of training.
 - Rubbing.
 - Scratching.
 - Songs.
 - Taboos.
- MOONEY (Cherokee River Cult) :
- Divination with beads.
 - Formulas.
 - Going to water.
 - Locations on water.
 - Rites with water.
 - River lore.
- MOONEY (Indian Navel Cord) :
- Treatment of navel cord of child by Cherokees and other tribes.
- MOORE :
- Archeology summary for Eastern Tennessee.
- MORGAN :
- Clans.
 - Notational system.
 - Relationship terminology.
- MYERS :
- Ancient village excavated.
 - Map of Tennessee archeology.
 - Settlements.
 - Trails.
- OLBRECHTS (Cherokee childbirth) :
- Care of child.
 - Contraceptives.
 - Disposal of afterbirth.
 - Magic with children.
 - Medical materials.
 - Mode of parturition.
 - Partus.
 - Pregnancy.
 - Taboos.
- OLBRECHTS (Methods of divination) :
- Divination of the future.
 - Traditional methods of divination.
 - True divination for lost things.

- OLBRECHTS** (Cherokee treatment of disease) :
- Boils.
 - Chirugy.
 - Dentistry.
 - Divination.
 - Fractures.
 - Medical.
 - Medicine man's paraphernalia.
 - Scarification.
 - Sucking horn.
 - Surgical.
 - Wounds.
- OLBRECHTS** (The Swimmer Manuscript) :
- Disease—
 - Birth.
 - Care for child.
 - Death.
 - Formulas and analysis.
 - Medicine men.
 - Nature and causes.
 - Specimen.
 - Treatment of disease.
- OWEN** :
- Aunts and uncles.
 - Clans and social organization.
 - Cures for snake bite.
 - Tales.
- OWL** :
- Beaver Dance.
 - Corn planting ceremony.
 - Scratching.
- PARKER** :
- Treaty relations with the U. S. Government.
- PAYNE** (Manuscripts) :
- Vol. 1. Traditions of the Cherokee Indians.
 - Early faith—a rehash of Christian Traditions and Yowah hymns.
 - Hebrew origin and journey through the wilderness.
 - Moon worship. Corn mother.
 - Legend of corn and game (green corn dance myth).
 - Divining crystal. Ancient selection of boys for priesthood. Ancient 6 great festivals. Occasional festivals.
 - Vol. 2. Clans.
 - Two son's story. Divining crystal. A rite.
 - Vol. 3. Notes on Cherokee Customs and Antiquities.
 - Division of time. Government of village. Clans. Priesthood. Mourning. Divining stone and rites. Sacred places and things. Omens from dreams. Omens. Custom of beards. War customs—Declaring war, waging war, officials. Uncleanliness. Snakebite. Cherokee women's clothes. Festivals of the Cherokees.
 - Vol. 4. Traditions of the Cherokee Indians.
 - Early traditions of new fire. New Moon Feast. Government a theocracy. Seven priests. Council house. Towns of refuge. Blood revenge and crime. Clans. Marriage. Priests: their garments, inauguration, pipes, etc. Dress of the Cherokees. Ornaments, hair. Meals. Cooking utensils. Warfare. Divination. Working in common and division of labor. Baking. Musical instruments. Ark. Early society organization. Government in war. Chiefs, food and dishes. Mourning festivals. Moons, hymns, sacred fire. Dreams and omens. Purifications. Furniture. Houses, ornaments. Birth and education of children, names, punishment. Music. Doctoring. Council house. Glue. Soap.
 - Vol. 6. Sketches of Cherokee Character.
 - Towns, clans. Customs in social exchange. Enchantments. Dress. Houses. Diet. Dances.

PILLING:

Bibliography of authors on Cherokee language.

POWELL:

Bibliography of languages.
Boundaries of Cherokee area.

SCHWARZE:

Clans.
Death rites.
Derivation of tribe.
Government.
Language.
Location.
Name derived.
Ornaments.
Religion.
Titles.
White influence.

SHETRONE:

Early and later history of Cherokees.
Government.

SNYDER:

Blood typing of Cherokees.

SPECK:

Basketry, forms and uses—
 Designs.
 Materials.
 Technique.
Comparison of basket types of the Southeast
Decoration.
Origin of Cherokee basketry.
Pottery.

SPENCE (*in Encyclopedia*):

Ceremonial games and dances.
Color symbolism.
Decentralization of religious power.
Gods and deities.
Hunting and love formulas.
Medico-religious formulas and their rituals.
Medico-religious practice.
Plant gathering rites.
Shamanism and practices—
 Baths.
 Bleeding.
 Rubbing.
Shamans or priests.
Sources of religious history.
Tabus.
Type of religion.

SPENCE (Myths):

Deities.
Eagle feathers.
Slanting eyes legend.

SPIER:

Character of Cherokee kinship system.

STARR, E.:

Genealogy.
Origin and religion.
Pictures of types.
Political history.

STARR (Ethnogeographic Reader)

Arrow race.
Balls and rackets.
Basketry and pottery.
Home and characteristics
Literature.
Removal.
Scratching.
Syllabary.

STARR (Measuring Cherokees):

Foods—
 Coffee.
 Greens.
 Hoe cake.
 Indian bread.
 Sassafras tea.
 Sweet beer.

Physique.
Psychology.

STELLWAGEN:

Agriculture.
Clothing.
Customs.
Material culture—
 Agriculture implements.
 Art.
 Canoes.
 Houses and furnishings.
 Hunting and fishing implements.
 Pottery.
 Tools.
 Woodwork.
Ornaments.
Religion and myths.
Social organization.

SWANTON (Aboriginal Culture of the Southeast):

Cherokee marginal to Creeks.
Mythology of sharp buttocked beings.

- SWANTON (Aboriginal Culture of the Southeast)—Continued.
 Seven clans.
 Summer ceremonial house.
- SWANTON (Creek Religion and Medicine, Social Organization and Usages of the Indians of the Creek Confederacy):
 Clans.
 Food customs.
 Kin terms.
 Lore on comets.
 Steatite pipes.
- SWANTON (Myths and Tales of South-eastern Indians):
 Relative resemblances of myths of
 Cherokees and Natchez, Yuchi,
 Hitchiti, Alibamu, Creeks.
- THOMAS (Report on the Mound Explorations of the Bureau of Ethnology):
 Archeology of North Carolina, etc.
 Art forms.
 Beads.
 Copper ear pendants.
 European bells.
 Iron.
 Shells.
 Symbols.
- THOMAS (Catalog of Prehistoric Works):
 Mounds and remains in Cherokee area.
- THOMAS (Burial mounds in Northern Sections of U. S.):
 Cherokee built mounds.
 Cherokees from Virginia.
 Townhouse mound of Carr in West Pennsylvania.
- THOMAS (Cherokees in pre-Columbian Times):
 A theory of mound origins.
 Migrations of Cherokee traced back.
- TIMBERLAKE:
 Beds.
 Body care.
 Bows and arrows.
 Bread and meat preparation.
 Calumet rite.
 Canoes.
 Cave candle.
 Child care.
 Chunkey.
 Clothes.
- TIMBERLAKE—Continued.
 Division of labor.
 Eating.
 Flags of war and peace.
 Fishing.
 Gaming.
 Government an aristocracy and democracy.
 Green corn dance.
 Hothouse.
 Houses.
 Officials.
 Paint.
 Physic dance.
 Pipe.
 Poor relief.
 Snake lore.
 Tomahawk.
 Townhouse.
 Weapons.
- TOOKEE:
 Original location of Cherokees in Virginia.
- WALKER:
 Cherokee literature.
 Customs.
 Dances.
 Early contacts.
 Rites.
- WASHBURN:
 Beads.
 Belief in demons and witches.
 Conjuring.
 Cosmogony.
 Disease treatment.
 Election of officers.
 Geo. Guess.
 Lick Logs.
 Marriage.
 Religious traditions.
 Rubbing.
 Thigh of deer cut out.
 Witchcraft.
- WEBSTER:
 Shamanistic lore.
- WHIPPLE:
 Aeschatology.
 Baptism.
 Priesthood.
 Rites of purification.
- WISSLER:
 Basketry.
 Food plants.

WISSLER—Continued.

Moccasins.
 Netting.
 Pottery and decoration.
 Special devices.
 Square houses of poles.
 Stone work.
 Suspended warp loom.
 Sweat House.

WISSLER—Continued.

Turkey-feather mantle.
 Weaving.

ZIEGLER AND GROSSCUP:

Government.
 Legends of toponymy, etc.
 Map.
 Material culture.
 Physique and characteristics.
 Place names.

ADDENDA

HRDLIČKA:

Medical observations.

THWAITES:

Nuttall—

Burial.
 Marriage.
 Towns of refuge.
 Training of warrior.

Gregg—

Clan revenge.
 Marriage.

Michaux—

Agriculture.
 Blood revenge.
 Burial customs.
 Clothing and ornament.
 Diseases.
 Food.
 Fur trading.
 Government—
 Chiefs.
 Constitution.
 Crimes and punishment.
 Grand council.
 Inheritance.
 Land sales and restrictions.
 Land system and grants.
 Law on debts.
 Police.
 Property rights.
 Ranks.
 Sheriffs.
 Houses.
 Hunting.
 Intertribal relations.
 Language.
 Manufactures—
 Blankets.
 Dress.
 Pipes.
 Salt.

THWAITES—Continued.

Michaux—Continued.

Marriage customs.
 Occupations.
 Physique.
 Printing office.
 Relations with whites.
 Slavery.
 Social and domestic economy.
 Traditions.
 War customs.

ARTHUR, J. P.:

Customs.
 Hebraic resemblances.

BLACK:

Awl.
 Awls of bone or stone.
 Barbless bone fishhooks.
 Basketry (especially fish baskets).
 Beads.
 Bead garters, sashes, necklaces, and
 bracelets.
 Bear-tusk scratchers.
 Bells on knees.
 Bird bones and shells.
 Blowgun.
 Bow and arrow.
 Breechclout.
 Cane drillers.
 Child cradle.
 Chisels of stone.
 Chunkey pole.
 Chunkey stone.
 Corner stones.
 Dams.
 Drum.
 Dugout canoe.
 Eagle tails for dances.
 Ear pendants of animal teeth.
 Flesher.
 Flute.

BLACK—Continued.

Gouges and punches of antlers.
 Gourd vessels.
 Gourd vizors.
 Granaries.
 Hammerstones.
 Handles for spears, axes, and hoes.
 Hand nets.
 Hoes of wood or stone.
 Houses.
 Leggings.
 Lines.
 Mantles.
 Mats of split cane.
 Moccasins.
 Net sinkers.
Olivella shell beads.
 Ovens.
 Pipes.
 Pottery.
 Rattle gourd.
 Rectangular graves.
 Robes.
 Rubbing stones.
 Shell gorgets.
 Short skirt.
 Spears.
 Spoons for the ball game.
 Stained deer's hair.
 Stakes in the ball game.
 Stone knife.
 Tambour.
 Town house.
 Traps.
 Triangular arrowpoint of flint or
 deer antler.
 Wampum.

BLACK—Continued.

Wampum collars of clam shell
 beads or clay beads.
 War club.
 Wigwams.
 Wooden falcons on hand.
 Wood spoons.
 Woodworking knives.
 Woven fabrics.
 BRINTON-GATSCHET:
 Bark and poplar canoes.
 Charms (bones or panther, horn of
 horned snake).
 Houses.
 Pottery of red and white clay.

FOSTER:

Chunkey stones.
 String of white clay beads used to
 keep traditions.

HAKLUYT:

Bows and arrows.
 Deerskins.

HAYWOOD:

Ark.
 Calumet.
 Sweat house.
 Town house.
 Waist belt of shells (badge of
 orator).
 Wampum.

LANDRUM:

Arrow heads.
 Basketry.
 Clay pipes.
 Flint tomahawks.
 Soapstone vessels.
 Stone axes.
 War clubs.

APPENDIX C

MATERIAL CULTURE OF THE CHEROKEES

MUSEUMS CONTAINING CHEROKEE OBJECTS

- Milwaukee Public Museum (specimens described by Speck).
Field Museum of Natural History (specimens collected by Starr in 1892).
Museum of the American Indian, Heye Foundation (specimens described by Harrington).
American Museum of Natural History.
United States National Museum (specimens collected by J. Mooney, E. Palmer, and A. Morgan).
Peabody Museum of American Archaeology and Ethnology.
Miscellaneous: Wofford College, Charleston College, Laurensville Female Academy, Museum of the Great Smokies at Gatlinburg, Tenn.

FIELD MUSEUM ARTIFACTS

- | | |
|------------------|-----------------------------------------------|
| Pottery: | Weapons: |
| Cooking pots. | Blowguns. |
| Food bowls. | Darts. |
| Pottery paddles. | Thistle heads used to feather blow-gun darts. |
| Wooden spoons. | |
| Basketry: | Medical instruments: |
| Carrying basket. | Cupping horn. |
| Basket tray. | Scratchers. |
| Fish baskets. | Gourd rattles. |

UNITED STATES NATIONAL MUSEUM

Cherokee material collected by James Mooney, Edward Palmer, and A. Morgan consists of baskets, pottery, eagle feathers, walking sticks, gourd, and wooden masks.

ARTIFACTS MENTIONED BY VARIOUS AUTHORS.

- | | |
|---------------------------------------|--------------------------------------|
| Adair: | Bartram—Continued. |
| Rattle (calabash with pebble inside). | Mats or carpets (oak or ash splits). |
| Sweathouse. | Altars. |
| Steatite pipe. | Logan: |
| Basket. | Moccasins. |
| Tomahawk. | Leggings. |
| Knife. | Deerskin sinew thread. |
| Bartram: | Bow and arrow. |
| Dwellings. | Skins. |
| Sweathouse. | Leather pouches. |
| Townhouse. | Winter moccasins. |
| Sofa. | Earthen jars. |
| | Spear and net. |

Logan—Continued.

Baskets.
 Turkey pens.
 Rattles.
 Rattlesnake scratchers.
 Houses.
 Council House.

Mason, O. T. :

Baskets.

Mooney :

Townhouses.
 Granaries.
 Shaman houses.
 Cupping horn.
 Blowing tube.
 Eagle wands.
 Ball racket and poles.
 Beads.
 Crystals, etc.

Payne :

Divining crystal.
 Seats in council house.
 Robes and caps.
 Petticoats of mulberry bark.
 Turkey-feather gown.
 Holy ark.
 Breeches.
 Coats.
 Belts.
 Leggings.
 Garters.
 Pipes.
 Female gown.
 Moccasins.
 Headbands.
 Earrings.
 Ornaments.
 Deer's horn.
 Labrets.
 Neckbands.
 Beads of horn or turkey bone.
 Leather blankets.
 Arm bands.
 Finger rings.
 Foods (bread, etc.).
 Oven earthenware.
 Bottles of deerskin.
 Sieves, griddles, and baskets.
 Battle axes.
 Bow and arrow and quiver.
 Oval wooden shields.
 Breastplate and armor of buffalo hide.

Payne—Continued.

Crane thighbone trumpet.
 Buffalo-horn trumpet.
 Cane flute.
 Kettle drum
 Cane pipe.
 Gourd trumpets.
 Tobacco bag.
 Weed platform.
 Scepter.
 War club.
 Flags.
 Spears.
 Slings.
 Knife or short sword.
 Bells.
 Council house.
 Chairs.
 Ball and hickory sticks.
 Salt.
 Soap.
 Medicinal and food plants.
 Drinks.
 Houses and beds.
 Glue.
 Hothouse.

Speck :

Baskets (pack, fish, rib, rectangular, double weave).

Starr :

Baskets.
 Pottery vessels.
 Wooden paddle.
 Bow and arrow.
 Scratcher.

Stellwagen :

Breechclout.
 Mantle.
 Moccasins.
 Leggings.
 Deerskin shirt.
 Mantle of fur.
 Fabric or feathers.
 Woven nets.
 Beads, pendants, ear ornaments.
 Marine shells.
 Animal tooth pendants.
 Pigments.
 Jewelry.
 Foods.
 Bone and wood hoes.
 Slate and sandstone implements.
 Triangular arrow points.

Stellwagen—Continued.

Darts.
 Knives.
 Tomahawks.
 Bone spears.
 Small wooden handles.
 Hammerstones.
 Disk-shaped chunkee stones.
 Hoop and pole game.
 Canoes.
 Celt type axe.
 Wooden handle grooved with blade
 fitted into it.
 Houses.
 Beds.
 Pottery.
 Effigy.
 Vessels.
 Paddles.

Schwarze :

Pendants and rings.

Timberlake :

Oven.
 Calumet.
 Townhouses and seats.
 Gourds.
 Hothouse.
 Bed.

Timberlake—Continued.

Red and white flag.
 Loin cloth.
 Drums.
 Canes.
 Rattles of gourds.
 Pipes.
 Hoes.
 Lines, spears, and dams.
 Blowguns.
 Heads.
 Feather work.
 Wampum.
 Silver pendants.
 Rings.
 Bracelets.
 Moccasins.
 Guns.
 Bows and arrows.
 Darts.
 War clubs.
 Scalping knives.
 Tomahawks.
 Houses.
 Canoes.
 Basketry.
 Earthen vessels.
 Foods.
 Chunky Stone discoids.

APPENDIX D

CULTURAL TRAITS OF THE CHEROKEE

PAYNE (1836)

(Manuscripts described by W. H. Gilbert in 1932)

The J. H. Payne Manuscripts of the Ayer Collection in Newberry Library, Chicago, consist of 14 volumes. The Ayer Collection was started between 1880 and 1911, and it is not known how these manuscripts got into it. E. G. Squier quoted them in 1853. The data presented include Cherokee official records before 1838, letters of missionaries on the condition of the Indians before 1830, and, during the removal, letters of Cherokee children in the Mission School to philanthropic people in the North, traditions and myths as related to John Howard Payne by prominent members of the tribe in 1836, data on Choctaws, Creeks, and Chickasaws collected from various sources, and, finally, the immense aggregation of facts about Cherokee ethnology collected by the Missionary Daniel Sabin Butrick from various informants, principally the following: Awayu, Corn Tassel, Deer-in-the-Water, Nettle, Nutsawi Pinelog, Nutsawi Saddler, Rain, Raven, Thos. Smith, T. Smith, Jr., Shortarrow, Situegi, Terrapin Head (Yuwiyoku), and Toleta.

The volumes containing ethnological data on the Cherokees are volumes 1, 3, 4, and 6. The titles of these volumes are:

- Vol. 1. Traditions of the Cherokee Indians, 170 pages.
- Vol. 3. Notes on Cherokee Customs and Antiquities, 128 pages.
- Vol. 4. Nine original letters written by John Ross, A. E. Blunt, Chas. R. Hicks, and Daniel Sabin Butrick, concerning Mr. Payne's researches into Cherokee history, a poem by Wm. Stockwell, and an account of the customs and traditions of the Cherokees by D. S. Butrick, in all 378 pages.
- Vol. 6. Notes on Cherokee history from June 9, 1838, to Nov. 4, 1839, by J. H. Payne. A letter from T. S. Coodey to J. H. Payne, 1840; National Characteristics of the Cherokee (by J. H. Payne?) (65 pp.); and Sketches of Cherokee Characteristics, by J. P. Evans (39 pp.). Total, 284 pages.

The total pages of manuscript containing material of ethnologic value is about 780.

The data represented may be classified under three main heads:

1. *Religious beliefs and usages*

Dances.	Mourning.	Snake bites.
Divination with crystals.	Names.	Traditions.
Divisions of time.	Omens and taboos.	Training of priests and hunters.
Dreams.	Priests.	Training of shamans.
Festivals.	Religious beliefs.	Uncleanness.
Future life beliefs.	Sacred Fire.	
Moon Cults and Corn Cult.	Sacredness.	

2. *Social customs*

Ball play.	Death and burial.	Manners.
Birth and education.	Economy.	Marriage and Family life.
Clans.	Government and social organizations.	Village social life.
Crime.		War customs.

3. *Material culture*

Council House.	Houses.	Tonsure.
Dress.	Meals and food.	Weapons.
Furniture.	Music and instruments.	
Glue, soap, salt.	Ornaments.	

CHEROKEE ETHNOLOGY IN PAYNE MANUSCRIPTS

1. Theory of Hebrew origins and traditions in general.
2. Priesthood.
3. Government.
4. Judicature.
5. War organization and weapons.
6. Ball play.
7. Seasonal calendar and festivals.
8. Social customs—Marriage and household, birth, childhood, division of labor, clan names, etc.
9. Schools.
10. Taboos, uncleanness, holiness.
11. Treatment of disease.
12. Death customs.
13. Deities, religion, and future life.
14. Crystals and divination in general.
15. Weather control magic.
16. Ethnobotany, foods, medicine, etc.
17. Dress.
18. Musical instruments.
19. General.

DATA IN PAYNE MANUSCRIPTS BY VOLUMES

Volume 1

1. Traditions—mostly Biblical.
2. Mooncult, Corncult.
3. Divining crystals.
4. Training of Shamans.
5. Six major festivals.
6. Moon feasts and O o k a h Dance.
7. Occasional rites.

Volume 3

1. Division of time.
2. Social organization of village.
3. Clans.
4. Shaman training.
5. Mourning.
6. Divining stone.
7. Training of priests and hunters.
8. Sacredness.
9. Dreams.
10. Omens.
11. Future life.
12. Tonsure.
13. War customs.
14. Uncleanness.
15. Snake bite.
16. Female dress.
17. Sacred fire.
18. Feasts.

Volume 4

1. Traditions.
2. Ceremonies and rites, Green Corn Dance.
3. Government and social organization.
4. Priests.
5. Dress and ornament.
6. Meals and food.
7. War and weapons.
8. Economy.
9. Music and instruments.
10. Crime.
11. Ball play.
12. Manners.
13. Death and burial.
14. Council house.
15. Marriage and family.
16. Hunter training.
17. Religious beliefs.
18. Houses and house culture.
19. Furniture.
20. Birth, education.
21. Uncleanness.
22. Omens, taboos, and names.
23. Glue, soap, salt.

Volume 6

1. Social traits, towns, clans, superstitions.
2. Dress.
3. Dwelling.
4. Somatic traits, diet.
5. Language.
6. Ball play.
7. Dances—
Common dance.
Female dance.
Beaver dance.
Eagle dance.
Green Corn Dance.

VOLUME 1. TRADITIONS OF THE CHEROKEE INDIANS
(Payne's Writing)

Chapter 1. Introduction. What is to be considered. Early faith, orthodox.

Section 1, p. 3 ff. Traditions of the Cherokee concerning what is considered as their early and orthodox religion. A rehash of Christian-Jewish traditions and Yowah Hymn discussed.

Section 2, pp. 6-29. Historical and moral traditions represented as having been received from professors of the early orthodox Cherokee religion (Hebrew traditions of origin of men and journey through the wilderness).

Chapter 2.

Section 1, p. 30. Narrative of various departures by the Cherokees from what is considered as their earliest and orthodox system of faith and worship. (Seem to be true Cherokee ideas, moon worship, corn mother, etc.)

Section 2, p. 43. Legends connected with the departures from the religious system considered as the orthodox one among the Cherokee. (Legend of Origin of Corn and Game, Green Corn Dance, Origin Myth.)

Chapter 3. Introduction, p. 53, account of what follows.

Section 1, p. 55. Account of the divining crystal, a sort of talisman always employed in ancient times among the Cherokee upon solemn occasions.

Section 2, p. 63. The manner in which boys were in ancient times selected and educated for the priesthood among the Cherokees, and in which way the divining crystal was therein employed.

Chapter 4. Introduction, p. 69. Festivals to be described.

Section 1:

Page 70. Regular festivals of the primitive era.

Page 71. List of festivals. First festival.

Page 80. Second festival.

Page 84. Third festival.

Page 87. Fourth festival.

Page 91. Fifth festival.

Page 112. Sixth festival.

Page 114. New Moon festivals.

Page 115. Quarterly New Moon rites.

Page 115. Seven Days' sacrifice.

Page 116. Primitive occasional feasts.

a. Propitiation (5th).

b. Ookah 7-year dance.

Page 121. General remarks.

Section 2:

Page 123. Recent condition of festivals.

Page 124. First festival.

Page 125. Second and third festival.

Page 139. Fourth festival.

Page 147. Fifth festival.

Page 149. Sixth festival.

Page 150. Occasional ceremonies. Physic Dance (Propitiatory festival).

Page 153. Occasions of public anxiety.

Page 170. Ookah Dance never changed.

VOLUME 2. NOTES AND MEMORANDA ON THE CHEROKEE
(273 pp.)

A legend or two. No real data of ethnologic value.

VOLUME 3. NOTES ON CHEROKEE CUSTOMS AND ANTIQUITIES

(139 pp.)

Section 1, pp. 1-84 entitled "Indian Antiquities," consists of badly scratched notes some crossed out, etc., on beliefs and customs, war, dreams, etc.

Section 2, pp. 1-55. Cherokee Feasts (same as volume 1).

Under Section 1 we have items on following matters:

1. Division of time.
2. Social organization of villages.
3. The clans.
4. Training of shamans.
5. Mourning.
6. Divining stones.
7. Training of youth for priests.
8. Training of youth for hunters.
9. Sacredness, places and things.
10. Dreams and interpretation.
11. Omens.
12. The Hereafter.
13. Tonsure.
14. War customs.
 1. Declaring war.
 2. Organizing the expedition—officials.
 3. Ceremonies starting to war—divination.
 4. On the march.
 5. The return from war.
 6. Induction of new war officials.
 7. Surprise attacks.
 8. Dance on return from war.
 9. Manner of battle.
15. Uncleanesses.
16. Snake bite.
17. Dress of women, turkey-feather gowns.
18. "Feeding" the sacred fire.

Section 2, Cherokee Feasts.

Contains nothing not already noted in volume I under Feasts.

VOLUME 4. TRADITIONS OF THE CHEROKEE INDIANS

(By D. S. Butrick)

This volume contains the real meat of the manuscripts as far as ethnology is concerned. It will be well worth while to note in detail its contents. It was evidently derived from a number of informants, and the diversity of facts, together with much repetition is somewhat confusing. The following items are listed as they occurred in the manuscripts with my own interpolations of topical heads for convenience of classification of the data.—W. H. G.:

1. Traditions:
 - Real and peculiar people.
 - Wilderness journey, sacred fire.
2. Ceremonies:
 - New Fire made.
 - Begin year in March.
 - Annual new moon commenced with September new moon.

3. Government and Social Organization :

Creeks make new moon rites at First Fruits.
 Government of Cherokees a theocracy. How carried on. Heredity.
 Seven priests.
 National Council. Council House described.
 Towns of refuge.
 Mosaic Law of Retaliation. Treatment of criminals.
 Divided into clans. No endogamy within clan on pain of death.
 Marriage.

4. Priests :

Marriage of priests.
 Duties of priests.
 Succession of High Priests.
 Garment of priests.
 Inauguration of priests.
 Supplying place of other priestly officers.
 Dress of High Priest.
 Pipes of priest.
 Dress of priests' wives.

5. Dress and ornament :

Dress of common people—men.
 Women's hair.
 Neck ornaments of men.
 Dress of women.
 Men's body dress.
 Women's body dress.
 Ornaments of men.
 Women's petticoats.

6. Meals, etc. :

Meals, mode of living.
 Cooking utensils.
 Social intercourse.

7. War :

Warfare.
 War Priest.
 War preparations.

8. Ceremonies :

Divination with Divining Stone.

9. Dress and ornament :

Women's leggings.
 Men's ornaments, finger ring.

10. Economy :

Mode of supplying towns.
 Work in common.
 Men hunting.
 Women's share of labor.

11. Meals :

Mode of baking.
 Parched corn meal.

12. Ceremonies :

Divining Stone.

13. War:

War preparation, new fire in Ark, etc.
Encampments.
Weapons.
Arms.
Attacks.
Address before battle.
Fight and return.
Ceremony before return.
Priest for wars, peculiar dress.
Instruments of war.

14. Music:

Long-necked gourds.
Sound trumpets, music of kettledrum, pipes.
War trumpets, buffalo horn, necked.
Kinds of assemblages for religious purposes, trumpets.

15. Traditions:

Tradition encumbered with trash.
Ancient history (profane) of Jews, confirmed.
Starting for Promised Land, doubt of particulars.
Early progress through the wilderness.
Why law was given in stone.
Kept distinct.
Near perishing.
Religious traditions long prior to coming of the whites.
Old idea of creation of the Cherokees, of God's teachings
Preaching of priests.
Priests' sacrifices.
Mosaic traditions.
Clan's mark.
Delivery of Jews.
Instructions for the Ark.

16. Government and social organization:

Early government a theocracy.
High priest—first choice.
Inauguration of new priests.
High priests' assistant.
Courts in towns.
How governed in small towns.
Priests had power to make kings.
Kings, how inaugurated.
Coronation.

17. Crime:

Towns of refuge for manslayers.
Punishment.
How respite was obtained.
How criminals were punished and for what.

18. War:

Elders, authority over war officers, head officers.
Peculiar war priest.
Appointed at Green Fruits Feast.
War officer and forms of inauguration.
Concerning wars.

How to begin war.
 Declaring war.
 How command was obtained.
 War address.
 War flag hoisted, war songs.
 War march.
 Night encampment.
 War attack.
 Offense war.
 Course of beginning.
 War standard described.
 Priests in battle, charge of Ark.
 War shield, armor.
 How carried.
 Consequence of losing shield.
 Helmet, how worn.
 Quiver.
 Bow and arrow.
 Warrior at death with his shield.
 War club.
 Spear or dart.
 Sling.
 Knife or short sword.
 Return from battle.
 Arrived home.
 Dance of triumph.

19. Music:

Ancient musical instruments, drum, flute, pipe, trumpet.

20. Games:

Ball play.
 Decision of ball play.

21. Ceremonies:

Ancient dance.
 Uka dance at septennial feast.
 National council house.
 Septennial feast.
 The Uka, who?

22. Manners:

Native politeness of Cherokees.
 National manners.
 Chief's bind hearts of their subjects to them by mildness.

23. Dress and ornament:

Royal coronation robes.
 Uku's dress.
 Dress of priests' wives.
 Ancient dress of people—men.
 Women, hair.
 Neck ornaments of men.
 Neck ornaments of women.
 Men's body dress.
 Men's arms, legs, feet.
 Blankets.

24. Economy :

- Domestic life.
- Women get wood, do cooking.
- Plan of ancient towns.
- Separation of fields.
- Ancient custom of mutual work, men and women.

25. Meals :

- Cherokee women, mode of baking bread.
- Many kinds of bread.
- Other foods, corn meal.
- Food on journeys and expeditions.
- Old Indian men eat.
- Food most esteemed.
- Good cooking of Indian women.

26. Death and burial :

- A father's death.
- Ceremonies previous to death.
- Mourning, burial.
- Purification after burial.
- Mourning.
- Widow.
- Widower.
- Prayer.
- Purification, sitting silent.
- Bathing.

27. War :

- Picture diagram of council house
- Declaration of war.
- Enlisting.
- Council house described.
- War priest.
- Ceremony in gathering warriors.
- Ark, anointing warriors.
- Order of March.
- Ceremonies.
- Encampments.
- Previous to engaging in battle, speech.
- Return from war.
- Ceremonies after return from Ball Play.

28. Marriage and family :

- Marriage and clans.
- Levirate.
- Marriage of priests.
- Polygamy.
- Courtship.
- Pregnancy.
- Childbirth.
- Parental affection.

29. Ceremonies :

- Festivals.
- Year began in March.
- Spring feasts.
- Ancient living in towns.

High Priest or Uku.

Proclaiming Green Corn Dance ceremony.

Preparations.

Green Corn Dance.

Harvest.

Animal feasts of Cherokee formerly observed.

Now available.

Described.

30. Manners:

Cherokees not covetous.

Cherokees hospitable.

31. Ceremonies:

New Moons, began year with first autumnal moon.

Dance, and its duration.

Feast dress.

Other moon ceremonies.

Hunter's feasts.

Occasional feasts, prayer feast for plants.

Prayer feast for warm weather.

Prayer feast for cold weather.

Medicines.

Long life.

Smallpox and how averted.

Warding off other diseases.

Incantations.

Hymn Yowa.

Old Language.

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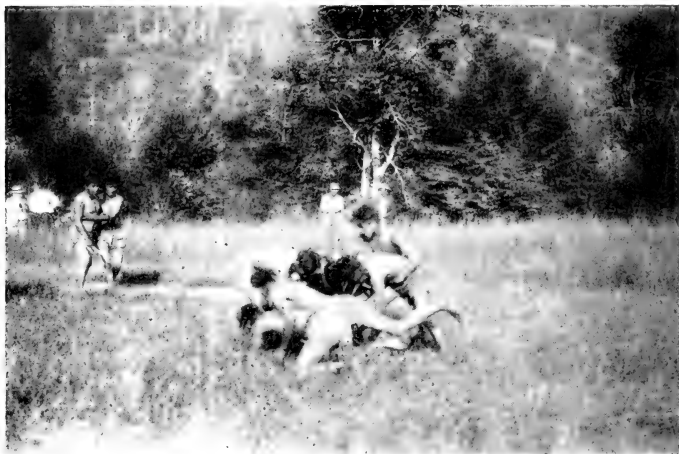
1883. Heart of the Alleghanies.



1. CHEROKEE TERRAIN.



2. CHEROKEE EAGLE DANCE.



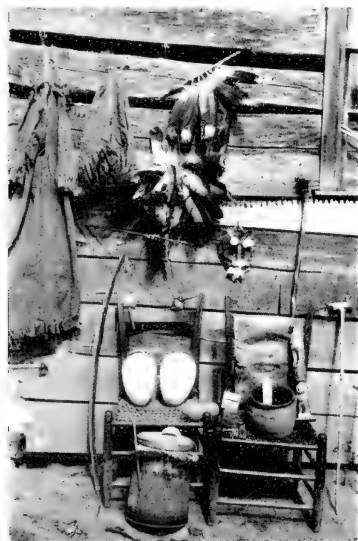
1. CHEROKEE BALL GAME, TACKLE.



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2. WILIWESTI'S ARTIFACTS.



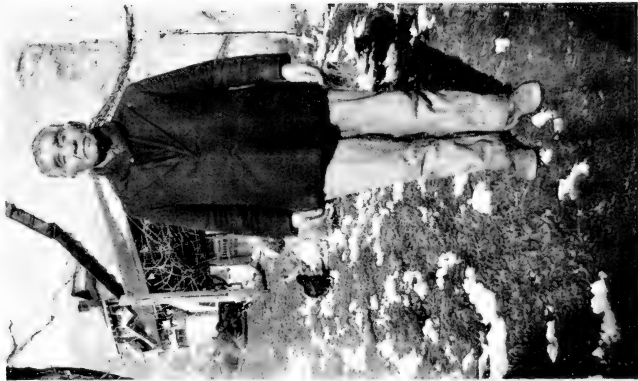
1. JOHN DRIVER FAMILY.



2. FOUR WOMEN OF BIG COVE.



1. SAMPSON OWL, EX-CHIEF AND INTERPRETER.



2. SAMPSON LEDFORD, INFORMANT, GRAHAM COUNTY.

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Aconite Poison Whaling in Asia and America
An Aleutian Transfer to the New World

By ROBERT F. HEIZER



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ACONITE POISON WHALING IN ASIA AND AMERICA AN ALEUTIAN TRANSFER TO THE NEW WORLD

BY ROBERT F. HEIZER

INTRODUCTION

In this paper I propose to discuss a subject which on its own merits deserves specific treatment, and in addition has the value of presenting new evidence bearing on the important problem of the interchange of culture between Asia and America via the Aleutian Island chain. This latter aspect will be considered in the final section of the work.¹

Whaling is of general occurrence on the east Asiatic littoral from East Cape at Bering Strait at least as far south as Japan. It is commonly considered a general feature of Eskimo culture, though some groups, by reason of continental cultural orientation or environmental restrictions, do not indulge in it. It occurs from Point Barrow southward in Bering Sea and eastward to Greenland. Whaling spilled over in the east to the New England coast of Maine. Among the so-called Pacific Eskimo (Aleut, Kaniagmiut or Koniag) whaling was a very important subsistence feature. Its southward extension was the west coast of Vancouver Island and the coast of northwestern Washington from Cape Flattery as far south as the Quinault River. The intervening stretch north of the Nootka to the Kenai Peninsula is commonly thought of as an area of non-whaling; the suspicion, for which there is some evidence, of the former existence of whaling in this coastal and offshore-island area of maritime peoples raises a separate problem which I prefer to leave for future consideration.

On the Pacific littoral of northeast Asia there is a small, restricted area where whaling was accomplished by the relatively simple procedure of throwing a lance into the whale, the stone point of which was detachable and smeared with deadly aconite poison. The area is that of the Kurile Islands and the Kamchatkan coast. The Koryak to the north and Japanese to the south employed different methods.

¹ I wish to acknowledge my indebtedness to Dr. Ronald L. Olson for the original stimulus leading to my treatment of this problem.

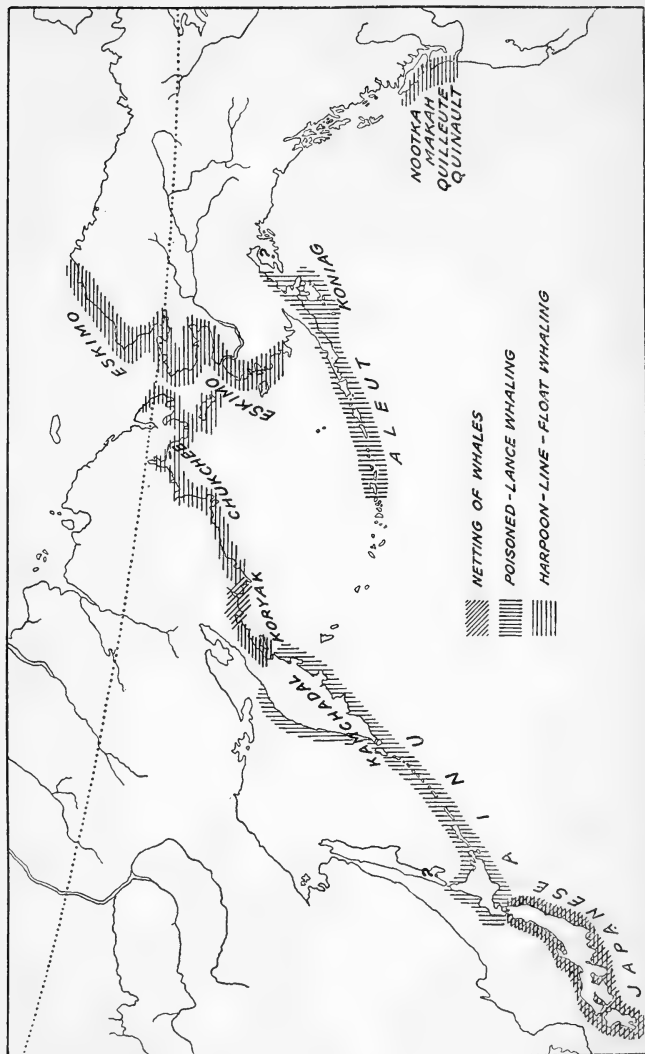


FIGURE 56.—Whaling methods in the North Pacific and Bering Sea.

KAMCHATKA PENINSULA-KURILE ISLANDS

Steller (1774, pp. 98, 103, ftn. (a)) has left the best description of Kamchadal whaling:²

Whales are also taken in the neighborhood of Kamtschatka in the number of ways which I shall cite here, however inconceivable such seem and are astonishing in view of [the size of] these great sea animals. Around *Lopatka*³ and the Kurile Islands the inhabitants travel into the sea in baidars,⁴ seek places at which these are accustomed to sleep; as many animals as they meet, so many do they shoot with poisoned arrows, whereby they suddenly puff out [become animated?], storm and rage frightfully and go (down) into [sound] the sea, and it happens now and then, that one or more, at times even none of them, are cast upon the shore. When the Kuriles obtain a whale,⁵ no one begins to cut it up until all are assembled; first shamanizing takes place, each one puts on his best clothes, and carries home his portion, after this one yurt entertains the other. Before and after the entertainment they give their dance, and otherwise delight themselves in all sorts of ways, which will be treated in what follows.

As soon as a whale comes to the land in Kamchatka, they fasten it with a thin line to a little stick stuck in the sand, and believe certainly on this account, that neither the spirits nor the sea nor *Gamuti*, or spirits of the land, can any longer have any claim to it.

Further descriptions of the Kamchadal whale fishery are passing references,⁶ or are seemingly traceable to Steller's original account.

Whaling in the Kurile Islands between Yezo and the Kamchatka peninsula is recorded, but not described adequately. Krashennikov says (1764, p. 138; see also Steller, 1774, p. 98) the "Kuriles [kill whales] by throwing poison darts into them." The same author⁷ notes that the southern Kurilians (i. e., Ainu) feed on whale's fat. Shelekhoff (1812, vol. 1, p. 128) states that the Japanese receive whale oil from the Matmai Kuriltze.⁸ Kishinouye⁹ figures an engraved bone with a whale hunt (?) pictured on it. It represents a whale harpooned from a boat bearing eight men (fig. 57, a). A small

² The accounts of Asiatic whaling by Tooke (1801, vol. 3, pp. 18-20) and Krashennikov (1764, pp. 138-139) are similar to Steller's fuller description, which I offer here in translation from the German edition.

³ Cape Lopatka, the southernmost tip of the Kamchatka Peninsula.

⁴ This word ordinarily refers to skin-covered boats; here it means wooden boats with dugout hulls and built-up side planks (cf. Toril, 1919, pp. 178-183).

⁵ Presumably this refers to the moment when the whale, previously attacked, has come ashore as already described by Steller.

⁶ Steller, 1774, pp. 100, 103, ftn. (a); Krashennikov, 1764, p. 141. Von Langsdorff (1813, p. 262) and Petroff (1884, p. 146) deny Kamchadal whaling. By Von Langsdorff's time the practice may have been forgotten.

⁷ Krashennikov, 1764, p. 39. La Pérouse, 1799, pp. 59-60, 75. Drift whales cast ashore on Etorup are mentioned in *Neue Beschreibung*, 1782, p. 134.

⁸ The Kurile Islands, except the two northernmost opposite Cape Lopatka, were occupied by Ainu. These two northern islands, Paramushir and Shumshiri, were inhabited by Kamchadal. There are a few slight indications that others of the Kurile Islands may have been occupied by Kamchadal, or, at any rate, strongly culturally influenced from Kamchatka.

⁹ Kishinouye, 1911, p. 365. Tsuchiya (1937, p. 11) says this bone has been examined by Tsuboi, who thinks it is late and represents the sperm-whale fishery of medieval or modern times. Tsuchiya is unimpressed; apparently feels Tsuboi's opinion may not be correct.

boat-shaped figure just above the whale is unexplained. Von Siebold, in reproducing an account of 1643, says that whales are caught on Yezo,¹⁰ and again, that whales are seldom caught by the Ainu.¹¹ The same account mentions poisoned arrows but does not state that poison was employed in the capture of whales. The Ainu are apparently familiar with whales to the extent that they have 19 names for them (Von Siebold, 1859, p. 148; 1897, vol. 2, p. 260). La Pérouse¹² says the Ainu trade with the Japanese in whale oil. "This fish is caught only on the southern coast of the island [Sakhalin]." I grant that these citations are inconclusive evidence to offer as proof of Kurilian Ainu whaling, but I feel that they may be tentatively interpreted as such.

JAPAN

As regards the origin of Japanese whaling, I can offer nothing. It suffices for present purposes, then, to note that the method is not like that employed in the Kamchatka-Kurile region to the north, but rather with iron harpoons and heavy nets (pls. 20-22).

Kempfer¹³ (or Kaempfer, Kimpfer) says:

Of all the animal productions of the Japanese seas, I know none of so extensive an use, for rich and poor, as the Kudsiri, or whale. It is caught frequently about Japan, but particularly in the Sea Khumano, which washes the southern coasts of the great island Nipon, as also about the islands Tsussima and Goto, and upon the coasts of Omura and Nomo. The common way of catching them is with darts, or harping irons, as they do in the Greenland fishery, but the Japanese boats seem to be fitter for this purpose than ours, being small, narrow, tapering to a sharp point at one end with 5 oars, or 10 men each, who row them with incredible swiftness. About 1680, a rich fisherman in the province Omura, whose name was Gitaijo, found out a new way of catching whales with nets made of strong ropes about 2 inches thick. This method was afterwards followed with good success by a countryman in the islands of Gotho, whose name was Iwonomo. They say, that as soon as the whale finds his head entangled in a net he cannot, without great difficulty, swim further, and may be very easily killed with harpoon irons after the common manner. The reason why this new method, which seemed to bid very fair for success, hath not been universally received is because it requires a great and much more expensive set of proper tackle than common fishermen can afford.

Fraser (1937), in a preliminary paper, refers to a Japanese book¹⁴ on whaling of 1790. The Dutch (e. g., Vries in 1643) may possibly have introduced whaling into Japan, judging not only from the

¹⁰ Von Siebold, 1859, p. 100. See Charlevoix, 1736, vol. 6, pp. 37-38.

¹¹ Von Siebold, 1859, pp. 147-148. The Ainu legend of how two men killed a whale between Alaid and Paramushiri may possibly reflect a memory of whaling (Torii, 1919, p. 265). See also Lantis, 1938 a, p. 449.

¹² La Pérouse, 1799, vol. 3, p. 239. The Ainu live on the southern half of Sakhalin; the Gilyak inhabit the northern portion.

¹³ Kempfer, 1811, pp. 705-706. A similar account is given by Charlevoix, 1736, vol. 8, pp. 98-102.

¹⁴ This seems to be the same book republished in abstract by Mobius (1893, pp. 1053-1072). He claims the book was published in 1829. Fraser says the author is Yamada Yosei; Mobius attributes it to Koyamada of Yezo.

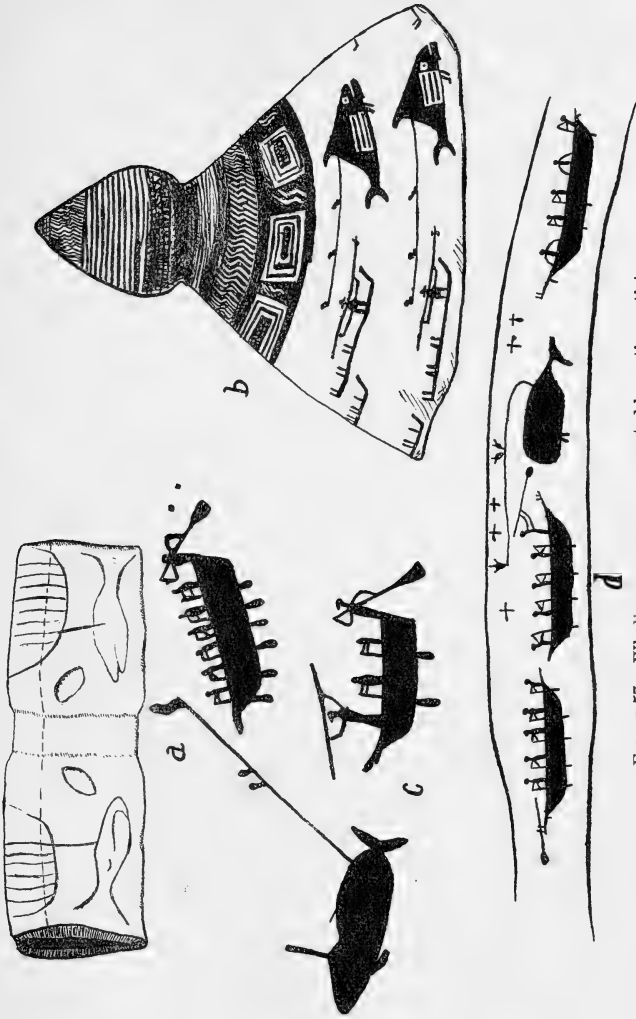


FIGURE 57.—Whaling scenes as represented by native artists.

a, Whale hunt etched on bone tube, Ainu (?), Sakhalin Island (Kishinouye, 1911, fig. 105, pl. 37). *b*, Whale hunt represented on a basketry hat, Nootka, Vancouver Island (British Museum Handbook, 1925, fig. 254). (For other Nootka hats with whaling scenes, see Willoughby, 1903, pl. 1, and Bushnell, 1928, pls. 1-5.) *c*, Whale hunt painted on walrus skin, Chukchi (Hoffman, 1897, pl. 81, figs. 6, 7). *d*, Whale hunt carved on ivory staff, Eskimo (British Museum Handbook, 1925, fig. 248).

method of capture but the use of windlasses, etc., and oil rendering.¹⁵ Fraser reproduces a picture showing 7 boats with 10 rowers each and a harpooner who stands in the bow holding the heavy harpoon upright, resting on the upper flat part of the leg, which is bent at the knee. The whale is entangled in rope nets, which played an important part in its capture. Harpoons, lances, and knives were used in their dispatch. Tsuchiya (1937, p. 17) says:

. . . the fishing next in importance to the Kujukiri sardine industry, was whale hunting off the coasts of the western and southern provinces . . . Whale hunting had been carried on since the Civil Wars [from the middle of the Muromachi Period dated at 1500-1600]¹⁶ off Kii, Ise, Mikawa, and Tosa provinces and northern Kyushu. At first harpoons were used, but from the Kammon era (1661-73) onwards they were superseded by nets. Whaling was carried out chiefly by wealthy people such as Gidayu Fukazawa, of Omura, in Hizen province.

An incidental description of the Japanese whale fishery in 1870 reiterates the essential details of the description of Kempfer and the illustrations of 1790 referred to above and reproduced at the end of this paper.¹⁷ Adam's (1870, pp. 312-13) description is as follows:

The day after our arrival there was great excitement in the village. All Kino-O-Sima was out of doors. A whale was reported in the offing. There was much noise and shouting. A dozen boats were quickly launched, and started off in wild pursuit. Long, gaily painted, sharp-prowed boats, propelled by four powerful sculls, each worked by two men standing, darted through the water. A smart hand was placed in the bows in charge of the harpoon; while others, eager but

¹⁵ Fraser, 1937, pl. 2. Cf. with the illustrations in Dow (1925, pl. 44, p. 119) of the early Greenland whale fishery of the Dutch and English, which was patterned after Basque whaling (for which see Markham, 1881). Steller (1774, p. 103) says that whaling around Japan was carried on "in the European manner." Tsuchiya (1937, pls. 24, 25) reproduces two incredibly detailed Japanese whaling scenes (Tokugawa Period) from the same source as Fraser. Plate 24 shows the dispatch with lances of the already harpooned whale entangled in the net. In both plates are shown interesting figures in distinctive dress, the individuals in the whaling boats in dark robes and the half-naked men in dark loin-cloths and beating drums (?). There is a suspicion of ceremonial or esoteric practices connected with whaling. Note also (pl. 24) the standards in the bows of the boats. The harpoons and windlasses look European. The harpooned whale (pl. 25) has in him a number of harpoon-irons which are attached to lines held by men in the boats. I have characterized Japanese whaling on the map as by the netting technique; harpoons were apparently used before 1680, but as to which were aboriginal, the line-and-float type, or merely, like Europeans, with a line attached (as shown by Tsuchiya, pl. 24), I cannot say.

¹⁶ Japan was first visited by the Portuguese in 1543 (von Siebold, 1897, vol. 2, p. 235); the Dutch soon followed (see Hagenaar, 1786, pp. 38-39). Early European whaling in the area north of Japan is intimated by several early authors, who refer to whales found with European whaling irons sticking in them. These may be whales bearing old harpoons gotten in the North Atlantic or Spitzbergen whale-fishery. (See Steller, 1774, pp. 102-103; Charlevoix, 1736, vol. 6, pp. 52-53, 398; con Kotzebue, 1821, vol. 3, p. 267.)

¹⁷ Kempfer's stay in Japan was from 1690-92; the source used by Mobius, Fraser, and Tsuchiya dates from around 1800 (1790 or 1829?). A careful study of east Asiatic mammal netting and a comparison of Japanese-Kamchadal-Koryak-Chukchee "whale-cult" would probably yield interesting results. For example, the Japanese use nets, make noise, and shriek when the whale has been harpooned, and the inhabitants on shore beat drums and make cries of rejoicing (see Mobius, 1893, pp. 1055, 1057, 1060) as do the Kamchadal, Koryak, and Chukchee. Although Buddhist priests and prayers enter whaling (Mobius, 1893, p. 1060), there is a strong suspicion of an older stratum of esoteric accompaniments to whaling.

still, squatted on the huge black nets coiled up in the boat. The boats soon approached, and quickly surrounded the whale [see pl. 22], which they wounded repeatedly with their lances and harpoons; and, when he was exhausted from loss of blood, enclosed him in their strong nets and hauled him ashore.

It is not my intention to discuss Japanese whaling here, since some of the literature¹⁸ is not available to me. I cannot forebear indicating, however, that Kempfer says the practice of using nets for whales was "found out" in 1680. Since the practice of netting sea mammals (e. g., Gilyak, sea lions;¹⁹ Olutorski Koryak, whale) is apparently quite widespread on the east Asiatic coast, it may be that the Japanese heard of this more northern method, which is described below, and imitated it. I present this as a problem whose solution remains to be accomplished.

KORYAK

These people live north of the Kamchatka peninsula and exhibit two distinct methods of capturing whale. The first, that of netting whales, is described for the Elutori²⁰ in some detail by Steller:²¹

The Elutori have another way of catching whales: They make nets of walrus hide, which they previously hang for a long time in the smoke, so that they become as hard as a rock. These hides they then cut into pieces and straps, and from them weave very large and thick nets. Each strap is as thick as a strong man's arm; they set these nets within the Elutorsk bay against the mouth of the bay, and secure one end of it [the net], with many large, fixed stones; if the whales go either in or out, they entangle themselves to death by the tail in the nets in a short time; thereupon the Elutores go to them with Baidars [umiak], make him fast with straps and tow (buxieren) him onto the shore; however, before they row away with him, they shamanize over him in their baidars; during the time that they are rowing to the land, the young girls, women, and children, and, in general, young and old, stand on the bank, sing, cry out, dance and jump about, and congratulate their menfolk on the booty. When the whale is landed they all put on their best clothes and ornaments, bring a carved wooden whale two feet long, set up a new Balagan [pile storehouse], set the wooden whale underneath it with continual shamanizing, kindle a lamp, appoint a caretaker (Watcher) for it, who must pay attention that the lamp, from Spring on into the Fall, as long as the hunt lasts, may not go out, at which time they go in a body, cut the whale into pieces, and prepare it as their most important (principal) food for the entire year as follows: the meat, which does not permit long preservation, being very tough and coarse, is consumed first; that which cannot be immediately consumed is hung up in the air and dried, the hide is separated from the blubber, scraped and smoke-dried, then beaten and made supple, and used for shoe soles. . . .

¹⁸ E. g., the references cited by Steensby (1917, fn. 2, p. 154) and Tsuchiya (1937, pp. 182-184).

¹⁹ Hawes, 1904, p. 256. See also Steensby, 1917, pp. 154-155, for an interesting discussion of the practice in Asia and America of netting sea mammals.

²⁰ A southern Koryak group living on Olutorsk Bay. Jochelson calls them Alutor. Petroff (1884, p. 146) said the Olutorsky were called "strangers" by their Koryak neighbors.

²¹ Steller, 1774, pp. 98-99. Tooke (1801, vol. 3, pp. 18-20) and Krashenninikov (1764, p. 138) give accounts of Olutores whale netting, obviously derived from Steller's fuller description of the same.

When the Elutores bring out anew the whale nets, they have the biggest festival of the whole year. They begin the ceremony with great and lengthy shamanizing, in a large subterranean yurt, slaughter dogs and beat the magic drums at the same time; at which time they make a very big container of Tollunschä or brew of divers roots, berries, fish and whale oil put together, set this in front of the *Schupan*²² or draft hole (Zugloch), bring the wooden whale, accompanied by frightful uproar and [by] Shamans into the yurt, and close all the openings so that it becomes totally dark. All at once when (as soon as) the Shamans have conjured the wooden whale away, they make an outcry that the whale has escaped to the sea, whereupon young and old run out of the yurt to accompany it. The Shamans thereupon show the footsteps [traces] of it which look similar to the track of a mouse in the *Tollunschä* over which it has marched away, when it ran off to the *Schupan*.²³ If one asks them concerning the reason for this ceremony they answer only, that their fathers also did it this way and found it good and satisfactory.

The difference between Olutores (Olutorsky, Elutori) whale netting, and that of the Japanese described by Kempfer and pictured by Fraser, is that the former set the nets in the bay mouth while the latter used them at sea. The stimulus for the use of nets in the capture of these largest sea mammals may have come from the Japanese knowledge that people to the north did catch whales with them.

Jochelson (1905-8, pt. 2, pp. 550-552) has described the method of whale capture of the Koryak thus: The whaling crew in the boat nears the whale, the harpooner throws a toggle-type harpoon. The whale sounds, carrying the line, and when he breaches, is struck again. Finally, when he is tired and worn out, he is dispatched with lances with flaked stone heads. When dead, he is towed to shore.

CHUKCHEE

Here are the whalers, par excellence, of the northeast Asiatic coast. Steller (1774, p. 101) has an excellent account of Chukchee whaling:

The Tschukschi, who catch whales in great quantity, from the mouth of the Anadyr River down to the farthest cape [C. Navarin?] approach nearest the European method of capture. They row in very large baidars [umiak] made of wood with seal hides stretched over, 8, 10, and more men strong, also 2 to 3 vessels at the same time into the sea; when they see a whale, they row vigorously up to it, and thrust a large *Nosok* [harpoon] of iron or bone into him, which then separates from the shaft, and fixes itself crosswise in the wound and does not become dislodged; a strap [line] is fastened to this, the other end of which they have in their baidar, laid in many coils and 100 and more fathoms in length. Not far from the strap is attached an inflated bladder or whale intestine, by which they can tell at all times upon the sea [surface] where the whale goes. Wherever he goes now, they let themselves be drawn along with him; if he goes into the depths [sounds] they let out the line, if he comes up they draw it in again, and row closer to the whale, thrust him again with a *Nosok*, or the other baidar does this; they hunt and follow him continually, until he again goes into

²² A sleeping compartment off the main room.

²³ This passage may refer to scrying (see Cooper, 1928).

the depth and wears himself out. As soon as he comes up [breaches], the third baidar thrusts him. When they have collectively fastened onto him and pretty well worn him down, they begin with all their might to shriek, clap their hands, and make all sorts of noise, upon which the whale hurries with all his might to the shore and they are drawn after him. [When] he is near shore they storm and rage still more violently, until the whale in passion and blindness (*Eifer und Blindheit*) throws himself with greatest energy far upon the land, where he is completely massacred by them. In the meanwhile the rest of the people, young and old, dance and jump with great joy (*Frohlocken*) upon the shore, as has already been mentioned above. On those islands between America and the Tschuktschi Cape [St. Lawrence, Diomedes] the whale is taken in just this manner. The Tschuktschi catch so many whales, and rely upon their skill therein to such an extent, that they touch none which are cast dead upon the shore, except that they use fat from them to burn. Although the Tschuktschi have very numerous herds of reindeer, and therewith can be satisfied, they nevertheless occupy themselves intensively with the taking of sea animals, because they have the most extreme need for blubber not only as the greatest delicacy, but also the oil, lacking all wood, in order to obtain fire, which they pour [i. e., whale oil] upon moss, peat, and whale bones, and burn instead of wood.²⁴ The Tschuktschi make from the intestines of the whale shirts like the Americans, and use them [intestines] instead of barrels, as [do] the Elutorski Koryak.

Bogoras (1904-9, pt. 1, p. 124) and Aldrich (1889, pp. 56-57) have good accounts of the Chukchee whale-fishery, and mention stone-headed harpoon, sealskin floats attached to the line^{24a} dispatching of exhausted whale with a lance, yelling and noise-making connected with the capture (fig. 57, c).

With the Chukchee we leave the Asiatics who indulge in the whale fishery in such varied forms, and turn to a review of the American techniques of whaling in Bering Sea and the North Pacific.

ALEUTIAN ISLANDS

This island chain extends as a partly submerged continuation of the Alaskan peninsula, from Unimak Island in the east fairly continuously through the Fox Islands (Unalaska, Akutan, Umnak), the Andreanof Islands (Amliia, Atka, Adak), the Rat Islands (Amchitka, Kiska), the Near Islands (Agattu, Attu), then jumps about 175 miles to the isolated Commander Islands (Bering, Copper), which are about 115 miles from the southeast shores of the Kamchatka peninsula. It seems improbable that American or Asiatic natives could have made the trip over open water between Kamchatka and the Commander Islands or between the latter and the westernmost Aleutian

²⁴ This describes in a very clear manner an interesting and apparently unique cultural adaptation to the lack of wood. The principle is similar to the lamp with a wick set in train oil (cf. Birket-Smith, 1929, p. 99).

^{24a} Inflated sealskin floats or buoys described by Bogoras and Aldrich are not mentioned by Steller who says only that a *small* indicator float was employed by the Chukchee. In the light of abundant evidence of Chukchee cultural borrowing from the Eskimo, it appears that the use of double-floats attached to the harpoon line was adopted from the north after 1770. In this connection, see footnote 15, p. 424.

island, Attu. But evidence summarized in the latter part of this paper does show that such trips were actually made, presumably in both directions, and probably performed by Asiatic and American natives.

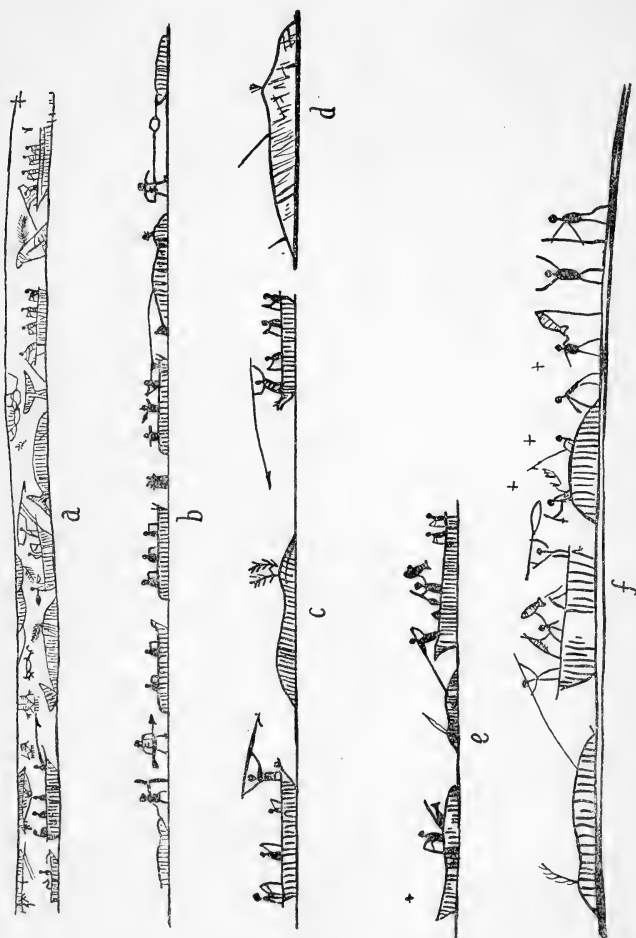


FIGURE 53.—Whaling scenes according to native Eskimo artists. (After Hoffman, 1897.)
a, Whaling scene (pl. 66, fig. 1). *b*, Whaling record (pl. 69, fig. 1). *c*, Rival whale hunters (fig. 104). *d*, A captive whale (fig. 135). *e*, Whale hunt (pl. 70, fig. 1). *f*, Whaling scene (fig. 105).

Von Wrangell (1839, ftn. 53) has a significant note implying the absence of whaling in the Aleutian Islands west of Atka in the eastern Andreanof group:

The Aleuts of Atka and those of the islands lying farther to the west have, as a result of fear, never been able to set their minds to the whale fishery. In the year 1832 they began to be instructed, with the help of Kadjak Aleuts [Kaniagmiut] in this so useful business.²⁵

Unalaska Island, the important location of the Russian settlement of the Aleutians, seems to have been the western center²⁶ of the aboriginal whale fishery. I present here a series of translated accounts from the German, copies of manuscript translations from the Russian in the Bancroft Library, and from other published papers.²⁷ I am omitting any but passing reference to the esoteric aspects of whaling (i. e., "whale cult")—I hope later to present this to make a complete picture.

Veniaminov²⁸ says:

The spear heads used in hunting the whale were greased with human fat, or portions of human bodies were tied to them, obtained from corpses found in burial caves, or portions of a widow's garments, or some poisoned roots or weed. All such objects had their own special properties and influence, and the whalers always kept them in their bidarkas. The hunter who launched a spear provided with such a charm upon a whale at once blew upon his hands, and having sent one spear and struck the whale, he would not throw again but would proceed at once to his home. . . . Then, taking with him a companion, he proceeded to the shore where he presumed the whale had lodged, and if the animal was dead he commenced at once to cut out the place where the death wound had been inflicted.

Von Wrangell (1839, p. 54) states:

A single Aleut in his single-oared baidar,²⁹ and armed only with a short spear the point of which consists of sharp, ground slate, attacks this giant of the sea; he approaches him cautiously from behind until [he gets] in the vicinity of the head, thrusts his weapon into his body under the front fluke (Vorderflossen), and goes away with the greatest rapidity. If the spear has penetrated through the blubber into the flesh, the wound is mortal; within 2 or 3 days the whale dies; the current or the waves throw the body on the nearest shore. Each spear carries a certain mark, by which one recognizes the catcher and owner of the same if the weapon still sticks in the body of the slain animal.

²⁵ Jochelson (1925, text figs. 10, 11, 28) illustrates chipped throwing-lance points from Attu and Atka. Granting that these be whaling points, it may indicate that whaling was once known, but later lost on Attu Island, far to the westward of the Atka region where von Wrangell draws the line. If the Kon'ag did introduce whaling to the islands west of Atka, it is possible that they also introduced the polished slate-pointed lances, rather than the Unalaska chipped obsidian-pointed lance. Thus we may have a not uncommon situation of a complex once present, subsequently lost, and later reintroduced. This may account for the Aleutian nonwhaling area which I felt constrained to enter on the map.

²⁶ Kodiak is the eastern center of Aleutian poison-lance whaling.

²⁷ Again I wish to say that I do not claim complete citations—the ones I give here seem particularly appropriate in helping to give a general picture of Pacific Eskimo whaling methods.

²⁸ Quoted by Petroff (1884, pp. 154–155), from Veniaminov, 1840. For a short biographical sketch of Veniaminov, see Baker, 1906, p. 73.

²⁹ Refers to a kayak with a double-bladed paddle. Ordinarily the two-hatch bidarka seems to have been employed in whale hunting in both the Unalaska and Kodiak districts.

Markoff (1856, pp. 99-100) has this to say about the Aleut whale fishery:

The Aleuts often shoot at whales with slate spear heads, which, entering deeply into the flesh, make a bad wound; the salt water of the sea gradually eats into it; the whale gradually weakens and finally dies in about 3 days; the waves wash the carcass upon the beach, and the feast is decked out for the Aleuts.

Von Kittlitz (1858, pp. 266-269) was a particularly astute observer, and his description of the manner of whaling in the Fox Islands is full of significance:

Adverse winds necessitated our going rather far to the south, and not until the 20th of August did we find ourselves in the vicinity of the Fox Islands, the most important of the entire [Aleutian] chain. Only once during this voyage had we seen from afar a dead whale floating on the sea, which from its great distance from any land seemed to have been floating around for a long time, after possibly having been hunted and killed at one of the easternmost of these islands in the manner customary there. That is to say the Aleuts, who by instinct (*durch ihren Naturtrieb durchweg*) are most eager and skillful sea hunters, possess, however, no other means of securing for themselves the numerous whales which inhabit these waters, than by wounding them with javelins, specially prepared for this purpose, in the hope that the monstrous beast, after it has died of the wound, will finally be grounded by wind and waves on one of their islands. The sea connection of the inhabitants of the islands with one another, but particularly the geographical situation of the islands themselves, make it possible that this practice can be accompanied by some success. It has not even been essentially altered since the Russian conquest, by which the natives have become serfs of the present Russian-American Co., since the whale fishery in this country is carried on only for the purpose of sustaining the natives, for whom the oil (Thran) as well as the meat of different species are principal means of nourishment. In fact, the whale lines customary in Europe and America in our time are completely lacking in the Aleutian Islands and even the whalers, who even at that time, were frequenting the major portion of the ocean, were never accustomed to show themselves there although the quantity of great cetaceans of various kinds, was never on earth more considerable than in these regions.²⁰ But the aforementioned hunting method of the Aleuts is so frightfully wasteful. Of 10 whales struck, as a rule it is to be expected that 9 will be completely lost—that one must suppose the population of the islands can never have been so considerable, as the fabulous statements of the first discoverers report,²¹ because otherwise the whales, were not entirely exterminated, must have at least have been much rarer than they are at present. Among the darts which

²⁰ Jenkins (1921, pp. 28-29) defines the "Kodiak Grounds" from Vancouver Island north to the Aleutian chain and from the west coast to 150 degrees west longitude as the home of the Japan whale, or the Right Whale. The California Grey Whale also inhabits this North Pacific area. All were hunted in aboriginal times.

²¹ E. g., Shelekhov said in 1786, the population of Kodiak was 50,000 people. It was actually nearer 6,500 (Petroff, 1884, p. 33). These remarks by von Kittlitz have a significant bearing on the problem of the population density of the Aleutian Islands. The series, *Neue Nordische Beyträge*, edited by P. S. Pallas, will be of value to those students of Pacific Eskimo population statistics.

the Aleuts carry with them in their sea hunts, particularly in the single-seated baidar [kayak], there are always some especially for whales. They are, like the others, made of wood, have toward the point a continuation made of bone and about a foot long [foreshaft?], which by its weight promotes the arched cast of the throw.³² This bone piece is carefully smoothed and is notched on one side, so that a row of barbs juts out, by which the penetrated projectile remains very fast in the wound (pl. 23). The wounding points themselves are made in part of obsidian or lava-glass, partly also of trachyte. The latter material is used by preference, upon Kodiak and Aljashka [Alaska Peninsula], the former, however, on the Fox Islands. By its brittle, glassy nature it is particularly fitted to cause inflammation in the body of the animal³³ as soon as the cast has penetrated the thick blubber. As a result of this inflammation the whale usually dies on the third day and the corpse is then cast up on one of the Aleutian Islands, the community that finds it first examines the wound, where the spear must be found which bears the mark of the community of the hunter. This community is immediately apprised, and shares in the booty with that [village] in which it was found.

One would think that the Russian-American Co. must have been for long a petty one, not only not to have shown the Aleuts the use of whale lines, but also not to have supplied them with the materials they lacked [for making them]. In such case the whale fishery would have been much less wasteful and perhaps itself would have become a very profitable enterprise for the company. That the earlier Aleuts did not lack knowledge of the appropriateness of the use of such lines, is apparent from the arrangement of the darts (Wurfspeeße) used in hunting sea otters, which show something very similar in miniature. In these points, carved out of bone or walrus tusks, and supplied with strong barks, are movable; they are set in in such manner that they become detached from the shaft when they penetrate the body of the animal. They are, however, fastened to the shaft by a long cord of intestine sinew which is wound around it, and to which is fastened a bladder. The wounded animal has by this considerable space to dive, while the shaft with the bladder floating overhead indicates to the hunter, the vicinity in which it may be found.

Von Kotzebue (1821, vol. 2, pp. 100-101) has an interesting statement concerning a drift whale:

The 4th of June. A dead whale, stranded here [Unalaska District] set everything in a tumult; the Aleuts swarmed thither, and clung to the half-rotten fish, like flies on honey; to us the obnoxious exhalations barred the way. By an arrow, which still stuck in the corpse, they immediately recognized who killed it and hence was the owner. To the district, in which such a treasure comes ashore, one part of it is apportioned, and the inhabitants are permitted to eat upon the spot as much of it as they are able, which accordingly takes place uninterruptedly, for 24 hours. Often the owner [i. e., he who killed the whale] and the people eating the whale fall into a fierce altercation, because these had not thought to set aside (zurückgelassen) for him the tidbits, that is to say, the parts which are most rotten.

³² One of these "darts" with a bone foreshaft and flaked-stone point is illustrated by Scammon (1874).

³³ The inflammation referred to is probably a result of the poison, not of the obsidian. Cf. Holmberg (1855, p. 110).

The concern which von Kittlitz shows over the wastefulness of the native method of whaling is echoed by Veniaminov (1840, pt. 2, p. 231), who says:

Whales are sometimes very numerous in the summer, but only at Ounalashka and now and then at Akanna, and though the hunters there spear from 30 to 60 every year, they only secure 33 of them on the average, and sometimes no more than 10. Ten or twenty whales would appear to be an enormous quantity of meat, but the whales here are generally of a small species, so that the meat of a whole whale is easily packed into single baidar.

Von Langsdorff gives substantially the same account of whaling methods as presented before (Von Langsdorff, 1813, pp. 44-45; see also Scammon, 1874, p. 76).

The javelins³⁴ . . . designed for whales . . . are pointed with *Scoriae* of lava, or *Silex obsidianus*. When the Aleutians see a whale they follow him

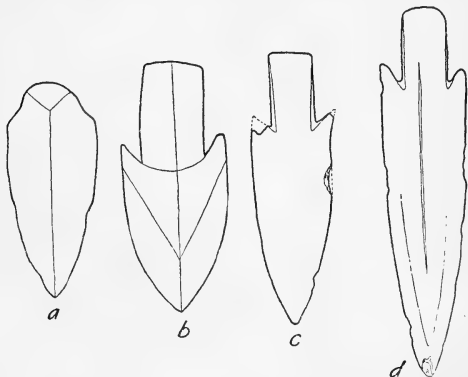


FIGURE 59.—South Alaskan lance-heads of ground slate.

a, Unalaska (Dall, 1877, fig. opp. p. 75). b, Wooden model of slate lance head, Aknanh cavern, Unga Island (Pinart, 1875, pl. 7, fig. 3), c and d, Cook Inlet (de Laguna, 1934, pl. 31, figs. 11 and 13).

in their boats, watching for the moment when he raises his gigantic head above the water to breathe, and then endeavor to wound him with their javelins near the front fin. If this is done effectually, the creature begins to writhe and rage furiously, till by degrees he grows faint and exhausted by the loss of blood. The Aleutian then returns perpetually during the day to the same spot, to watch for the monster floating dead upon the surface of the water; or if a strong wind blows towards land, he watches along the neighboring coast for its being blown thither, and then collects the whole village together, to draw him on to their dwellings³⁵ where he is cut up.

The point of the javelin which is commonly found in the wound that occasioned the death of the animal, is a testimony to whom the fish of right belongs;

³⁴ Darts cast by means of the spear-thrower.

³⁵ This is the only reference to towing the whale ashore (pp. 44, 45.)

for every Aleutian has some peculiar mark by which his weapons are distinguished from those of his neighbour's. Formerly, according to the laws of the country, when a whale was taken, the chief of the village, the person by whom it was killed, and every individual of the society, had his regular portion assigned to him.

The statements (by Holmberg, von Kittlitz, etc.) on drift whales bear out certain archeological evidence. De Laguna (1934, p. 183, fn. 241) has called attention to the fact that the barbed polished slate blade is absent or atypical of the Aleutian Islands, but notes a single specimen collected by Dall from Unalaska (Dall, 1877 a, fig. opposite p. 75). (See fig. 59, a.) I interpret this specimen of Dall's (and presumably there are others either hidden in undug sites or in museum collections) as a whaling lance head got from a drift whale which was struck near Kodiak or on the Peninsula and washed ashore on Unalaska. In this connection it will be recalled that Holmberg (1855, quoted on p. 434) mentions a case of this kind. The case seems clinched if we recall von Kittlitz' statement (1858; quoted here) that the Kodiak and Alaska Peninsula natives (both of the Kaniagmiut group) preferred ground and polished slate, while the Unalaska natives preferred chipped obsidian or trachyte whale lance points.³⁶

KODIAK ISLAND REGION

This area includes Kodiak, Afognak, and the mainland opposite from 159 degrees west longitude into Cook Inlet. It was occupied by the Kaniagmiut,³⁷ of Eskimoan linguistic affinity, whose culture showed a significant compromise between Eskimo and Northwest Coast types.³⁸

The most complete, single account of Koniag whaling is that of Holmberg,³⁹ who probably took some of his information from Davidof's earlier report.

Early in the morning customarily two two-oared baidars go from the shore and row to the vicinity of the bay in which most of the whales reside, who

³⁶ See Pinart (1875, pl. 7, fig. 3) for a wooden model of a slate lance head of the Kodiak type from Unga in the Shumagin Archipelago. Pinart (1872, p. 15) describes an Unalaska javelin with an obsidian point as follows: "The point of the javelin used here [Unalaska] answers to the same purpose as the slate lance of the Kaniagmiute; the whale which the Aleoutes hunt only in the bays, generally die at the end of several days, and are cast upon the coast; the Aleoutes scarcely attack any but the two smallest species of whales, that is to say, the *Megaptera versabilis* and the *Balaenoptera velifera*." Cf. Veniaminov, 1840, vol. 2, p. 231, quoted on p. 432.

³⁷ Handbook, 1912, pt. 1, p. 652. Called here also Koniag.

³⁸ See Lantis (1938, pp. 123-128, 168) and Petroff (1884, pp. 136-146) for brief descriptions of this little-known group. The cultural position of these intermediate Pacific Eskimo is important not only in relation to the larger Eskimo problem (see Birket-Smith, 1929, pp. 229, 232), but as an Eskimoan group whose intermediate geographical location between the Northwest Coast and Western Eskimo may reflect developmental history and interinfluencing of these regions. The people are nearly all gone, but there is a tremendous body of historical data waiting to be gathered together from its recondite sources.

³⁹ Holmberg, 1855, pp. 108-110. Petroff (1884, p. 142) seems to have got his data from this source.

always give evidence of their presence when they rise to the surface by a terrific waterspout.⁴⁰ Of the Koniags who are sitting in the baidarka, it is only the forward man who is the actual whale hunter; the other is a mere paddler and has nothing more to do than to set the boat in motion according to the command of the first. When the hunter has approached a whale, yet not within throwing distance, he observes exactly the direction in which the animal is moving in order to be in the vicinity when he dives below the surface. Nevertheless, he must take great care in this matter, not to be noticed by the animal, in which case it would immediately alter its direction under the water. If he succeeds, however, in approaching within 10 or 15 fathoms of the sounding Colossus, he casts his dart with his throwing-stick, aiming at the region of the dorsal flukes (Rückenflösse). When the weapon has been thrown, the hunters seek by paddling the baidarkas backward to place themselves at a distance as soon as possible, in order to avoid the contortions and thrashings of the wounded animal, whereby it nevertheless happens occasionally, particularly when the distance is not so great as that abovementioned, that the baidarkas are overturned through the violent movements of the animal either by high waves or by the animal itself. In such case the hunters would be lost beyond hope of rescue, if it were not that usually two baidarkas went together on a hunt of this sort, in order to be able to support one another in case of necessity.

The spear has a length of about 3 ells and is furnished on the end with a dagger-shaped point fashioned of soft slate (Thonschiefer). When the cast weapon has struck the whale it breaks into two parts, so that the stone point remains in the wound which is made deadly by the movements of the animal.⁴¹ Every whale hunter scratches his mark and token in the slate [point], for which reason a quarrel concerning the possession of a dead whale can never arise, inasmuch as the pieces of slate occurring in the wound declare the slayer, who is at the same time owner of the animal.

When the whale has received a wound, he goes out of the bay toward the open sea, where, as the natives claim, on the third day he "goes to sleep" or in other words dies. If the direction of the winds and currents is toward the shore, the booty never escapes the hunter, for on the fourth or fifth day the dead animal is cast up by the waves, and is cut up in the manner previously described. Often enough it happens, however, that the animal is carried past the island and reaches a wholly remote shore. There are even examples that the sea about Unalaska has cast up a whale which was killed at Kodiak.

Holmberg (1855, p. 107) distinguishes four names of whales hunted by the Koniags:

- | | | |
|---------------|--------------------|------------------------|
| 1. Annikwak | Old whale | ca. 10 fathoms long. |
| 2. Kawwichnak | Middle-aged whale | ca. 8 fathoms long. |
| 3. Agashitnak | One-year-old whale | ca. 6 fathoms long. |
| 4. Achwak | Young whale | ca. 3½-4 fathoms long. |

Von Wrangell (1859, p. 55) gives a list of four different species of whale distinguished by the Koniag:

⁴⁰ As Steensby (1917, p. 145) and Birket-Smith (1929, p. 77) point out, two-hatch skin boats (bidarkas) are a local development which took place in the Pacific Eskimo area. Krenitzyn and Lewaschef (1781, p. 269) said in 1768 that the two-hatch boats at Unalaska appeared to belong only to the chiefs (Häupter) of the villages. As is shown elsewhere, chiefs were likely to be rich men and whalers, so there is a possibility that the local development of the bidarka out of the kayak is understandable as owing to whaling, in which this type of boat figured, and ascribable to whalers.

⁴¹ Here again the deadly effect probably came from the aconite poison rather than the movements of the animal.

The Aleuts of Kodiak distinguish four kinds of whales: *Polossatik* (the feared one); *Aljama*; ⁴² *Kulema*, and *Utschulochpak* (i. e., an old woman); at times, although seldom, the *Kashelot* also occurs.

Sauer ⁴³ states that:

Whales are in amazing numbers about the straits of the islands, and in the vicinity of Kodiak; the natives pursue them in their small boats, and kill numbers with a poisoned slate-pointed lance.

This same author's specific statement concerning the use, and method of preparing aconite arrow poison is valuable:

They use darts and lances headed with slate, with which they kill the sea animals. They also use poison to their arrows, and the Aconite is the drug adopted for this purpose; selecting the roots of such plants as grow alone, these roots are dried and pounded, or grated; water is then poured upon them, and they are kept in a warm place until fermented: when in this state, the men anoint the points of their arrows, or lances, which makes the wound that may be inflicted mortal. [Sauer, 1802, p. 177.]

Pinart (1872, pp. 12-13), much of whose Kaniagmiut ethnography still remains in the form of manuscript field notes, has included, in a published catalog of a Pacific Eskimo collection, the following in regard to Koniag whaling:

These lances [of slate] are used by the Kaniagmioutes ⁴⁴ [of Kodiak and Afognak] for whale hunting. Those struck once, generally die at the end of several days, and are stranded on the beach; the lances are dipped, before they are used, in human grease, which has been prepared for this purpose by the whaler, from the corpses of rich persons whom they have just dug up and put to boil.

Each of these blades carries the particular mark of its owner.

This blade, fixed in its shaft, is then hurled by means of a board in the form of a lever [spear-thrower] . . .

The use of a fat or grease rendered from the corpses of deceased whalers or rich persons is a characteristic feature of Koniag whaling. Apparently the danger involved in handling corpses was great, and only a whaler, initiated into the procedure, could indulge in it. (Lantis, 1938 a, pp. 441-443; Pinart, 1873, pp. 679-680.)

Lisiansky says: ⁴⁵

The whale harpoon is about ten feet long; the spear or point is of slate stone and of the form of a knife, sharp on both sides, and is set loose in the handle.

The whale fishing, however, belongs almost exclusively to particular families, and is handed down in succession to those children who prove to be most

⁴² Kotzebue (1821, vol. 1) says the whale is called *Aliamak* at Unalaska. Chamisso, quoted by Möbius (1893, p. 1067) mentions a whale, *Alimoch*, caught at Unalaska.

⁴³ Sauer, 1802, p. 181. Mention is also made of hunting sea lions with poisoned arrows (p. 180).

⁴⁴ See Pinart (1873, p. 673) for the area inhabited by this group.

⁴⁵ Lisiansky, 1814, pp. 206, 202, 174. Hoffman (1891, p. 70) has an excellent account of the use of dead whaler's corpses as a "poison" and for amulets. He obtained his data from the Aigaluxamut, a group which I am unable to identify, but suspect that they are from the area (probably a single village) in the Cook Inlet-Kodiak-Alaska Peninsula region.

expert at it. But this art is not brought to such perfection in the island of Cadiack, as in Greenland, and many other places. A Cadiack whaler, in a single bidarka attacks only small whales;⁴⁶ and for this purpose he is provided with a harpoon, the spear of which is made of slatestone, and so fixed into the handle, as to detach itself when the whale is struck. When wounded by it, the whale runs to sea and dies, and is perhaps never seen again, unless the currents and winds should throw it on the coast. Thus no whaler is sure of his prey. The spears of the whale harpoons are marked by the whalers, so that every one knows his own.

Of these whalers a story prevails, that when the fishing season is over, they conceal their instruments in the mountains till wanted again; and that they steal, whenever they can, the bodies of such fishermen that die, and were known to have distinguished themselves in their calling, which they preserve in caves. These bodies are said by some to be stolen, from the idea that the possession of them conduces to render the fishing season prosperous; and by others, that a juice or fat is extracted from them, into which if an arrow be dipped, the whale, when wounded by it, dies the sooner.

Weyer⁴⁷ has given what is likely to be the correct interpretation of this fat as a "poison":

Information secured by Frederica de Laguna from Athabascan Indians at Kenai, Cook Inlet, concerning the use to which the Kodiak Eskimos put dead human bodies is confirmatory of other Kodiak data but somewhat perplexing. The statement of these natives that the Kodiak Islanders killed whales with poison extracted from corpses by means of boiling may not mean that it was actually poison but only a fetish substance. The stuff was smeared on their weapon points, and was kept in the prows of their bidarkas. When they had lanced a whale, they used to paddle in a circle around it, and then paddle to the shore, dropping poison in the water behind them; the whale was supposed to wash up on the shore where they landed. The flesh around the wound had to be cut out before the whale could be eaten.

Osgood (1937, p. 39) gives much the same description from his Tanaina informants:

The large whale inhabiting the waters of Cook Inlet is not killed, though much relished by the Tanaina of the region. They obtain the meat from the neighboring Eskimo. These people (Kaniagmiut) they describe as hunting the whale with spears having heads of slate-like stone about 8 inches long and 1 inch wide which break off in the body causing death. The belief is that the Kaniagmiut poison these spear points by rubbing them in the decaying remains of a "fat man" [sic] over which an incantation has been made.

The Tanaina do not have the proper medicine to kill whales so they trade furs for the meat.

⁴⁶ Small whales are mentioned often. If the species could be determined, identification from the archeological remains might be possible. If the Eskimo-type whaling was once practiced in this area, the species of whale hunted is likely to have been a larger one; this, too, ought to be reflected in the archeological remains. Dall 1877 b) claimed that only in the upper (i. e., later) layers were bones of the larger whale species found. Jochelson (1925) has challenged Dall's interpretation of stratigraphic succession so seriously that little faith can be placed in it.

⁴⁷ Weyer, 1932, p. 309. As I have mentioned elsewhere, if uninitiated people aspired to become whale hunters, they would be reluctant to undertake the highly dangerous procedure of rendering from dead bodies fat "poison," actually innocuous but putatively toxic. This latter may well have served to distract attention from the true poison made from acnite roots, the preparation of which, according to this view, was a secret closely guarded by initiated whalers.

The use of dead bodies of rich persons and of whalers may mean the same thing. A whaler was likely to be a rich person, for he would own a whale he killed, and would control the division of it among the community in which he lived and was accorded social position. His control of whaling ritual would include a knowledge of the preparation and use of aconite poison—the essential feature of whale hunting. This was likely to be a carefully guarded secret, since it was economically advantageous to its possessor. Some reason had to be given out to explain the tremendous effectiveness of the whaling dart-points, and the common people (i. e., the uninitiated) probably were led to believe that it was the fat rendered from dead bodies. This was a ruse to hide the identity of the true poison—indeed a clever dodge, since an ordinary person would consider it extremely dangerous to have anything to do with a corpse.

The conclusion is that the Kodiak whalers used an *actual* poison of aconite,⁴⁸ which was a carefully guarded secret. Additional “poisons” in the form of fat rendered from corpses were used, but these were ceremonial and actually innocuous as far as toxic effects go.

In view of the break-down of the old culture under Russian impact, it is likely from our evidence that the whaler’s secret society⁴⁹ became abandoned or, at any rate, much more restricted. Such a situation as

⁴⁸ See citation this paper and the data in Heizer (1938, p. 359). Lantis (1938 a, pp. 454-455) gives further citations of the Koniag use of poisonous roots in whaling, presumably aconite.

⁴⁹ Pinart, 1875 a, p. 2. If not an actual secret society, Koniag whalers were of high social rank, holding their social position by hereditary rights. See Petroff (1884, p. 137) and Lisiansky (1814, p. 209) for statements on the hereditary whaler’s caste. The tendency toward forming a closed group of whalers has a modern parallel in Nantucket. The following rather lengthy but extremely interesting quotation illustrates how, in functional terms, such an organization might develop.

“It was never fairly understood what were the secret obligations of these female Masons; and it was even doubted that they had any ‘secrets worth knowing,’ inasmuch as no important operations, whether of good or evil tendency, were known to be put in practice in the little town of Sherburne Nantucket, or to disturb the world at large. Thus much, however, came afterwards to be divulged: An obligation, if not under the solemnity of an oath or affirmation, was at least assumed by the novice under the charge of the officiating mistress, that she would favor the courageous whale fishermen, under every circumstance, in preference to a stranger and a landsman, if the alternative should ever occur. The letter and the spirit of this charge were for a long time pertinaciously adhered to by the unmarried members; and some of them were known to carry it so far as to make it a *sine qua non* in permitting the addresses of their suitors, and they should have struck their whale, at least, before the smallest encouragement would be given or a favoring smile awarded as the earnest of preferment.

“It has been shrewdly suspected that the chivalric ordeal, thus enforced by the fair maidens of the isle, was set on foot by some of the patriotic whale fishermen and oil merchants of the place in order to perpetuate a nursery of peculiar seamen; while in doing so they were sure to secure valorous husbands, and a certain competency for their daughters, as well as a monopoly of the trade to the island. The intermarriage of so many whale fishermen with the daughters of whale fishermen, until almost all the inhabitants did, in reality, claim near relationship and call each ‘cousin,’ at all events would seem to point that way, and to favor the presumption. Certain it is that the daughters of some of the wealthiest men of the island had already formed a compact not to accept the addresses of sighing swains, much less to enter into the holy bonds of matrimony with any but such as had been on a voyage and could produce ample proof of successfully striking a whale.” (Brown, 1887, p. 220, ftu. quoting from Miriam Coffin, or the Whale Fisherman, pp. 57-58).

outlined above would account for some of the puzzling later aspects of whaling. Thus, Holmberg (1855, p. 110) said:

An attempt has also been made to supply the spears with iron points instead of the stone ones. These were not found to fulfill the purpose, however, since never has a whale wounded with such weapons been cast up.⁶⁰ There is reason to suspect that the iron point does not inflict a deadly wound, and this supposition is the more strengthened by the circumstance that not seldom whales with healed wounds are killed.

Steensby (1917, p. 144) says of the Koniag that for whale hunting they used a lance with a broad-bladed point of slate. The hunters believe that wounds caused by slate spears prove fatal more quickly than those caused by iron points, and they have stuck to slate blades obstinately.

As a final point in relation to the weakening of the complex in its old form, we have direct historical statements as to when the change began. Von Wrangell (1839, p. 55, ftm.) says:

Since the year 1833 the harpoon and vessels outfitted properly after the European manner have been made use of for the whale fishery. A skilled English harpooner has already been invited to enter the service of the Russian-American Co. It is to be hoped that a happy result will crown this important attempt.

Recalling Veniaminov's statement (1840, pt. 2, p. 341; quoted on p. 432) of the low percentage of recoveries of wounded whales, and von Kittlitz' remark that of 10 whales struck 9 will be expectably lost, it is of interest to note von Wrangell's (1839, pp. 54-55) figures. He says:

Since the whale hunter abandons the wounded animal to the sea, it is natural that many become lost. For example, in the summer of 1831 there were at Kadjak 118 whales wounded, of which only 43 found their way upon the shore.

This concludes our survey of Aleutian-Kodiak whaling. Steensby⁶¹ says that the Cook Inlet Indians hunt white whale (beluga), the hunter hurling a slate-pointed lance at the whale from a pole staging erected over the water. After the animal is hit, the hunter pursues it

⁶⁰ I suspect quite strongly that these iron spear points simply did not bear aconite poison. The whalers society apparently kept as a strict secret their knowledge of the extraction of the poison. Thus, in historic times with the break-down of the old culture, a "Company man" might go whaling without poisoned dart heads—the result being that he (being uninitiated into the whaling mysteries which include poison-extraction methods and use) could spear, but never succeed in killing whales. The decided preference shown by so many primitive peoples for stone weapon-points over those made of metal (for the area under discussion see Steensby, 1917, p. 144 (Koniag); Mason, 1902, p. 270 (Point Barrow); Jochelson, 1905-1908, p. 551, and Bogoras, 1904-1909, p. 124 (Koryak), may have a rational explanation, since stone-pointed projectiles are apparently more effective in cutting animal tissue than metal ones (see Murdock, 1892, p. 240; Pope, 1930, pp. 56-57).

⁶¹ Steensby, 1917, p. 143. Osgood claims the Tanaina do not hunt whales. Birket-Smith and de Laguna (1938, p. 107) state that the Eyak are not whalers.

in his boat. Large whales are not hunted. Shelekhoff⁵² says of the Chugachmiut of the "Bay of Chugatzy":⁵³

The marine animals hunted there are as follows: sea-otter, whales, sea-lions and bear-seals, the weapons used being spears thrown with little boards and lances such as used by the Kenaitze and other tribes.

ESKIMO

North of the Alaska Peninsula, we immediately find a different method of whaling. The same situation, as we have already seen, occurred on the eastern Asiatic coast north of the Kamchatka peninsula where Koryak-Chukchee whaling was sharply distinguished from the Kamchatka-Kurile method.

The Eskimo of St. Lawrence Island,⁵⁴ geographically intermediate between Asia and America, have the same type of whaling as the Chukchee⁵⁵ and their cousins, the American Eskimo.

Eskimo whaling south of Point Barrow to Bristol Bay (?)⁵⁶ and eastward to Greenland,⁵⁷ covers a tremendous area, yet is without question historically related. The real break comes at the Alaska peninsula, or more strictly, south of it in the Aleutian Islands-Kodiak area.

There is abundant information concerning Eskimo whaling; typical accounts may be found in Murdoch (1892, pp. 235-242, 272-276), Mason (1902, pp. 269-270) and Moore (1923, pp. 353, 359). The capture of whales is carried out by a crew of 8 or 10 men in a large skin boat (figs. 57, *d*; 58). The heavy toggle-type harpoon has a long attached line to which are tied sealskin floats (generally two) with a third float called a trailer or indicator with a line 15 or 20 fathoms long which is used to determine the position of the whale.⁵⁸ The whale is harpooned, he sounds, carrying down the line with the floats attached, and upon breaching is harpooned again. Finally exhausted, unable to dive again because the numerous floats or "pokes" buoy him up, he is dispatched with lances.⁵⁹ The dead whale is towed ashore by a series of umiaks tied bow-to-stern (figs. 57, 58).

⁵² Shelekhoff (Shelekof, Shelekov), 1812, vol. 2, p. 24.

⁵³ These are an Eskimoan group of the southern shore of the Kenai peninsula and Prince William Sound. See Handbook (1912, pt. 1, p. 294) and Petroff (1884, pp. 145-146, map). Shelekhoff said the Koniag and Chugatz spoke the same language, which was different from that of the neighboring Kenaitze and Ugalachmiut.

⁵⁴ These belong to the Siberian or Yuit group of Eskimo (Collins, 1932, p. 107).

⁵⁵ Steller, 1774, p. 101 (quoted verbatim *supra*). For St. Lawrence Island whaling, see Moore, 1923, pp. 353, 359.

⁵⁶ Not all the Western Eskimo whale; some do not know how and in some places it is not convenient. Bristol Bay, aside from beluga "whaling" (which is not strictly whaling as treated in this paper) seems to be beyond the actual southern limit of Western Eskimo whale fishery.

⁵⁷ Here again the distribution is not always continuous. Geographical limitations have played their part in causing this. (Birket-Smith, 1929, vol. 2, pp. 223, 233.)

⁵⁸ An indicator float is also used in Nootka-Makah, as well as Chuckchee whaling.

⁵⁹ Illustrated by Nelson (1899, pl. 55b, 57a) and Murdock (1892, figs. 238-240).

The lances used for dispatching the exhausted whale are of particular interest to our study. Nelson (1899, p. 147) says of the Kuskowim and Norton Sound area:

These lances were used when the seal or walrus has been disabled, so that it cannot keep out of reach of its pursuers, when the hunter paddles up close alongside and strikes the animal, driving the detachable head in its entire length. The head remains in the animal, and the hunter immediately fits another point into the shaft and repeats the blow, thus inserting as many of the barbed heads as possible, until the animal is killed or the supply of points is exhausted. Every hunter has his private mark cut on these points,⁶⁰ so that, when the animal is secured each is enabled to reclaim his own.

There is immediately suggested by this statement, the similarity to the Kodiak whaling lance with its detachable slate (or in Unalaska, flaked obsidian or trachyte) head with property marks inscribed on it. De Laguna (1934, p. 183), in a discussion of the distribution of barbed slate lance blades, has rightly seen that the Norton Sound-Kuskokwim method of stabbing sea mammals is similar to Kodiak whale-lancing except that in the latter place only *one* penetration, instead of a series of thrusts, is made. The Kodiak-Aleutian procedure is explainable by recalling that: (1) Only one penetration is possible, since the whale escapes after being lanced; and (2) a single thrust is normally mortal since the animal's death results from the action of the aconite poison.⁶¹ With repeated stabs, death of the

⁶⁰ See Weyer, 1932, pp. 179-182; Wissler, 1910, p. 414, figs. 12, 32, 35. Boas (1899, p. 601) says: "They [property marks] occur almost exclusively on weapons used in hunting, which, after being dispatched, remain in the bodies of large game. These are, particularly, whaling harpoons [figs. 16-19], walrus harpoons [figs. 20-23], lance-heads used for killing whales, and detachable arrowheads [figs. 24-25]. . . . It appears, therefore, that the object of the property mark is to secure property-right in the animal in which the weapon bearing the mark is found."

Nelson (1899, p. 147) indicates another possible origin for property marks, viz, the identification of each individual's own points so that he is enabled to reclaim them. Where a number of hunters are shooting at one animal some question might arise upon recovering the point from the dead animal as to who owned which points. Which of the two was first developed is impossible to say, but a problem is indicated. The place of property marks on Kodiak and the Aleutians is clearly that of securing property right in whales (see accounts quoted). Dawydow (1816, p. 213) mentions property marks for Kodiak. De Laguna (1934, pp. 71, 72) found only two slate points with ownership marks; there is a suspicion that these may be Koniag (or Chugachmiut) points recovered from drift whales in Cook Inlet. This may not be so, however, since the barbed-slate point is common at Cook Inlet.

⁶¹ The Right whale, despite its great size, seems to be a relatively easy animal to kill. The vegetable alkaloids are derived mainly from the Phanerogams, the Papaveraceae, Leguminosae, and Ranunculaceae being richest in these substances. Allen, 1920, pp. 260-262, gives some interesting figures on lethal doses of aconitine: 0.13 mgrm. per kilogram of body weight for warm-blooded animals. Two mgrm. (1/30 grain) is the minimum fatal dose for an adult man when the poison is taken by the mouth; but, if given hypodermically, 0.15 mgrm. (1/45 grain) is sufficient to cause death, since all the poison is thrown into the circulation at the same time with no chance to throw it off by vomiting. Allen, 1929, p. 262, says, "The most constant symptoms of aconite poisoning are difficulty in breathing, progressive muscular weakness, a weak intermittent pulse. Death usually occurs from syncope, preceded in some cases by delirium and convulsions." Cheney (1924) discusses physiological effects of arrow poisons with alkaloidal properties. The relative toxic doses of aconitine are given by Allen (p. 263, see table p. 229) and its allies as: Aconitine 1,

(Footnote 61 continued on following page)

animal results from loss of blood or because a vital spot is struck; the poisoned-lance technique actually effects an intravenous injection of aconitine.⁶²

In broad outline, then, I believe the gross differences between Bering Sea Eskimo and Kodiak-Aleutian whaling methods to be:

TABLE 1.—*Differences between Bering Sea Eskimo and Kodiak-Aleutian whaling methods*

Whaling technique	Kodiak-Aleutians	Bering Sea Eskimo
Whaling instrument.....	Poisoned; polished slate or chipped obsidian—pointed lance or dart; hand cast or spear-thrower.	Heavy, toggle harpoon with line and floats.
Boats and crew.....	1-man kayak; 2-man bidarka.....	8- or 10-man crew in umiak.
Recovery of whale.....	Drifts on shore.....	Towed to shore.

NORTHWEST COAST

It is generally believed that most Northwest Coast peoples, viz, Tlinkit, Haida, Tsimshian, Kwakiutl, and Coast Salish, were not whalers. There is, however, some evidence that some of these tribes formerly were whalers, and, while I am reluctant to omit treating this question here, I reserve discussion till a later time. Thus, between the Chugachmiut and the Nootka of Vancouver Island there is a blank area; a region where, at least in the full historic period, whaling was not practiced.

Some of these nonwhalers make little or no use of drift whales which are cast upon their beaches. At the risk of indulging in a flight of fancy, I should like to present a possible explanation for the well-known aversion of the Tlinkit to whale blubber or flesh. Krashenninikov⁶³ gives a vivid description of a Kamchadal feast from a drift whale, the results of which were great sickness and some deaths by the participants. Petroff (1884, p. 140) says, "It frequently happens that a long time elapses between the killing of a whale and the capture of the carcass, and under such circumstances the consumption of the meat causes disease and sometimes death." A possible explanation

Indaconitine 1, Japaconitine 0.85-0.9, Bikhaconitine 0.75, and Pseudaconitine 0.4-0.45. If we knew what species of *Aconitum* plants were used in the Aleutian-Kodiak area, we might calculate the amount of poison necessary to kill a Right whale, since we have some data on the time elapsed from subcutaneous injection and death (generally 3 days). The above should answer a question which will occur to most readers, viz, Can a large animal like a whale be killed by an aconite smeared dart? The answer is yes; it is possible.

⁶²The statistics showing the large number of whale struck and small number of whales recovered given by von Wrangell, Veniaminov, and von Kittlitz for the Aleutian-Kodiak region are perhaps in part explainable on the basis that the single penetration did not pierce through the exterior blubber layer and therefore did not cause death of the animal. Whales which went too far to sea and drifted past the islands, to come ashore on the Northwest Coast, may account for some of the whales which were struck, killed, but not recovered to the knowledge of the people in the locality where they were hunted.

⁶³Krashenninikov (1764, p. 141), "... a healthy young man began to groan and complain that his throat burnt." This sounds like a symptom of aconitine poisoning. Krashenninikov himself says that eating a whale killed by poisoned darts may account for this.

of this might be as follows: A whale is struck near Kodiak (perhaps even by the Chugachmiut) with a lance heavily laden with aconite poison. The whale dies, remains drifting for some time, and finally becomes stranded. The flesh and possibly the blubber surrounding the wound is impregnated with aconite,⁶⁴ and proves toxic in varying degrees, some of the eaters of it sickening, others dying. The oceanic drift from Kodiak swings out to westward to about Unalaska, swings south and east, hits the Queen Charlotte Islands, goes north in the Gulf of Alaska, past the Kenai Peninsula, and on past Kodiak. Thus, a whale killed near Kodiak might easily drift ashore on the Northwest Coast anywhere north of the Queen Charlotte Islands. This would be Tlinkit country, and we note that there are numerous statements that these people did not have anything to do with drift whales.⁶⁵ I suggest that the Tlinkit got hold of many poisoned whales over a period of time long enough to build up a dread of eating their flesh or blubber which is today reflected in their taboo.

The chief whale hunters of the Northwest Coast were the Nootka, Makah, Clallam, Quinault, and Quileute. (Drucker, Nootkan manuscript; Koppert, 1930, pp. 56-63 (Clayoquot); Bancroft, 1886, p. 186 (Nootka); Swan, 1870, pp. 19-22; Waterman, 1920; Gibbs, 1877, p. 175 (Makah); Gunther, 1927, p. 204 (Clallam); Olson, 1936, pp. 44-48 (Quinault); Reagan, 1925 (Quileute).) The Nootka are commonly considered the local fountainhead of whaling, the practice having spread southward across the Straits of Juan de Fuca to Cape Flattery and as far south along the coast as the Quinault River.

The characteristic features of Vancouver Island-Western Washington whaling include: A boat crew of eight in a dugout whaling canoe; a composite harpoon, in general type conforming to the usual local type, only larger,⁶⁶ to which is attached a long line with inflated bladders tied on; dispatch of wounded whale with a lance; dead whale towed to shore (fig. 58, *b*).

If the features just enumerated are compared with Bering Sea whaling techniques in table 1, a great similarity will be seen. Appar-

⁶⁴ That there is danger of this portion, at least, becoming impregnated with the aconite poison is suggested by the almost universally recorded cutting out of the area surrounding the wound where the poisoned weapon point has penetrated. See Heizer, 1938, pp. 360-361 (Aleut, Ainu, Southwest China); St. John, 1873, p. 250 (Ainu). Petroff (1884, p. 140) says, "The Kanlags, however, claim to be able to decide whether the meat is still fit to eat by observing the gulls and other aquatic birds that swarm about the carcass; and if a certain species of bird is absent the Kanlag will not touch the meat."

⁶⁵ Von Langsdorff (1813, p. 131) says, "Whale fat they never eat; it seems from some prejudice forbidden to them . . ." For further citations, see: Holmberg, 1855, p. 22; Erman, 1870, p. 316; Krause, 1885, p. 181. Dall (1877, pp. 36-37) says that of all the Tlinkit groups, the Yakutat were the only ones to eat whale's flesh and blubber. The Yakutat Bay Tlinkit were strongly influenced by the Pacific Eskimo, as judged from their possessing the umiak and spear thrower. They may have learned, like the Athabascan Tanaina, that the Konlag killed whales with poison.

⁶⁶ For illustration and description, see Waterman, 1920, pp. 29-34.

ently this southern whaling is more closely comparable in technology with that of the Eskimo than with Aleut-Koniag.⁶⁷

ACONITE POISON

We have repeatedly made reference to the fact that aconite poison was used on the Kodiak-Aleutian whaling spears. Indeed, the effectiveness of this whole whaling method depends upon the use of this substance and is not intelligible without its employment. It has been suggested previously that the use⁶⁸ of an aconite extract as a weapon poison spread from the Kamchatka-Kurile region eastward along the Aleutian Islands to the Kodiak region.⁶⁹ There is some justification for this view, since the use of aconite arrow poison has a very extensive distribution in eastern Asia.

Sternberg (1929, pp. 766-777) associated the aconite arrow poison of the Ainu with the extensive use of poisons in the Philippines and Indonesia. He neglects reference to China and India. It is true that the whole area of Southeastern Asia employs weapon poisons of vegetable alkaloids. In view of this, we cannot consider the use of aconite a particular, isolated poison technique, but as associated as a part of a widely distributed use of alkaloidal phytotoxins in the larger area. What does seem significant to me, however, is that the further northeast we go, the less important plant poisons become. Thus, the Ainu apparently use at least three poisons (*Ranunculus*, *Aconitum*, *Anemone*); the Kurile-Kamchatka area only one or two; the Aleutian-Kodiak area only one. Not only is aconite used alone, so far as we know, in the latter area, but, in addition, is solely and functionally related to whaling, a concurrence which we have seen in the closest adjoining region (Kamchatka-Kurile Islands). The connection is thus strengthened; it seems to be a northern peripheral occurrence of a climax or central-area or plant alkaloid-poison use in Southeastern Asia.

Cornevin (1887, p. 214) says that, according to the age of the plant and the climate, there is inequality in the toxicity of *Aconitum napellus* (mentioned by Steller?). This plant is more toxic in southern than in northern latitudes. In proportion as one goes farther north, its venemosity decreases to such a degree that, according to the testimony of Linnaeus, in Norway and Lapland, the young stalks are eaten without danger. Von Middendorf (1867, vol. 4, p. 697) says, "A great advantage that the north possesses is

⁶⁷ With regard to the nonmaterial, or esoteric, aspects of whaling, the Vancouver Island-Western Washington area seems to be most closely comparable to the Aleutian-Kodiak area.

⁶⁸ Heizer, 1938. In this paper I did little more than demonstrate the Asiatic-American connection of the use (not the function) of aconite poison in hunting. This functional aspect, with an obvious bearing upon the history of the whaling complex, will be treated here.

⁶⁹ Birket-Smith and de Leguna (1938, pp. 465, 519) have suggested independently that vegetable poison is a circum-Pacific element; they do not specifically isolate *Aconitum* species as the plants from which the particular poison was extracted.

that poison plants do not extend this far. There is known to me only one single example of a plant of the high north recognized as poisonous (*Hedysaurum Mackenzii* Richards).⁷⁰ Thus, we may have a botanical reason why poisons are not used north of the Kamchatka-Aleutian axis, since plants with a sufficient toxic content do not grow.

In a recent Flora of the Aleutian Islands, I find these statements:

The middle Aleutians belong to a northern Pacific [floristic] region to which is added in both ends circumpolar and arctic-montane species and, furthermore, in the eastern end Asiatic Pacific and in the western end American Pacific types . . . the islands in phytogeographical respect belong in Asia, as their associations are decidedly Kamchatkan . . . The northern Kuriles, South Kamchatka, and the Aleutians have a close affinity to each other. [Hultén, 1937, pp. 43-44.]

It will occur to the reader to ask whether or not the plants used for extracting poison are found outside the areas where their use as arrow-poisons is recorded. The answer is emphatically in the affirmative. Hultén, presenting the North American and Asiatic Mainland distributions of the flora of the Aleutian Islands, finds that 2 *Aconitum* species,⁷¹ 3 *Anemone* species,⁷² and 13 *Ranunculus* forms⁷³ are shared by the islands with the mainland areas to the west and east. In most cases, the plants listed here are widely distributed in the northern hemisphere, and are found in the Chukchi Peninsula and Alaskan areas. There thus seems to be no lack of toxin-producing plants—their restricted utilization seems due to two main causes: (1) A cultural one, meaning that the idea of the use of phytotoxins was not diffused; and, (2) a phytogeographical cause in terms of northern latitudes where the toxic properties of plants decrease to the degree that they may be innocuous. How important this latter reason has been I am unfortunately unable to say, but von Middendorf's and Cornevin's statements on the subject indicate that phytotoxins are at least rare in the high northern latitudes.⁷⁴

Since my first paper on aconite arrow poison appeared, additional sources of information have become available. Feng and Kilborn (1937), in a pharmacological study of Nosu and Miao arrow poisons,

⁷⁰ In a recent inquiry into fish poisoning, this same fact obtruded itself, viz, piscicides were not used north of Japan in Asia, or north of the State of Washington in western North America.

⁷¹ Hultén, 1937, pp. 178-180 (*Aconitum delphinifolium* DC., *A. maximum* Pall.).

⁷² Hultén, 1937, pp. 180-182 (*Anemone narcissiflora* L., *A. parviflora* Michx., *A. Richardsonii* Hook.).

⁷³ Hultén, 1937, pp. 182-189 (*Ranunculus acer* L., *R. acer* var. *frigidus* Regel, *R. Bongardi* Greene, *R. Eschscholtzii* Schlecht., *R. Nelsonii* DC., *R. Nelsonii* subsp. *insularis* Hult., *R. nivalis* L., *R. repans* L., *R. reptans* L., *R. sulpherens*, *R. sulpherens* var. *intercedens* Hult., *R. trichophyllus* Chaix., *R. trichophyllus* var. *hispidulus*).

⁷⁴ Lewin (1923, p. 175) says that the Koryak, Yukaghir, and Chukchee have arrow poisons. I am unable to state what these poisons are, but Lewin says that it is improbable that the Koryak use aconite.

list a series of sources which attest the use of aconite for this purpose among the ancient Chinese in Yunnan, and in Hokkaido (Yezo). China, left blank or questionable on my distribution map, can now be shown to have used aconite arrow poisons, thus forming a continuous area of employment from India through China, to Yezo, the Kurile Islands, and Kamchatka (Heizer, 1938, p. 362).

Steller (1774, pp. 235-236, ftn. (a)) says of the southern Kamchadal, "Nichts destoweniger werden solche sehr gefürchtet, weil sie dieselben mit dem aufgeleiteten Pulver der Wurzel des *Napelli* [*Aconitum napellus*?], auf russisch *Ludik* vergiften . . ." Shelekhoff⁷⁵ says, "Paramushir Island has a plant called *Liutik*, with the roots of which the natives paint themselves and into its juice they dip the points of their arrows, to kill animals." Krashenninikov's statement (1764, p. 42) about "poisonous herbs, whose roots are as yellow as saffron and as thick as rhubarb, and are well known to the inhabitants of the first Kurilskoy island . . ." may refer to the same plant. Lewin⁷⁶ identified the "zgate" spoken of by Krashenninikov⁷⁷ as *Anemone ranunculoides*. Thus, there seems to be not a single clear reference to aconite poison from Kamchatka, but of *Anemone*. There can be little doubt but that this poison extracted from roots is related to the high development in the area to the south and southeast.

The Ainu use of arrow poison made from aconite roots is well known; references to its use occur commonly,⁷⁸ and there are several excellent special papers and descriptions of the method of making it.⁷⁹ (Batchelor, 1892, pp. 169-170; Eldridge, 1876; von Siebold, 1878.) Starr (1904, p. 42) says of the Ainu:

The poisoned arrow was an ingenious affair. The foundation of the poison was aconite secured from the corm of the plant; to this various other ingredients

⁷⁵ Shelekhoff, 1812, vol. 1, p. 90. Neue Beschreibung . . . 1782, p. 118. Paramushir was occupied by Kamchadal. In fact, at least the two northernmost islands of the Kurile chain (Paramushir and Sumsbiri), and perhaps still others, were not held by Ainu, but by Kamchadal. (See Golownin, 1818, vol. 2; Tooke, 1801, p. 127; Sarytschew, 1806, vol. 1, p. 59; Krashenninikov, 1764, pp. 34, 35, 39, 170; von Siebold, 1859, pp. 122-123; Torii, 1919, pp. 77-82; von Siebold, 1897, vol. 2, p. 251.) This implies Ainu-Kamchadal contacts and probable cultural interchange. We know, for example, they both hunted whales in the same manner.

⁷⁶ Lewin, 1923, pp. 174-175. See also Cornevin, 1897, p. 193.

⁷⁷ Krashenninikov, 1764, pp. 92-93; Heizer, 1938, p. 360. Cheney (1924, pp. 13-14) refers in a rather obscure manner to *Anemone* sp. used in Northwest North America as an arrow poison.

⁷⁸ Savage-Landor, p. 223; Golownin, 1852, vol. 2, p. 200 (*Ranunculus flammula*); von Langsdorff, 1813, p. 334; Torii, 1919, p. 223; von Siebold, 1859, pp. 99, 101, 118, 164 (*Aconitum Kamchaticum*); Batchelor, 1901, p. 454; St. John, 1873, p. 250. Another type of poison is described by St. John (1873, p. 250) as prepared from crows' brains, tobacco ashes, and two insects named "Yousiki" and "Krombi." These four ingredients are mixed and allowed to putrefy. The poison is so strong that a considerable portion of the flesh around the wound must be cut out before the animal can be used as food. See also von Siebold, 1859, p. 157.

⁷⁹ Stegmiller, 1925, p. 612 (Khasi); Anderson, 1871 (Kakhyen to the east of Bhamo in Southwest Yunnan); Hamilton, 1824, pp. 249-251 (Himalayas); Fraser, T. R., 1916 (Abors, Mishmi).

were added. Not everyone knew how to compound the poison and today the knowledge is possessed by few.

A thorough search of the literature would undoubtedly yield numerous additional references to aconite poison in India and the Himalaya provinces.

In the earlier discussion of Kamchatkan and Kurilian whaling there were references to the use of poisoned darts. References, not only to poison-lance whaling, but to the use of poisoned darts for the killing of sea lions and in war, are given elsewhere.⁸⁰

TABLE 2.—*Comparison of American and other whaling methods*

Elements of whaling methods	Japan	Kurile-Kamchatka	Koryak	Chukchee	Eskimo	Aleutian Islands	Kodiak Island	S. Northwest Coast
Large nets	1 X		² X					
Harpoon with line and attached floats			X	X	X			X
Crew: 8 or 10 men in large boat	³ X		X	X	X			X
Whale harpooned repeatedly	³ X		X	X	X			X
Dispatched with hand-lances	³ X		X	X	X			X
Dead whales towed to shore	³ X		X	X	X			X
Stone-headed dart or hand-lance		X				X	X	
Poisoned with aconitine		X				X	X	
Whale lanced only once		X				X	X	
Whale dies of poison, drifts ashore		X				X	X	
Property marks on lance-head					⁴ X	⁵ X	⁵ X	

¹ Harpoons also, but probably post-European (Tsuchiya, 1937, pl. 24, p. 171).

² Likely also to be post-European (after 1543). An interesting parallel between the fundamental method of European and Eskimo types is shown by this.

³ Only Oluotores (southern Koryak).

⁴ For identification and recovery of each hunter's points.

⁵ For identification of hunter and for property right in the whale.

The evidence seems clear on the point that the Eskimo do not use arrow poisons (Weyer, 1932, p. 330; Lewin, 1923, p. 409), and they are apparently lacking on the Northwest Coast south of the Tlinkit to Puget Sound (Hoffman, 1888, p. 260). Unless we derive Kodiak-Aleutian Island aconite weapon poison from the Plateau,⁸¹ which I consider unlikely, we must assume its transference from the Kamchatka-Kurile area.

The technological aspects of whaling have set off the Kurile-Kamchatka area from that of the Koryak-Chukchee region to the

⁸⁰ Heizer, 1938, pp. 359-361. I have been unable to consult Lowe (1842, p. 479), who according to Birket-Smith and de Laguna (1938, p. 465), states vegetable poison was used among the Aleut. It is likely to be the same one given by Petroff (1884, p. 154), which mentions "poisoned roots or weed . . ."

⁸¹ Sources listed by Birket-Smith and de Laguna (1938, p. 465, fn. 1).

north, and from that of the Japanese area to the south.⁸² A similar conclusion was reached (see table 2) regarding American whaling, where it was seen that the Aleutian Islands-Kodiak method of whaling was sharply differentiated from that of the Bering Sea Eskimo to the north and from Vancouver Island-Western Washington coast whaling far to the south.

There seems to be no reason for assuming the poison-tip lance method was ever practiced north of the areas where it now occurs, that is, in Chukchee or Eskimo territory.

On the other hand, there is a possibility that the harpoon with line and floats method may have been once used in the Kodiak-Aleutian area as suggested by the following observations:

1. Seal and otter hunting in the Kodiak-Aleutian region are performed by means of a dart with a line and float. This is the same principle as the larger Eskimo whale harpoons. There is no *a priori* reason that heavy whaling harpoons of this type were not once present in the Kodiak-Aleutian area, since there is no apparent cultural objection to the type, but only to their function. The latter, as far as whaling goes, may have been supplanted by poison lances or darts.

2. Wherever whaling is practiced, the stone-headed lance is nearly always present.⁸³ But in the areas where the harpoon-line-float method of whaling is operative, lances are used only for dispatching the exhausted whale after being harpooned. The same lance, typologically speaking, is used as the sole whaling instrument in the Kodiak-Aleutian area with a specialized function resulting from the presence of poison on the tip. Thus, in the latter area, if the use of poisons for hunting was instituted, it might be transferred to whaling. The instrument used would be, obviously, not the harpoon with line and floats attached, but the stone-headed lance.

3. MacLeod (1925; map opposite p. 125) correctly shows the use of corpses in whaling ritual in both the Kodiak and the distant pan-Nootka areas. If we hypothesize that: (1), At an earlier time Western Eskimo, Kodiak, and Nootka all shared the harpoon-line-float, eight-man crew whaling method, and that; (2), as part of a wider cultural use of corpses for hunting or fishing luck, the Kodiak and Nootka area applied this specifically to whale hunting, and subsequently; (3), aconite-poison lance whaling diffused into the Kodiak region, we could explain in large part the present situation. Ceremonial fat "poison" rendered from corpses on Kodiak might be a specialization suggested by the existence of true poison. Both are lacking in the Nootka area, which shares with Kodiak only the closely similar use of corpses in getting "power" by bathing with them, etc. Whether whaling was once practiced and subsequently abandoned in the coastal area between the Chugachmiut and the Nootka, or

⁸² If we knew for certain that Japanese whaling was aboriginal, and with what type it was classifiable, we should be on more certain grounds in reconstructing the history of Asiatic whaling. Thus, the difference between Japanese and Koryak-Chukchee types of whaling, if Japanese whaling is post-1543, may not be a condition of very long standing. The independence of Kurile-Kamchatka as against Koryak-Chukchee whaling cannot be denied. Thus, the latter type may have been pressing southward, and meeting resistance in the Kamchatka region. The cultural break at this point is a very profound one, and we have noted that a great many cultural traits of the Asiatic littoral veer eastward across the Aleutians from Kamchatka rather than continuing north into Koryak or Chukchee territory.

⁸³ There are exceptions, e. g., Nootka, who use a long, chisel-pointed bone-headed lance. This may be a local specialization. Collins (1937 a, pp. 337-338) gives a very wide distribution for ground slate points.

whether Nootka whaling is due to actual introduction by a non-Wakashan immigrant group of whalers are two alternatives, either one of which may ultimately be shown to explain best this extremely puzzling situation.^{53a}

Marchand (1801, vol. 1, p. 344) describes Tlinkit whaling at Norfolk Sound (Sitka) in 1791—this is post-Russian in time, and may indicate Aleut or Koniag introduction, since we know many of these people were imported for sea-otter hunting as "ticket men." Boas (1909, p. 495, fig. 158) figures a Kwakiutl harpoon rest which seems very similar to the Eskimo specimens shown by Nelson, Murdoch, and Hoffman. (Nelson, 1899, pl. 78, figs. 33, 37; pl. 107, fig. *a*; Murdoch, 1892, p. 341-343, figs. 347-349; Hoffman, 1897, p. 798, pls. 29, 72.) Data of this sort, as well as the esoteric aspects of whaling,⁵⁴ must be completely and critically analyzed before conclusions can be offered.

Following the lead of Mathiassen's work on the Thule culture, Birket-Smith (1929, pp. 231-232) points out that the development of this culture occurred in the western regions aided by Northwest coast and Asiatic stimuli. The Thule culture is one in which whaling is an important feature, and Birket-Smith (1929, p. 232) intimates a genetic connection between Vancouver Island whaling and that of the Thule culture,⁵⁵ at the same time recognizing the distinctive lance-whaling in the intervening Pacific Eskimo area (1929, p. 329). The problem, therefore, will ultimately be referable to certain aspects of the major inquiry connected with the origins and development of Eskimo culture.

4. There seems to be a more extensive use of aconite poison on the eastern Asiatic coast than in the Aleutian-Kodiak region where poison is employed only in whale-hunting.⁵⁶ Thus, in the Asiatic area poisoned weapons are used in war, bear, sea-lion, and whale hunting. This leads us to the conclusion that poison for weapons was commonly known and not kept a strict secret as in the American (Aleutian-Kodiak) area where poisoned weapons were not generally used (e. g., for war), but almost exclusively for whaling.⁵⁷ Thus, the use of aconite poison in America seems to be associated with (1) whaling, and (2) a special guild of hereditary whalers who kept the knowledge of poison strictly unto themselves. Its entry into the Aleutian Islands and Kodiak could hardly, then, have been a gradual diffusion, else poison knowledge would be generally shared by *all* the people instead of the whalers alone. We conclude, therefore, that there is a close functional association of whaling and poison—they must have been introduced together, and as a unit.

Thus, there are presented several possibilities for explaining the restricted and unique presence of the Aleutian-Kodiak whaling method in reference to the other American method. The possibility of there having been an earlier, now submerged and forgotten har-

^{53a} Subsequent inquiry into Northwest Coast whaling since the present paper was completed has suggested the possibility that Nootkan whale hunting may be due to independent, parallel origin. This possibility should be kept in mind in addition to the others outlined above.

⁵⁴ Lantis (1938 a) recognizes the problem, and sees the connection, but only incidentally.

⁵⁵ Collins (1937 a, p. 217) indicated at the time that whaling was not an Old Bering Sea culture trait. In his recent summary of Eskimo prehistory (1940, p. 549) Collins notes the single find at Kukulik (by O. W. Geist) of an O. B. S. whale harpoon head.

⁵⁶ Sea-lion hunting with poisoned arrows is mentioned *only* by Sauer, who, as we have seen, knew more about Kodiak whaling secrets than any other observer we have encountered. I suspect sea-lion hunting may have been similar to whale hunting, insofar as they were hunted by whalers with poisoned darts. Other men, when hunting sea lion, seem to have used a retrieving dart. (Jochelson, 1925.)

⁵⁷ Veniaminov (1840, vol. 2, pp. 105-106) says arrow points (?) were sometimes poisoned with a poison which was known to *very few people*.

poon-line-float-eight-man-crew-umiak method in the Kodiak area seems not unlikely, yet it is impossible to demonstrate it. It is suggested, however, by the very specific resemblances of the cult or ceremonial or esoteric aspects of Aleut-Koniag whaling to those of the Nootka region to the far south, which uses the Eskimo-type whale-hunting method.

As to the probable history of whaling on the Asiatic coast, we are on less sure grounds, since the data are fewer and less specific than for the native American whale fishery. Chukchee-Koryak whaling is very much like Eskimo—in fact, identical. The Olutores' specialization of netting whales may be an extension of a rather widely spread method of netting sea mammals.⁸⁸ The presence of a highly developed esoteric aspect of whaling among the Kamchadal and Olutores who lie south of the Chukchee-Koryak area is attested by Steller's early account. We may never know the full details of the whale-cult here, since native cultures were shattered before full recording, incidental or planned, could be accomplished. But the significant point about the mere presence of a highly developed ceremonial accompaniment of whaling, which we are led to suspect from Steller's tantalizing account, probably does indicate an old, developed area of whaling in Kamchatka and the area immediately north and east. Here, as in the Aleutian-Kodiak area, the dart-line-float method for hunting smaller sea mammals is present. The Chukchee-Koryak typological equivalent for whales (i. e., the large whaling harpoon) is absent. If we knew more about early Japanese whaling there is some expectation that we could reconstruct the history, or rather prehistory, of whaling of the east Asiatic coast. From data available to me, there seems some warrant for believing that, if it was pre-European, it was like the Chukchee type.⁸⁹ Yet, if so, it must have been heavily overlaid with European techniques at an early date.

What does seem clear is this—a localized intercontinental area of maritime cultures has applied aconite poison to lances and used them for hunting whales. Granting the introduction of aconite poison to America from Asia (Heizer, 1938), there is reason to believe that it was spread in connection with the method of lance whaling, since in both areas poison and whaling method are associated. It is difficult, in view of the data presented in this paper, and with the knowledge that there has been some culture drift from Asia to America by this route,⁹⁰ to assume a convergent development of whaling in the Asiatic

⁸⁸ The Sakhalin Gilyak netted sea lions (Hawes, 1904, p. 256). See Steensby (1917, pp. 153-154) for a discussion which supports this view.

⁸⁹ Tsuchiya (1937, p. 11) mentions archeological finds of what may be bone stoppers similar to those used by the Eskimo to plug the inflated sealskin floats.

⁹⁰ See last section of this paper; Birket-Smith and de Laguna (1938, p. 519); Jochelson (1925, p. 111 ff.).

and American areas⁹¹—rather, we cannot escape the conclusion that the presence of Aleutian Island-Kodiak poisoned lance whaling is attributable to introduction from the Kamchatka region, where it originated in connection with the use of aconite poison.⁹²

GENERAL IMPLICATIONS OF NORTH PACIFIC WHALING

Leaving the specific inquiry connected with the whale hunting, let us review briefly the bearing of our main conclusions on the general problems of the route of entry of man and culture into the New World—problems basic to much work in American anthropology.

The continuing interest in the question of man's antiquity in the New World has had the salutary effect of focusing attention on how and when and with what cultural equipment man entered America.⁹³ Alaskan archeologists are fully aware of this problem, yet have been unable to find actual evidence of ancient remains.⁹⁴ The Old Bering Sea culture, as described by Collins (1937 a, 1940), is highly specialized with definite Eskimoid characteristics, yet is the oldest Alaskan culture known to date.

In the absence of direct archeological evidence, we have left to us another method of approach—that of inferring cultural transference within the ethnographic time continuum. In most cases our conclusions as to relative time must depend on inferential deductions on the basis of geographical distribution. Thus, Kroeber (1923 a, p. 2; 1923, b, fig. 35) and Wissler (1938, p. 386) have listed a series of cultural elements which may be ascribed to the earliest immigrants to America. This might be called the minimal basic substratum of New World culture with its roots perhaps in the Mesolithic or early Neolithic of the Old World. (See also Cooper, 1942, p. 30 ff.)

A large number of studies have appeared whose aim has been to demonstrate the diffusion of Eurasiatic elements into North America. In general, these have implied the use of the Bering Strait (East Cape-Seward Peninsula-Yukon-Mackenzie Valley) route. Notable among these have been contributions by Hallowell (1926), Cooper (1936),

⁹¹ I reject the theoretical possibility that the use of aconite poison was independently developed in the Aleutians and on the eastern Asiatic coast.

⁹² Needless to say, archeology will undoubtedly throw a great deal of light on the question of possible former occurrence of a different type of whaling from that practiced in any single area today. This remains the ultimate test.

⁹³ See Howard, 1935, 1936, for a statement of these problems.

⁹⁴ Finds of the type reported by Rainey (1939) may be exceptions, but are still "continental" and do not prove cultural importation. They show, however, that hope may be entertained that evidence of early cultures, now known only from more southerly locations, may ultimately be disclosed in the critical areas of Alaska and Asia. Collins (1937 a, p. 378) says, "Although on theoretical grounds we are forced to assume that man originally entered the American continent at Bering Strait, it must be emphasized that archeological work in this region has revealed as yet no trace of these earliest migrants." See also Nelson (1937) and Collins (1932, pp. 107-108).

Lowie (1923, 1934), Davidson (1937), Boas (1929), and Hatt (1914, 1934).

The important papers of Collins (1937 a, 1940), de Laguna (1934), and Birket-Smith and de Laguna (1938), have reopened the question of the Aleutian Islands as a possible route of cultural exchange between Asia and America. The early observations indicating the Commander Islands as uninhabited at the time of discovery (by Vitus Bering in 1742), and Aleut culture as of an American, rather than Asiatic type, for a long time led to the categorical denial of the probability that the Aleutians served as a path of entry of Asiatic cultures or people into America.⁹⁵

Hrdlička (1930, fig. 29) has indicated his belief in the probability of the use of this island chain as included in the itinerary of a portion, however small, of the people who settled America from Asia.

Hrdlička (1939, pp. 358-359) has recently summarized the results of his Alaskan labors of the last decade in a highly interesting and stimulating paper in which the following statements are of particular interest to us:

The third and fourth major results were that the Koniag people of the once very populous Kodiak Island, though speaking an Eskimo dialect, were physically not Eskimo, but close to the Aleuts and also the southern Alaska Indians; and that, before these people arrived at Kodiak, the island had already for many centuries been peopled by a physically as well as culturally different type of American native, whose identity is not yet established. . .

The fifth result—and one of equal importance—was that the Aleuts who, too, spoke Eskimoid dialects, were physically a radically different type from the Eskimo, allied to the upper people (Koniags) of Kodiak and the Indians of the Gulf of Alaska.

The sixth fact of importance, reported formerly by Stejneger but decided definitely by our expedition in 1938, is that, contrary to expectations, the Commander Islands had never been peopled before the advent of the Russians and had therefore not served as a bridge for the coming of any part of the American population from Kamchatka. It now appears much more probable that the Aleuts may have come from more southern parts of the eastern Asiatic coast, across the Kuriles.⁹⁶

H. B. Collins and F. de Laguna have been able to demonstrate the fact of cultural exchange between the Kamchatka-Kurile and Aleu-

⁹⁵ See Jochelson (1925, p. 111 ff.) for citations and critical discussions of various theories as to the use of the Aleutian bridge as a cultural route. (See also de Laguna, 1940; Jenness, 1940; Hewes, 1942. These three important papers have appeared since the present paper was written.)

⁹⁶ Bering and Copper Islands are isolated, and people on their way from Kamchatka to the Aleutian Islands to the east might stop only temporarily, camping for a few days to replenish their food supply or to rest. Thus, there may be evidence of pre-Russian native visits on the Commander Islands. As for the Aleuts coming directly from the Kuriles to the Aleutians (e. g., Attu), I consider this very unlikely on the grounds that the open-water distance is too excessive. Evidence of cultural connections between the Aleutian and Kamchatka areas makes it not unlikely, even in view of the lack of evidence of occupation of the Commander Islands, that the connection is direct. Until we know definitely and conclusively that the Commanders were not visited or occupied, however, sporadically or temporarily, the question must remain an open one.

tian Islands-Kodiak-Cook Inlet areas via the Aleutian chain. (Collins, 1937 a, pp. 280, 345, 373-378; 1940, pp. 577-583; de Laguna, 1934, pp. 216-220.) These data indicate a cultural connection as shown by: Roof entrance for the underground house; refuge island; notched and grooved stones; stone with hole; grinding stone and slab; oval stone lamp; hunter's lamp with ring; labret; large bone arrowhead with blade but no barbs; broken and cut human bones; and Japanese form of harpoon head, toggle type with closed socket and line hole in the same plane with the spur. Collins (1937 a, p. 375), on the basis of the elements just listed, states ". . . there is unmistakable evidence of cultural relationship between south Alaska and a fairly restricted area along the east Asiatic coast." In summary, Collins concludes that "The indications of cultural connections between the Aleutians and Kamchatka are so clear as to lead to the expectation that evidences of aboriginal occupancy will eventually be discovered on the Commander Islands." (Collins, 1937 a, p. 377, See also Collins, 1937 b, pp. 380-384.)

The foregoing evidence seems to point mainly to a diffusion of cultural traits from America to Asia; that is, from east to west. The Japanese type toggle harpoon head probably came from Asia to America. The use, as weapon poison, of aconitine, extracted from the roots of *Aconitum* plants, I have indicated previously as apparently a transfer from Kamchatka-Kurile region to the Aleutian Island-Kodiak region. (Heizer, 1938. See also Collins, 1940, p. 580.) Another culture element, the bulbed enema syringe (Heizer, 1940, map p. 87, p. 89), is possibly an American transfer to Kamchatka and the Kurile Islands, but the evidence is slender and ascription to this element of intercontinental diffusion status is to be entertained with doubt until further evidence is forthcoming. MacLeod⁹⁷ proposes that Pacific Eskimo mummification was introduced from the Asiatic coast.

The welcome Eyak ethnography by K. Birket-Smith and F. de Laguna (1938) has thrown some clear light on the problem under discussion here. A comparative analysis of Eyak culture aimed at defining the cultural position (op. cit., pp. 365-514) has resulted in the identification of a series of traits with a circum-Pacific distribution which includes (op. cit., p. 519): Rectangular plank house; separate sleeping compartment; notched ladder; stockade; raised cache-houses; shirt made of horizontal strips of small animals' fur; apron; stone pecking technique; stone mortar; twisted basketry; boat-shaped container; round plate; wooden quiver; openwater sea mammal hunting; vegetable arrow poison; slavery; transvestism; bride service; cremation; shaman's dolls; attitude toward dogs;

⁹⁷ MacLeod, 1925, p. 143 ff. Until North Pacific mummification is more fully treated, this opinion should be considered tentative.

sounding board; raven myths; tale of the girl and the dog. The questionable inclusion of the following elements is tentatively offered: Nose ornaments; weregild; digging stick; dugout; fish buried in the ground to rot; mother-in-law taboo. These are elements of culture whose distributions are concurrent in this respect—they occur along the Pacific rim. The conclusion is that "There can hardly be any doubt that the general direction of this circum-Pacific drift has been from Asia, more particularly perhaps from the Lower Amur region, towards North America."⁹⁸

I submit that with poison-lance whaling we may add another item to the steadily mounting number of cultural elements and complexes which can be demonstrated to have entered the New World from Asia via the Aleutian Island chain.

APPENDIX 1

THE USE OF POISON HARPOONS AND NETS IN THE MODERN WHALE FISHERY

The practical difficulties attendant upon hunting whales, the largest of all animals, has doubtless led those who follow this dangerous pursuit to make the method as effective as possible. Whaling is a very highly specialized hunting technique, but at best an exceedingly hazardous means of securing an animal.

It is not surprising to learn that in modern times there are recorded attempts to hunt whales with poison-laden harpoons. In recent times, with the scientific knowledge of poisons and their effects known, it is understandable that such an application of poison might be made to whaling by a progressive firm or shipowner. This is an origin of a somewhat different sort than the probable beginning of the aboriginal poison-lance whaling discussed in the main body of this paper. Logic would seem to indicate that the use of aconite poison for whaling in the Kamchatka-Kurile and Kodiak-Aleutian area is originally ascribable to a transfer from the use of poison in hunting land animals. As weapon poison became known to coastal people (presumably either Ainu or Kamchadal) they applied it to hunting the whale.

The earliest occurrence of the modern use of poison for whaling that I have found dates from the year 1831 (Christison, 1860). Christison was requested in that year by the mercantile firm of W. and G. Young, of Leith, Scotland, to devise a means for catching whales by poison. Christison considered the problem of the size of the whale (60 feet long and up to 70 tons in weight, according to

⁹⁸ Birket-Smith and de Laguna, 1938, p. 520. Kroeber (1923 b) emphasizes Asiatic influences on the Northwest coast. See also Collins, 1940, p. 578.

Scoresby) and decided that ordinary whales encountered would not be above 40 feet in length or weigh over 40 tons. Christison assumed that one minim of hydrocyanic (prussic) acid would kill a man of 200-weight, and computed that 2 ounces (875 minims) would suffice for stupefying or even killing a 40-ton whale. A method was devised for introducing the poison at the right moment after the harpoon had penetrated the whale. The hydrocyanic acid was put in a glass tube and attached to the harpoon near the blade with a heavy copper wire which was also attached to the harpoon line. When the whale had received the harpoon the line was drawn tight, pulling the copper wire and crushing the tube which released the poison. Another type of dispenser was devised and described thus:

The blade of the harpoon has commonly a double barb thus, figure 1. In the poison harpoons, the ends of the barbs were jointed as in figure 2 [see fig. 60]. It is evident, that as soon as the animal sprung off on the harpoon being struck into its body, the ends of the barbs would be pulled open by the drag exerted on the harpoon, and that the inner point of the barbs would be pressed strongly against the glass tubes, and crush them. [Christison, 1866, p. 76.]

Materials for producing concentrated hydrocyanic acid were carried on the voyage, but on the eve of beginning to hunt whales the ships carrying the harpoons and poison were crushed in the ice pack and lost. The next year (1833) the same firm made a second, and successful, attempt. One eyewitness said the poison tubes were fired from a musket at the whales but did no harm.¹ A harpoon gun² was used, but only once. The poisoned harpoon entered the whale's body, the whale sounded, and in "a very short time"³ the line relaxed, and the whale appeared dead on the surface. The terrific effect of the harpoon so appalled the men that they declined to use them any more. Christison goes on to say, however, that this ship caught 24 whales on this voyage, which was a record, no number for some time previously or afterward reaching this mark. This fact, together with the observation that the ship's log made no mention of the use of poison, leads to the belief that the Youngs wanted to conceal their experiment.⁴ The news did spread, probably through men employed on the ship, and short notices appeared in newspapers and periodicals. An Aberdeen or Peterhead ship is reported to have successfully used harpoons poisoned with prussic acid. The whales struck either were killed outright or were so paralyzed that they were unable to move, and were easily dispatched

¹ This may be the earliest of a series of attempts at using poison shells. If so, it was abortive.

² A short-barrelled gun which shot an iron harpoon with the line attached.

³ Normally a whale sounded for about a half hour. Presumably, in this instance, it was for a much shorter period of time.

⁴ Secrecy was important, but too many people shared the secret and information leaked out. Christison himself was sworn to secrecy, and wrote his paper in 1866 after the Leith firm was no longer in existence.

with lances. This case is reported in 1838 or 1839. The crew was so frightened by the effect of the poison that they were afraid to flense the whales.

The next case that comes to my attention is recorded by Clark.⁵ The *Susan Swain*, which sailed from Nantucket on November 17, 1833, carried poison harpoons, but the crew was frightened by reports of deaths resulting from handling blubber of whales killed with poison, and these harpoons were not used. Clark (1887, p. 249) thinks poison whaling originated in Scotland with Christison, whose report is sum-

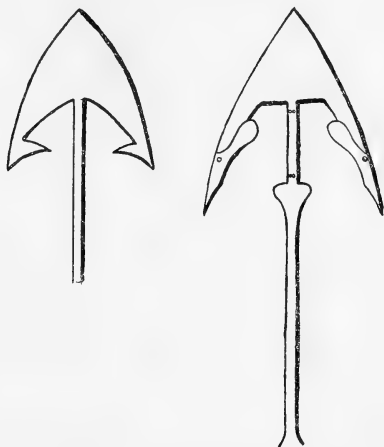


FIGURE 60.—Ordinary whale harpoon with simple lateral barbs and a poison harpoon with hinged barbs. (From Christison, 1860, p. 76, figs. 1, 2.)

marized above, but he states that the American whale men attribute the development of poison whaling to the French.⁶

There is a mention that whaling with poisoned harpoons originated in Baltimore in 1835 or 1838, but I have not found the original article (*Niles National Register*, 1843, p. 16).

Between 1843 and 1849, a surgeon of the French navy named Ackermann concerned himself with the problem of prussic acid as a means of whaling. He named his harpoon a *harpon inoculateur*; it seems to have had a tube of acid attached to the point which was crushed after penetration. He seems not to have published a full report of his

⁵ Clark, 1887, p. 248. Given erroneously as 1873 by Spears (1908, p. 228).

⁶ Clark, 1887, p. 248. The French were known to have made and published the result of their attempts at poison whaling. In this way they may have been attributed all efforts in this direction.

researches; and I find only three brief and unenlightening communications to the Academy of Sciences. (Ackermann, 1843 a, 1843 b, 1849. Mentioned in Niles National Register, 1843, p. 16.)

Scotland appears next in our chronological study of the modern development of whale hunting with poison-bearing harpoons. Clark (1887, p. 249) describes a large, two-grooved rifle made in 1861 in Edinburgh. It weighed 28 pounds and fired shells filled with one-half ounce of concentrated prussic acid and a small powder charge fired by a 10-second fuse. On May 12, 1862, at 11 a. m., a whale was struck with the harpoon gun and sounded, carrying out 4 lines (480 fathoms). At 12 noon the whale surfaced and a prussic acid shell was fired into it. The whale submerged for 4 or 5 minutes, and upon surfacing, another shell was fired into its body. The whale then seemed quite helpless. Three harpoon guns were fired into the body as the whale lay on its side, and at 12:30 it was quite dead.

In 1866 there appeared in France a paper by Thiercelin on the employment of strychnine and curare as a means of hunting the large cetaceans (Thiercelin, 1866). The experiment was carried out with the aim of improving the method of whale hunting. Two problems presented themselves; first, how to effect the greatest possible dissemination of the poison and, second, how to cause the greatest absorption of the poison in the shortest possible time. The choice of what poison to use caused trouble, since whales sometimes exceed 100,000 kg. Finally, there was selected the most soluble of the salts of strychnine⁷ united with a twentieth of curare.⁸

As a result of a large number of experiments upon terrestrial mammals (dogs, rabbits, horses), Thiercelin found that this poison employed in a minimal dose, resulted in the death of these animals in the space of 12 to 40 minutes, according to: (1) Being porphyrised, (2) being dispersed in a large wound by means of insufflation, and (3) being administered in a dosage of five ten-thousandths (0.005) of a gram per kilogram of the animal if the animal weighs more than 10 kilograms. A larger dose caused a more rapid death; if the dose was less the animal recovered. The larger the animal being experimented with, the smaller the proportionate quantity of poison necessary to cause death.

⁷ Mitchell (1929, p. 788) states that strychnine characteristically produces tetanic convulsions which are recurrent; lockjaw is a constant symptom. Death, in humans, has been known to ensue within as short a time as 12 minutes, but usually occurs in from $\frac{1}{2}$ to 2 hours. In rare cases with fatal ending life has been prolonged for one or more days (p. 789). See also Henry (1924, pp. 190-191).

⁸ Mitchell (1929, p. 771) says that "curare exercises both a paralyzing and tetanizing action, but it appears to owe its chief poisonous properties to its action on the motor nerves, which it paralyzes, so that an animal under its influence dies of suffocation from paralysis of the muscles of the chest. . . . curare produces tetanus just like strychnine." See also Henry (1924, p. 191).

The whales, in actual experiments performed by Thiercelin (described below), were inoculated with 0.005 gram per kilogram of body weight. Cartridges were made, each containing 30 grams of toxic mixture, one being sufficient to kill a whale of 60,000 kilograms or less, and two would be enough to kill the largest whales of the Arctic. Each cartridge was inserted in the powder of an ordinary explosive projectile known as the bomb lance.⁹ After these preparations, Thiercelin shipped on a whaling cruise to make actual experiments. Ten whales were shot with bomb lances containing poison capsules. All died in a length of time indicating that he "had not presumed too much in the energetic action of the poison."

Case 1.—August 20, 1863 (Coral Sea, Chesterfield Islands).

A rorqual, already wounded but still full of vigor and upon the point of escaping from the whalers, received a bomb lance in the abdomen. It died 11 minutes after penetration, in convulsions and without sudden starts.

Case 2.—August 22, 1863.

A free whale received, accidentally, a bomb near the tail. The wound produced never have been mortal by an ordinary bomb. The animal acted as though it had an attack of tetanus. This state lasted 5 minutes and was followed by death.

Case 3.—December 5, 1863 (on the Australian coast).

A killer whale received a bomb in the dorsal fin. It exhibited a general trembling and small convulsive movements for 2 minutes. After 2 more minutes of automatic progression, it turned turtle, presented its ventral side to the air, was undeniably dead, and sank.¹⁰

Case 4.—May 10, 1864 (in sight of one of the Kurile Islands).

Another killer whale (Fr., *jubarte*) received a bomb and exhibited the same symptoms as in the preceding case. Death followed 4 or 5 minutes after inoculation.¹¹

Case 5.—August 1, 1864 (Sea of Ochotsk).

A polar whale received a bomb. It sounded immediately, and died near the shore in 15 fathoms. No movement could be ascertained.

Case 6.—February 2, 1865 (Baja California, Santa Margarita Bay).

A California gray whale received a bomb and died, so to speak, with the thrust. It sank in 10 fathoms in water clear enough to enable one to say that it made no movement.

Case 7.—February 28, 1865.

A female of the same species nursing a young one which had been made fast, received a bomb. For 10 minutes it exhibited several convulsions and a general trembling, then died on the surface.

Case 8.—March 1, 1865.

A bomb struck a whale, already issuing blood. It sank in 20 fathoms and died in 8 or 10 minutes without apparent movement.

Case 9.—July 2, 1865 (East Cape, Bering Sea).

⁹ A lance with an explosive cartridge on the head and shot from either a shoulder gun or a heavier swivel gun attached to the rail of the whaleboat.

¹⁰ The killer whale is notoriously easy to kill. It was never hunted commercially by deep-sea whalers.

¹¹ It is a curious coincidence that Thiercelin should be practicing poison whaling in the Kurile area where it was formerly an aboriginal technique.

A polar whale, held by two harpoons, received a bomb. Tremblings, etc., as in the preceding case. Death at the end of 10 minutes.

Case 10.—September 6, 1865 (East Cape, Bering Sea).

A polar whale, attached by a harpoon, received almost at the same time, two bomb lances. It exhibited the same symptoms as outlined in case 9, and died after 18 minutes.

Of these 10 poisoned whales, 6 were "tried out."¹² The blubber chunks were handled without excessive precautions by men having scratches and even recent (open) wounds on their hands, without a single one experiencing the slightest accident. Two whales belonged to a species which is not regularly fished for, and the other two were lost as a result of the fortunes of the chase independent of the new (poisoning) method. Of the 10 whales receiving poisoned bombs, all died in a lapse of time not exceeding 18 minutes, and, if one does not object to the numerous wounds made by the lances and ordinary bombs which did not cause the death of the animals attacked, it is not possible to deny or gainsay the influence of poison on the whales. These marine mammals appear to be more susceptible to the action of the poison than all the terrestrial mammals. "By reason of this sensibility," said Thiercelin in 1866, "there will be opportunity for the future to practice with diminishing the dose of the toxic agent for effecting a less immediate death." The differences in the elapsed time between the wounding and death is probably attributable to the variable dispersion of the poison, depending upon the more or less complete fragmentation of the bomb, as well as the location of the wound. Thiercelin concludes by pointing out that the several obscurities and inconclusive results are due to difficulties attendant upon controlled or laboratory experiments. There can be little doubt, however, that the method is an extremely effective one.

There is suggested by the foregoing data a parallel between the aboriginal and modern poison whaling in the effort to keep the technique a secret. Fundamentally, secrecy in each instance had an economic motivation. Among the Koniag, for example, possession of a whale automatically gave the owner the privilege of giving it away—in this way his social prestige was elevated. I have treated the question of how and why these people maintained secrecy regarding the extraction and use of poison for whaling and refer the reader to this earlier discussion. We have noted the fact that in 1831, the date which marks the first recorded attempt to employ poison on modern, commercial whaling ships, the firm which innovated the practice attempted to keep it secret. It was not possible to do so, however, since the crew talked and other firms or individuals in other ports learned of the technique and tried

¹² The process of boiling the blubber to extract the oil.

it out. Among the Koniag each whaler found it expedient, for his own ends, to keep silent—the whale hunters constituted a closed group. Why modern poison whaling was not more widely accepted is difficult to say. There is no proof that men were ever killed by handling the whale blubber from animals killed by poison. The story may have been an excuse on the part of the whaling crews, to avoid implication in this type of whaling which, if accepted, would necessitate smaller crews and would result in fewer jobs. At any rate, our evidence does not indicate that the idea was ever accepted and turned to commercial advantage.

THE MODERN USE OF HEAVY NETS IN WHALE CATCHING

It is difficult to determine how early large nets were used in the modern whale fishery. The early Basque, Dutch, and New England whalers are not known to have employed nets in this connection.¹³ Clark gives an account of a certain Captain Josiah Ghenn, a Provincetown whaleman, who attempted to capture a bowhead whale off the coast of Labrador in 1848 with a net made of whale-line. (Clark, 1887, p. 248. Cited by Spears, 1908, p. 225.) The net was 159 fathoms long and 8 fathoms deep with large meshes. After the net was set in a right angle out from, and then turned parallel to the shore, a bowhead whale entered the net and carried it away.

In the Faro Islands in the north Atlantic, blackfish (*Globicephalus melas*) enter the fiords in great numbers. The herd is prevented from escaping by a large net 200 fathoms long, 8 fathoms deep, made of 9-yarn rope with lead sinkers at the bottom and oak barrels for floats (Clark, 1887, pp. 306-307). This fishery is reported as early as 1584, but whether nets were used at this early date is not stated.

In the Norwegian fiords, in the neighborhood of Bergen, whales are impounded with nets stretched across the narrow entrance of the bay. Here, however, the net is used to prevent the whales from escaping, rather than entangling them as a means of capture (Brunchorst, 1899).

In New Zealand, a large net made of three-quarter inch wire rope with a 6-foot mesh and buoyed with barrels, is put out to sea from a point of rocks. The whale gets entangled, is seen from shore by the lookout, and boats are put out to harpoon and lance it. (Kelly, 1906. Mentioned also by Fraser, F. C., 1937.)

This concludes our survey of modern whale netting. Parallels are suggested by these data to the aboriginal use of nets for catching

¹³ Scoresby (1820, vol. 2, p. 173) says the English used rope nets for whales in the early seventeenth century, but further details are lacking.

whales. The Japanese method of setting out a net in the open sea and entangling the whale by drawing the two ends together by boats (see pl. 22) has no modern parallel. The use of lookouts (noted also for the Faroe Islands, Bergen fiord, and New Zealand) in Japan is explainable in functional terms of shore-whaling—i. e., whale hunting by small boats which put out from shore when a whale is sighted.

The whale netting of the Olutorski Koryak is similar in this respect to the modern whale netting described above, viz, anchoring one end of the net on land. Inside the entrance of the bay, the net is placed by the Koryak so as to intercept the whales as they enter. There is nothing specifically like this recorded by modern whale netters—the New Zealand instance probably approaches the manner in which the Koryak net was set.

There need only be added here that there seems to be no historical connection whatever between the aboriginal poison-lance whaling of the east Asiatic coast and Aleutian Islands and the modern European and American instances referred to above. The same is probably true of whale netting, but it must be remembered that Europeans were at a very early date whaling in the Japan Sea. Japanese whale netting must have been seen and described by Europeans and the mere transmission of the idea may have stimulated attempts to use them. This may, however, be doubted on the grounds that the Japanese use nets for entangling whales in the open sea, while all the modern instances recorded here refer to the setting of nets along the shore. The two are different, and the question obviously cannot be solved on logical grounds. There is no recorded evidence that the Japanese stimulated others in recent times to take up their rather unusual whaling technique. To have done so would have been a difficult undertaking, and it would be costly, since great numbers of men were needed;¹⁴ it might be said that Japanese whaling, however effective, was extremely inefficient in modern terms of labor and investment, considering the economic returns. Of course, only a rich Japanese could indulge in the whaling business on such a scale (Kempfer, 1811, pp. 705-706), but the point I am making here is that it would be economically unprofitable in these days. This point is of possible further application in regard to the whole large question of the diffusion of whaling techniques, not only in modern whaling, but that of aboriginal forms as well. A specialized hunting method such as this is may not readily diffuse unless certain conditions are favorable.

¹⁴ Müblus (1893, p. 1056) says that at one coastal whaling station (Ichibuura) there were 587 people employed, 440 of which were rowers of the small boats. There is a record that in 1884 a Japanese whaling company employed 100,000 men. (State St. Trust Co., 1915, p. 34.) In Euro-American culture, the labor costs would have prohibited anything of this sort.

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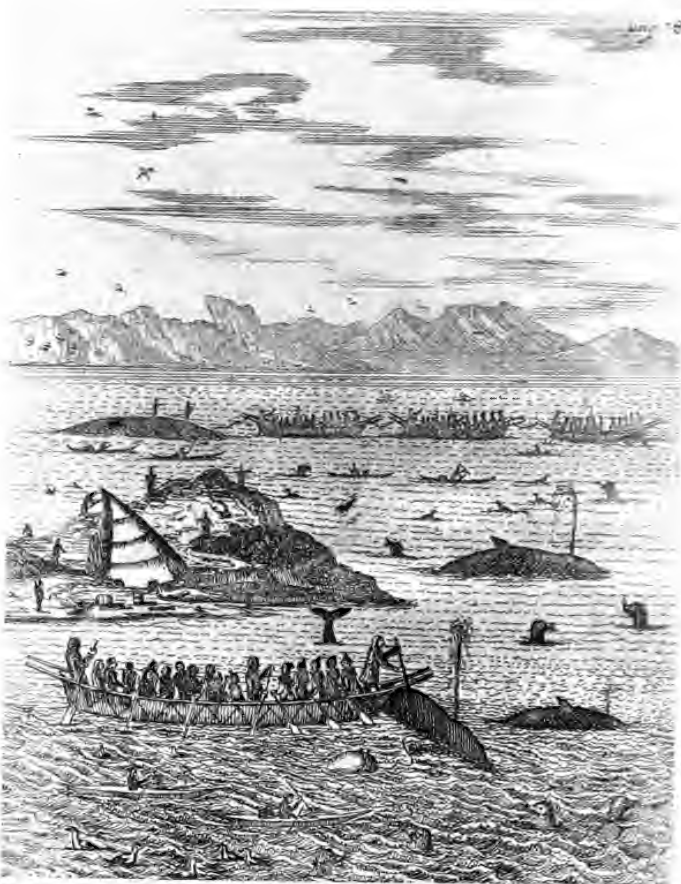
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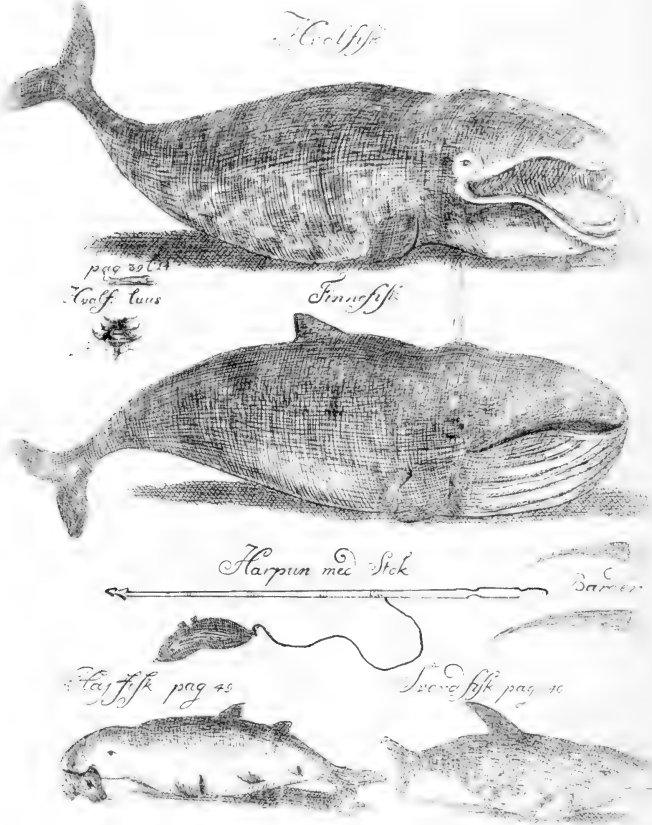
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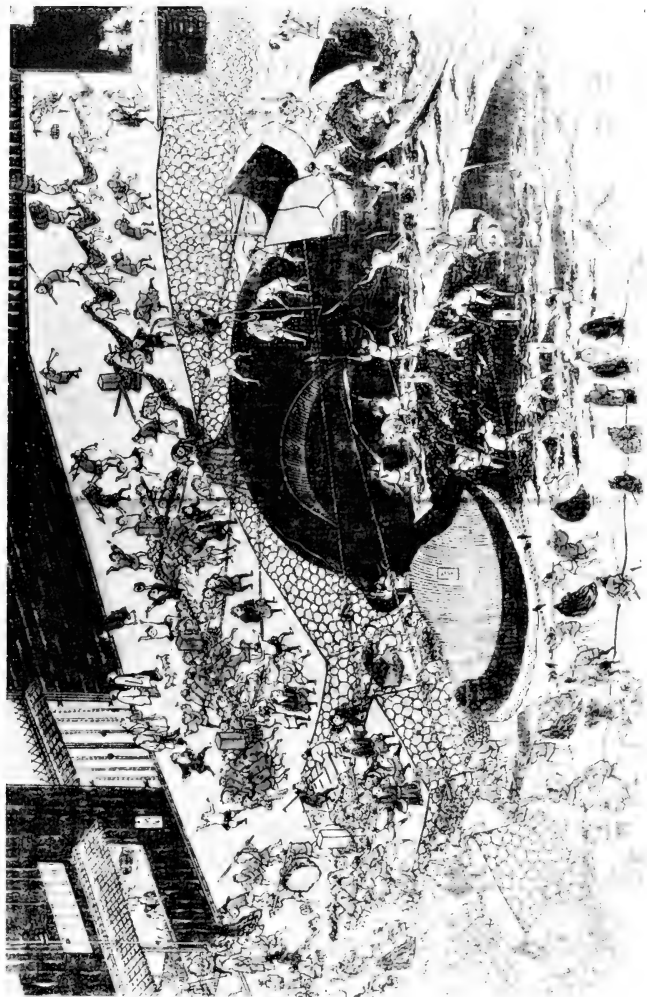


THE WHALE FISHERY OF THE GREENLAND ESKIMO.

(After Eggede, 1763, pl. opp. p. 78.)



GREENLAND WHALES AND HARPOON WITH BLADDER.
(After Eggede, 1763, pl. opp. p. 48.)



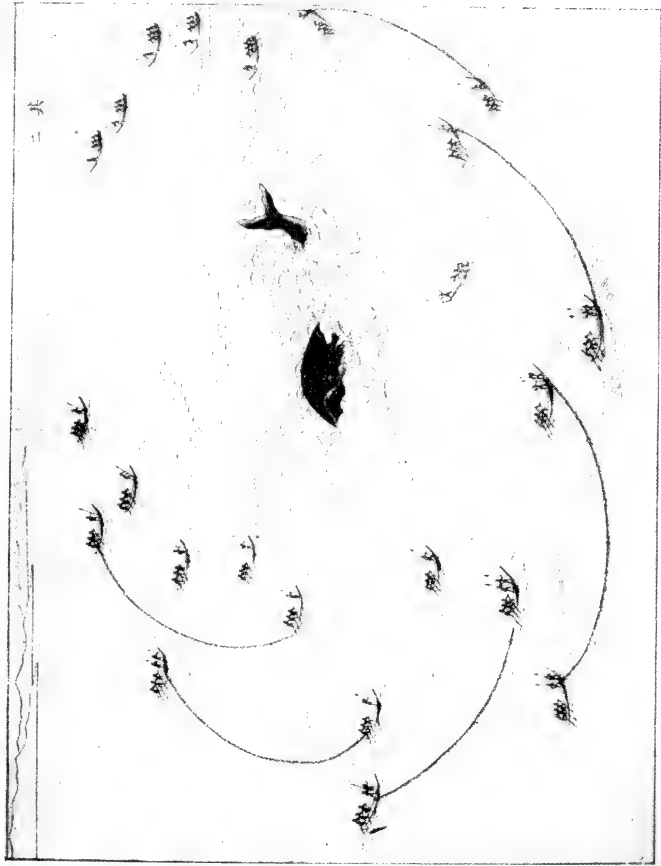
CUTTING UP THE WHALE, JAPAN.

(Originally from Pictures of Whaling (Ueyoyoturu Eshin), by Yamada Yosoi, 1790 or 1829; reproduced subsequently by Mobius, 1893; Fraser, 1937; and Tsuchiya, 1937.



DISPATCHING THE ALREADY HARPOONED AND NETTED WHALE WITH LANCES. JAPAN.

(From the volume of plates accompanying the Report on Fisheries, by G. B. Goode, 1887, Section 5.)



JAPANESE WHALERS SETTING OUT NETS FOR A WHALE.

Note boats with harpooners approaching the whale. (Originally from Pictures of Whaling, by Yamada Yosai.)



THE WHALE HUNT OF THE ALEUTS.

Aleuts throwing poisoned lances at the Humpback whale (*Megaptera versabilis*). (From the volume of plates accompanying the Report on Fisheries, by G. B. Goode, 1887, Section 5. Drawing by H. W. Elliott.)



WHALE HUNT OF THE KODIAK ISLAND NATIVES.

(After de Moiras, 1844, vol. 2, frontispiece.)

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The Carrier Indians of the Bulkley River
Their Social and Religious Life

By DIAMOND JENNESS

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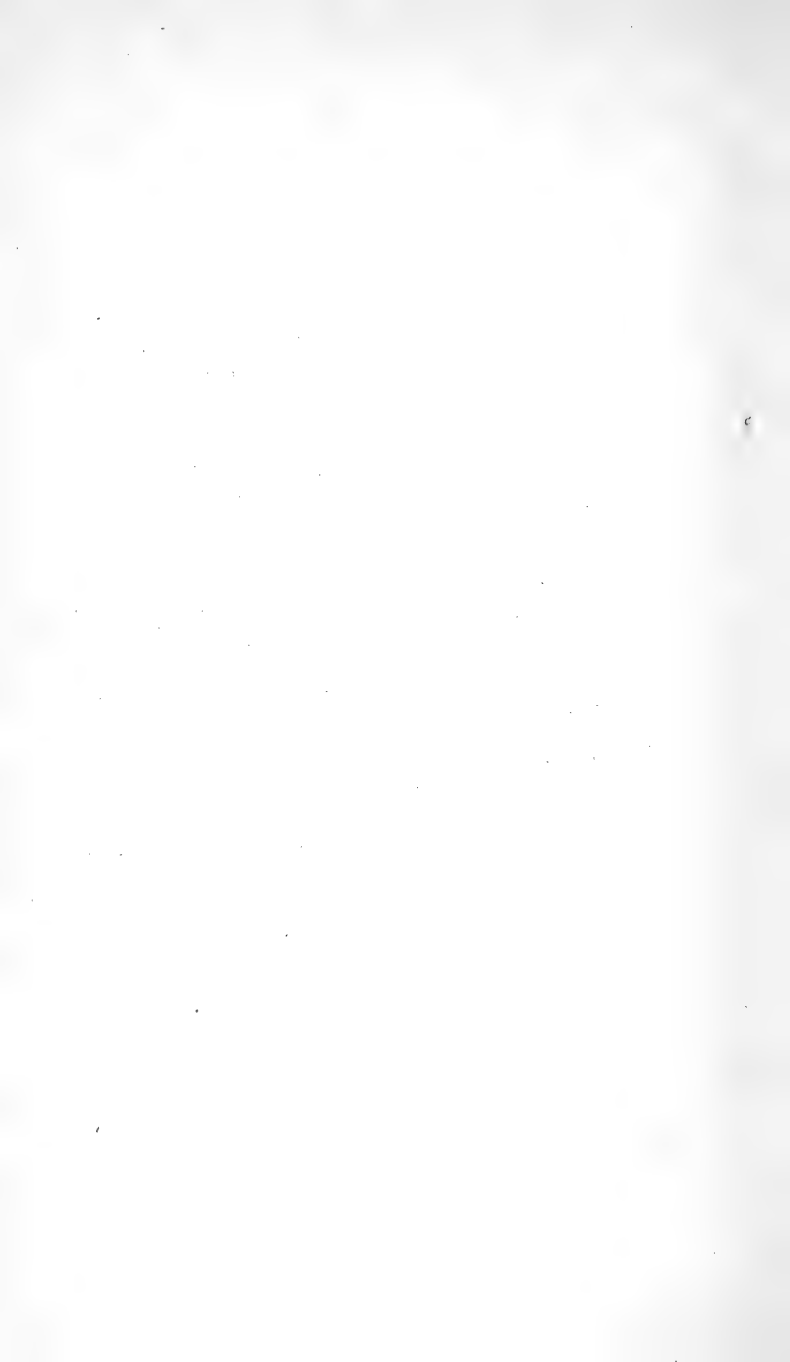
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PREFACE

This report is the outcome of a visit to the northern interior of British Columbia during the winter of 1924-25, when I spent 3 months at Hazelton and Hagwilgate, and periods of about a week each at Fort Fraser, Stony Creek, and Prince George. I made no attempt to investigate the material culture or the language of the Carrier Indians, since these subjects had been adequately covered by Father Morice.

The spelling of the numerous Indian names has presented some difficulty. In the field they were recorded phonetically; but since this report has little value for linguists, and a welter of phonetic symbols would unnecessarily increase the difficulties of the reader, the words have been reduced to their nearest equivalents in English spelling, and only those special characters retained that seemed absolutely indispensable. These characters are: *x*, sound of *ch* in Scotch *loch* or German *ach*; *ɤ*, sound of *ch* in German *ich*; *q*, the uvular equivalent of *k*; *ʃ*, voiceless *l*; *ω*, sound of *aw* in *law*; *˙* (period above the line), denotes double length of the preceding vowel or consonant; *˘* (above or after a letter), glottal stop; and *˙*, breathing. *Ch* represents the sound of *ch* in *church*.

The folk tales collected during the same winter have already been published under the title "Myths of the Carrier Indians of British Columbia." (See Jenness, 1934.)



THE CARRIER INDIANS OF THE BULKLEY RIVER THEIR SOCIAL AND RELIGIOUS LIFE

By DIAMOND JENNESS

LOCATION AND RELATIONS WITH NEIGHBORING PEOPLES

The westernmost subtribe of the Carrier Indians, the Hwitsowitenne, "Clever People," as it called itself, occupied the basin of the Bulkley River, an important tributary of the Skeena in northern British Columbia, together with a block of territory that extended for an uncertain distance to the south (fig. 61). Flanking it on three sides were other subtribes of the same Carrier nation, but on the west were Gitksan Indians of the Tsimshian stock, whose nearest village, Hazelton, lay only 4 miles from the Carrier village of Hagwilgate (pl. 24). After 1800 there were many disturbances of population in this area due to epidemics of diseases, the growth of European settlements, and the greater ease of communication through the building of roads and a railway. Many Carrier families were blotted out and their places taken by immigrant families from other districts; and there was much intermarriage with the neighboring Gitksan Indians. Today the subtribe numbers rather more than 300, and has two main settlements, Hagwilgate and Moricetown, while a few families reside at other villages along the line of the transcontinental railway. Some of the Indians remain in their settlements throughout the entire year, others cut ties for the railway in winter, or hunt and trap in remote districts where the land is not yet preempted by white settlers and game still survives in fair numbers. Two or three families even roam occasionally as far south as the Eutsuk lake area, which the Bulkley people incorporated into their territory after the earlier inhabitants, who seem to have formed a distinct subtribe, were destroyed by an epidemic of smallpox about 1838. In summer, again, there is generally a slight movement to the coast, where a few natives find employment in the salmon canneries during the fishing season.

EARLIER HISTORY

To recover the history of this Bulkley River subtribe prior to the nineteenth century seems impossible. Its members claim that they

a small section of the subtribe, the Thin House clan of the Gilserhyu phratry; for though all members of the subtribe, and even Gitksan Indians from the Skeena river, Carriers of the Babine Lake subtribe, and Sekani from beyond Babine Lake, gathered at Dizkle each year to trap the migrating salmon, the surrounding territory (called Dizkle like the village) was the hunting reserve of this one section of the Bulkley subtribe, and no one might hunt there except members of the same phratry. The Hagwilgate canyon, then as now, was the boundary line between the Bulkley Carrier and the Gitksan Indians, who had a permanent home of their own at Temlaham, 4 miles below Hazelton; and the dispersal of the two peoples from their respective villages, Dizkle and Temlaham, led to the establishment of all the modern villages in the area, to Moricetown and Hagwilgate by the Carrier subtribe, and to Hazelton, Kitwanga, and other places by the Gitksan.

So runs one tradition of the Carrier. According to another, Dizkle was the original home of three distinct tribes, the western Carrier, the Sekani, and the Gitksan. Superstitious fear when two squirrels inspected their dam made them scatter and flee to their present homes; and the passage of years has produced their present differentiation (Jenness, 1934, p. 241).

I have examined the supposed site of Dizkle, and Harlan I. Smith, archeologist of the National Museum of Canada, has visited the traditional site of Temlaham. In neither place did we discern any traces of a permanent settlement. One may reasonably doubt, therefore, whether the two villages, glorified by similar legends, ever held the prominent place that tradition assigns to them, if indeed they ever existed outside the fertile imaginations of the Indians.

At the opening of the nineteenth century the principal fishing-place and village of the Bulkley Carrier was at Moricetown. Hagwilgate was established only about 1820, when a rock slide in its canyon almost blocked the river and allowed very few salmon to pass beyond (pl. 25, fig. 1). Most of the inhabitants of Moricetown then moved en masse to the canyon and built new homes on a narrow shelf below it; but they abandoned this rather inaccessible site toward the end of the century and established their present village on the terrace above. The last survivor of the migration from Moricetown, Satsa'n, died in 1914 at the age of about 90.

RELATIONS WITH SURROUNDING PEOPLES

Ease of travel in modern times has brought the Bulkley Indians greater knowledge of their fellow Carriers to the east, and revealed to them other Indian tribes in British Columbia of whom they were ignorant in earlier days. This greater knowledge is reflected in the

accompanying sketch-map, which outlines their conception of the names and boundaries of their own and other Carrier subtribes in the latter half of the last century. (See fig. 61.)

Of the easternmost Carrier they apparently knew very little until recently; but with their fellow-Carriers of Babine and Fraser Lakes the Bulkley people always maintained close and friendly relations, marred in the case of the Fraser Lake Indians by only one feud of which they retain any recollection. Equally friendly were their relations with the Gitksan Indians; the difference in their speech neither debarred intermarriage, nor hindered the Bulkley Indians from absorbing many culture traits from their more advanced neighbors. The Gitksan controlled the trade route down the Skeena River to the coast that brought to the Carrier objects of shell and copper in exchange for moose hides and various furs. The coast Tsimshian, who were the principals in this trade, tried to eliminate the Gitksan middlemen about 1850, and, themselves ascending the Skeena, established a yearly market on an open flat at the junction of that river with the Bulkley. There for several years they carried on so amicable a trade with the Carrier that a few of the latter ventured to accompany them back to the coast and to pass the winter months in their midst; but about 1866 a quarrel over some transaction led to a fight in which both sides sustained several casualties. One account states that the Tsimshian returned the following summer and demanded the surrender of the Bulkley River valley in compensation for their losses; but that they never took possession of the area, though the Carrier agreed to their terms. More credible, however, is the following version of the conflict and its issue:

The Tsimshian ascended the Skeena in about 50 canoes and camped at Mission Flat, where that river is joined by the Bulkley. In the course of bartering a Hagwilgate Indian quarrelled with a Tsimshian man over the price of some article and fired his gun to intimidate the dealer. Thereupon the Tsimshian, fearing treachery, seized their weapons and shot indiscriminately at men, women, and children; and the Hagwilgate natives retaliated. Finally the latter retreated to their village, and the Tsimshian, loading up their canoes, hurried back to the coast. For three years they did not return. Then a large party appeared in ten canoes, and the two peoples concluded peace at a great potlatch in which the Tsimshian, as the aggressors in the fight, paid compensation for every Carrier who was slain.

Besides the Tsimshian proper, Indians from the Nass River visited the Bulkley Carrier in order to barter oolakan grease for marten and other furs; and more than once the Carrier, pressed by famine toward the end of winter, themselves traveled through the territory of the Gitksan to one or other of the Nass villages in order to purchase oolakan and other food. Yet they have always disliked the Nass River people, and still remember with bitterness an episode that occurred about 1864. The story, as related by one of the last survivors, who in 1924

was a blind old man tottering toward his grave, throws an interesting light on the customs of the Indians at that time.

One winter when our people were starving, my family, together with my uncle Gyedamskanish, Bini, the chief of the Beaver phratry, and many others traveled overland to Gitlaxdamks village on the Nass River to buy oolakan grease. Soon after our arrival my father discovered that one of the inhabitants bore the same title and crest as himself, and, claiming kinship, ordered me to lodge for the night with his namesake while he and the rest of the family lodged elsewhere. He came to the door early next morning and said to me, "We have bought all we want and will leave the village before noon." So a number of us started back for Hagwilgate, and after traveling a few miles camped near a stump that supported a huge stone. I and some other youths tried in turn to push this stone over, and when it crashed to the ground under our united efforts we raised a shout of victory and returned to our camp.

Now, some Gitwinkul men who were passing heard our shouts and came to see what was happening. My father said to them, "Our lads were merely pushing a stone off a stump." But they answered, "That was the gravestone of the late chief of the village." Greatly alarmed, my father begged them to keep the deed secret, but they immediately went on to the village and spread the news everywhere. Then a woman rushed weeping into a house where some of our people were eating and cried, "Why do we feast these wretches? They have disturbed the grave of our chief." About half our people, led by Bini, retreated inside another house; the rest hastened after us and told us to flee, because Nass, Kispiox, and Gitwinkul Indians were all mustering in pursuit. We did flee, but the Nass natives overtook and captured those who were in the rear. One captive, a noblewoman named Anklo', they proposed to enslave, but she said to them, "You cannot make me a slave, for I am the daughter of a chief. If you carry me off as a captive, you must take also two slave girls for me to lean upon. Besides, why do you want to make me a prisoner? Neither I nor my family touched the grave, but Gyedamskanish yonder and his family." They led her away nevertheless, and with her two slave women to attend to her wants. A Kispiox Indian then disarmed Gyedamskanish, who said to them, "Remember that I am a chief. What are you going to do with me?" "You must return with us," they answered, "to pay for the insult you offered the grave." "Take my brother also," he said, "We will die together"; and when they paid no attention to his words he turned to his brother and said, "Come. Let us go together." The two men were led out onto the ice of the river and ordered to run up and down while their enemies mocked them and shot at them with guns. Gyedamskanish' brother dropped dead at the first shot, but Gyedamskanish himself, though frequently wounded, ran up and down for nearly half an hour before he fell with a bullet through his thigh. The Nass Indians then burned their corpses and returned to Gitlaxdamks.

Meanwhile an influential Indian had concealed another of my uncles inside a large chest, and when the villagers searched the house sat on top of it and refused to move away; his countrymen dared not disturb him on account of his high rank. My uncle's wife stood near him, grasping a large knife in readiness to stab the first man who molested her husband or herself, but no one laid a hand on her. Bini and the rest of our people barricaded themselves inside another house throughout the night, while their enemies threatened them from outside and occasionally fired off their guns.

Early the following morning the principal chief of the village sent round word to all the houses that the fighting should cease and that our people should move over to his house along a path strewn with the white eagle-down that symbol-

izes peace. Preceded by a messenger carrying a white feather, he then conducted them to our camp, a day's journey away, and we returned home without further mishap.

Some time afterward a party of Nass Indians came to Hazelton to conclude a peace with us. They assembled within the potlatch house beside a huge pile of blankets, and we went down from Hagwilgate and stood outside, myself and another youth, the nearest relatives of Gyedamskanish, in the forefront. After our enemies had presented us with a number of blankets, we followed them inside the house and ranged ourselves along one wall while they lined up against the other. Every man was dressed in his finest clothes and carried a gun and a knife, but, to prevent trouble, I and my companions sat in front of the Nass River chief and two Nass youths occupied corresponding places in front of our chief. As soon as we were thus seated, the two ringleaders in the murder approached us and placed a red-tipped feather on each of our heads to indicate that they intended to pay full compensation. Then one of them delivered a speech declaring that they wanted to make peace, and, shaking a rattle, danced and sang a song. The song that he sang is a special chant used by Carrier, Tsimshian, Haida, Kitimat, Bella Coola, and other tribes whenever they make peace with each other. Though I know the words, I cannot understand their meaning, because they are in neither the Tsimshian nor the Carrier tongue.

As the man repeated the song, both his Nass companions and my own people joined in. I, for my part, rose to my feet and, to show that he was smoothing out the issue, held flat on my outstretched palm a tail feather from an eagle. But before the singing ended I thought to myself, "They haven't paid us enough," and I turned the feather on its edge. Immediately the man broke off his chant, and his people added more blankets to those they had surrendered to us already. He then began his song anew, and this time I held the feather flat on my hand until he ended. Since we all felt too sad to hold a feast in common, my kinsmen, without further delay, gathered up the blankets and returned to Hagwilgate, while I and my companion, to cement the peace, stayed 4 days in Hazelton with the Nass Indians and danced with them each evening.

Two years after my uncles were murdered some of us went over to the Nass River, collected their bones, and deposited them on top of a pole at Hagwilgate. At the same time we brought back Gyedamskanish' widow, whom the Nass Indians had detained after her husband's death.

Still another coast people with whom the Bulkley Carrier came into conflict were the Kitimat Indians of Douglas Channel, a Kwakiutl-speaking people who sometimes hunted beyond the divide of the Cascade Mountains within the basin drained by the Zymoetz and Telkwa Rivers. It is noteworthy that both the Kitimat and the Carrier Indians were divided into five phratries, one of which was named the Beaver, and that neither a five-phratry division nor a phratry called the Beaver seems to appear anywhere else in British Columbia. This supports the tradition of the Bulkley Carrier that they borrowed several features in their peculiar social organization from the Kitimat Indians (Jenness, 1934, p. 232), and suggests that a few centuries ago the contact between the two peoples may have been more intimate than in recent times, when the Gitksan have lodged between them like a wedge. A well-frequented trail leads from Kitimat to Terrace and there forks, one branch leading up the Skeena River to the Bulkley, and another

up the Zymoetz River to the Telkwa, which again leads to the Bulkley. It would seem not impossible that the Carrier Indians once controlled the Skeena River down to Terrace and the boundary of the Kitimat Indians, but were then driven back inland by the Gitksan, who perhaps crossed over from the Nass River. To speculate further in this direction, however, is futile until we know in detail the social organization of the Kitimat Indians and can compare it closely with that of the Carrier.

With the Bella Coola Indians, the Bulkley Carrier had no direct relations, although they may have met a few individuals when visiting the Carrier subtribes in the Eutsuk lake and other areas to the south and southeast. They were better acquainted with the Sekani of the Findlay and Parsnip River Basins who often visited the north end of Babine Lake during the nineteenth century, probably also in earlier times; and they vaguely remember the now extinct T'set'sa'ut as another Athapaskan-speaking tribe, living behind Gitwinkul, that was destroyed by the Tsimshian or Nass Indians. Some assert, indeed, that the inhabitants of Gitwinkul itself once spoke the T'set'sa'ut tongue, and that a T'set'sa'ut woman was a slave for many years among the Tsimshian of the coast. Concerning the Tahltan of the Stikine River Basin they had little knowledge until the middle of the nineteenth century, when the two peoples sometimes met at Bear Lake or at Old Fort Babine; yet it was doubtless a vague rumor of the Tahltan that gave rise to the legend of a semihuman race far to the north, the Na'ani, wonderfully skilled in hunting (Jenness, 1934, p. 242). Today the Bulkley Carrier call both the Sekani and the Tahltan *Itateni*, or, more rarely, by their Tsimshian name T'set'sa'ut; but neither tribe has ever influenced them appreciably, or promoted any changes in their material culture, or their social and religious life, comparable with the changes promoted by the nearer Kitimat and Gitksan.

Among these surrounding peoples the Bulkley Indians, like a many-tentacled cephalopod, had wandering feelers gathering sustenance that enriched the community's life. Yet there was no central nervous system to coordinate the movements of the feelers and to assimilate or reject their booty, no ruling chief or established council to control the actions of the different families and govern their relations with the outside world. Like other Carrier subtribes, the Bulkley natives were divided into a number of fraternities or phratries, each intimately associated with the others, yet politically independent. The phratries assembled and lived together at the same fishing places each season, they joined in common feasts and ceremonies, and they united at times to repel a common danger; but they all owned separate hunting territories to which their members repaired for the winter months, and they associated at will with foreign peoples even

when these might be hostile to others of their countrymen. Since there was no regulation of foreign intercourse and trade and no hindrance to marriage outside the community, foreign ideas and foreign customs could take root in one family or phratry without permeating the others. It was only the constant association, the ties of kinship and marriage, the uniform dialect, and the pressure of common interests that counteracted the strong centrifugal tendencies and knitted the phratries into a definite, though headless, unit justifying the name of a subtribe.

POLITICAL ORGANIZATION

PHRATRIES

The Bulkley Carrier recognized five phratries, which they named Gitamtanyu, Gilserhyu, Laksilyu, Laksamshu, and Tsayu.

The suffix *yu* or *shu* in these words means "people," and the prefix *gi* in two of them has the same meaning in Tsimshian. Only one of the five names, Tsayu, "beaver people," is a true Carrier word, the rest being derived apparently from other sources.¹

Of the other Carrier subtribes, the Babine Lake, west end of Fraser Lake, Cheslatta Lake, and Fort Fraser, recognized the same five phratries under exactly the same names,² except that the Babine Indians called Laksilyu, the third phratry, Kwanpe'hwotenne, "People of the fire-side," while the Cheslatta Lake and west Fraser Lake subtribes gave to the second phratry, Gilserhyu, the name Tso'yezhotenne, "the small spruce people."

The Stony Creek subtribe, on the other hand, recognized two phratries only, Gilserhyu and Yesilyu (=Laksilyu). With regard to the Stuart Lake subtribe there is some uncertainty. Father Morice (1892-93, p. 203) states that it possessed only four phratries, Lsamacyu, Tsayu, Yasilyu, and Tam'tenyu; but a Sekani Indian of Fort McLeod, who was related by marriage to the Stuart Lake people, said that there used to be five, and gave names for them that coincided with Morice's names, except that he substituted Eske for Tam'tenyu and added the fifth phratry Kwanpahotenne. I suspect, therefore, that there were originally five phratries at Stuart Lake just as elsewhere, but that in Morice's day two of them had amalgamated, as happened to two phratries among the Bulkley Carrier about 1865.

¹ Lakselyu is evidently laxse'l, the name given by the Gitksan Indians of Hazelton to the Frog-Raven phratry; and laksamshu is probably the same as laxsamillix, the Hazelton name of the Beaver clan in the Eagle phratry.

² Apart from minor dialectal differences.

Hagwilgate, the westernmost Carrier village, lies only 4 miles from Hazelton, a village of the Gitksan Indians, and the two peoples commonly intermarry and participate in each other's ceremonies. The phratries of the one subtribe then equate with the phratries of the other; and a man or woman who at Hagwilgate belongs to the Gitamtanyu phratry is attached to the Laxgibu phratry at Hazelton. But the Gitksan Indians have only four phratries to balance the five of the Carrier, so that one phratry has to equate with two. The following table shows how the two systems amalgamate:

<i>Carrier</i>	<i>Gitksan</i>
Gitamtanyu-----	Laxgibu (Wolf phratry).
Gilserhyu and Laksilyu--	Laxse'l (Frog-Raven phratry).
Laksamshu-----	Gisra'ast (Fireweed phratry).
Tsayu-----	Laxsamillix (a clan of the Laxski'k or Eagle phratry).

The phratries were the most important units within the subtribe. Though each was divided into two or more clans that had their own chiefs and distinctive crests, the phratry overruled its clans in many ways. Thus it regulated marriage, for no man could marry a woman of his own phratry, even though she belonged to a different clan in that phratry, and to another subtribe or nation. It took an active interest in all the relations of its members with the members of other phratries, supporting them in their grievances and bearing the responsibility of their misdeeds. Through its chief (who was always a chief of one of its clans) it controlled the division of the hunting territories among its members and acted as a unit in resisting aggression by other phratries. If the members of one clan erected a totem pole, the members of other clans within the phratry contributed generously to the expense and regarded themselves as part owners, so that it was not merely a clan totem pole, but belonged in a measure to the whole phratry. Furthermore, the phratries extended beyond the boundaries of the subtribe far more widely than the clans, so that a man's phratric affiliation gained him support and help where his specific clan was unknown. The first question asked of a stranger (if it were not apparent from his dress or tattooing), was not "what clan does he belong to," or even "what subtribe does he belong to," but "what is his phratry?" And any Laksamshu man, for example, who found himself in a strange Gitksan village looked for a house belonging to the Fireweed phratry (the phratry corresponding to his own) and sought there the protection that he could claim on no other ground, perhaps, than membership in a common phratry.

CLANS

The following table shows the clans into which the phratries were divided, and gives the title of the chief who ruled each clan.

<i>Phratry</i>	<i>Clans</i>	<i>Title of Chief</i>
Gitamtanyu-----	A, Grizzly House (Kyas-ya')-----	Wω.s ("Whale").
	B1, House in the Middle of Many (kaiyawinits).	Giste'hwa.
	B2, Anskaski-----	Medi'k ("Grizzly Bear").
Gilseryhu-----	A, Dark House (ya'tsaolkas)-----	Netipish ("Crane or Heron").
	B, Thin House (ya'tsowitan)-----	Guxlet.
	C, Birchbark House (kai-ya')-----	Samuix.
Laksilyu-----	A, House of Many Eyes (giner- klai-ya')	Hagwilnexl.
	B, House on Top of a Flat Rock (tsekal-kai-ya').	Widaxkyet (Big Man).
	C, House Beside the Fire (kwan- per-ya').	Widak'kwats.
Laksamshu-----	A1, Sun or Moon House (sa ya') ³ --	Smogitkyemk.
	A2, Twisted House (ya'hostiz)-----	
	B, Owl House (misdzi-ya')-----	Klo'mkan ("Forest Slide").
Tsayu-----	Beaver House (djakan-ya') ⁴ -----	Kwi's.

The interpretations of these clan names are in some cases obscure. The Grizzly, Sun or Moon, Owl, and Beaver Houses derive their names from their principal crests; and the House of Many Eyes from an incident in the legend attached to its crest.⁵ House in the Middle of Many was so-called because the house of its chief was once erected in the middle of a village; and House on Top of a Flat Rock because the house of a former chief at Moricetown was built upon a rock. The meaning of the word Anskaski, and the origins of the names Birchbark House and Twisted House, seemed unknown. For Kwanperya the Indians offered two different interpretations, "House Beside the Fire" and "House of a Small Bird named Kwanpe." The title "Dark House" refers to the custom of quenching the house fire on the eve of a potlatch, when the chief of the clan sang and danced in the gloom. The Thin House boasted leadership by two chiefs, one of whom had moved up from Hazelton when the village was established in the Hagwilgate canyon. His old home (and section of the clan?) in Hazelton had borne the name "Robin's House," because tradition stated that its founder had once visited the nightly home of the robins in the land of the dead (Jenness, 1934, p. 144); but when he moved up with his

³ The word *sa* means heavenly luminary, either sun or moon.

⁴ According to one old man, the clan (and the chief's house) was called Skeyuya': Eagle House, after its other crest. Possibly it had both names, the second, Eagle House, being more familiar to the neighboring Gitksan Indians.

⁵ For the legends concerning these crests, see Jenness (1934, pp. 214, 225, 232).

people to Hagwilgate, the clan name was changed to Thin House, because the pillars in the new home were flattened on the inside instead of rounded.

The clans have been listed in the order of their recent standing within their respective phratries. Yet the system was not absolutely rigid, for it underwent changes even during the last hundred years. About 1865 the Tsayu phratry was so decimated by smallpox that its members voluntarily incorporated themselves in the Laksamshu phratry, where they now rank merely as one clan. The Twisted House of the Laksamshu phratry was really a part of the Sun or Moon House that separated off under its own chief when the Sun House became very numerous. Similarly, the two clans in Gitamtanyu phratry, House in the Middle of Many, and Anskaski, had a single origin, though which was the earlier is now uncertain; a member of the House in the Middle of Many claimed priority for his clan, but at the present time the chief of Anskaski clan occupies a higher seat at potlatches.

The head man of a clan was called tene'za', "chief;" his wife (or the principal wife, if he had more than one), zegaiz'a. He was supported by a body of nobles, skez'a, most of whom were close kinsmen. Below the nobles were the common people of each clan, auxraten'e, and below the common people the slaves, elne, who seem never to have been as numerous as among the coast tribes, and, indeed, owned by few Indians except the chiefs. The chief of the leading clan was the recognized head of the phratry, and the heads of the different phratries were coordinate in rank, though the one who had the largest following might possess more power and influence.⁶ The principal settlements, Moricetown and Hagwilgate, contained representatives of all the phratries, usually also of all the clans. In such places the maintenance of peace and harmony rested on both the clan and the phratry chiefs. Each clan chief normally settled disputes that extended no farther than his own little unit; when they involved another clan in the same phratry, the head of the phratry, counseled by his clan chiefs, settled them; and when they involved other phratries the heads of the phratries consulted, first with their clan chiefs, then with each other, decided the issues at stake, and arranged for any necessary compensation.

In early times, when Moricetown was still the best place in the district for catching salmon, every clan had there its individual fishing stands, and every clan chief a permanent home. The settlement declined when the landslide 20 miles below partially blocked the Bulkley River, and the majority of the subtribe established the new village, Tsekya, "Rock-foot," beside the Hagwilgate canyon. How many

⁶ The strongest phratries at Hagwilgate today are the Laksilyu and the Laksamshu, which rank about equal, although the latter has the larger membership. At Moricetown the strongest phratry is the Laksilyu.

houses this new village contained originally is not known, but after the smallpox epidemic of 1862 it possessed not only 9 large houses, each of which provided a home for perhaps 20 people, but also a number of smaller houses that sheltered on the average 5 or 6. The 9 large houses were the homes of the clan chiefs and their nearest relatives, and bore the same names as the clans, Grizzly House, etc.; but while the Gitamtanyu and Gilserhyu phratries were represented by a large house for each clan, Laksilyu had only 2 large houses, House of Many Eyes and House beside the Fire; Laksamshu only 1, Owl's House; and the Tsayu or Beaver phratry no large house at all, having abandoned its dwelling when the epidemic carried away nearly all its members (see Plan, fig. 62).

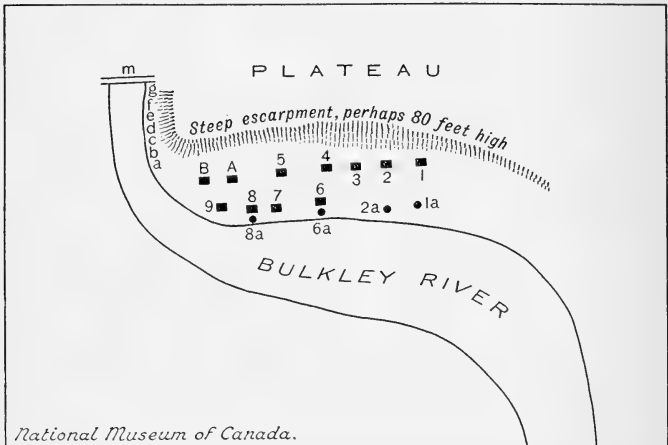


FIGURE 62.—Diagrammatic plan of old Carrier village tse'kya, "Rock-foot," beside the Hagwilgate Canyon on the Bulkley River, British Columbia.

a-g mark the fishing places of the various phratries.

DESCRIPTION OF PLAN OF OLD CARRIER VILLAGE AT HAGWILGATE CANYON

1. House of Many Eyes, Laksilyu phratry. This clan house was partly preserved in 1924.

1a. Totem pole of this house, known as kaigyet.

2. House in the Middle of Many, Gitamtanyu phratry. Partly preserved in 1924.

2a. Totem pole of this house, known as esrii, "fungus."

3. Anskaski, Gitamtanyu phratry. In 1924 there remained of this house only two pairs of beams supporting a ridge pole. It had no totem pole.

4. House beside the Fire, Laksilyu phratry. Of this house there remained only a few logs rotting on the ground. A flat stone that lay on the threshold served as an unusually fine doorstep.

5. Dark House, Gilserhyu phratry. This house also was reduced to a few rotten logs. It had no totem pole.
6. Grizzly House, Gitamtanyu phratry. Its site was hardly discernible.
- 6a. Totem pole of the Grizzly House, known as Grizzly Bear.
7. Thin House, Gilserhyu phratry. There remained on the ground a few logs. It had no totem pole.
8. Owl House, Laksamshu phratry. A few rotten logs remained.
- 8a. Totem pole of the Owl House, known as Fireweed, though today sometimes called Owl. It really belonged to the Beaver phratry.
9. Birchbark House, Gilserhyu phratry. In 1924 its site was hardly discernible. It had no totem pole.
- A, B. Two houses of recent date, owned by Gitksan Indians of Hazelton.
- a-g. Fishing places owned by different clans but open to use by a member of any clan or phratry.
- m. Modern suspension bridge.

Since the phratries were exogamous units, so also in consequence were the clans, although the decline of the system in recent years has permitted several marriages within the phratries. Children belonged to the clans and phratries of their mothers, not of their fathers, for inheritance and descent followed the female line.

All the hunting territory of the subtribe was partitioned among the different phratries, and trespassing on the territory of another phratry without the consent of its chief led to quarrels and often bloodshed. Within the phratric territory each clan had its recognized hunting grounds that were theoretically subject to endorsement by the phratric chief and to any limitations and changes he might make in the interests of his phratry, but were practically inviolate as long as the clan was strong enough to resent encroachment. The families made mutual arrangements where each would hunt, and two or three generally traveled and camped together. The country was too thinly settled to give occasion for many disputes, and such as did arise were settled by the clan or phratry chiefs. It is said that the phratry chief sometimes remained in the village all winter and did not go out to the hunting grounds, but was supplied with beaver, caribou, and other meat at irregular intervals by returning hunters.

At the present time, individual noblemen who are not even clan chiefs claim possession of one or two small hunting grounds, and their claims are recognized by the rest of the Indians even though they admittedly violate the principle of phratric and clan ownership. But the clan and phratric chiefs have lost their authority, and game has become so scarce that many families do not find it worth their while to hunt, so that no one wishes to stir up trouble by disputing claims which, after all, have little value. How they first came to make these claims is not quite clear. Apparently they were instigated by the growth of individual rights in other directions brought

about by the decline of the phratries and clans, and by the indifference with which they had been permitted to reoccupy the same areas winter after winter for many years in succession.

The division of the fishing grounds corresponded to the division of the hunting grounds. Each clan had the exclusive fishing rights over the lakes and streams within its hunting territories, subject theoretically to the jurisdiction of the entire phratry, exercised through its chief. Before the landslide occurred on the Bulkley River at Hagwilgate, the best place in the whole district for trapping the migrating salmon was at Moricetown, the common center of the phratries; and on the dam built there across the river most, if not all, of the clans had special stations where they could ply their gaffs or set their traps and baskets. The part of the subtribe that moved to Hagwilgate after the landslide subdivided among its clans, in exactly the same way, the various fishing stands in the Bulkley canyon; but the space was so limited, and fish so plentiful, that a member of any clan, in any phratry, might fish at any of the stands whenever it was not actually occupied by its proper owners. (See Plan, fig. 62.)

Fishing places, and portions of the hunting territories, were often sold or given away in payment for certain services. If a chief or nobleman of one phratry contributed generously to the expense of a potlatch given by a nobleman in another phratry,⁷ the phratry that had received help, acting through its chief, might publicly "deed over" its fishing rights on a certain stream, or its title to hunt over a particular mountain. The new owners might retain these rights in perpetuity, but in most cases the transfer was regarded as a mortgage only, and the phratry that had originally owned the areas bought them back after three or four generations. In all such transactions the phratric chiefs played the leading roles, but they could not act without consultation with their clan chiefs and principal noblemen.

The hunting grounds are now greatly restricted through the growth of white settlement, the construction of roads and a railway, the leveling of large areas of forests, and the blocking out of the land for villages and farms. It seems impossible today to map the original hunting areas of the various clans. Those that they now claim are widely scattered, and often of very small extent; yet it may be useful to list them in an appendix (see Appendix 1), if only to illustrate, what seems to have been true in earlier times, that the hunting territory of each clan was not a single strip of

⁷ Such a contributor was called *antoma'na'k*. Formerly the man who was giving the potlatch threw all contributions from outside his phratry into the fire, but since 1910, or thereabouts, they have been incorporated with the main pile of goods set aside for distribution.

country, but a number of discrete strips scattered here and there throughout the territory under the subtribe's dominion.

TITLES OF NOBLES

Every clan boasted the exclusive ownership of a number of titles which carried a more or less definite ranking and alone bestowed on their owners the hallmarks of nobility. Women as well as men were eligible for all these titles, and a few, of no great importance, were even restricted to women. In general, accession to a title depended partly on inheritance, partly on the ability to give the potlatch necessary to make its assumption valid. The usual successor to a man's title was his sister's son or daughter; but if he had no children, or misfortune prevented the validation of the child's claim by a proper potlatch, the title might pass to a more distant kinsman in the same clan, even one who previously had ranked among its commoners.⁸ The boundary line between nobles and commoners was therefore fluid. The son of a chief never became a commoner, because his parents, if only for their own prestige, invariably financed or contributed to the potlatch that gave him a title and opened for him the gate to nobility; but a grandson or great-grandson might easily descend in the social scale, if his parents neglected to ensure his succession by a potlatch and he himself lacked the necessary means. Descendants of nobles below the rank of chiefs naturally glided into the abyss more readily, because their parents' means were limited and kinsmen did not always rally to their support. To climb the ladder again was difficult but not impossible, if we may trust the statements of present-day Indians, and the traditions that recount how friendless orphans through their own achievements married the daughters of chiefs and received the titles of nobles. Doubtless Carrier society, like many others, placed obstacles in the path of an aspiring nobody, and it was only through exceptional circumstances that a commoner could amass enough goods to give the one or more potlatches necessary for his elevation. Yet the history of Satsa'n, a nobleman in the Gilserhyu phratry, bears out the traditions of the Indians that the barriers were not insuperable.

Satsa'n's ancestors, a century ago, were commoners without genealogical history or prominence who occupied at potlatches any place they could find in the vicinity of their fellow phratrymen. In the first half of the nineteenth century, however, one of them proved so skillful a carpenter that Widaxkyet, a chief in the Laksilyu phratry, engaged him to carve a totempole, promising

⁸ Whether it could pass to a commoner of the same phratry, but in another clan, is not clear. The clan affiliation of a commoner seems to have been less fixed than his phratric affiliation, so that few objections would be raised if the title were relatively unimportant, and the man could make out a plausible genealogy. Even if he had no kinship claim, he could probably "jump" the title, provided he possessed sufficient influence.

him a rich reward. The man worked on the pole all winter while the rest of the people were hunting; and when he had finished the carving he covered the pole with birchbark to hide it until the day of erection. The pole was duly raised into place at Moricetown, and stood there until about 1870 when it fell and was burned. At the close of the festivities connected with its erection the carpenter found himself possessed of so much property (partly gained by gambling) that he decided to give a potlatch on his own account. He therefore invited all the people, and before distributing his presents stood up and proclaimed, "Hereafter let me not sit in a corner like a nobody, but in front of my phratry in a special place beside the fire. And let me be known, not by my own name, but as Satsa'n." The chiefs of all the phratries consulted together and acceded to his request. He thus acquired a special rank that was neither a nobleman's nor a commoner's; but his niece, who succeeded to the title, ranked as a noble, though she retained the special seat beside the fire. Why the carpenter chose the title Satsa'n, which belonged to a Gitksan chief of Kitselas, on the Skeena River, the present-day Carrier do not know; they merely deny that there was any bond of kinship between the two families.

Although a title never passed, apparently, from one phratry to another, it was sometimes transferred temporarily, and perhaps permanently, from one clan to another within the phratry. Thus, a few years ago, when a member of the Dark House clan in the Gilserhyu phratry died, the clan transferred one of its nobles, Axal'kan, to the Thin House to repay that clan's members for their contributions to the funeral expenses. Under present conditions it really makes no difference whether Axal'kan's successor returns to the old clan or remains in the new, for the big semicomunal dwellings that used to be the chief outward signs of the clan have disappeared. The Indians seemed to think that Axal'kan's transfer was temporary only, and that the title would be "bought back" on some future occasion; but that permanent transfers had formerly occurred for special reasons, such as compensation for murders.

At the present time there are more titles in each clan than there are people qualified to fill them, so that nearly every man or woman who wishes to adopt a new one can choose between several; but whether this was the case in earlier years also is not certain. With the decline in population many titles seem to have found no claimants and dropped from memory. Others, again, may have been superseded by newer titles; for just as Sir Arthur Wellesley, after his victories in Spain, became the Duke of Wellington, so a Carrier nobleman could commemorate some event in his life by adopting a new name and establishing it among his countrymen by a potlatch. His earlier title then dropped out of use, or, more often perhaps, was bestowed on his probable heir, who passed it on to his own heir whenever he himself succeeded to the new-found name.

At feasts the clan chiefs sat together, the chief of the second ranking clan on the right of the phratry chief (i. e., the chief of

the principal clan), and the chief of the third clan, if there were more than two, on the phratry chief's left. The nobles then stationed themselves nearer or farther from their chiefs in accordance with their rank; and directly in front of each man or woman sat the probable successor, nearly always a nephew or a niece. The commoners and such slaves as were admitted lined up at the back or wherever they could find room.

We are not unfamiliar, in our own society, with the serious disputes that have resulted in the course of state functions whenever the Ambassador of Timbuctoo has ventured to claim precedence over the Minister of Tierra del Fuego. Among the Bulkley Carrier similar quarrels arose over the order of seating at feasts and ceremonials, for this order was liable to change from one generation to another. At the present day they recognize the following arrangement, or "table of peerage," as it may be called, but a hundred years ago it was certainly rather different.

TABLES OF PEERAGE, OR TITLES AND SEATING ARRANGEMENTS

GITAMTANYU PHRATRY

Clans: A, Grizzly House; B, House in the Middle of Many, and Anskaski

Rear														
row:	B8	B7	B6	B5	B4	B3	A2	B1	A1	B2	A3	A4	A5	A6
Second row:						B3a	A2a	B1a		B2a				
Front row:			B9		B10					B11				

Titles

- B8, Høwits (Skunk).¹
- B7, Sowi's.¹
- B6, Hoigyet.
- B5, Wø'silop'.
- B4, Kano'ts.
- B3, Na'ok.
- A2, Djolukyet.
- B1, Medi·k (Grizzly Bear), chief of Anskaski clan and 2nd ranking chief in the phratry.
- A1, Wø's (Whale), chief of the leading clan Grizzly House, chief of the phratry.
- B2, Gistehwa, chief of the clan House in the Middle of Many and third ranking chief in the phratry.
- A3, Skalił.
- A4, Samsmahix.
- A5, Gu'kyet.
- A6, Guxwoq (Sleepy).

¹ Since the last holders of these titles died a few years ago, none have come forward to take their places.

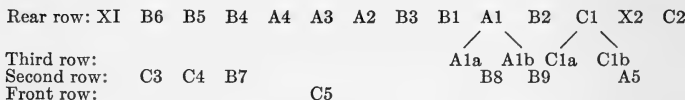
- B3a, Ismediks (Grizzly cub), who is the legal successor to B3, Na'ok, and therefore sits directly in front of that nobleman.
 A2a, Baxchan (War-leader), the legal successor of A2, Djolukyet.
 B1a, Goqaiuwil, the legal successor of B1, Medi-k.
 B2a, Atne (Bella Coola or Kitlope Indian), the legal successor of B2.
 B9, Detsan (Raven), who must sit somewhere in front to the right of the chiefs.
 B10, Hwille-wi, who must also sit in front to the right of the chiefs.
 B11, Nagwa'on (Long Arm), who must sit in front to the left of the chiefs.

A title Anklo', belongs to the clan House in the Middle of Many, but the position of its holder is not known.

At the present time there is attached to the phratry a Gitksan man bearing the Gitksan title Axgotdemash (Heartless, Cruel). Having no proper seat at potlatches he finds a place near the door, although he is trying to enroll himself in the Anskaski clan and recognizes its leading man Medi-k as his chief.

GILSERHYU PHRATRY

Clans: A, Dark House; B, Thin House; C, Birchbark House



Titles

- X1, Altu-z, a nobleman of little importance whose clan was not ascertained.
 B6, Bitan'en.
 B5, As'ten (Fraser Lake Indian).
 B4, Gwatsikyēt (He Who Cuts off Heads with a Knife).
 A4, Anabel's.
 A3, Nustel (Wolverine).
 A2, Welī (Back-pack).
 B3, Ne'k (Slave).
 B1, Guxlet, chief of the Thin House clan.
 A1, Netipish (Blue Heron), chief of the Dark House clan and chief of the phratry.
 B2, Chaspit, second chief of the Thin House clan.
 C1, Samuix (Species of Small Bird), chief of the Birchbark House clan.
 X2, Sama't, whose clan was not ascertained.
 C2, Gwitsin'alu (alu, bunched together, but the meaning of the full name was unknown).
 Ala, Mas'gibu (White Wolf), who sits directly in front of A1, the head chief, as one of two possible successors.
 A1b, Gulta': the second possible successor of A1 for the chieftainship.
 C1a, Chani (Marten): a niece and possible successor of C1 for the chieftainship of the Birchbark House.
 C3, Guxkalkalas.
 C4, Nenesenox'kaix (Let Some One Ferry Me Over in a Canoe).
 B7, Tenez ik (Dead Man): more often called by the equivalent Gitksan work, lulak.

B8, Kana'u (Gitksan word, Frog).

B9, Axal'kan (Gitksan), or Wusnik (Carrier) (Crazy).

A5, Mistu's (Buffalo or Cow).

C5, Satsa'n, who occupies a special position near the fire in the center of the house.

LAKSILYU PHRATRY

Clans: A, House of Many Eyes; B, House on Top of a Flat Rock; C, House Beside the Fire.

Rear row: X B3 B2 B1 A1 C1 A2 A3 A4
Front row: B3a B2a B1a A1a C1a

Titles

X, Dikyanteftam, whose clan was not ascertained.

B3, Hataxkumex.

B2, Dzi.

B1, Widaxkyet (Big Man), chief of the clan House on Top of a Flat Rock and second chief of the phratry.

A1, Hagwilnexl: chief of the clan House of Many Eyes and principal chief of the phratry.

C1, Widak'kwats (Grizzly's Big Dung), chief of the clan House Beside the Fire and third chief of the phratry.

A2, Kela.

A3, Maxlaxlexs.

A4, Dikyannulat (Grizzly that Bites and Scratches Trees). The present holder of the title, since becoming a Christian, does not attend potlatches, and his seat has been taken by Gwinu', a Tsimshian Indian from Gitwinkul, for whom there was really no seat.

B3a, Stalo'p (Rain of Stones), who as the legal successor of B3 sits directly in front of that nobleman.

B2a, Wiste-s, the legal successor of B2.

B1a, Gowichan (He Who Pays the Blood-price), the legal successor of B1 for the chieftainship of the clan.

A1a, Gyedamskanish (Mountain Man), nephew and legal successor of A1 for the chieftainship of the clan and leadership of the phratry.

C1a, Axcot (Heartless), the legal successor of C1 for the chieftainship of the clan House Beside the Fire.

There are three other titles in this phratry. The title Klbe'kansi (klbe, "dentalium"), which belongs to the clan House Beside the Fire, has been assumed by a woman who sits anywhere behind the other nobles; Xa ("Goose"), which belongs to the clan House on Top of a Flat Rock, entitles its owner to sit anywhere that he can find room; and Negupte, which belongs to the same clan, has dropped out of use and the seat taken by its last possessor is not remembered.

The Hagwilnexl who preceded his nephew, the present Hagwilnexl, as chief of the House of Many Eyes and chief of the phratry, lived originally at Trembleur Lake, where he was either a nobleman in the same phratry, or its chief. When he moved to Hagwilgate in the latter half of the nineteenth century he succeeded, on the strength of some marriage connection, in wresting the title and chieftainship from its proper heir, Kela. There is consequently much ill-feeling in the House of Many Eyes clan, kept alive by the former

and present chiefs' use of the clan hunting and fishing territories, to which as strangers from another subtribe they had no legal right.

COMBINED LAKSAMSHU AND BEAVER PHRATRIE

Clans: A, Sun House, including Twisted House; B, Beaver House; C, Owl House

Rear row: B5 B4 B3 B2 B1 A1 C1 A2 A3 C2 X1
 Second row: C1a
 Front row: X2

Titles

- B5, Wigetumstchol (a Tsimshian word meaning "Large Beaver Man").
 B4, Namoksu (Tsimshian word).
 B3, Wila't (Tsimshian word meaning "Echo").
 B2, Mat (Tsimshian word meaning "Mountain Goat").
 B1, Kwi's, chief of the Beaver phratry and now second chief in the combined phratries.
 A1, Smogitkyemk (Tsimshian word of which the last syllable means "Sun"); chief of the Sun House and principal chief in the combined phratries.
 C1, Klo'mkan (Forest Slide), chief of the Owl House.
 A2, Gutseut (Short Belly).
 A3, Amgyet (Resurrected).
 C2, Sa'pek (Tsimshian word).
 X1, Biste'i (Tsimshian word meaning "Grouse"); the clan that owned this title was not ascertained.
 C1a, Kitsilchak (Picks up Weapon Hastily); should succeed to the chieftainship of Owl House, but the title has fallen into disuse. The man who would normally inherit it has taken the title Axkis (Bald-head).
 X2, Skokamlaxa (Tsimshian word); the possessor of this title came from Gitsegyukla (Skeena Crossing), and has no proper seat in the phratry.

There has been much confusion and dissension in the Laksamshu and Beaver phratries, since their fusion about 1865. Because the Laksamshu Sun clan was at that time the strongest, its chief became the dominant chief in the combined phratries and occupied the highest seat. The chief of the Beaver phratry then became the second ranking chief in the combined phratries, and the chief of the Owl House, or clan in the Laksamshu phratry, the third ranking chief. The last position (C1), however, was inherited by a woman who has few relatives to support her and at potlatches generally finds her seat usurped by the next ranking noble in the phratry, Gutseut (A2). Her husband claims that she should legally be the ranking chief of the combined phratries; that Smogitkyemk (A1) was originally chief of the Beaver phratry, and Klo'mkan (C1), ranking chief in Laksamshu phratry, with Gutseut (A2), the second chief, and Amgyet (A3), the third chief; and that Klo'mkan, after acquiring Amgyet's title also when its former owner died without descendants, has been pushed aside by Smogitkyemk and Gutseut. Other natives denied this, however, and asserted that Smogitkyemk had always been the title of the leading chief in Laksamshu phratry, the head of the Sun House. In addition to the dissension on this score, there is ill-feeling between Kwi's (B1) and Smogitkyemk (A1), the former wishing his phratry to have the precedence and himself to be the leading chief, as was his predecessor and uncle, a man named Kwi's or Bini, who led a strong religious movement in the subtribe. The Beaver phratry, its present chief claims, is rapidly increasing in numbers, while the Laksamshu is now declining. It seems probable that the two phratries would separate again if the social

system retained its old life, but the younger generation of Indians holds it in slight regard.

A cursory perusal of these peerage tables will indicate that many of the titles are in the Tsimshian tongue; in some, perhaps most, cases they coincide with titles actually in use among the Tsimshian. Yet only about a third of the Bulkley Carrier seem to have understood and spoken the Tsimshian language, so that the bearer of a title often knew little or nothing about its origin and real significance. This does not mean, however, that the Bulkley natives slavishly copied and borrowed from their Tsimshian neighbors. Their own system, though extremely fluid, was so full of vitality and life that it was capable of absorbing numerous elements from abroad without impairing its essential vigor. A more detailed examination of its structure will substantiate this point, which is deserving of some attention because it indicates that the system, far from being a recent growth among the Bulkley Indians, has a history extending back over several generations.

CRESTS, CLAN AND PERSONAL

CLAN CRESTS

The Bulkley Carrier, like our forefathers in medieval Europe, publicly represented their division into "houses," or clans, by the display of certain crests (*nettse'*), of which every clan boasted at least one, and usually several. Such crests were carved on the clan totem poles, painted or carved on the fronts of the chiefs' houses, painted on chiefs' grave-boxes, represented at times on the ceremonial hats and blankets the chiefs wore at dances (pl. 26), and tattooed on the chests of the clansmen, on the wrists of the clanswomen, by close kinsmen of their fathers, who, of course, belonged to other phratries. Occasionally an individual was tattooed with his father's clan crest instead of his own, although this required permission from the chief of his father's clan. With nearly every crest went an origin legend that was not regarded as clan property, and might be related by any member of the tribe except at potlatches, when a sense of propriety restricted its narration to a clan member, generally to the highest-ranking member of the clan. Over the crests themselves, however, there was a jealous feeling of proprietorship, so that their representation by another clan in the same phratry without the consent of their owners led to serious friction, while their usurpation by a clan in another phratry was almost unthinkable. In clans that had several crests, one (or occasionally two) generally ranked very much higher than the rest, because it was more deeply rooted in the local history and traditions. This crest was then as permanent as the clan, and deeply concerned the entire phratry, which felt toward it the same

proprietorship as it felt toward the clan. On the other hand, the minor crests, being of comparatively slight importance, could conceivably be alienated or even dropped.

Clan crests were not restricted to natural objects, but included mythical beings and manufactured articles. The Indians paid no special regard to them when they were birds and animals, but, if the creatures were edible, killed and ate them without ceremony. They did, indeed, ascribe a certain kinship between themselves and two or three of the most conspicuous crests, conceiving that the relationship gave them a certain measure of protection. Thus, if a man of the Laksamshu phratry encountered a whale that seemed likely to endanger his canoe, they believed he had merely to call out that he belonged to the Laksamshu phratry (which reckons whale as one of its principal crests) and the whale would leave him unharmed; even if he belonged to another phratry, but his father had been a Laksamshu man or his mother a Laksamshu woman, he could obtain the same immunity by calling, "My father (mother) was a Laksamshu," which was equivalent to saying, "I am one of your children." Similarly, a Laksamshu man, or the child of a Laksamshu man, was credited with power to stop continuous rain by waving a piece of burning birchbark and calling for sunshine, because the sun also was an important crest in the phratry.

A Bulkley Indian named Saiyella, while hunting with his wife some 40 years ago, came upon two grizzly bears eating berries on a hillside, and, in spite of his wife's warning that two grizzlies were too dangerous for one man to hunt, loaded his flint-lock and went after them. By careful stalking he drew close enough to shoot one animal, but as its body rolled down the hillside, the other grizzly clambered the slope to attack him. Unable to retreat, he rolled some big stones down on top of it, but still it continued to advance. He shouted, "Ha-a," and the bear stopped to listen, but after a moment moved towards him again. Then half weeping with fear, he shouted, "Why do you want to kill me, you grizzly. I am a Gitamtanyu man and you are my crest. Let me alone." Hurriedly ramming two more bullets down his muzzle-loader, he climbed a big rock, and when the grizzly came directly below him, shot it in the head. It rolled over and over down the hill, and as it rolled, he mocked it, shouting, "Why are you rolling down and down? I told you that I was a Gitamtanyu man and you persisted in attacking me. Why are you rolling down now?"

In spite of these instances, however, where one or two crests appeared to carry a totemic flavor it would be a mistake to look upon the system as really totemic. More correctly the crests were emblems, serving much the same purpose as the coats-of-arms adopted by the nobles of feudal Europe; and the representation of a clan crest on the house of a chief closely corresponded with the coat-of-arms carved over the gateway of a baron's castle, and the national flag that waves over our embassies.

TABLE OF CLAN CRESTS

GITAMTANYU PHRATRY

GRIZZLY HOUSE

Grizzly (kyas) and Wolf (yis).—A Gitksan Indian specially engaged for the task carved these two crests on the clan's totem pole in the Bulkley canyon. Below the summit, which was uncarved, was the figure of a wolf head downward; beneath the wolf was the grizzly standing up; and at the base of the pole, the grizzly seated. To explain the origin of both crests, the Indians invoke a single legend, "The Woman Who Married a Grizzly" (Jenness, 1934, p. 129), although the wolf does not appear in the recorded version of that legend.

HOUSE IN THE MIDDLE OF MANY, AND ANSKASKI CLAN

Raven (Dettan).—This crest was represented in the Bulkley canyon by a carved image of a raven above the large dwelling of the clan House in the Middle of Many, and by two images, one above the other, on the totem pole in front of that house. The Carrier deduce the origin of the crest from the legend of the raven that perched itself on top of a totem pole in the land of the dead and gave warning of the approach of enemies (see Jenness, 1934, p. 234), a legend that they also cite to account for the origin of Guxlet, the title of the second chief in Gilserhyu phratry.

Fungus (esrit).—Below the two ravens on the totem pole just mentioned is the figure of a man to whose back was formerly attached a large hollow ball of wood made in imitation of an enormous fungus. This represented the crest Fungus. Tradition states that the Hagwilgate members of the clan House in the Middle of Many once contributed very generously to a potlatch given by Nelli, a chief of the Gitamtanyu phratry among the Nitchaotin or Alkatcho subtribe to the south. At that time Nelli owned and was using as his crest an enormous ball of fungus, the right to which he transferred to his Hagwilgate helpers. They did not take the ball north with them, but hired a Moricetown Indian of another phratry, the Laksilyu, to carve a wooden imitation and attach it to their totem pole, which in consequence received the name esrit, "fungus."

Weasel.—This crest was represented on the ceremonial headgear worn by the chief of the Anskaski clan, perhaps also by the chief of the other clan House in the Middle of Many.

GILSERHYU PHRATRY

DARK HOUSE

Logs Carved as Men (tullemale-t).—This clan, like the other two clans of the Gilserhyu phratry, did not erect a totem pole, but at Hagwilgate displayed its crest inside the clan dwelling of the chief, which formerly had a row of carved images opposite the door.

THIN HOUSE

Three Stars (of no special constellation).—This crest was represented on the old house of the clan in the Hagwilgate canyon by three holes in the front wall. Today the chief, who lives in a modern frame house on the terrace above, has only one star painted above his door. The natives seemed to have no explanation for the crest.

Frog.—On the old clan house in the canyon, a frog was painted on the outside of the door. There was some disagreement concerning the origin of the crest. The majority of the Indians cited the legend of the "Girl Who Married a Frog" (Jenness, 1934, p. 168); but one man cited the legend of the "Woman Who Married a Grizzly" (Jenness, 1934, p. 129).

Small owl (deltsa).—This crest was painted on the outside of the door, beside the frog. Its origin seemed unknown.

Fire.—The front of the old clan house was painted red like fire. The crest is explained from the legend of the mythical chief of the clan, Guxlet, who came out of the ground (Jenness, 1934, p. 234).

Sidewalk (ye'n).—An early chief built a sidewalk in front of his house and, sitting there with his head covered with swansdown, issued invitations to a potlatch. When the people gathered for the feast he proclaimed that "sidewalk" was to be regarded henceforth as his new crest, and endorsed his assumption of it by presenting each guest with a bowl of berries covered with mountain-goat fat. Thus only the Thin House possesses the right to build a platform or sidewalk in front of its clan dwelling and to regard it as a clan crest.

tsim'yak'yak (meaning unknown).—This is the name of the mythical totem pole in the land of the dead (Jenness, 1934, p. 143), and would be the name of the clan's totem pole, if it ever erected one. Hence it ranks as a crest.

gitamgiye'ks (meaning unknown).—This crest would be represented on the clan totem pole by the figure of a man with uplifted palms and an image of a boy on his head. Legend states that it was acquired by a former chief of the clan who ate devilsclub for a year in order to have good luck in his hunting. He then met in the woods a strange woman carrying on her back a baby that cried, "wa wa wa." He snatched the baby away and, without placing it on his back, since it would have scratched and killed him, planted it in a tree beyond her reach, but finally restored it to her for a suitable reward. Thus the clan obtained the crest gitamgiye'ks: and if a man wandering in the woods should hear an unseen baby cry, "wa wa wa," he will be lucky thereafter.

Crane (dil).—The chief of the clan sometimes impersonated this bird at ceremonies. It was classed by the Indians as a clan crest, though it might equally well have ranked as a personal crest of the chief. No legend seemed extant.

BIRCHBARK HOUSE

Woodpecker (mansit).—This crest would be placed on the clan's totem pole, if one existed, but it now receives adequate representation from its use by the clan chief as a personal crest. It is based on a legend of a pileated woodpecker that was killed by a Carrier chief (Jenness, 1934, p. 236).

LAKSILYU PHRATRY

HOUSE OF MANY EYES

Kaigyet (a mythical monster).—This is the principal crest portrayed on the clan's totem pole in the Hagwilgate canyon, and gives its name to the pole.

The chief of the clan also impersonated it at potlatches, when he put on a long-nosed mask of wood, hobbled with bent knees into the potlatch house, and stared at the audience. Its mythical origin is a subject of controversy; some Indians invoke one legend (Jenness, 1934, p. 214) and others another (Jenness, 1934, p. 220).

Mountain Man (gyedamskani-sh).—This crest appears upon the clan's totem pole, near its middle, as a human being wearing a collar of twisted cedar bark. The heir of the clan chief bears the title Mountain Man and impersonates that being at potlatches, thus using a clan crest as a personal crest. Its origin is attributed to a well-known legend (Jenness, 1934, p. 229).

Otter (nilzik).—This crest is represented on the clan totem pole, near its summit, by the figure of an otter. It is also the personal crest of a noble in the clan, Maxlaxlaxs. The Indians could give no explanatory legend.

HOUSE ON TOP OF A FLAT ROCK

Many Small Frogs.—Half a century ago or more the clan erected a totem pole at Moricetown on which it carved both this crest and a second one, "Big Man"; but when the pole rotted and fell it was burned and never replaced. The Indians ascribe the crest's origin to the same legend, "The Girl Who Married a Frog" (Jenness, 1934, p. 168), as is invoked by the Dark House of the Gilserhyu phratry to explain its crest frog, stating that, when the latter phratry adopted the big father frog as its crest, the Laksilyu phratry adopted the baby frogs because the mother had belonged to the Laksilyu phratry.

Big Man (denitcho, or, in the Gitksan dialect of Hazelton, widaxkyet).—This crest was represented on the now vanished totem pole at Moricetown. The Indians knew no origin legend.

Swan.—The Indians do not now remember how this clan crest was represented, if at all, and could give no legend to explain its origin. A nephew of the clan chief, named Negupte, used it as a personal crest, but after he died no one took over the title or adopted the crest.

HOUSE BESIDE THE FIRE

It was said that this clan had no crest until recently, when it adopted as its emblem a flag obtained from the Hudson's Bay Company; but since there seems no evidence that the clan is less ancient than others, it probably possessed a crest, like all the rest, and for some reason dropped it.

LAKSAMSHU PHRATRY

SUN HOUSE AND TWISTED HOUSE

Sun or Moon (sa).—If these two clans had erected a totem pole, this is the crest that they would certainly have carved upon it. At the present time they occasionally display it at potlatches in the form of a glowing plaque or ball that slowly moves across the ceiling of the house after the lights have been extinguished. The people greet its passage with a song, chanted in the Gitksan dialect:

Behold the sun just rising;
Behold the sun in the middle of its course;
Behold the sun going down.

They ascribe its origin, and the origin of the clan name Sun House, to a widespread legend (Jenness, 1934, p. 215).

Whale (neht).—The chief of the Sun House, Smogitkyemk, impersonates this crest at potlatches. After sprinkling swansdown over his head, he marches to and fro outside the feast house, clad in a ceremonial skirt and garters, and wearing on his back a blanket decorated with a bone figure of a whale. Two heralds enter the house to announce his coming, and two men enveloped in a wooden model of a whale crawl in behind them. Finally, the chief himself enters, walks around the house and withdraws from sight behind a curtain. After an interval he re-emerges, crawling with three other men inside an enormous whale that conceals them from view. Slowly the monster moves around the house, opening and closing its stupendous jaw; and, as it disappears behind the curtain, the chief of some other phratry sings Smogitkyemk's private chant (Soneŋ). Smogitkyemk then appears for the third time, wearing now the mask of a grouse, the third crest of his clan. With bent knees, and hands on hips, he jerks his head from side to side like a bird and begins to dance. At some stage in the ceremony he may, if he wishes, relate the origin legend of the whale crest (Jenness, 1934, p. 225).

Grouse (chaddzat').—When the chief enacted this crest as described above, he called it a clan crest; but occasionally he portrayed it in a different way and considered it his personal crest (see p. 511). Some natives claimed that it belonged originally to the Beaver phratry, and that it arose from a forgotten adventure with a being that had the body of a man and the head of a grouse.

Weasel-skin decorated with the neck skin of a mallard duck.—The chief of the clan, if he chooses, may wear this crest at potlatches. Tradition derives it from an encounter with the Indians of Kitimat, at the head of Douglas Channel (Jenness, 1934, p. 232).

OWL HOUSE

Owl (misdzi).—This is the crest that would be carved on the clan totem pole, if one existed. The base of a front post in the old clan house in the Hagwilgate canyon bore a large carving of an owl; the doorway, in fact, was merely a hole in the owl's body. The Indians attributed the crest to the same legend as the clan name (Jenness, 1934, p. 239).

Moose (denni).—This crest is said to have been derived from the Babine Lake subtribe. It seems to carry no legend, and must have been acquired in fairly recent times, since the moose did not reach this part of British Columbia until the latter half of the nineteenth century.

Sapsucker.—Tradition states that the Laksamshu phratry adopted this crest from the legend that gave rise to the woodpecker crest in the Birchbark House of the Gilserhyn phratry (Jenness, 1934, p. 236).

BEAVER PHRATRY

Beaver (tsa) and Eagle (ske).—Both these crests were represented on the totem pole of the combined Laksamshu and Beaver phratries in the Hagwilgate canyon, a pole erected about 1865 by a chief of the Beaver phratry, Kw'is, or, as he renamed himself, Bini. This man promoted a strange religious revival that established his leadership over the two phratries, and indeed over the entire subtribe. His influence even extended to the neighboring Gitksan Indians. Hence, when he erected a totem pole he named it Firewood (gila's), after the principal crest of the Gitksan phratry that equated with the Laksamshu,⁹ caused the figure of an eagle to be carved on its summit, and an image of a beaver to be attached at about

⁹ There is a tradition that before the founding of the village in the Hagwilgate canyon, the Moricetown members of the Laksamshu phratry sometimes wore at potlatches robes of ground-hog skin patterned on each side with fireweed leaves.

mid-height. The Indians removed the beaver after his death and placed it on his grave.

The chief of the phratry sometimes impersonated the beaver at potlatches, regarding it then as his personal crest. It arose, the Indians say, from an encounter with the coastal people of Kitimat (Jenness, 1934, p. 232).

PERSONAL CRESTS

In addition to the clan crests every chief, and most, originally perhaps all, of the nobles in each clan, owned at least one personal crest (*chanka*), which gave him at feasts the exclusive right to wear certain paraphernalia and to act in a certain way, for example, to imitate the movements of a caribou or robin. Whenever a man's personal crest coincided with his title it belonged to the permanent structure of the clan and was therefore inalienable; otherwise it ranked as purely personal property and could be sold within or without the clan like a garment or a piece of furniture. It was, therefore, much easier for a man to acquire a new personal crest than for a clan to adopt a new clan crest; the noble merely devised or purchased one that pleased his individual fancy, and established his right to ownership at a potlatch.

When a man (or woman) gave a potlatch, the object or theme that he dramatized, and alone had the right to dramatize, was his personal crest. It was only in this manner, through dramatization at a potlatch, that he made it publicly known and obtained the public endorsement of his ownership. (See pl. 28.) But if a chief chose to dramatize one of his clan crests, as often happened, was he thereby entitled to count it as his personal crest also? Actually the Indians were not consistent in this regard. Thus one of the two clan (or phratry) crests in the Beaver phratry (which contained only one clan) was the beaver, which was represented by the figure of a beaver on the phratry's totem pole; but at potlatches the chief of the phratry dramatized the actions of a beaver and considered it as his personal crest. On the other hand, the chief of the clan House of Many Eyes, in Laksilyu phratry, who dramatized in a similar manner two of his clan crests, Mountain Man and Kaigyet, did not consider them his personal crests, but clan crests only. Generally only the chief of a clan might dramatize a clan crest, whether he called it his personal crest or not; but in at least two instances a noble below the rank of chief has claimed and been allowed the same privilege. Such an anomaly might easily happen if the chieftainship changed hands, for then the deposed chief (or his legal successor) might continue to use at potlatches the clan crest he had used before his eclipse; but one receives an impression that any noble might adopt a clan crest as his personal crest, provided no other member of the clan was using it and the chief gave his consent. Probably, too, what was at one time only the personal crest of a chief

might come to rank as a clan crest, particularly if the chief gained unusual prominence and frequently displayed his crest at potlatches.

Since a personal crest was a mark of distinction, and a noble could hardly give a potlatch without displaying or dramatizing one, it tended to become hereditary, like the title, and a man normally adopted the crest of his mother's brother when he inherited that uncle's title. In such a case he could validate both badges of distinction in a single potlatch. To lighten the excessive cost, three or four individuals often adopted crests (and, if they wished, titles) simultaneously; and parents, clansmen, and friends contributed to the expense, knowing that they would be repaid later. Every noble, who could afford it, bestowed titles and crests on his children while they were still young, for though these early distinctions did not confer high rank, they gave the children definite places in the peerage and marked out their lines of advancement. A typical example was the career of Dikyannulat (European name, Denis), of the House of Many Eyes, Laksilyu phratry, in 1924 a blind old man of perhaps 70.

When Denis had not yet reached his teens, his mother's brother invited the people to attend a potlatch at which the lad blackened his face and danced. His uncle then distributed many blankets among the guests, and announced that his nephew, being descended from the nobility, would later acquire a title and a crest.

Two or three years later, Denis' kinsmen decided to give another potlatch for him and enroll him definitely in the peerage. At this potlatch he was to assume a personal crest, Throwing Dirt, which his grandfather also had assumed in boyhood. Whether it was derived from a legend Denis did not learn, for his grandfather merely instructed him how to dramatize it without explaining its origin. The guests gathered outside the potlatch hall at the appointed time, flung out their arms and shouted, "hau hau," whereupon Denis, naked to the waist, ran in among them and scattered them with showers of dirt. Later they all gathered inside the hall so that Denis might sing and dance before them; and the ceremony ended with a feast and distribution of blankets.

When Denis reached manhood, he gave still a third potlatch and adopted, again without learning its origin, the personal crest, Gun, that had belonged to his mother's brother. Three relatives of his father went among the crowd to announce his coming, and two others hovered on the outskirts of the village, one dressed in a grizzly skin and the other in a black bear's skin. Denis himself then appeared and pretended to shoot the two "animals" with a gun. Subsequently he confirmed his new crest with the usual distribution of presents.

The neighboring Gitksan always narrated the legends attached to their crests when they dramatized them; but the Carrier troubled so little about the legends that many of them have dropped from memory. The owner of a crest had the right to decide how it should be dramatized, and although most men slavishly followed the methods of previous owners, an ingenious individual often contrived some

new device to increase the pleasure of the spectators. The two examples that follow fairly represent the general pattern.

(a) Guxlet, the present-day chief of the Thin House in Gilserhyu phratry, owns two personal crests, laba'on, "the Snatcher," the origin of which he does not know, and the more important crest, guxlet, which goes with his title and is based on a legend of a person Guxlet who emerged out of the ground (Jenness, 1934, p. 234). Of his predecessors, the earliest, who had another title, Boikyot, is said to have lived at Mosquito Flat, where he was the principal chief in the Gilserhyu phratry; the last, born of a Gitksan father and Hagwilgate mother, also bore the title Boikyot but lived at Hazelton, where he ranked as only the second chief of the phratry. The present Guxlet was born at Francis Lake, but moved to Hagwilgate when he was a young man, and, on the score of a rather distant relationship, obtained the title Guxlet, and the personal crest that went with it, when the previous incumbent died in 1918.

Whenever Guxlet gives a potlatch he dramatizes his crest, Snatcher, outside the dance hall in the afternoon, and his principal crest, guxlet, within doors in the evening. Being the chief of his clan, he wears his chiefly regalia, a shirt of cloth covered with tinkling bells, a blanket, decorated with buttons, that partly conceals his trousers, cloth leggings, moccasins, and a coronet of grizzly bear claws. This, of course, is a modern dress that has superseded the older costume of skins. Three heralds announce his approach to the throng outside the dance hall. Finally he himself comes, and, snatching from the people everything that takes his fancy, hands them to his heralds, who carry them to his home and subsequently to the dance hall, where each object is returned to its owner together with a present of one or two dollars.

When darkness closes in and the people have gathered in the potlatch house, Guxlet dramatizes his principal crest. He marches in full regalia around the central fire, singing his sonet or personal song¹⁰ and vigorously shaking a rattle. At intervals he stops to lay his hand on some chief, who must then rise and dance; for thus honoring Guxlet he later receives a reward. After this has continued for an hour or more a chief calls out, "Guxlet, why do you just sing all the time?" Then four men lay Guxlet on his back on a moose hide and pretend to throw him into the fire. His predecessor, the Indians claim, actually was thrown into the fire, which consumed all but his bones; but the present Guxlet merely steals away behind a curtain. After a brief interval 8 or 10 men who sit behind this curtain raise his song, and one of them calls, "O Guxlet, Guxlet." Then the chief comes out again (his predecessor is said to have risen from the floor, unharmed), and joins in the song. A herald sprinkles swansdown over his head and crowns him with a special headdress representing one of his clan crests; and Guxlet closes the ceremony with a dance and song that he has prepared especially for the occasion.

The following day is devoted to feasting, to the giving of presents, and the payment of all those who have assisted Guxlet, except the members of his own phratry, who make personal contributions to the pile of presents, assist in distributing them, and receive their reward at some later date.

(b) In 1921 a noble named Dzi, who belonged to the clan House on Top of a Flat Rock, in the Laksilyu phratry, adopted as his personal crest Caribou. He dressed his uncle and two other kinsmen on his father's side as hunters, equipping

¹⁰ The words are Gitksan, and the present Guxlet does not understand them, but this is of no significance.

them with snowshoes, guns, and packs, and sprinkling their heads with flour to simulate snow. Shortly after noon on the first day of the potlatch the men marched through the village in this array, telling the people they were going to hunt caribou; but when they reached the first ridge above the village and were still in plain view, they removed their snowshoes and packs, lit a fire, and pretended to camp. Soon four gunshots resounded in the woods behind them, and a fictitious caribou—Dzi covered with a caribou hide that had its front legs padded with two sticks—bounded into the open and headed for the village, closely followed by the hunter who had fired the shots. All four hunters took up the chase, and now and then, as they pretended to shoot the animal, tumbled over, to the amusement of the crowd. Finally the "caribou" leaped inside the potlatch house, and everyone trooped in after it.

The people gathered again in the potlatch hall at dusk. As they sat there, talking and laughing, a herald entered with a gun, and said to one of the chiefs, "Have you seen any caribou?" The chief answered, "No, I have not." Presently a second herald came in and shouted, "You are crazy. There are no caribou here." Then came a third herald, who said, "I saw a caribou. It will soon come in." Last of all, Dzi entered the hall with his face concealed beneath a wooden image representing a caribou's head. After displaying his mask to the audience, he retired to rid himself of its cumbrous weight, and, reentering, danced and sang his personal song. The people lingered in the hall a little longer, then went home to prepare for the feast and gifts of the following day. (See pl. 27.)

TABLE OF PERSONAL CRESTS

GITAMTANYU PHRATRY

GRIZZLY HOUSE

Whale (wō's).—This crest naturally belonged to the chief of the clan who bore the title "Whale." At potlatches, after the people had gathered inside the feast house, a woman belonging to some phratry other than Gitamtanyu threw outside the door a hook attached to a long line of which she retained the other end. As she drew it slowly in again she drew with it a huge wooden model of a whale that concealed the chief and an assistant, who retired behind the curtain after being "dragged" round the room. Subsequently the chief came out again, danced, and, if he wished, narrated the legend on which his title and crest were based. (Jenness, 1934, p. 225.)

Crazy Man (hwisnik).—This crest, which also belonged to the chief Whale, was said to have come from Kitwanga, a Gitksan village lower down the Skeena River. Whether or not it was based on some legend, the Carrier did not know. The chief used indoors only the crest Whale, but out-of-doors he dramatized this crest Crazy Man by dressing himself and his heralds in the oldest clothes he could find, and pretending to tear them to pieces.

Wolf (yis).—This crest, which coincided with one of the two clan crests, and was sponsored by the same legend, belonged to Djolukyet, the second ranking noble in the clan. At feasts he dressed in a wolf skin and pretended to bite the leading chiefs and nobles.

Old Woman (sete).—Neither Djolukyet, who owned this crest also, nor any of the other Carrier seemed to know its origin. When dramatizing it at potlatches, the owner dressed and acted like an old woman who could hardly walk.

The Man Who Pinches Others (eni dzo·kis).—Djolukyet purchased this crest, his third, in 1923 from a Carrier of Babine Lake, but without enquiring into its origin. He dramatized it by pinching the arms of the leading nobles with two sticks each about 5 feet long.

Sculpin (saskwa).—Another crest belonging to Djolukyet, though how he dramatized it was not recorded. It was derived from a well-known legend of a great flood (Jenness, 1934, p. 141).

Fox.—Belonged to a kinsman of Djolukyet, whose title was not recorded. It was derived from a legend of a fox that stole fire for mankind (Jenness, 1934, p. 239).

Seated in the Dirt (klestaste).—Belonged to another kinsman of Djolukyet. It was derived from the same legend as the next crest and title Sleepy.

Sleepy (guxwoq).—This crest belonged to the noble who bore the same title, at the present time a woman. When dramatizing the crest at feasts, she lay on the ground, wrapped in a blanket as if asleep. When "awakened" she moved off a few paces and lay down again. The crest was derived from a well-known legend (Jenness, 1934, p. 219).

Dance (Gitksan: millamelu).—Belonged to a sister of Djolukyet, whose title was not recorded. This crest was obtained from a Gitksan Indian of Kitwanga, but nothing further was known about it.

War Leader (baxchan).—Belonged to the noble of the same name. To dramatize it he carried a stick in front of two men, whom he urged forward by raising the stick and crying, "he he." Tradition states that it originated from a fight with the Indians of Fraser Lake (Jenness, 1934, p. 239).

Grouse (gwitakak).—Belonged to Gu'kyet, who obtained it a few years ago from a Gitksan chief with whom she and her husband were traveling to Kitkargas. They camped in the snow when they were overtaken by night, and the woman strewed boughs for their beds and cooked their supper and breakfast. In acknowledgment of her diligence, the Gitksan Indian gave her this crest, but did not explain its origin. When dramatizing it, she fluttered her blanket and pretended to fly like a grouse.

Black Bear (sas).—Two nobles, Skalii and Samsmahix, shared this crest between them. They dramatized it by wearing black-bear skins and imitating the actions of the bear. The crest derived its sanction from the same legend as the clan name Grizzly (Jenness, 1934, p. 129).

HOUSE IN THE MIDDLE OF MANY, AND ANSKASKI

Grizzly (medi·k).—Belonged to the chief with the same title, who covered himself with a headless grizzly skin and acted like a grizzly. The Carrier did not seem to know the legend on which it was based.

Club of Antler (dzan'xal).—Belonged to the same chief Medi·k. It originated from an incident in a fight with the *Witseni*, or Nass River Indians (Jenness, 1934, p. 231). To dramatize it the owner danced with an antler club whose knob was carved to represent a wolf's head, and sang, in the Gitksan dialect:

Soon the wolf will eat the Witseni.

Prancing up to another chief, he tapped him lightly on the shoulder with the club, and subsequently gave this pretended enemy a gift, in one instance a rifle.

Grizzly Cub (ismediks).—Belonged to the noble of the same name, who impersonated the animal by wearing its skin and imitating its actions. Its origin was unknown.

Atne (Kitlope or Bella Coola Indian).—Belonged to the noble of the same name, who dramatized it exactly as his chief, Medi·k, dramatized the grizzly except that he retained the head on the grizzly skin that enveloped him. Tradition states that this crest was presented to a Hagwilgate Carrier by a Carrier of Ootsa Lake in payment for help at a potlatch; but its further origin was unknown.

Grizzly Cub's Head (gulakkan).—Belonged also to Atne, who clad himself in the front half of a grizzly skin and impersonated the animal. One tradition states that it arose from a man's adventure in the woods; as he slept beneath a large tree something fell on him and a few minutes later a monster, half grizzly and half human, descended the tree beside him. More generally, however, it is credited to an incident in a raid on some coast Indians (Jenness, 1934, p. 237).

Raven (detsan).—Belonged to the noble who bore the title Raven, which at present is unclaimed. Its origin was attributed to the same legend as the clan crest Raven. In dramatizing it the owner wore a dark blanket, flapped two mimic wings of moore-hide, and cried, "ka ka."

Arrow.—Belonged to Gistehwa, chief of the clan House in the Middle of Many, who dramatized it by pretending to shoot the people gathered at the potlatch. Its origin was derived from the legend of the two boys who burst a mountain with their arrows (Jenness, 1934, p. 229).

Spring salmon.—Belonged to Hwlits, who clad himself in white clothes to match the color of the salmon and walked in a stooping posture outside the dance house. There seemed to be no origin legend.

Skunk.—Another crest belonging to Hwlits, of unknown origin. Its dramatizer wore a skunk skin when impersonating the animal.

Avalanche (entlo').—Belonged to Na'ok. It was credited to a legend about a man who emerged from a mountain and caused an avalanche by sliding down its flank. At potlatches the owner of this crest announced his approach by sending out a herald to sprinkle flour in imitation of snow and to warn the people of the impending avalanche. Na'ok himself then appeared and, like an avalanche, flung aside every one he encountered.

Shaking the Head (Gitksan: qale').—Belonged to Na'ok also, but its origin was unknown. At potlatches people cried, "e," and lay down as he approached them wearing a large wooden mask. One after another then raised his head and cried, "qale." At each cry Na'ok turned his head until it was moving so fast that he became dizzy.

Kano'ts.—Belonged to the noble of the same name. It commemorated the adventure of the girls in the canoe and the two medicine boys, or, in another version, the medicine man Guxlet (Jenness, 1934, pp. 175-177, 235). When Kano'ts, dressed in whatever paraphernalia he happened to possess, appeared outside the potlatch house, the people fell down and cried, "e," then rose, clapped their hands and cried, "w ω ," after the manner of the girls in the canoe.

White Man (nid'o).—Belonged to Kano'ts also, but its derivation was unknown. Its owner, wearing a long moustache and a beard, strutted among the people with his hands on his hips and a stetson hat on his head. The present Kano'ts happens to be a woman.

Shameless (awata't).—Belonged to the noble with the same name, its most recent owner being a woman who preferred her other title Hogyet. At potlatches she stared shamelessly into the faces of the chiefs and nobles outside the potlatch house, and, within, stared at them again from behind a large wooden face mask. The origin of the crest was unknown.

Nasko River Indians (nas'kuten).—Belonged to the same woman Hogyet, and, like the last crest, of unknown origin. At potlatches five women supported Hogyet, two on one side and three on the other, and all six swung adzes fastened by bright ribbons to their wrists while they chanted:

We don't know where this man comes from.
A Nasko man is coming.

Rain (chan).—Belonged to Sowi-s, a noble now dead who has left no successor. At potlatches he sprinkled water on the people in imitation of the rainstorm that formed an incident in a well-known legend (Jenness, 1934, p. 219).

Mosquitoes (detku).—Belonged to Hwille'wi, a woman now dead whose title remains unclaimed. At potlatches she covered her head with a blanket and pricked the arms of the people with a needle held in her mouth, imitating the mosquitoes of a legend (Jenness, 1934, p. 220).

Long Arm (nagwa'on).—Belonged to the noble of the same name, who stretched out each arm alternately and cried, "Long Arm." Tradition says that it was

derived through the Hazelton Indians from the Indians of the Nass River, but the Carrier knew of no story connected with it.

Jump Inside (wittsen).—The owner and the method of representing this crest were not recorded.

Heartless (axgotdemash).—Belonged to the noble of the same name, a Gitksan Indian now living among the Carrier. Legend states that a grizzly once crushed a dog, whereupon its owner exclaimed, "The grizzly is a heartless animal," and adopted Heartless as his personal crest.

GILSERHYU PHRATRY

DARK HOUSE

Blue heron (netipish).—Belonged to the chief, since it accompanied his title Netipish. When dramatizing the crest, the chief enveloped his head in a blue blanket and fluttered his arms up and down. No legend recorded.

Hook (saw).—Belonged also to Netipish, the chief. When dancing, he caught the skirts of various men in a small hook at the end of a long pole and made them dance in turn, for which he paid them later. No legend recorded.

Wolverine (nustel).—Belonged to the bearer of the title Wolverine, at the present time the niece of the chief. She dramatized it by covering her head with a wolverine skin and biting people as she hopped over the floor on her hands and toes. Those whom she bit had to rise and dance with her. The crest probably owes its origin to one of several legends about the wolverine.

Back-pack (weli).—Belonged to the bearer of the same title, who dramatized it by carrying a pack on his back. No legend recorded.

Cow (mistu's).—Belonged to the bearer of the title. At feasts a herald called to the people outside the dance house, "Has anyone lost a cow?" A second herald with a rope then asked, "Where is the cow? I want to rope it." Last of all came the "cow," Mistu's and a paid helper covered beneath a large blanket decked with a tail and horns. The herald roped this cow and dragged it into the dance house. No legend recorded.

Sekani Indian (itaten).—This crest belonged to the mother of the chief, who has long been dead. No one has revived it since.

Fast Runner (nitchaten).—Belonged to Anabel's, who dressed as for a race, and in dancing leaped high into the air, one step forward and one back. No legend recorded.

Crazy Man (wusnik).—Belonged to the owner of the title, who pretended to be crazy and to beat the people with a stick. No legend recorded.

THIN HOUSE

Guxlet.—Belonged to the bearer of the title, the chief of the clan. (For details, see p. 503.)

Snatcher (laba'on).—Belonged also to Guxlet, the chief. (For its dramatization, see p. 503.)

Crane (dil).—Belonged to Tcaspit, the minor chief of the clan, who merely mimics the bird when giving a potlatch. No origin legend was discovered.

His Heart Tastes Bad (Gitksan: kaskamgot; Carrier: bet'sidzal'kai').—Belonged to Bitan'en, who clawed at his heart, did everything wrong, and chanted a song in the Gitksan language. The last owner of the title and crest was a woman. No origin legend was discovered.

Slave (etne).—Belonged to Ne'k, who dramatized it by wearing old clothes and shuffling about among the people like a wretched slave. No origin legend was discovered.

Gidamgiye'ks.—This was a personal crest as well as a clan crest, but its owner's name and the method of dramatizing it were not recorded.

Aweakas (a Gitksan word of unknown meaning).—The owner of this crest has long been dead and his title was not recorded. The Indians remember that he flourished two knives when he dramatized the crest, but knew no legend about it.

Thunder.—The unrecorded owner of this crest dramatized it by fluttering a blanket and beating a drum. Its origin seemed unknown.

He Who Cuts Off the Head with a Knife (*gwatsikyēt*).—Belonged to the noble of the same name, who dramatized a tradition relating how a hunter cut off the head of his wife's paramour (Jenness, 1934, p. 215). A pre-European Gwatsikyēt is said to have enacted the crest in a more dramatic way during the evening performances in the potlatch house. Dressed in his regalia he danced and sang his personal song, flourishing a large knife. A man shouted to him, "Why are you flourishing that knife?" whereupon two men forced Gwatsikyēt to his knees, and while one jerked back his head by the hair, the other cut right through his neck. They then laid his body on a moose skin, placed the head against the trunk, and summoned a medicine man to sing and rattle over him. Finally Gwatsikyēt rose up whole and unharmed.

Dead Man (*Carrier: tenez'ik; Gitksan: lulak*).—Belonged to the noble of the same name. It was based on a tradition that a dead man once entered a house where some children were playing, gave them a present, and departed, leaving them unharmed. The dramatizer covered himself with a black cloth and, after walking a few paces, fell to the ground in the attitude of death.

Fraser Lake Indian (*asten*).—Belonged to the noble of the same name, but its origin was unknown. Its owner wore the costume of a Fraser Lake Indian, carried a pack on his back and brandished a spear.

Frog (*Gitksan: kanau*).—Belonged to the noble Kanau, and was derived from the same legend as the clan crest Frog. Its owner, when dramatizing it, hopped along the ground like a frog.

BIRCHBARK HOUSE

Pileated Woodpecker (*mansil*).—Belonged to the chief of the clan, *Samuix*, who dramatized it by standing in a tree, covered with a blanket, and pretended to fly. The legend is the same as for the clan crest woodpecker.

Small Bird, sp.? (*samuix*).—Belonged also to the chief, being his title. To represent this bird he wore a very small blanket beneath which he fluttered his hands to imitate the fluttering of wings. No legend was recorded.

Satsa'n.—Belonged to the noble of the same name. It was derived from the myth of a being, Satsa'n, who was able to swell and contract his body at will (Jenness, 1934, p. 141). When giving a potlatch, Satsa'n sat on the ground with a large circular cloth fastened around his neck. Assistants then crawled under the cloth to "swell" his body, and the people pushed them out again to make it "contract."

Porcupine (*tetchok*).—Belonged to Su'tli, who covered himself with a blanket, crawled like a porcupine among the people, and whipped them with a "tail." It was based on a mythical contest between a porcupine and a beaver (Jenness, 1934, p. 240).

Marten (*chani*).—Belonged to the noble who bore the name, which was said to be restricted to women. As usual she mimicked the actions of the animal. Name and crest were derived from a myth about a marten that ate a youth who was seeking medicine-power (Jenness, 1934, p. 239).

Ferry Me in a Canoe (nenesenoxtkaix).—Belonged to the noble who bore the name, always a woman. When giving a potlatch, she carried a paddle and sent out three heralds, the last of whom announced her approach with the words, "Here comes a woman who wants to cross the river. Let some one who owns a canoe ferry her over." The crest was derived from the myth of the two boys who visited the land of the dead (Jenness, 1934, p. 99).

guxkalkalas (*Gitksan word, meaning unknown*).—Belonged to the holder of the same title, who was always a woman. When dramatizing it she waved each hand in front of her as though turning two handles. No legend was known.

gwitsin'alu (*Gitksan word, meaning unknown*).—Belonged to the holder of the same title. After sending out three heralds to dance, he himself arrived dancing, laid hold of a chief, and invited him to dance with him. No legend was known.

LAKSILYU PHRATRY

HOUSE OF MANY EYES

Otter (nilzik^w).—Belonged to Maxlaxlexs, but the present holder of that title has given it to his nephew, who dramatized it by dressing in an otter skin and imitating the movements of the animal. No legend was known.

Dog (klak).—Belonged to Kela, who similarly imitated the actions of a dog. No legend was known.

Throwing Dirt (Gitksan: suwiyit; Carrier: klesgett'lat).—Belonged to Dikyan-nulat, who threw dirt at the people outside the potlatch house. No legend was known.

The Man Who Pays the Blood-Price (gowittcan).—Presented to the present Hagwilnexł about 1870 (before his accession to the chieftainship and while he bore the title Gyedamskanish), by a Gitwinkul (Gitksan) Indian, whom he assisted in gathering skins and food for a potlatch. Subsequently Hagwilnexł gave it to a cousin. The dramatizer covered his head with swansdown and danced with one or two other men. No legend was known.

gwinu (*Gitksan, meaning unknown*).—Obtained by Hagwilnexł from the same source as the last crest. Nothing further was discovered about it.

HOUSE ON TOP OF A FLAT ROCK

Old Man (dene'te).—Belonged to the chief of the clan, Widaxkyet. The Indians referred it to a story about an old man who stole some boys, but they had forgotten the details of the legend. Widaxkyet dressed as an old man, concealed his face under a wooden mask, and, carrying a long stick, toddled among the people and squatted down in front of a chief. Then, pointing the stick at the chief, he slid his hand down it, causing four branching points to open at the top. He slid his hand up the stick and the points closed—the chief was trapped.

Caribou (witsi).—Belonged to Dzi. (For its dramatization, see p. 503.) No legend was known.

Goose (xa).—Belonged to the noble of the same name, who imitated a goose. No legend was known.

Rain of Stones (stalo'b).—Belonged to the noble of the same name. When giving a potlatch he wore a mask and threw stones and sand on the roofs of the houses; and in the evening he scattered stones on the floor of the dance house. The noble who now possesses the title caused considerable excitement at a potlatch he gave in 1918 by substituting nuts for stones. The crest is attributed

to an incident in the legend that gave rise to another crest, Sleepy (Jenness, 1934, p. 219).

Swan.—Belonged to Negupte, but no one has taken either the title or the crest since the last incumbent died. At potlatches he wore a white blanket and imitated a swan. No legend seemed known.

HOUSE BESIDE THE FIRE

Heartless (axgot).—Belonged to the chief of the clan, Widak'kwats, who beat the house with a big stick when he gave a potlatch. No legend was known.

Water-grizzly (te'ben).—Belonged to the same chief, who dramatized it by wearing a grizzly robe and roaring. Legend states that the Indians once heard a water-grizzly roaring in a small lake on the top of a mountain near Smithers and saw the animal rise to the surface. Hence they adopted it as one of their crests.

djudalatju (Gitksan word, meaning unknown).—Belonged also to the chief. When dramatizing it he wore a large human mask and pretended to grasp people, waving each arm alternately and shouting, "djudalatju".

Big Medicine Man (Carrier: diyin'intcho; Gitksan: wi'hale).—Belonged to Axgot, the chief's heir. In dramatizing it he wore a headdress of grizzly claws, shielded his face with his right arm, and shook a rattle. No legend was known.

Gambling (Gitksan: gu'he').—Belonged to Klbegansi. When giving a potlatch he sat down with his assistants and pretended to gamble.

Something Devours It All (Gitksan: dzellas).—The title of the owner of this crest was not recorded. In his potlatch he pretended to claw the people. No legend was known.

LAKSAMSHU PHRATRY

SUN OR MOON HOUSE

Grouse (tcaddzat').—Belongs now to the chief Smogitkyemk but formerly to the chief of the Beaver phratry, according to several Indians, or to the chief of the second clan in the Laksamshu phratry, the Owl House, according to the woman who now ranks as its head. In his potlatch Smogitkyemk, clad in a special blanket, struck his elbows against his sides and fluttered his fists as a grouse flutters its wings. He then retired indoors and sent out three heralds to announce his return. The last of the heralds set a log on the ground and announced that the grouse was approaching, whereupon some man in the crowd pretended to set a noose for it. The chief then reappeared, and, kneeling down beside the log, pretended to be caught in the snare.

Slave (Gitksan: an'ka').—Belonged also to Smogitkyemk, who dramatized it by wearing old clothes and acting like a slave. No legend was known.

Short Belly (Gitksan: gut'seut).—Belonged to the noble of the same name. When giving a potlatch he seized everything that came in his way and afterward restored it to its owner and gave him a present.

OWL HOUSE

Forest-Slide (klo'mkan).—Belonged to the chief with the same title. The present incumbent is a woman. At her potlatch she sent out three heralds, the first to announce an impending forest-slide, the second to ridicule the first, and the third to repeat the warning excitedly. Then she herself appeared carrying some sticks in each hand, and followed by a number of youths carrying brush-wood with which to push over the people who thronged around them. At the

evening performance in the potlatch house, Klo'mkan wore an owl mask and danced. Tradition states that when the Indians were clearing a site for a house at Hagwilgate they uprooted a big stump and sent it sliding down the hill. As they watched it descend, a man said, "Let the chief take this as his personal crest."

Moose.—Belonged to the chief of the clan, Klo'mkan, who dramatized it by imitating a moose. No legend was known.

Cannibal (deni tsa'al).—Belonged also to the chief Klo'mkan, but was derived along with a strip of hunting territory from a Cheslatta Lake Indian in payment for help at a funeral potlatch. When dramatizing it, Klo'mkan covered her back with a blanket which she swung up and down on each side as though engulfing the children who came in her path. The crest refers to a legend of a cannibal woman who carried off all the boys in a village (Jenness, 1934, p. 164).

Sa'bek (Gitksan word, meaning unknown).—Belonged to the noble with the same title. When he gave a potlatch he waved his left arm and shook a rattle after the manner of a medicine man, crying, "I am a medicine man from Wista (said to be a village on the coast)."

Picks up Weapon Hastily (kitsilchak).—Belonged to the noble with the same title, who pretended to strike with a stick anyone who spoke to him while he was dramatizing the crest. No legend was known.

BEAVER PHRATRY

Beaver (tsa).—Belonged to the chief Kwi's, who dramatized it in the following manner. After the usual three heralds had announced his approach to the throng gathered outside the potlatch house, he himself appeared, garbed in a beaver skin and crawling like a beaver in flight from two or three men who pretended to spear him with long sticks. When this pantomime ended, the people entered the potlatch house, where they were confronted with a pile of wood near the fireplace (the "beaver's food"), and two or three "beaver lodges" of brush and cloth, in one of which the chief lay concealed. The chief of another phratry approached this lodge and exclaimed, "Why, here is a beaver lodge. Did you not notice it? There must be a beaver inside. Watch the water and the other lodges while I knock it over." As he pushed the lodge over the "beaver" ran out, and, after being pursued by two or three men armed with spears and guns, retreated behind a curtain. There he was permitted an interval to dress, after which he came out again and danced, while the people, led by one of the chiefs, chanted his song or personal song.

Drunken Man.—Belonged also to the chief Kwi's, who imitated a drunken man and sang, "Give me that whisky." It is said to have originated from a dream of the present chief's predecessor, Kwi's or Bini.

Mountain Goat (mat).—Belonged to the noble with the same title, who dramatized it by imitating a goat. It is attributed to a legend that presumes to account for its use as a crest by Guksan, a Gitksan Indian of Gitseggyukla (Jenness, 1934, p. 240).

Tree Floating Down the River (gwisuks).—Belonged to Wila't, who carried a long stick to sweep people aside. No legend was known.

The tables just given suggest a marked decline of the crest system under the influence of European civilization. After tattooing went out of favor a hundred years ago, and the large clan houses disappeared a generation later, the clan crests were in evidence only in the graveyards (pl. 29, fig. 1), and on the four totem poles still standing in the Hagwilgate canyon (pl. 29, fig. 2). They linger even

today in the Hagwilgate graveyard, on two headstones that were made in Vancouver according to the specifications of Indians anxious for the usual Christian burial and marble monument, yet conservative enough to wish their bones to lie beneath representations of their clans and phratries; so their headstones have bird-figures engraved on their faces, and one a life-sized figure of a bird on its summit. About 1913 the Hagwilgate Indians, prompted by their missionaries, gathered together most of the stage material they had used in dramatizing their personal crests—the wooden masks and other objects that they had religiously preserved from one potlatch to another—and burned them in a great bonfire. Since then they have acquired one or two masks from the Gitksan, who in earlier years gave them many crests and crest paraphernalia in exchange for the skins of beaver and other animals. Nearly every summer they display these masks in what are still called potlatches; but so little do most of them regard their old clan and phratric divisions that they no longer insist on phratric exogamy or pay any respect to the clan chiefs and leading nobles. The very distinction between nobles and commoners has broken down, for any one who wishes may now become a noble, and the chiefs are often poorer and less esteemed than the nobody who has pushed the past behind him and is successfully carving out a career under the new economic conditions. So the acquisition and dramatization of the personal crests is fast becoming a mere entertainment divorced from its old social significance, and ready to adopt new ideas, and new methods, that are more abreast of modern life.

CHIEFS

The chieftainship of a clan was highly coveted, although the authority conferred by the position was in most cases comparatively slight. A son could not succeed his father because of the marriage rules, which compelled a man to marry outside of his phratry and made his children members of the mother's phratry and clan. Hence, the most usual successor to a chief was the son of a sister, or, if his sisters had no sons, a brother; in default of both nephews and brothers a niece could inherit the title provided her kinsfolk backed up her claim, otherwise the position passed to the leading noble in the clan. To prevent disputes a chief generally indicated his personal choice some years before his death by conferring on a nephew the title and crest he himself had used in his younger days, and seating him in front of himself at ceremonies.

The accession of a new chief was a long and expensive affair, involving in former times no less than six potlatches (dze til). Within an hour or two of the old chief's death, the candidate for his place sprinkled swansdown over his head and, standing in front of

the corpse, shook the dead man's rattle and chanted its owner's sonel or personal songs. He then summoned all the people in the vicinity to join in the same songs, chanted without dancing to the accompaniment of a drum. The chanting and weeping continued till late at night, when the candidate and his kinsmen brought in food for the mourners, who retired soon afterward to their homes. The people mourned for 2, 3, and sometimes, if the chief (whose corpse was meanwhile rotting at the back of the house) had enjoyed great prestige and influence, for as many as 15 days; and the feeding of the mourners during this period constituted the candidate's first potlatch, known as the *veni'hatittse*, "He Falls Down," i. e., is dead.

After the due interval, the candidate finally called on the clanspeople of the dead chief's father to gather firewood and cremate the remains. A day or two later he again summoned the people to his house and gave his second potlatch, *habaraninne awilli*, "Arranging the Arms and Legs (of the dead chief)." Aided by his kinsfolk, he set food before them all and distributed gifts of skins and other articles, taking care to offer most of his presents, first to the clan that had cremated the corpse, in payment for its services, and second, to the chiefs of other clans and phratries in order to win their support for his candidature.

His four succeeding potlatches followed each other at long intervals, because even with the help of kinsmen he could hardly gather the food and presents necessary for one potlatch alone in less time than a year. In the middle of the nineteenth century, the third in the series, called *neokwan tesk'an*, "Make a Fire" (on the theory that the old fire had been extinguished by the tears of the mourners), generally gave rise to two distinct ceremonies, the erection of a wooden grave-hut over the cremation place of the dead chief by his father's clansmen, and the definite appointment of a successor. If there were two candidates for the position, they gave a potlatch jointly, and the chiefs of the other clans and phratries decided between them after each in turn had entertained the people and distributed his presents. If, on the other hand, there was only one candidate, and general agreement to his succession, he often assumed at this potlatch the title and a personal crest of the late chief, and encouraged some of his clansmen to assume crests also. An old man thus described the installation of a new phratry chief as he witnessed it in his early manhood:

On the appointed evening the candidate wrapped round his shoulders the skin of a grizzly bear, his predecessor's personal crest, and with three or four fellow phratrymen similarly clad to represent the new crests they were assuming, awaited in the potlatch house a visit from the men of the other phratries. They meanwhile were painting their faces, covering their heads with swan's-down, and gathering at the houses of their respective chiefs. First, the phratry of the dead

chief's father marched to the potlatch house, sounded drums and rattles outside it, and beat on the walls with sticks. The door opened for them, and they marched around to the right behind their chief, halting in a long file behind the waiting candidate. He conducted them outside again and through all the other main houses in the village, after which they retired to spend the night under some trees while the candidate returned to the potlatch house to superintend the conducting of the other phratries on the same peregrination by his fellow clansmen. He and his phratry then provided an ample supper for the men camped under the trees, and retired to their homes to sleep.

The next morning they carried more food to their fellow villagers, who had spent part of the night composing playful songs about the new chief and his phratry in order to wash away all traces of sorrow for the loss of its former chief. About noon one of the candidate's assistants, dressed to represent his new personal crest, conducted them one behind the other to the potlatch house, where the phratries ranged themselves in order round the three sides, leaving an open space in the middle for dancing and for the coming and going of the members of the candidate's phratry. Each in turn then danced to the chants it had composed the night before, and after they had resumed their seats the candidate's phratry retaliated by offering pails of oil to the composers of the songs, who were obliged to drink as much as they could. Some became very sick, but others flourished the empty pails over their heads and victoriously repeated their chants. The candidate and his phratry feasted the entire assembly, paid the phratry that had just erected a gravehouse over the cremation place of the late chief, and distributed moose hides, beaver skins, and other valuable presents among all the guests. Then the candidate stepped forward and described where he had killed the moose, the beaver, the bear, and the other animals that had furnished the feast, and a prominent noble of his phratry listed all his helpers and the quantity of food and skins each of them had contributed. Finally, the entire phratry mustered behind the candidate and one noble, speaking for them all, announced, "Bear witness, all of you, that this man has assumed the title, the crest, and the personal songs (sonet) of our late chief and is now chief in his place." After a short delay to enhance the solemnity of the occasion, the chief of another phratry rose to his feet and said, "It is well that he should be your new chief. He is a nephew of the old chief; he has provided us with much food and many skins. Hereafter let him take the place and bear the titles of his uncle." The other chiefs spoke in the same strain and the gathering then dispersed.

Occasionally a rival candidate did not submit to the decision of the other chiefs and presumed to direct his clan or phratry as though he himself had been elected. The chiefs of the other phratries then mustered the people at the house of the man they had appointed and re-affirmed his chieftainship, at the same time warning the defeated candidate to drop his pretensions lest he stir up enmity and ill-will. If he still refused to submit, some partisan of the new chief killed him, and the people united in protecting the murderer from blood-revenge.

The new chief was expected to give three more potlatches before he could claim the same dignity as his predecessor. The first of the three, his fourth potlatch, was called ni'habaatałtai, "Place the Corpse at the Back of the House;" and the next, tsar yin hatata'ai, "Cease the Song of Mourning," because it ended the ritual connected with the dead chief. His sixth and last potlatch, called taraiyetektł (meaning

unknown), was the greatest of all if he erected a new totem pole, for then he invited Indians from all the surrounding country, even from other subtribes and nations. The mere preparation for the potlatch extended over 2 or 3 years, for first he had to hire his father's phratrymen to cut the tree in the woods and drag it to his house, then engage a skilled craftsman (in nearly all cases a Gitksan Indian) to carve the clan crests on it during the winter months when the people were absent at their hunting grounds. Yet apart from the erection of the pole, the ceremonies at this potlatch closely paralleled those at the others; and actually most chiefs either did not care to erect a pole, or were unable to afford the expense. There seem, indeed, to have been no totem poles at all in Carrier territory before the nineteenth century, with the possible exception of one at Moricetown. The oldest pole that the Bulkley Indians remember stood at Moricetown, where it fell about 1870 and was burned. One, about 25 feet high, uncarved, was erected at Francis Lake about 1875 and fell about 1919; and four, that were erected at various dates during the second half of the nineteenth century, are still standing in the Hagwilgate canyon.¹¹

By the end of the nineteenth century, when European settlement had caused the confinement of the Indians to certain reserves, six potlatches to become a chief were far too heavy a burden for any individual to undertake, especially since a chieftainship now carried no shred of authority and very little prestige. The present-day chief of the Thin House in the Gilserhyu phratry, Felix George, gave only four potlatches when he succeeded his uncle in 1918, and none was as elaborate as the potlatches of earlier years. For his first potlatch he merely distributed a little tobacco among the villagers who assembled at his uncle's home on the day of that kinsman's death. For his second he summoned all the people to his own home immediately after the funeral and presented them with tea, sugar, apples, meat, biscuits, and other foods bought at the European stores in Hazelton. To help him out, his kinsmen and fellow-clansmen purchased some of the food for him, and also placed contributions of money into a bowl so that he could both pay his father's phratrymen for burying his predecessor and distribute a few dollars among the leading chiefs and nobles. Then his mother's brother rose up and proclaimed that Felix George was now the chief of the clan and would bear the hereditary title, Guxlet, together with the personal crest that accompanied it. Everyone understood, of course, that Felix would signalize his appointment by a more liberal feast as soon as he was able to raise the necessary funds.

Two years later Felix summoned together all the phratries and distributed among them 75 sacks of flour, 40 of which had been purchased

¹¹ For descriptions of these poles see Barbeau, C. M. (1929, pp. 132-133, 143-146, 149).

by himself, 10 contributed by his brother, 10 by his brother-in-law, and the remaining 15 by various members of his own phratry. Since neither at this potlatch, nor at the two preceding, had any dancing occurred, and he still lacked the second personal crest, Snatching (p. 503), that had belonged to his predecessor, he determined to save up his money for a fourth potlatch, which would go under the same name, taraiyetelit, as the sixth and last potlatch of earlier times.

Within 3 years he accumulated between \$700 and \$800. He then approached three fellow-phratrymen who were erecting grave monuments for themselves and were anxious to celebrate the occasion by giving potlatches. The four men agreed to join forces, and in the middle of summer announced the date of their common potlatch and sent out the formal invitations. Felix George himself bought from the stores in Hazelton 10 moose-hides, 4 cases of biscuits, 40 sacks of flour, several cases of milk and soft drinks, some soap, tea, meat, and a few other items. His eldest son gave him 12 sacks of flour; his brother-in-law and a cousin, each 10 sacks; Netipish, the chief of his phratry, and his brother, 4 sacks each; a kinsman, 3 sacks; a woman relative whose home was at Babine, 1 sack; and a friend from Burns Lake, 1 moose-hide. In addition, he paid a Hagwilgate native \$5 to compose a song for him, and reserved a little money to distribute during the feast. His three colleagues bought other hides and food at the same time, but in less quantity.

The potlatch lasted 4 days. On the first the three men adopted crests which they impersonated in the potlatch house during the evening. Then followed the unusual incident of a raid by the members of the kalullim society (see p. 577 *et seq.*), who invaded the hall and carried off four neophytes. The rest of the people lingered and danced for a little while longer, then quietly dispersed about midnight to their homes. They passed the next 2 days in idle feasting, and the evenings in dancing. On the fourth day Felix and his colleagues distributed their presents and the guests from other places prepared to depart.

Important potlatches brought many guests from other places, such as Hazelton, Gitsegyukla, and Babine; and the Bulkley Indians often attended Gitksan potlatches. Two or three young nobles, delegated by the chief who was giving the potlatch, traveled together and conveyed the invitations to the surrounding villages. In each place they looked for the house of a phratry chief, who entertained them at a meal and received their message. They then visited any other phratry chiefs in the place, repeated the invitation, and passed on to the next village. On the opening day of the potlatch, again, the chief sent round a young noble to summon the people together. The youth entered every house, stood in front of each adult and, tapping the floor two or three times with a stick, said, "Come to the potlatch hall."

Gradually the people mustered outside the hall, where the members of each phratry waited for their chief to lead them inside. The giver of the feast guided every person to his seat, a delicate operation that required both a good memory and good judgment, for any error in ranking was certain to breed serious dissension and ill will. His own phratrymen either remained outside the building, or stood within wherever they could find room to assist in distributing the food and presents piled up in the middle of the floor.

It is clear that whether he was the head of a phratry, or of only a clan within a phratry, a chief had to expend much labor and wealth to gain his position. Even after he had established himself firmly in his seat, he had to keep open house, as it were, to all members of his phratry, to relieve the wants of the poor, and to support his people in their relations with other phratries. His dwelling had to be instantly recognizable, to shelter his immediate family, the families of his nearest of kin, and visitors from other districts, and to serve as an entertainment hall at feasts and ceremonies. It was, therefore, much larger than the dwellings of the other villagers, its roof was supported by two rafters instead of one, and a crest of the clan was often carved or painted on its doorposts. Animal claws and shells suspended at night from the ceiling rattled at the touch of an intruder and guarded the inmates against attack.

A stingy chief who sought only his own profit soon lost his influence; if he were a clan chief, his own clan and the phratry chief would look to one of his nobles for leadership; and if he were a phratry chief, one of his clan chiefs might push him into second place. Only a chief could lead a war expedition, because no one else possessed the means to gather the stores of food necessary to feed the warriors from different places who assembled to take part in it; but if it succeeded, he was given all the captives, who thenceforward became his slaves. These slaves, who were generally well treated and well dressed, performed most of his menial work, and even assisted him in the chase, so that he was able to acquire two or more wives, whereas the ordinary native could seldom support more than one. Yet he, himself, was expected to share the hardships of the chase as long as his strength lasted, when he might pass the rest of his days in quiet state within the village, supplied with all necessities by the able-bodied hunters, and receiving with his fellow-chiefs the largest gifts at every potlatch. One of his special perquisites at feasts was a strip of bear fat about a foot long, which was handed to him at the end of a long stick.

If the Indians demanded from their chiefs liberality, protection, and leadership, they in turn could demand that voluntary submission to their rulings without which the phratries and clans would have lost their coherence and the chiefs their prestige. Hence, when two families

quarreled, the leading chief of any phratry might summon the people to his house, strew his head with swan's-down, the time-honored symbol of peace, and dance before them to the chanting of his personal song and the shaking of his rattle. After the dance he would deliver an oration, recounting all the wealth that he and his clan or phratry had expended in order to confer on him his title, his personal song, his rattle, his ceremonial leggings (*xas*), and his headgear (*amali*), all of which indicated their desire that he should be their leader and mediate in all their quarrels. Turning then to the disputants, he would exhort them to settle their strife, and warn them of the troubles that would overtake their families and clans if they persisted. In nearly all cases he was able to carry his audience with him, and the quarrelers, seeing that popular opinion was opposed to them, distributed moose skins in token of submission. So, although the authority of the chiefs was not codified, and they often ranked little or no higher than some of the nobles, an energetic and tactful man could occasionally guide the actions not only of his own clan and phratry, but of the entire subtribe, and become its official spokesman and leader in the eyes of all the surrounding subtribes.

The four (or five) phratric chiefs did not constitute a definite council, but discussed informally with one another matters that affected more than one phratry. Thus, if a man of one phratry murdered a man of another, the two phratric chiefs, supported by their clan chiefs, cooperated to avoid a blood-feud by arranging for satisfactory compensation. It was they who enjoined on the murderer a fast that lasted sometimes for 25 days, and they presided at the ceremony in the potlatch hall when the murderer and his clans-people handed over the blood-price. The ceremony held at Hazelton, when the Nass River Indians atoned for the murder of the Bulkley chief Gyedamskanish (see p. 479 *et seq.*), illustrates the usual procedure at such a ceremony. Besides handing over an enormous quantity of skins, blankets, stone adzes, and other goods, the murderer's kinsmen nearly always surrendered some fishing or hunting territory, usually, too, a marriageable maiden, who thenceforth could claim no protection from her clan or phratry, but became the unqualified property of the clan to which she was surrendered.

THE CYCLE OF LIFE

The Bulkley River child, like other Carrier children, started its career in life swaddled in sphagnum moss and warm furs inside a birchbark cradle that its mother carried perpendicularly on her back, or hung to a tree-limb or a lodge pole when she was working around her home. Not until it could run about did it receive clothes like its parents', first of all a tunic, longer or shorter according to its sex,

then leggings and moccasins, and, in winter, a cap, mittens, and a little robe to wrap around its shoulders. Within the cradle its legs hung perfectly straight, from fear that even the gentlest flexion might impair its speed in running when it grew older. If it cried continually, or was restless and troublesome, its mother believed that it was anxious for a brother or sister to follow it into this world and that she would soon give birth to another child.

For the first few weeks or months it bore no other name than baby; then it received a name that suggested one of the crests in its father's clan or phratry. Thus the daughter of a man who belonged to the Gitamtanyu phratry received the name "Fierce Grizzly," because the grizzly was a crest in that phratry. Though the parents might confer any name they liked provided it suggested a paternal crest, they generally selected one that had been borne by a grandparent or other relative in childhood years. Commoners rarely changed this name in later life, and even a noble often retained it for everyday use. It conferred no rank of any kind, yet it possessed enough social significance to demand a potlatch—at least when the child's parents were nobles, and perhaps, too, when they were commoners, for it is so long since all caste differences disappeared that the Bulkley natives are uncertain on this point. (Pl. 30.) Nobles summoned all their neighbors to the house of the chief of the mother's phratry, where the chief, taking the child in his arms, publicly conferred the name, mentioned its previous bearer, and usually related any story that was connected with it. The mother then carried the child home again, the guests ate the food provided by the parents and by the mother's phratry, and the father divided among his family and nearest kinsmen such gifts as her phratry had contributed for the occasion.

According to the amount of property that the parents were willing to give away in potlatches, a child between infancy and manhood might assume three or four names that had been previously held by different relatives. He obtained his first definite rank among the nobles, however, between adolescence and manhood, when he assumed the title of his mother's brother, or, if that brother were still alive, a title that he had borne in his earlier days. The child's first name had signalized his relationship to his father's clan and phratry; but this later name marked him out as a member of his mother's clan. Thenceforward he sat directly in front of his uncle at all ceremonies, and was publicly recognized as the favored successor. A mother might have several brothers, or none at all; in any case she was related more or less closely to all the men in her clan. Hence, there was always a choice of titles, some marking a line of advancement higher than others; and parents naturally chose the more promising titles for their sons. Yet they did not neglect their daughters, and,

in the absence of nearer male heirs, a woman might obtain the most honored titles and succeed to the highest positions.

Children, from the time they could walk, underwent systematic training along two lines, which the natives distinguished as *geretne* and *gidet'e*. *Geretne* was instruction in the various manual tasks that would fall to their lot when they grew up. The girl learned to carry wood and water, to cure and cook fish, meat, and berries, tan the various hides, design and sew the clothing, make birchbark baskets, sinew thread, and many other objects required in the home. The boy helped to build the houses, learned to manufacture tools and weapons, snow-shoes and canoes, and especially to hunt and fish for the daily supply of food. When he killed his first game, even if it were only a robin or a squirrel, his father entertained his phratrymen and told of his son's deed. Each sex had its own duties; if the men provided most of the necessities of the home, the women organized them and worked them up for use. So while the girl was helping her mother in the camp or village, the boy, as soon as he was old enough, followed his father to the chase, or plied a fish-rake beside him when the salmon were ascending the rivers.

Gidet'e, religious and ethical instruction, was the natural complement of this manual training, but followed a more indirect method. Its medium was the folk-tale, narrated in the evenings by the oldest man in the camp when the Indians were scattered in their hunting-grounds, and, in the villages, by the chief of the clan as he lay on his couch at the back of the big clan dwelling. Nearly every story carried with it the explanation of some phenomenon (e. g., the moaning of the trees, the shape of a certain rock), or else a moral (such as the penalty involved in the violation of a certain taboo). While the parents or their brothers occasionally thrashed a child that had committed some breach of etiquette, or violated an important taboo, they generally suffered the offence to pass without remark until the evening, when the oldest man narrated a story just as the inmates were retiring to their beds. After developing the plot until it applied to the particular occasion, he turned to the culprit and asked, "Did you do such and such a thing today?" and the child had no option but to confess. Then the old man resumed his story, and stressed the punishment meted out by *Sa*, the sky-god, or by the animals, for a similar breach of morals or of the customary law. If we may believe the present-day Indians, the shame and humiliation inflicted by this method were harder to endure, and more efficacious, than the severest thrashing.

It was only in the evenings that the Bulkley Carrier narrated their folk-tales, and then only from the beginning of November until mid-March, fearing to continue story-telling after that date lest it should

lengthen out the winter. Very often they followed up a story with direct instruction about the habits of the game animals, the proper methods of hunting and fishing, the numerous rituals and taboos, and the etiquette that governed the relations between nobles and commoners, and between elders and children. The child, they taught, should be respectful to his elders, especially to the widowed, the aged, and the infirm, whether of equal or lower rank; and they pointed to four stars in the Dipper as a warning of the efficacy of an old woman's curse (Jenness, 1934, p. 137). Misfortune should never be mocked nor sorrow ridiculed. When a widower mourned his loneliness, weeping inside his hut, the boy should softly draw near and ask in low tones whether a little food would be acceptable, or a few sticks of wood to replenish the fire. He should never ridicule the animals, or gloat over success in hunting, remembering that the mountain goats destroyed a whole community because a few youths had cruelly tortured a little kid (Jenness, 1934, p. 155). In his play he should never be uproarious, but observe a certain dignity and moderation; for did not Sa, the sky-god, once carry a whole village into the sky and drop the lifeless bones to earth again, merely because the children, refusing to heed the warnings of their parents, had raised a tumult around their homes (Jenness, 1934, p. 125). Regulations such as these, promulgated by the old men at night through folk-tales, had to be observed by every child, but especially by the nobler born, because their parents were expending much property in potlatches to give them high standing, and filial obligation demanded obedience. Often the degenerate son of a noble father had been eclipsed in fame and honor by a poor orphan who had drunk in the words of his elders from a seat behind the door.

The Indians laid down some special rules of etiquette for young girls. A high-born girl was expected to look straight ahead as she walked, turning her head neither to right nor to left; girls of lower rank had to keep their eyes modestly fixed on the ground. While the dentalia shells attached to the ears of a chief's daughter, and the labret inserted in her lip, indicated her high rank, they reminded her also that she should never speak ill of any one, but guard her words and talk slowly, as befitted the daughter of a chief. Mothers, of course, kept strict watch over their daughters, and taught them all these necessary rules; but the folk-tales drove home their lessons, and also warned the children beforehand of the special regulations and taboos that would be incumbent on them as they approached maturity.

Adolescence brought an intensification of the training to boys and girls alike. At that period some girl friend (what clan or phratry she belonged to did not matter) tattooed the boy's wrist to make him a straight archer. From the moment his voice began to change, he

was instructed to refrain from many foods that were thought to lessen his speed in running, impair his sight, or hinder in other ways his success in the chase. He might not eat the heart of any animal, lest it should give him heart trouble; nor the head, especially the head of a mountain goat, lest it should make him dizzy and half-paralyzed, and children born to him should fall sick and die; nor tripe, lest it should make him cough violently when running after game; nor marrow, lest his legs become sore; nor the meat of a bear cub, lest his limbs become stiff; nor the meat of a young beaver, which travels so slowly that he too might become slow at everything; nor caribou leg-meat that enclosed the sinew, lest his legs become tired or suffer cramp; nor the leg of a black or grizzly bear in which the bone lay embedded, lest it make his own legs sore; nor the paws of a black or grizzly bear, lest his feet swell; nor the spruce-partridge, whose slow, short flight might make him short-winded and slow of foot; nor eggs, lest his children have sore eyes, or he himself be sluggish like newly-hatched birds. Not until he reached middle-age might he neglect these taboos, and eat such foods with impunity. One further admonition his elders gave him; he should run up hill, but never down, so that he might become a fast and steady runner. At Hagwilgate several paths led from the high shelf above the canyon down to the water's edge; boys were forbidden to run down these paths, but encouraged to race each other up them.

More rigid still were the regulations for girls at this period. The Indians thought that the adolescent girl was fraught with mighty powers for good and evil; that if she carried a little child on her back the child would cease to grow, or grow extremely slowly; that if she drank from a stream that the salmon ascended they would appear there no more; that if she touched a hunter's snowshoes, tools, or weapons he would capture no game; that if a man so much as saw her face he might die, especially if he were a medicine man, though, if his medicine were very powerful, it might kill the girl instead. She herself was in grave danger; her parents' blood was coursing to and fro in her veins, and only after a year or more did it yield to her own pure blood that would give her health and long life. So for at least 1 year, and generally 2, she might not contaminate her blood with the "blood" of fresh meat or berries lest it should bring on sickness and early death; dried fish and dried berries, roots, and barks became her only foods. On her head she wore a skin bonnet that had long fringes in front to conceal her face, and a long train behind. If her parents were noble, she wore over it a circlet of dentalia shells, and attached dentalia and other shells to three strands of her hair, one in front and one on each side, to make it seem long and trailing; girls whose parents were too poor to afford

these shells merely bound their hair in two braids. Suspended from her neck, or fastened to her belt, were a drinking tube of goose or swan bone so that her lips would neither touch liquid nor any vessel that contained it, and a comb or scratcher to use on her head instead of her fingers. To prevent her hair from falling out, as might happen if she herself combed it, her mother or sister combed it for her. For about 2 years she lived in a tiny hut out of sight of the village or camp, and avoided as well as she could the trails of the hunters. When her people were traveling she followed far behind them, in the same trail, if it was easier, for she was not required, like Sekani girls, to break an entirely new trail. If the party came to a stream, her father laid a log across it so that she might cross without touching the water, or else her mother lingered behind and carried her across; and as the girl passed over, if possible without looking down, she dropped a few twigs into the water. The entire community knew of her condition, for, when the first few days of seclusion had expired, her parents took her home, and, setting her at the back of the house, announced her approaching maturity at a potlatch. If her father was a chief, his sister then pierced the girl's lower lip with a bone awl to hold a labret, and after the presents were distributed she retired once more to her hut, where she was supplied each day with food and drink by her mother, sister, or grandmother. The neighboring Gitksan Indians, who were rather more sedentary than the Carrier, built the girl's hut half underground, and connected it by one, or more often two cords to the parents' house, so that she could signal in case of need. The Bulkley natives seem occasionally to have built similar lodges, but the practice never became usual.

All these restrictions on the girl's liberty were of a negative character, designed to protect herself and the community from fancied harm; and they recurred, for a few days at a time, throughout the whole of her subsequent life. The 2 years' seclusion at adolescence, however, was a period also of positive training, when the mother or other near female relative gave the girl regular instruction in the duties of married life. They supplied her with birchbark to fashion into baskets and trays, hides to tan (pl. 31) and sew into moccasins, and rabbit skin to weave into blankets. If at certain times she was advised to lie down and rest continuously, most of her days were fully occupied with tasks that she would be performing in later years.

Although the Bulkley natives no longer seclude their adolescent daughters in separate huts, they still subject them to various taboos, and warn them against eating fresh meat. A middle-aged woman can still remember how she caused her brother to lose a valuable

beaver net. Her family was moving to another camping place, and, as she followed behind it, she found the net hanging forgotten on a tree. Not daring to touch it, she hooked it over the end of a long pole and deposited it in the evening near her mother's lodge. Her brother used it for several days, but failed to catch any beaver, though all his companions were successful. He then concluded that she had spoiled the net, even though it had not touched her, and in his anger he threw it into the fire.

Sometimes the Indians tried to use the mysterious forces operating in the adolescent girl to prevent the constant dying of infants in a family, which they attributed to the violation of some taboo by one of the parents during his or her youth. When a woman who had lost two or more babies gave birth to another child, she would ask an adolescent girl to bend a twig to the ground, tie down its end with a cord, and then cut the cord with a knife. Thus, the mother hoped, she could remove the curse that had overtaken her and raise her child in safety.

After about 2 years, boys and girls emerged from the adolescent stage and were ready to take their places among the adults of the community. The girl laid aside her special costume and put on new garments; to keep her hair from falling out later, she cut off the three long strands to which she had fastened dentalia shells; and she held herself in readiness for her marriage, which usually took place very soon afterward. Boys, however, did not marry until at least 3 or 4 years later, when they had proved their skill in fishing and hunting and their ability to support a wife. In Carrier subtribes farther east they were expected at this time to undertake a diligent quest for guardian spirits that would help them in emergencies, enable them to heal the sick or to obtain game when the people were starving; but the Bulkley Carrier, believing that guardian spirits and medicine powers came to men unsought, did not insist on a definite quest, although they encouraged their young men to dream, and to pay the greatest attention to their dreams as likely to give them medicine power. They did require each youth, however, to practise a certain ritual (see p. 545 f), both before and after marriage, in order that he might thereby achieve greater success in the chase.

Most young men tried to enhance their appearance by eradicating the eye-brows, moustache, and beard, although a man's good looks counted for little in comparison with his rank, prowess in hunting, swiftness of foot, or reputation for medicine power. With girls, too, rank and conduct theoretically counted for more than beauty. The well-bred girl seldom or never stumbled; if she were a chief's daughter, she looked straight in front of her; if a commoner's daughter, she looked modestly down; whatever her rank, she refrained from

turning her head frequently to one side or the other; and when she sat down, she kept her feet together, not stretched one in front of the other. A slender face and figure, well-developed eyebrows and long hair were very desirable, but neither in woman nor man was beauty considered of prime importance.

The Bulkley Indians preferred a marriage between cross cousins, because it retained the family titles and privileges within a close circle and was more conducive to harmony. For the same reason, when a man's wife died, he regularly married her younger sister, if she had one; and a woman whose husband died went to his unmarried brother. Men who married more than one wife generally chose two sisters.

The distinction between cross and parallel cousins appears in the terms of kinship and relationship given below, where it will be seen that men had one term for the daughters of their fathers' sisters and their mothers' brothers, who were eligible for wives since they necessarily belonged to other phratries, and another term for the daughters of their mothers' sisters, who necessarily belonged to the same phratry, and of their fathers' brothers, who must frequently have belonged to it also. Similarly women distinguished between the sons of their fathers' sisters and mothers' brothers, on the one hand, and of their fathers' brothers and mothers' sisters on the other.

TERMS OF KINSHIP AND RELATIONSHIP

an·e', my mother (be·n, his mother).

sbeb, my father (bebeb, his father).

siyi', my son.

stse', my daughter.

sa·k'ai, my mother's sister (man or woman speaking); sister's daughter (man or woman speaking).

stai, my father's brother, my mother's or father's sister's husband, my wife's sister's daughter (man or woman speaking).

sbits, my father's sister, my mother's brother's wife, my mother-in-law (man or woman speaking); my brother's daughter, my husband's sister's daughter (woman speaking).

sezets, my father-in-law (man or woman speaking).

sre, my sister's husband, my brother's wife (man or woman speaking); my wife's brother, my wife's sister, my husband's brother, my husband's sister.

salt'en, my husband's brother's wife.

sla, my wife's sister's husband, my husband's sister's husband, my wife's brother's wife.

saz'e, my mother's brother (man or woman speaking).

sezi-t, my father's sister's daughter, my mother's brother's daughter (man or woman speaking); my father's sister's son, my mother's brother's son (woman speaking).

so·n'di, my father's sister's son, my mother's brother's son (man speaking).

salsen, my mother's sister's son, my father's brother's son (man or woman speaking).

salte'tse, my father's brother's daughter, my mother's sister's daughter (man or woman speaking).

- stso**, my sister's son or daughter (man or woman speaking).
stchal, my brother's son (man or woman speaking), my wife's or husband's brother's or sister's son.
sttitl, my younger sister (man or woman speaking), my brother's daughter, my wife's brother's daughter (man speaking).
sa-t, my older sister (man or woman speaking).
songri, my older brother (man or woman speaking).
stchatl, my younger brother (man or woman speaking).
sranten, my son-in-law (man or woman speaking).
siyes'at, my daughter-in-law (man or woman speaking).
sti-l, my husband's brother's daughter (woman speaking).
stchai, my grandchild (man or woman speaking).
stsets, my grandfather (man or woman speaking).
stsani, my father's mother (man or woman speaking).
stso, my mother's mother (man or woman speaking).

The choice of a husband rested with both the girl and her parents, who generally respected her wishes unless a chief asked for her in marriage, or required her surrender to atone for a murder or other crime. Occasionally the suitor, or one of his parents, suggested the match to the girl beforehand in order to sound out her inclinations, though she herself could neither accept nor reject the proposal. The youth then offered a large quantity of furs, moccasins, arrows, and other property to her mother and kinspeople, and if they rejected the amount as insufficient, gathered still more to add to the price. If they finally accepted, the father invited the suitor to join his household and to help him in hunting and other enterprises. The young couple did not marry immediately, even though they now lived in the same house or lodge; but they tested each other out, as it were, by carefully watching one another's actions and listening to all the conversation that went on in the home. At last one night, when everything seemed propitious, the bridegroom silently crept under his bride's robe, and remained seated beside her when the family arose in the morning, thus openly declaring their marriage. For a year or so longer they remained with her parents, handing over to them everything they acquired except the few skins they themselves needed for clothing. Thereafter they could build their own lodge and hunt by themselves, though the girl's parents still had a claim on their services, and largely relied on their son-in-law's help at potlatches.

A widowed chief (for a man could hardly become a chief until long after his first marriage), or a chief who desired to take an additional wife, was exempt from any period of servitude. He merely notified the girl's parents through a kinsman or kinswoman, who at the same time delivered the bride-price. The parents naturally coveted the honor for their daughter and rarely refused. Shortly afterward the girl, however reluctant she might be to wed an elderly

or middle-aged man, was escorted by the same kinsman to her new home.

Neither was there any period of servitude for a girl surrendered in compensation for a murder or other crime. Her parents resigned every claim to her when they handed her over, with other property, in payment of the blood-price, and the brother or near kinsman of the murdered man who took her to wife enjoyed absolute authority over her. However harshly she was treated, she could not return to her parents, for she now belonged, body and soul, to her husband and his kin. Nevertheless, it does not appear that she was treated very differently from other girls, for every hunter needed a wife to handle the meat and hides he secured, to prepare his food and make his clothing; and an efficient and contented wife increased his own comfort.

The Indians strongly discountenanced marriage outside the caste. If a nobleman married a commoner woman his children were commoners, and only with the greatest difficulty could he secure their elevation, because his wife's brothers and kinsmen could offer no appreciable aid. On the other hand, a girl of noble rank who married a commoner incurred general disapprobation, and was constantly mortified by the lowly position he occupied at all feasts and ceremonies. Her children, too, would in most cases remain commoners, unless her parents and brothers took pity on them and undertook the expenses of the potlatches necessary to raise their standing. If a commoner greatly distinguished himself by his prowess in hunting, or gained a reputation for great medicine power, he might aspire to marry even a chief's daughter, but in that case the chief would certainly wipe away the stain of his birth and confer on him a title in a magnificent potlatch. The ordinary mésalliance was liable to turn into a tragedy.

Several youths of noble rank were rivals for the hand of a nobleman's daughter, and enlisted to serve her kinsfolk in the chase. The girl herself, however, favored a commoner, and in spite of her parent's admonitions, refused all her authorized suitors and encouraged his addresses. One night he stole into her lodge and shared her sleeping robe, giving her parents no choice but to recognize their marriage and dismiss the other youths. Soon afterward a nobleman announced that he was holding a potlatch and invited all the people to attend. The chiefs and nobles occupied their accustomed places in the seats of honor, but the girl's husband had to squeeze in among the commoners in one corner. Her old grandmother said to her, "Let us peer through that hole in the wall of the potlatch house and see where your husband is sitting." They looked, and saw him squeezed among the rank and file in the corner. "We warned you about that," the old woman said. The girl was so mortified that she returned home, tied a rope to a tree, and hanged herself.

In a polygamous household, the first wife ranked above the others, who were in a measure her servants and did such cooking, drying

of fish, cleaning of hides, and other duties as were not done by slaves. If they quarreled among themselves, their husband thrashed them soundly with a stick. A man could divorce his wife for misconduct, idleness, or, indeed, any reason at all by sending her back to her father or nearest kinsman, and either retaining the children or sending them with her. To be divorced by a chief in this way was so disgraceful that the woman's father or brother might publicly censure her in a potlatch. For that purpose he stationed her in the middle of the hall with a woman on each side of her, and stood behind with three or four men hired to chant satirical songs, such as, "I did not cook for my husband; I sought after other men, etc." At each song the two women compelled the divorced wife to dance while the audience mocked her. Afterward her kinsmen, to blot out the disgrace, distributed presents to all except their own phratrymen and took the woman home.

Divorce by a chief needed no justification; but a nobleman who divorced his wife generally felt impelled to ventilate his reasons by engaging his father and some men in his father's phratry to satirize the woman in the same way; and a woman who left her husband on account of ill-treatment or neglect similarly satirized him through her own father and kinsmen. The guilty person stayed away on these occasions, but might retaliate in a later potlatch. The divorce, however, was complete, and both the man and the woman were free to remarry whom they pleased.

Before the birth of her child, a mother submitted to nearly as many taboos as an adolescent boy or girl. Old women cautioned the expectant mother that if she lay down too much her child's head might become elongated and impair its health, whereas constant activity would increase both her own strength and her baby's. She was to be sparing in her diet, lest the child should grow too big and make delivery difficult. Neither she nor her husband should eat eggs, which would give the child sore eyes; nor the head of any animal or fish, particularly the head of a beaver, which would make the child's eyes small like a beaver's eyes, or of a rabbit or salmon, which would make the child cry continually; nor the meat of any animal that had been caught in a noose or snare, for it might produce a constriction in the child's neck that would strangle it as it grew up. After the delivery of her first child, the mother should use a drinking-tube, and abstain from fresh meat and fresh fish for a whole year; with later children she could use a cup, if she wished, and eat fresh food after 1 month. To insure her baby being a boy (or girl) she should make a noose and repeat continually, "I want a boy (girl). If a girl (boy) is born I'll hang it with this noose."

As the hour of childbirth approached, the husband built for his wife a special hut which no man save himself dared to enter through fear of becoming lame. Here he attended to all her needs, or else he engaged a female relative to look after her, for a homicide who attended his wife in labor might render her incapable of bearing more children. The helper cut the umbilical cord, placed the baby in its cradle, and wrapped in bark or fur the afterbirth, which the mother herself later concealed in a tree where neither bird nor animal could touch it and by so doing destroy her fertility.

Domestic life varied considerably with the seasons of the year, periods of isolation alternating with periods of intense social activity when the family was almost swallowed up in the clan and phratry. Dominating everything was the necessity of securing an adequate supply of the principal foods, meat, and fish. Consequently the man and his sons (as soon as the latter were old enough) spent most of their time in hunting and fishing, while the woman and her daughters carried home the meat, set snares for small game such as rabbits and marmots, collected berries and roots, cooked the food, dressed the skins, made the clothing, the bags and the baskets, and performed the many miscellaneous duties that are inseparable from a home. Very few women used the bow and arrow or the fish spear, but they shared the line fishing in the lakes and rivers.

The Bulkley natives recognized four seasons, spring (*kω·lit*), summer (*kyen*), autumn (*ta'kait*) and winter (*xait*). They counted by winters, and watched for the appearance of each new moon, which commonly evoked the cry, "Look" (*ho biye*) and the stereotyped answer, "The little moon" (*sa inai*). They seem to have divided the period from one winter to the next into 12 moons, beginning the cycle with the "little white fish moon," which fell around September-October. At Fraser Lake, the Indians used a similar calendar, but had different names for certain moons.

CALENDAR

<i>Moons</i>	<i>Bulkley Indians</i>	<i>Fraser Lake Indians</i>
Sept.-Oct.-----	Little white-fish moon----- (xlōts uzze', because the fish spawns about that time).	Little white-fish moon. (xlu uzza).
Oct.-Nov.-----	Time of little cold----- (binin'hozkatsyez).	Big white-fish moon. (xlu'uzza).
Nov.-Dec.-----	gyint'ek (meaning unknown)..	hankyi (meaning unknown).
Jan.-Feb.-----	Big sun----- (sa-kyo).	Big sun. (sa-cho).
Feb.-Mar.-----	Moon inverted like a cup (?)-- (minkyes).	Black specks on the snow. (takasstil).
Mar.-Apr.-----	Fish month----- (t'lo'gaxt'si uzze').	Fish month. (t'lu'gas uzza).

<i>Moons</i>	<i>Bulkley Indians</i>	<i>Fraser Lake Indians</i>
Apr.-May-----	Month of suckers----- (guskyi uzze').	Month of suckers. (taggus uzza).
May-June-----	Time when ducks moult----- (bininkyetkyas).	Thumb. (ne-chaz).
June-July-----	Time when salmon come up the river. (biningyist'lex).	Sock-eyed salmon. (ta-lok).
July-Aug-----	Time top-of-mountain hunt- ing people go out. (bininziik'ats tsetattil).	Char month. (bettuzza).
Aug.-Sept-----	When full moon comes up over the last line of trees on the mountain side. (skyanlere-pes).	(?)

In July the entire subtribe used to gather at Hagwilgate (prior to 1820, at Moricetown) to intercept the migrating salmon, which were dried and stored away for the autumn and early winter (pl. 32). This month, and the month following, were periods of abundance, when the diet of salmon could be varied with fresh berries, with wild rice (djankatł), and with the roasted roots of the wild parsnip (djanyankotł) and of the djinitłrets, an unidentified plant whose root attains the size of a pumpkin. Near relatives of each chief then shared with him the big clanhouse, while the other families in the clan occupied small individual dwellings round about. Many days and nights were given over to ceremonies and potlatches, attended not only by all the villagers, but by numerous guests from neighboring subtribes. Since every man and woman participated in these ceremonies, the individual families seemed for a few weeks nearly submerged.

Before any snow settled on the ground, however, the subtribe broke up and the families dispersed to their hunting territories in search of beaver, caribou, bear, goats, and marmots. Tribal activities then ceased, and for a time the families lived solitary, or else one or two together, eking out a precarious existence by the chase. In the autumn, and again in the spring, they snared hundreds of marmots, whose skins the women sewed together into robes and socks; but during the winter proper they secured very little game except bears and caribou. Surplus caribou fat they melted and poured into the long intestine of the animal and carried as a food ration on their journeys; and surplus meat they preserved in boxes or baskets, sealed with the grease that dripped from strips of bear fat laid sloping over a fire.

In March the snow melted rapidly, and living by the chase became more difficult. After their long winter isolation, the families eagerly gathered on the lakes and rivers to fish through holes in the ice, making use of both the spear and the set line. The latter carried

a barb of bone lashed at an angle of about 45 degrees to a wooden shank and baited with a lump of fat. When using the three-pronged spear, the Indians commonly encircled the fishing hole with a low wall of spruce boughs, roofed the shelter with a blanket, and scraped away the snow outside so that the light penetrated through the ice to the water beneath; then, peering through the hole, they observed the fish approaching the lure, and struck them when they disappeared within the shadow of the shelter.

In some years March brought them famine; their stocks of dried salmon were exhausted, the lakes yielded few fish, and the game seemed to keep out of reach. A few families would then cross to the Nass River to join in the oolachan fishery, but the majority supported themselves on the inner bark of the hemlock, which they wrapped in spruce bark and roasted for several hours on hot stones. Then they crushed the fibers with stone hammers and dried the pulpy mass in large cakes that could be softened in water and eaten with fat. As soon as the ice broke up in the lakes, the various households generally scattered again to hunt until summer reassembled them for the salmon fishing at Hagwilgate or Moricetown.

Despite their permanent settlements at Moricetown and Hagwilgate, therefore, the Bulkley Indians were constantly on the move, driven from place to place by the vagaries of the food supply. In summer they used canoes of spruce bark (after the fur-traders came, of birchbark also), but even at that season they traveled mainly on foot, carrying on their backs the meager furniture of their homes. Down to the nineteenth century they lacked even snowshoes and toboggans, though they sometimes improvised a toboggan from an animal's hide, and, in crossing wide expanses of glare ice, dragged their loads on sticks and branches. Present-day natives say that the man always carried the heaviest load, unless he was called away by the chase; but that even the little children bore burdens proportionate to their strength. Their tump-lines were of babiche, with a broad head band of skin, though for other purposes they often used ropes of twisted cedarbark. Torches of birchbark lighted their footsteps in the darkness; and two lumps of pyrites, or sometimes a stick rapidly twirled in the hands against another stick, gave them fire. A stake planted in the ground and pointed toward the sky told passers-by the hour at which friends had preceded them along the trail; and a crude grass image of a human being lying on his side, tied to a tree, indicated that some one had died recently in the vicinity.

Yet life was not all toil and hardship for a Bulkley household. Whenever food was plentiful and three or four families settled down together, they indulged in many games and pastimes. The most

popular was a gambling game played with two short sticks of bone, one of which was marked. Two rows of men sat opposite, and over at one end someone beat a drum. Amid frenzied singing and drumming each side in turn passed the sticks from hand to hand and the other side guessed where the marked stick was concealed. It is probable that this game, so widespread in Canada at one time and still common in the Mackenzie River Valley, did not reach the Bulkley River until the fur-trading days of the nineteenth century. There was, however, an older game, in which the marked stick was known as *chat* and the unmarked stick *ke*. The player seems to have thrown one of his sticks on a board of leather; but the further details are no longer remembered.

Formerly, as today, jumping and racing were popular with the children and younger men. Other games now seldom or never played were:

1. *Snow-snake*.—The players gambled on the distance to which they could "skip" a long wooden dart off a hard snowbank. Players at Fraser and Stuart Lakes did not use an elevated snowbank, but merely skipped the darts over the natural surface of the snow. Their darts were only about 4 feet long, whereas the darts used by the Bulkley Indians averaged 6 or 7 feet.

2. *na'hatilko*.—Each player hurled a 3-foot dart with a disk on the end against a thin slat of wood $1\frac{1}{2}$ inches wide set upright in the ground, and tried to catch the dart as it rebounded. If he failed to catch it, or missed the lath, he yielded place to his opponent.

3. *Hoop and stick*.—The players hurled short spears through a small hoop as it rolled along the ground; or else one side shot an arrow through it, and the other tried to shoot the arrow at its resting place.

4. *Retrieving with a line*.—The players rivaled each other in retrieving a bundle of twigs sent floating down the river, each hurling a short hooked spear tied to a long line.

5. *Rough and tumble*.—Two small holes were dug in the ground a few yards apart, and the girls lined up at one hole, the boys at the other. A man then waved a strong 4-foot stick between them and chanted, "By and by I shall eat blueberries," i. e., cause many bruises. The children rushed to catch the stick as he threw it into the air, and while the girls struggled to register a "touch" with it against their hole, the boys tried to register a touch at their own.

6. *Tug of War*.—Men and women took opposite sides and tugged on a stout rope of twisted cedar bark. If the front man could pull the opposite woman over to his side, she had to face round and help her adversaries. There were other forms of this game for two people only. Sometimes two men tugged on a swan's bone about 9 inches long; at other times they sat on the ground, feet against feet, and tugged on a stick or rope until one or other was lifted to a standing position.

So life jogged along for the Bulkley Carrier until at last old age overcame him or some catastrophe cut short his career; either he perished in a raid or while hunting, or he succumbed to one of the ailments that afflicted the natives even before the white man introduced new plagues to increase the toll from disease.

The Indians ascribed most of their ailments to supernatural or psychological causes, and tried to combat them by the same means (see *Medicine men*, p. 559). Yet this did not prevent their employment of many herbal remedies, some of which, e. g., the use of balsam gum for wounds and burns, and of fernroot for worms, possessed true therapeutic value. For coughs and colds they inhaled steam, or drank decoctions of wild-rose roots or juniper tips; and to check bleeding they applied a poultice made from the green roots of the cottonwood. Juniper tips, the root of the red-fruited elder, and the barks of the balsam and devilsclub supplied them with purgatives; and for biliousness they injected a decoction of red-alder bark, using the crop of a bird as a syringe. The prescription for a certain tonic called for the drinking, morning and night, of two tablespoonfulls of a decoction made from a handful of each of the following ingredients: Needle-tips of the Jack-pine and of another pine, inner barks of the wild gooseberry and of the wild rose, bark of the red osier dogwood, inner pulp of raspberry canes, and stems of the bear-berry. To this and many other prescriptions might be added a sweat bath, taken, as usual, inside a bee-hived lodge where the bather generated steam by pouring water on red hot stones.

Sooner or later sweat baths, herbal remedies, and the frenzied chants of the medicine men were bound to fail the Indian, and the day came when his father's phratry dressed him in his finest clothes and laid him on the funeral pyre. On top of him lay his widow, who had to embrace her dead husband until she could no longer withstand the smoke and the flames. Even then his kinsfolk, whose servant she now became, pushed her repeatedly into the flames until she was severely burned, if for any reason she had incurred their displeasure. The people sat around in a circle and wept till evening, when they retired to their homes and either left the widow to spend the night at the pyre, or led her to some house of her husband's kin. The neighboring Gitksan made her mourn at the pyre and weave a net to prove that she had passed the night in sleeplessness; but the Carrier, apparently, set her no task. The day after the cremation, the father's phratry gathered the calcined bones in a box and handed them for safe keeping to the phratry of the deceased, who then repaid them in a potlatch. About a year later, the father's phratry built a wooden grave-house over the cremation site, and deposited the bones on top of a post carved with the crest of the deceased's clan or phratry.

If a man died at his hunting grounds, his widow cremated his remains and carried the bones to the village when the hunting season ended. Among the more eastern Carrier, she was obliged to carry them on her back for a year or more, whence the early French

voyageurs called these Indians porteurs, i. e., Carriers; but the Bulkley natives have no recollection of the custom in their own district.

A widow had to serve her husband's kinsmen for at least a year, at times much longer, if they were unwilling to release her; indeed, if she was content with her position, and too old to remarry, she sometimes continued to serve them the rest of her days. She slept in any part of the house that they assigned her, and preserved the strict semblance of mourning, wearing old clothes, keeping her hair short, and refraining from washing her face. In most cases her servitude was light—invariably so if her kinsmen were powerful—and she could secure her release and remarry after the 12 months ended. She usually married a brother or near kinsman of her dead husband, although she was free to exercise her own choice.

A widower underwent exactly the same servitude as a widow, though he, of course, served his wife's kinsmen, and was more immune from ill-treatment; thus, he was not forced to embrace his dead wife during her cremation. At the end of the mourning period, he washed his face and held a potlatch, if his kinsmen were influential; if not, he moved without ceremony into one of the houses of his own clan or phratry. He then generally married any sister of his dead wife who was still unwed, although, like the widow, he was not restricted in his choice.

Today each Bulkley Indian family has its individual frame house, and a widower (or widow), though expected to aid the kinsmen of his dead wife in minor ways, is not obliged to live with them. He refrains from remarrying, however, for at least a year, and generally terminates the period of mourning by giving a small potlatch, at which he hires some one to compose a new song. All the guests dance to the new song, and after eating, return to their homes with trifling presents.

Like other peoples, the Bulkley Indians did not look upon death as the *ultima rerum*, the final goal of all things. They believed that every human being possessed three parts besides his corporeal body: a mind or intelligence (*bini*, "his mind"); warmth (*bizil*, "his warmth"); and a third part, called while he was living his shadow (*bitsen*, "reflection in water, shadow cast by the sun or moon, ghost or apparition of a living person"), and after death his shade (*bizul*). These three parts were indispensable to give the body life and health; but whereas the warmth, being a mere attribute, as it were, of the body, perished with it, the mind probably persisted after death, though whether it then became identified with the shadow, or what happened to it, the natives held to be quite uncertain. Neither the mind nor the warmth left the body during life, but the shadow fre-

quently wandered abroad, especially in sleep or in sickness. Too lengthy an absence, however, caused the owner's sickness and death. To see an apparition of someone—his shadow—was a sure sign that the person to whom it belonged would soon fall sick and die. If a man chanced to see his own apparition, he placed a little bird's down in his cap or moccasin, and hung it over his bed; if in the morning it still felt warm, his shadow had returned and he would live, but if it felt cold he would die. A dog was able to see a wandering shadow, and the barking of a dog at night indicated that such a shadow was roaming in the neighborhood. At times it threw a stick or a stone at someone, who knew at once that, unless he could obtain help from a medicine man, both he himself would die and also the person whose shadow was molesting him. A medicine man, in his dreams, could discover a wandering shadow and imprison it in his own body until, in a public ceremony a few hours later, he could restore it to its rightful owner. It was not infrequent, indeed, for one medicine man to accuse another of stealing a sick person's shadow, and the accused had then either to restore the patient to health by returning it, or else be adjudged a murderer. More frequently still, powers in the animal or spiritual world captured and imprisoned men's shadows, and such men, after recovering them, became imbued with special gifts of foresight and of healing not granted to the ordinary layman.

After the death of the body the shadow, or, as it then became, the shade (*bizul*), journeyed to a City of the Dead somewhere toward the rising sun. It did not know that its body was dead and decaying, being conscious only that it was traveling along a broad smooth path through a pleasant land warm with the breath of summer. It began its journey the moment it left the body, but occasionally it returned an hour or a day afterward, and, reentering the lifeless form, revived the dead man, who was able to explain what his shade had seen.

My cousin Gudzan lay dead one day for an hour, and during that time his shade fared forth along the path that leads to the City of the Dead. The warm, summery air was tinged with a faint smokelike haze, and the landscape was very beautiful. His shade had gone but a short distance through this country when it thought, "Why am I traveling along this path. I will return." But as it started back a black streak moved across the path and barred its passage. Vainly it endeavored to circle round the obstacle, and at last, in its terror, it tried to leap over it. The object moved back, and the shade landed right on top of it. It was its own body that it lighted on, and straightway my cousin came to life again.

In August 1923 a Babine Indian named Nettsis died for a day and also returned to life. He told me that he too found the broad path that leads to the City of the Dead. It ran through a gently undulating plain clothed with summer verdure, and was lined on either side with bushes of ripe blackberries. At the summit of a low hill bubbled a spring of pure clear water. Many footsteps had marked the road, all pointing eastward, but he saw no people.

He halted at the spring, thinking to himself, "The people will laugh at me, for I have no clothes. I had better turn back." So he returned to life again.

Two persons, and only two, the Indians relate, have ever reached the City of the Dead and returned to life again to describe their experiences. One was a youth, the hero of many strange adventures (Jenness, 1934, p. 99); the other a medicine man who, like Orpheus, followed his dead wife to bring her back to earth (Jenness, 1934, p. 143). The Indians derived all their notions of the after-life from these two myths, principally this section of the myth concerning the medicine man.

As the two shadows traveled along the wide, smooth road, the man ahead and his wife behind, they saw many tracks of unmooccasined feet, all pointing in the same direction, and none returning. On either hand were berry bushes, but all the berries were black. The medicine man refrained from eating them, for he was still alive; and when his wife attempted to eat them, he took the berries from her hand and threw them aside. Soon they came to a spring of water. Here the woman wished to drink from the small basket of birchbark that lay beside it; and again her husband forbade her. When he himself dipped the basket into the spring, all the water flowed through it, although he could see no hole; for he was still living, and the basket was intended for the dead alone. People are often thirsty when they die, and this place, a little above the road, is the last drinking place of the dead.

Now they came to a great precipice, down which, in one place, led an easy road. The dead, trying to return to earth, often come back to this precipice, but they can neither find the road again nor can they scale the cliff. Beyond the cliff was a river, and on its farther bank a city, divided into two parts. On the one side all the houses and canoes were black, on the other red; and between them stood a totem-pole named *tsim'yak'yak*. The black houses were the homes of the dead, the red the homes of the robins, which dwell on earth during the day and depart to the underworld at evening. Here the dead woman yawned, and immediately a black canoe put off from the farther bank and began to cross toward her. The medicine man shouted, and the people in the red houses, hearing him, put off in a red canoe. Both canoes reached the bank together. The woman wished to enter the black one, but her husband told her to embark with him on the red canoe. When they reached the opposite shore she wished to enter a black house, but he constrained her to follow him into a red one. There he was given some good dried fish, which he ate.

Behind the house which they had entered stood a smaller house inhabited by a little old woman. She informed the medicine man that the red houses were the homes of robins, the black the homes of the dead. "Presently," she said, "the dead will invite you and your wife to visit them. Go, but do not eat the food they offer you. Warn your wife also not to eat, for otherwise she will never return with you to the land above. I will stand behind your back, and whatever food they offer you, pass it back to me, for I am dead and can eat with impunity. They will seem to give you huckleberries, but the huckleberries will be dead men's eyes."

After a time the occupants of a black house called to the medicine man, "Come over to our house." When he entered with his wife, a man set a blanket on the floor for them to sit on, and offered the medicine man a wooden dish filled with seeming huckleberries. His wife grabbed them up,

but he forced her to release them, and in spite of her anger passed them back to the old woman behind him. Then they set before him the dried flesh of frogs and snakes and lizards. These, too, he handed to the old woman, and, when the meal had ended, led his wife back to the village of the robins.

In the morning the old woman said to him, "If you wish to return to earth alive you must pass over the cliff again. There are two trails that lead to it, besides the broad road for dead people that you followed hither. One trail is very filthy, for it is the path taken by dead dogs. The other is a faint trail, not easy to find, that leads to a place where a huge snake spans the river of death. The snake undulates up and down so that any one who tries to cross on its back falls flat and cannot rise again."

Good and bad alike, the natives thought, shared the same fate; both made their way to the City of the Dead, where they dwelt in idleness, never hunting, and eating nothing but dried frogs, dried snakes, and other loathesome foods. Each morning the robins deserted them and flew back to earth to enjoy the sunlight and the society of man. The living Indian who heard a robin singing during the daytime would say, "yo'hodinne (I am grateful to you)," but when evening drew near, and it sang its departing note, "so so so so," the note that it sings in the City of the Dead, he carefully said nothing, lest his shade should follow after it. He hoped, perhaps, that his own shade would be among the more fortunate that for some unknown reason did not journey to the City of the Dead, but lingered near the grave and sooner or later obtained reincarnation.

The inheritance of physical characters provided the Indians with seemingly solid grounds for their belief in reincarnation. One man's sister-in-law had six toes, and his son, born after her death, likewise had six toes, whence the conviction that the aunt had been reincarnated in the child. Strangely enough, the second son had a crooked thumb that was said to resemble its grandmother's. Another man had a birthmark on his foot similar to one on his mother's uncle, and, believing that he possessed the same shadow, he adopted that uncle's title. The Indians thought that deep and prolonged mourning often induced the shade of a dead relative to enter into the next child, and if such a child cried frequently, its mother, believing that the desires of one life were carried over into the next, would search out something that had been prized by its predecessor. A child credited with being a reincarnated relative was sometimes referred to as *hwatchan e'kaidittsut*, "a person who travels everywhere," because its shadow seemed peculiarly liable to rebirth generation after generation.

Like many Europeans, the Indians claim that they often see the shades of the dead haunting old burial places. Thus, one man stated that a few years ago, when traveling near Quesnel, he observed a woman emerge from a grave, wander away for two or three hundred yards, and return to the grave again. Being a fervent Christian, he went up to the place and prayed for her.

When Simon Fraser and his party reached Fraser Lake in 1806, the local Indians, who are closely related to the Bulkley River people, looked upon them as the reincarnated shades of cremated Indians, because they not only came from the east, up the Nechako river, but they blew smoke from their mouths (Jenness, 1934, p. 257).

RELIGION

John McLean, who spent several years among the Carrier in the first half of the nineteenth century, states that "the Takelly" (Carrier) language has not a term in it to express the name of Deity, spirit, or soul. When the Columbia religion was introduced among them, our interpreter had to invent a term for the Deity—Yagasita—the "Man of Heaven." The only expression I ever heard them use that conveyed any idea whatever of a superior Being is, that when the salmon fail, they say, "The man who keeps the mouth of the river has shut it up with his red keys, so that the salmon cannot get up."

The Bulkley natives, however, assert that they at least recognized a superior Being long before Europeans penetrated to their country. At Stuart Lake he was called yutarre; at Fraser Lake, yutakki; and by the Bulkley people themselves, utakke, all meaning "that which is on high." He was a typical sky god, and indeed the Bulkley natives often called him sa, "sky or sky luminary." They regarded the sky as another land abounding in lakes and forests like this earth, but neither very warm nor very cold. Sa and his children had their dwelling there, but occasionally he came down to earth to help some unfortunate man or woman (see Jenness, 1934, pp. 183–184, 215–218, 229–231), and once he sent his son instead (Jenness, 1934, pp. 164–165). Thunder the natives attributed to the flapping wings of a bird, about the size of a grouse, that lived on top of a mountain; but whenever the sun and sky were obscured by heavy rain or snow they would say, "utakke nenye" (Utakke is walking on earth), concealed in the storm. Whenever, again, the sun went under something (sa wi'inai), i. e., was eclipsed, they thought that Utakke was punishing them for some transgression and that the phenomenon foreboded sickness. They still recall the terrible epidemic of smallpox that ravaged the Skeena River Basin in 1862, shortly after a total eclipse of the sun.

Although this belief in a sky-God probably dates back to pre-European times, it was not until elements of Christianity had penetrated to the Bulkley Carrier that it gradually assumed a prominent place. Before that time the Indians had looked mainly to powers in the animal world for explanations of life's phenomena and for assistance in life's journey. They thought that animals possessed warmth, mind, and shadows equally with man; that they differed from

man only in their corporeal forms, in possessing certain powers that man lacked, and in lacking other powers that man enjoyed. Thus, they could assume at will the shapes of human beings, and somewhere or other had their individual homes where each species lived very much the same life as human beings. Legend recorded that the wolf, the caribou, the bear, and even the frog had carried people away and married them, or else sent them home with special medicine powers; and even today the Indians believe that such happenings are possible, although now, they claim, the animals usually abduct only the shadows of men. It was from the animals that man acquired much of his knowledge, and on the animal world he depended for his daily food. Every word that was spoken, every act that took place in a village or camp, the animals knew. Hence the Indian needed to be extremely careful in all his relations with them; if he were wise he scrupulously obeyed all the time-honored regulations and taboos, and never treated an animal with contumely or said a disparaging word about it. An old man well summed up their attitude thus:

We know what the animals do, what are the needs of the beaver, the bear, the salmon, and other creatures, because long ago men married them and acquired this knowledge from their animal wives. Today the priests say that we lie, but we know better. The white man has been only a short time in this country and knows very little about the animals; we have lived here thousands of years and were taught long ago by the animals themselves. The white man writes everything down in a book so that it will not be forgotten; but our ancestors married the animals, learned all their ways, and passed on the knowledge from one generation to another.

In the earliest times, the Indians continue, many monstrous animals disputed with man the lordship of the earth. There was a lynx larger and more savage than the existing lynx, grizzlies that attacked the Indian villages, huge snakes that destroyed all passers by, and frogs that killed from a distance. Although various heroes long ago rid the world of these creatures and left the fauna as it is today, even now the Indian who wanders in remote places harbors a lurking fear that some appalling monster may suddenly spring up to bar his path. Should a stranger approach his lonely camp he stands on his guard, partly from a traditional fear of human enemies, and partly because he is not sure that the visitor may not prove to be an animal in human guise. He firmly believes that the otter sometimes transforms itself into a youth or maiden and seduces an Indian to his destruction.¹² The hooting of a small owl night after night near his camp fills him

¹² The Indians therefore advised their young men (and young women) not to think much about the other sex, lest they be deceived by the otter. They believed that a woman became insane if she merely touched the tail of a dead otter, or if someone wrapped one of her hairs round its tail; but that, contrariwise, she would conceive a violent attachment for the man who wrapped one of her hairs round the sweet-smelling hummingbird.

with dismay, for it is warning him that a relative will soon die; although the first time he hears it hooting he may throw a little fat into the fire and pray, "As I now give you this fat so do you provide me with abundant fat hereafter"; or else he may divide his fat into three pieces, and sacrifice the first piece to the owl, the second to the raven, and the third to the bluejay, in order that these birds, rejoicing in the feast, may deliver the game into his hands.¹³ Whenever he kills a black bear, he kneels beside its carcass and chants this song, on the vowel "e"; to please its departing shade and ensure his killing other bears thereafter.



About 20 years ago, when I was traveling with my uncle and other Indians east of Moricetown, my dog scented out a black bear, which I killed quite easily, for I had often dreamed of killing bears. Six days later my uncle fell sick, and said to me, "I'll eat some of that fresh bear meat, and rub some of the grease over me. Then perhaps I shall feel better." That evening a young Babine girl joined our camp and said to him, "I should like to eat some of that bear meat too." At first my uncle refused her, because she seemed to be at the adolescent stage when fresh meat was forbidden her; but when she still pleaded he at last gave her a little. At midnight he died, and we discovered that the girl really was adolescent and should not have eaten the meat; it would have killed her had it not killed my uncle first. I myself was unable to kill any more bears for a long time afterward, for they were angry with me; in my dreams I sometimes saw them on the far bank of a river or lake, and always they seemed very angry. Within the last few years, however, I have managed to kill one occasionally.

Bearing this attitude toward the animal world, and being entirely dependent on it for his daily food, it was hardly strange that the Bulkley Indian should turn to that quarter for protection and guidance in the affairs of life. He conceived that he possessed a special gift lacking in white men, the gift of communing with the animal world in dreams, when his shadow wandered abroad and associated with the shadows of the animals. Dreams were therefore tremendously significant. If a man dreamed frequently of black bears, or of beaver, his shadow acquired special knowledge and power that enabled him to kill those animals more easily than other men.

I have never dreamed a great deal, so I have never been a very successful hunter. One season I caught a beaver, not in the jaws of the trap, but with the chain, which became wound round the animal's legs. I do not

¹³ If the owl continued to hoot, night after night, after this sacrifice of fat, the Carrier of the Stony Creek district, farther east, would sometimes throw an old moccasin into the fire exclaiming, "I hope you'll swallow this old moccasin and choke to death."

know why this should have happened, because I have seldom dreamed about beaver, and never of catching a beaver in that unusual manner.

Kela, who died last winter, was always dreaming, and in consequence he was an exceptionally good hunter. He dreamed frequently of meeting three beaver girls, and sometimes, shortly before the beaver season opened, he would say to his wife, "I dreamed I saw the three beaver girls last night. They were laughing, so I know I shall catch many beaver this season." At other times he would say, "I saw the three beaver girls last night and their heads were drooping, so I shall not catch many beaver this season." In the autumn of 1923 he told his wife that the three beaver girls had spoken to him and warned him that he would die if he sat down to a meal with an unclean woman. Two months later some relatives from Moricetown visited him and stayed the night at his house. The following morning Kela said to his wife, "The beaver girls visited me in the night and reproached me for eating with those women. I think I am going to die." Half an hour afterward he complained of pain in an elbow joint. The pain spread rapidly all over his body and within a few days he died.

Carrier Indians to the eastward, at Fraser Lake and beyond, made every youth seek an animal protector or guardian spirit, and taught him how he might gain it. Night after night during the summer months the youth wandered away, alone or in company with another, to sleep in solitude on a hillside, or beside a lake or a river, where an unbroken silence promoted dreaming and the contact of his shadow with the world of animals. The weirder or more dangerous his sleeping-place the more hope he entertained of achieving his quest. Some youths therefore slept on boughs overhanging the water, or hung, head downward, over a rock-slide, secured from falling by a thong around one leg; some slept in graveyards, which the Indians tended to avoid on other occasions. Not every dream betokened a significant visitation from the animal world, but only a dream so vivid and intense that it printed itself indelibly on the memory. Then the bird, the fish, or the animal so revealed became the youth's guardian spirit, which he could summon to his aid in times of crises. Of the various methods of acquiring guardian spirits and medicine power three were in especially high repute, partly perhaps on account of their difficulty.

1. Find a log on which a cock grouse stands and "drums" during the April mating-season, purify your body by bathing, and crawl underneath at dusk. Even though the grouse seems conscious of your presence and stays away for several nights, repeat the process until at last it comes and "drums" on the log above you. If nothing happens except that the noise keeps you from sleeping go home, for you have failed and will never become a medicine man. But if you are fortunate, when its wings begin to flap they will seem to embrace the whole world, and fire will shoot from under them, impelled by a mighty wind. You will lie as if dead, but your shadow, traveling away to a mountain or a river, will encounter a fish, a bear, or other creature and learn from it a song. Return to your home in the morning, but at evening sleep under the log again in order that the grouse may repeat its visit and your shadow may perhaps acquire a second song. When the third night comes

beat your drum and practice the two songs, for now you are a potential medicine man and will have two guardian spirits at your command.

2. Catch a number of live frogs, make a tub of birchbark, and lie in it stripped to the waist. Protect your eyes, mouth, and armpits with moss and let the frogs crawl over your chest. Lie thus night after night until a vision comes to you, and your shadow wanders away inside a cliff or a mountain where it sees a duck, a bear, or other creature, and hears a song and the beating of a drum. You will remember the song when you awake and must practice it each evening just after sunset.

3. Go at evening to a swamp where frogs are numerous, remove your clothes and lie naked in the water. Repeat this evening after evening until at last a frog comes and settles on your body. Many others will follow it. As soon as they cover your body catch the first frog, go out of the water, and dress. Then lie down to sleep under a tree with the frog suspended by its leg only a foot or two above your head. In your dream your shadow, returning to the swamp, will find under the water medicine men chanting a song inside a big house whose door is coated with moss. This will be your medicine song.

The Stuart Lake Carrier, like the Sekani and other Indian tribes to the eastward, seem to have believed that every youth obtained a guardian spirit, but that only a few favored individuals, through dreams of a special character, apparently, acquired definite medicine power and ranked as medicine men. Thus Morice says:

They also attach to dreams the same importance as did most people of antiquity. It was while dreaming that they pretended to communicate with the supernatural world, that their shamans were invested with their wonderful power over nature, and that every individual was assigned his particular nagwal or tutelary animal-genius. Oftentimes they painted this genius with vermilion on prominent rocks in the most frequented places, and these rough inscriptions are about the only monuments the immediate ancestors of the present Dénés have left us. [Morice, 1888-89, p. 161.]

At Fraser Lake and Stony Creek, however, this doctrine underwent a significant modification (pl. 33, fig. 1). There the Indians conceived that most youths were unsuccessful in their quest, that only a favored few acquired guardian spirits, and that these few became the medicine men able to cure diseases and to foresee the future. The Bulkley Indians modified the doctrine still further, probably through the influence of the Gitksan. They knew their kinsmen's methods of obtaining medicine power, and stated that they too followed the same practices in earlier times. At a later period, however, they developed the notion that guardian spirits and medicine power were not amenable to search, but came to man unheralded; that animal spirits took possession even of unwilling Indians, causing dreaminess and a wasting sickness that only the medicine men could diagnose and cure. The medicine men fortified the patients with some of their own power, and trained them to perceive and thereby control the animal spirits inside their bodies until, gaining the mastery, they recovered their health and themselves acquired the power and status of medicine men.

In this revised doctrine of the Bulkley natives, persons who seldom dreamed, or whose dreams had no coherent content, were not attuned to the supernatural world and could never acquire medicine power, however earnestly they might desire it. For the first symptoms of approaching medicine sickness, or of possession by an animal spirit, were frequent dreams, especially dreams that centered about one or two animals. Often the man marked out for that possession was totally unconscious of his destiny; he merely knew that every now and then he dreamed of a black bear or a beaver, and following his dreams had unusual luck in killing those animals. Sooner or later, however, by slow stages or with a sudden onset, a languor overcame him, and he lay in his hut, too listless and weak even to rise to his feet. The people used three expressions to describe his malady: *eyilsin*, "something is inside his body" (*sasilsin*, "he has a black bear inside him"); "he is caught by a dream," because dreams were the gates to the spiritual world and persisted like spirits, so that a man was frequently beset by the same dreams as his predecessors; and "he is caught by a medicine song," because a medicine song invariably issued from every contact with the world of spirits.

A later section will describe in fuller detail how medicine men acquired their status, and how they practiced their art. In no sense did they constitute a priesthood or interpose a barrier between the laity and the supernatural world. The lay Indian did not cease to dream, or to believe that his dream opened up contact with the spiritual world and thereby brought him substantial benefits; for even the layman's dreams gave him power to accomplish whatever they signified. If he was swift of foot, his swiftness came from dreams in which he seemed to pursue and overtake the fleeting caribou; if unusually successful in his salmon fishing, his success came from dreaming about the salmon.

When I was about 12 years of age I often dreamed about a tailed man, which surely signified an otter. While still a lad, I dreamed that I was standing on a mountain-side gazing into a bear's den among the roots of a giant cottonwood tree. I broke off a stick and thrust it down the hole. Then I awoke; but the dream, and subsequent dreams like it, brought me good fortune, for I was always finding black-bear dens along my trap-lines. Often I would dream at night about a bear and kill one the very next day.

One winter when I was trapping with my uncle and his son our supplies of food gave out, and my uncle said to me, half jestingly, "You are such a wonderful hunter. Why don't you bring us in some meat?" At daybreak, with two dogs, I went out to visit my traps, leaving my flint-lock in the camp and carrying only my knife. I came to a bear's half-finished den, and, searching about, found the bear itself hiding inside a real den beneath a fallen tree. I tied my knife to the end of a pole, lashed two other poles crosswise across the mouth of the den so that the animal would have to push its head above or below them, and urged on my dogs to scratch through the roof. When the bear,

disturbed by their scratching, poked its head outside, I stabbed it in the back of the neck and killed it.

In time all the people recognized that I was an unusually successful bear hunter. Then one day Djolukyet, who is a powerful medicine man, came to me and said, "The bears are angry with you. They have been visiting you in your dreams, they have been entering your body and helping you to find their dens. Soon you would have become a powerful medicine man; but because you stay with your wife at certain seasons they will no longer come near you and before many years you will become blind. If you wish, however, I will catch the bear, put it back in your body, and make you a medicine man. Then your sight will remain unimpaired." I refused him, because the priest had told us that it was wrong to practice medicine and I wished to do what the priest said. Consequently, before many years I lost my sight.

Nevertheless, dreams were so erratic, visitations from the animal world so ungovernable, that no Indian hunter cared to stake all his fortunes upon them. He believed that in ancient days the animals themselves had delivered to him a powerful weapon by disclosing certain "medicines" and rituals that would deliver the game into his hands.

Long ago wolverine was always successful in its hunting, but man and the other animals always unlucky. If a hunter cached his meat, wolverine stole it; if he baited a trap, wolverine stole the bait and escaped scot-free. At last a man caught a wolverine alive, tied it up and threatened to beat it to death unless it revealed the secret of its luck. Wolverine said, "I eat such and such a grass." But the man struck it with his stick saying, "You lie. I, too, have eaten that grass, but derived no luck from it." Then wolverine wept bitterly and said, "Far up on the mountain, and there alone, grows a tiny grass. That is what I eat." The man killed the wolverine, found the grass on the mountain and ate it. Thereafter he was always successful in his hunting. Many other medicines besides this one the Indians learned from the animals, though it was Estes, the Trickster, who first revealed their existence to man.

Hunting medicines of this type were called *yu*; the ritual that always accompanied their use, *xat*; and the hunter who employed the "medicine" and performed the ritual, *xallete*. Apparently every hunter knew at least one such medicine, and the majority several. Although the rituals all conformed to one general plan, the Indians carefully preserved their details secret, believing that the man who revealed his "medicine" to another transferred also its efficacy and deprived himself of its further use. Older hunters imparted their knowledge to their sons and nephews, and occasionally men purchased hunting medicines from one another at considerable cost. The "formula" of one Bulkley native illustrates the general type.

Cut a bundle of devilclub sticks and, in the evening, after you and your wife have bathed, remove the outer bark of two sticks and from the scrapings of the inner tissue make two or three balls about the size of marbles. Chew these thoroughly and swallow them. Repeat the same procedure every evening for a month, and carefully refrain from touching your wife. At the end of the month bathe, let your wife bathe, and sleep with her during the following

month. Alternate in this way for six months. Then you will be able to trap all manner of fur-bearing animals, and kill all kinds of game. But beware of immorality, lest the animals, smelling your corruption, keep away and compel you to purify yourself again by repeating the entire ritual, or another ritual of similar character.

This was a formula for the "wolf" ritual, practised, with individual variations of detail, by many Bulkley Indians, and by a few Carrier of Fraser Lake. Some men limited its duration to the month immediately preceding the hunting season, others extended it over several months, although tradition states that one man who extended it over a full year made his medicine so powerful that it killed him. The "wolverine" ritual was similar to the "wolf," but, according to one formula at least, required the use of hattak leaves instead of devilsclub¹⁴ until 6 days before the hunting season opened, the sleeping for alternate periods first on one side of the body, then on the other, complete continence before and during the hunting season except on the night preceding its opening day, and the bathing of husband and wife four times during the early morning of that day, after the analogy of the wolverine, which was reputed to end its ritual by diving four times into a swamp. In still another ritual unmarried men, and a few married men who had observed continence for a period, bathed each evening and rubbed their faces and bodies with the smoke of burning "poison-weed" (kanye). In every hunting district the Indians built at least one sweat-house for the practice of these rituals, and for use in cases of sickness.

The early religion of the Bulkley natives that has just been outlined contains many obscure features very difficult to unravel today owing to what we may call the reformation brought about by Europeans and Europeanized natives during the nineteenth century. Before 1850 Christian teachings, or garbled versions of them, had so leavened the aboriginal doctrines as to occasion their drastic reinterpretation. Dreams still retained their ancient significance, the animal world still held a prominent place in the Indians' minds, but dominating them both was the once shadowy and neglected sky-god, Sa or Utakke, now identified with the God of the Christian religion and considered the ultimate power behind all dreams, the ruler of everything on earth and in the sky. If an animal continued to quiver after it was shot, the hunter raised his eyes to the sky and said, "Utakke, this is yours. You have granted me this trophy;" for it was Utakke rather than the animal world that now demanded propitiation. If game was scarce, he threw a little meat or fat into the fire, as his ancestors had done, but instead of praying to the animals he prayed to Utakke, saying, "Utakke, this is yours. Increase this food for us. Grant us long life." When he carried out the long hunting ritual, xał, he was not propitiating the

¹⁴ Both are laxatives used by the natives for certain ailments.

animals so much as striking a bargain with Utakke, who would deliver the game into his hands if he underwent proper penance. It was Utakke, too, not the animal world per se, that according to the new doctrine exacted punishment for the violation of taboos, for the wasting of food, for mockery of the animals, laughter while eating their flesh or the idle throwing-away of their bones; and the onlooker who rebuked such wrongdoing adopted new expressions such as, "Beware, Utakke made that" or "Don't laugh. Utakke may hear you and give that animal power to harm you." Similarly it was Utakke, not the animal world, that raised the poor and depressed the proud and wealthy; whence the old and needy now blessed their benefactors by saying, "Thank you. Utakke will reward you," and the chiefs warned their children, "Do not laugh at that poor orphan, for Utakke, who governs everything, may make him rich and you poor." The expression *mi*, "it is taboo, take care," took on a new sanction when the Indians thus invested their sky-god with supreme rank and made him the controlling force in the animal and human world alike.

Once the sky grew very dark, the rain poured down in sheets, and the wind howled in the tree-tops. Then a woman called to her boy, who was shouting outside to his playmates, "Come in. You are making too much noise. Sa will hear you and send such heavy rain that no one will be able to go out."

Many years ago the Indians gathered in March to set their nets under the ice of Francis Lake. They caught and dried large numbers of fish, while the children played happily round the camp. Then a boy named Mek made a girdle of some fish-heads and began to dance with them. An old man scolded him, saying, "Don't do that. Sa will see you and by and by you will be hungry." A year passed, and the people gathered again at the same lake; but this time they caught no fish at all. The men left the women to tend the nets and went away to hunt, but the game too had vanished. Before long they were starving, and the first to die was Mek. No sooner was he dead than the lake seemed to teem with fish and the people had no difficulty in catching all they needed.

The elevation of an obscure sky-god to the rank of a supreme deity was not the only readjustment occasioned by the impact of Christian teaching. It led also to a reinterpretation of man's relationship to the supernatural world, and produced a crop of reforming prophets who attempted to graft on the stalk of the older religion various Christian ideas and rituals. The first impetus in this direction came from other Carrier subtribes, themselves stimulated by certain fur-traders, by two Oregon Indians who had been educated at the Red River settlement in southern Manitoba, and, a few years later, between 1842 and 1847, by visits from two Roman Catholic missionaries, Fathers Demers and Nobili.

Two young men, natives of Oregon, who had received a little education at Red River, had, on their return to their own country, introduced a sort of religion, whose groundwork seemed to be Christianity, accompanied with some of the heathen ceremonies of the natives. This religion spread with amazing

rapidity all over the country. It reached Fort Alexandria, the lower part of the district, in the autumn; and was now embraced by all the Nekaslayans (Stuart Lake Carrier). The ceremonial consisted chiefly in singing and dancing. As to the doctrines of our holy religion, their minds were too gross to comprehend, and their manner too corrupt to be influenced by them. They applied to us for instruction, and our worthy chief spared no pains to give it . . . [M'Lean, 1849, pp. 263-264; see also Morice, 1904, chap. 15.]

The Bulkley natives caught the infection from two sources, from their kinsmen at Old Fort Babine and from other relatives around Fraser Lake. At Old Fort Babine, they say, a white man named Misamombin, an employee of the Hudson's Bay Company,¹⁵ dressed in white clothes and white shoes, strung a rosary around his neck, hung a cross to his side, and sang and danced among them. He then ordered them to throw sundry skins and clothes into the fire as an offering to God, forbade them to work on Sundays, and warned them against "black coats" who would come after him to corrupt them with false teachings. If the Indians followed his instructions, he told them, they would become white men when they died; but if they listened to the "black coats" they would turn black.

Soon afterward a Babine Indian named Uzakli, head chief of the Gilserhyu phratry, became afflicted with the medicine-dream sickness and, on his recovery, announced that he had visited God's home in the sky and obtained a new medicine-song with power to heal the sick. He conferred new names on his followers and distributed tin crosses among them. Two years later he had a recurrence of the same sickness and acquired another song, which ran:

ane-e nipili solle yilkyot
 ane-e nipili, solle yilkyot
 ane-e-yin betlol ustan a.
 (Nipili (an angel in the sky), hold my hand.
 Nipili, hold my hand.
 I hold the rope that holds up the earth.)

Contemporary with Uzakli was Senesaiyea, a medicine man who lived at Fraser Lake. One summer, when the salmon were late in appearing, the Indians asked Senesaiyea to summon the fish up the river. Gathering his countrymen inside a smoke-house, he shook his rattle, sang a medicine-song, and lay down as if to sleep. After half an hour he arose and announced that his soul had traveled to the home of the salmon and that they would reach Fraser Lake within a few days. Subsequently he claimed that his soul made other visits to the salmon country, and also to the home of God in the sky. So often did he dream of wandering about in sky-land that the people grew skeptical, and he promised to bring back a piece of the sky as evidence. Then one night, as he slept in a smoke-

¹⁵ Probably William McBean. See Morice, 1904, p. 221.

house, he again dreamed that his soul ascended aloft through a hole in the sky, and, after wandering around for a time, returned to the same hole and broke a fragment from its edge. He slept until the sun had risen. When at last he threw off his blanket he found in his clenched fist only a scrap of spruce bark from the cabin roof. Laughingly he showed it to his countrymen and said, "I have been deceiving myself all this time; and other medicine men who claim to visit the sky are deceiving themselves also."

These earliest manifestations of the new ideas that Christianity was quickening in the minds of the Indians deviated only slightly from the old religion; but succeeding prophets introduced further innovations that altered its entire complexion. Among the first was a Fraser Lake woman named Bopa. Tradition states that she said to her daughter, "When I die don't bury me, but leave my body in the house and keep watch from a distance." When she died, therefore, her daughter covered her body with a blanket and moved into a small hut at the edge of the woods. For three mornings she visited her mother's corpse and nothing happened, but on the fourth morning, though it was already decaying, a song issued from its mouth and a voice said, "Wash my body and cook me some food, for I am hungry." The woman washed the body and cooked food, whereupon her mother came to life again and ate. She then announced that she had traveled to a large town on the shore of a sea and entered a house where people offered her fresh apples, which she had refused in order that she might return to life. They then offered her some bread, and she refused that also. Finally, on the fourth day, a man said to her, "Do you want to return to your body?" and when she answered, "It is too far away, the road is too difficult," he replied, "No, it is not difficult." So she returned to her body and lived for another 20 years. She taught the Indians that the dead become white men on the far side of a great sea, and that the whites, who were then beginning to enter the country of the Carrier, were their own kinsmen returning to their old homes. Hence the Fraser Lake Indians gave to Europeans the name *naunił*, which means "ghosts of the dead."

Another Fraser Lake woman named Nokskan (a Gitksan word meaning *Kan's Mother*) is reputed to have died while she was fishing alone beside a lake or stream. She lay on the ground many days, but at last came to life again and returned to her village, where she told the following story:

I lay on the ground dead, and one side of my body rotted. My shadow did not go to the city of the dead, but to sky-land, where it met Sa and Sa's son. Murder, theft, adultery, and swearing are displeasing to Sa, who bade me tie the hands of offenders and purify them with the lash lest they go after death to an evil place. But whoever avoids these sins, and lives a pure life,

will go to Sa's home, a happy country where people neither work nor eat, but idle away the days in song, or, when inactivity becomes monotonous, ride around the country on horses.

White men will soon visit Fraser Lake, bringing with them horses and cows (or buffaloes). At first they will eat dried fish and dried berries as we do, but after a time they will bring various foods of their own. Then the Indians will have abundance of food and prosper as they never have before.

Nokskan showed the Indians how to make the sign of the cross, and to dance with uplifted palms while they chanted her songs, one of which ran:

sa bez'kai asendla cho wasassalte
ai ya ha-a ai ya he.
(Sa's child took and carried me aloft.)

This and her other songs the people chanted inside her lodge at the fishing camp, stretching their palms towards heaven and slowly moving round in a circle, while Nokskan, carrying a small wooden cross, stood in their midst. On certain days she called out one man after another, made him kneel in front of her, and whispered in his ear, "What sins have you committed?" After he had confessed, she called for a rope, tied his hands in front or behind according to the gravity of his sins, and sometimes whipped him on the back 10 or 12 times to cleanse him. She treated the women in the same way as the men. Unlike some of her successors, she never baptized the Indians, though she herself submitted to baptism many years later when a European priest visited Fraser Lake.

The first Bulkley River Indian to take up the craze was Lexs, a man of the Beaver phratry. One old native said that Lexs claimed to have visited the sky and received there a new song and a new name, Sisteyel, "I, a man, visited the sky"; but that the people did not take him seriously because he was very poor. A still older man, however, who was a youth of about 14 when Lexs died, regarded him as the real founder of the religious movements which, through the influence of his younger brother and successor Bini, completely gripped the western Carrier and many of the neighboring Gitksan during the middle years of the nineteenth century. According to his account, Sisteyel fell sick and died, but after 2 or 3 days came to life again and declared that he had visited God in the sky and been sent back to earth to instruct his people. He warned them that God was displeased with evil actions such as theft and murder, and that wrongdoers would go to an evil place when they died, whereas the good would ascend to the sky. From his visit he brought back one song, which his countrymen chanted as a prayer:

sisteyal netaiyel sisteyel netaiyel
he he he he he beyin.
(Sisteyel walked down from the sky. His song.)

Not content with adopting a new name himself, he conferred new names on the members of his family and on one or two near kinsmen. Thus he called his wife Satal, after a woman he claimed to have met in the sky. Soon afterward he became blind, but before he died he enjoined his younger brother to visit the sky as he had done in order to gain authority and knowledge to carry on his mission.

This younger brother who took up Sisteyel's mantle was Bini, who far eclipsed in fame and influence all his predecessors and successors. Although he died about 1870, within the memory of men still living, his name is fast passing into legend and every description of his life and teachings differs from every other. The following account is a composite one, based on the joint testimonies of three old Bulkley Indians, who had been with him in their childhood and were old enough to hunt when he died. One was his nephew and successor as chief of the Beaver phratry, another his sister's nephew, and the third had accompanied him on his last journey and was present at his death.

Bini's boyhood name was Sami, derived from the name of a deceased uncle; and the name he acquired in early manhood Mat, a title in the Beaver phratry. Subsequently he became the chief of that phratry and assumed the title Kwis together with the two personal crests, Beaver and Drunken Man, that went with it.

One spring, when he and his kinsmen were hunting near Decker Lake, he lay down in his house as though indisposed and mysteriously disappeared. His kinsmen searched all round the camp for him, and at last, with the aid of his dog, found him buried in the ground with only his arm protruding above the surface. They carried him home, seemingly dead, and sent for all their relatives in the vicinity; but, while they crowded round his body a man named Omak heard a voice issue from his chest, and listening intently, discovered that Bini was singing.

ane-e anesenle-e so anesenle-e-a
 anea anesekye meneskye.
 (Someone healed me, made me well again.
 I came down from the sky.)

All night Omak continued to watch beside him, and the next day Bini, grown a little stronger, spoke to him and bade him interpret to the people as follows:

"I died and ascended to heaven, but God made me alive again and sent me back to earth to teach you what you must do. You must chant my songs, for they are prayers; and you must make the sign of the cross. Things are going to change. Soon you shall eat dust that is white like snow (flour), and shall hunt and fish for 6 days, but refrain from all work on the seventh. Many horses will come to this country and you shall use them. But now you must cut out a smooth plank and write on it for me."

The people cut out a smooth board and under his direction one man made one letter, another another, until they had carved out his prayers. Quickly his strength returned, and he was able to proclaim his mission without the aid of an interpreter. As soon as he could walk he rose to his feet, and, supported by a man on each side, took a few steps forward. Then he said "Let me go.

I will walk alone." But as he walked his feet sank into the hard ground as though it were soft snow. For years afterwards the Indians pointed with awe to these footprints.

When the fishing season opened, Bini and all his people moved down the Bulkley River to Hagwilgate. Both during and after this journey he lay down several times and died for a few hours; and each time he brought back from the sky a new song. Every evening he gathered the people around him and preached to them, using Omak to interpret and amplify his words. "On top of the sky," he said, "is a happy land filled with happy people who told me to make you all new so that after death you too would go to live in the sky. Then a song issued from my body and I came back to life again in my hut." Rising to his feet he would dance before them, feet together, arms outstretched, and his body swaying up and down; and as he danced he sang one or other of his songs. The best known, still used by Hagwilgate medicine men, ran:

yisilkli yaneketi!sai-a
he he hi ha.

(Horses stamp the ground as they gallop.)

Others were:

ni pa-kyo yatetso'til atso'te
(People entered the great father's house and became proud and wealthy.)

e e e e a

noxdzi to'bi eyinlea

(Their hearts he (God) baptizes.)

and

The great father had a cross.

Let someone make a cross for me.

After he taught them this last song, his followers made one large cross for himself and many small crosses to distribute among his disciples.

When the fishing season ended, the prophet and his disciples toured the country to gain new converts; but during the remainder of the year he hunted, fished, gathered furs, and participated in potlatches like other Indians. A few years later he caused the totem pole called Fireweed to be erected in the Bulkley canyon (see p. 500) and himself gave a great potlatch for the occasion. He then built in the canyon a frame house furnished with a chimney and decorated with a cross; it was modeled, he said, on a house he had seen in the sky. His costume did not differ from that of other Indians, but in his later years he carried a small bell that he obtained from the Hudson's Bay Company's trading post at Old Fort Babine. During his lifetime he was generally known by his phratric title, Kwi's, not by the name Bini, which he adopted after his first visit to the sky, or Samtelesa, which he assumed after a later visit.

Bini carried on his mission for about 15 years, gradually gaining so many adherents that at last he summoned them to his house and selected a number of men to maintain order and prevent wrongdoing. To these "watchmen" he gave sky names, Teluza, Nebezti, Samali, Chali (Charlie), Oyal, Nantali, Maskali, Sazzali, etc. The first three, Teluza, Nebezti, and Samali, took precedence over all the rest and became his principal aides. He performed also one or two miracles in confirmation of his powers. Thus, while sitting with his followers on a hillside overlooking Long Lake, he put some twigs (or flowers) into his mouth and drew out berries. On one occasion, however, he gathered all the Hagwilgate Indians inside his house and ordered them to confess their sins and be purified with whippings from his aides; but, most imprudently, he allowed the confessions to be made openly in full hearing of the entire gathering, and thereby stirred up so much discord in the village that he never dared to repeat the ceremony.

Often the sick appealed to Bini rather than to the regular medicine men. He would then set a basin of water beside the patient, and, after dancing and singing one of his songs, would lie down and gaze intently into the water to discover, apparently, what would be the issue. Finally, while attending a potlatch at Old Fort Babine, he was asked to heal a certain woman who was sick. That night, as he slept, a voice from above warned him that if he complied with the request he would die. He was very troubled the next morning, but when the people carried the sick woman out of doors and laid her down in front of him he placed a pan of water beside her, danced around her once, and, lying down, gazed into the water or perhaps drank some of it. Immediately he fell on his face dead—through a judgment of God, the priests said afterward, though many Indians believe there was strychnine in the water, for at that time they were using strychnine in their hunting. Whatever the real cause, his death caused a great commotion, and a large crowd of his disciples, flocking to Old Fort Babine, conveyed his body to Hagwilgate and buried it in the village. [Pl. 33, fig. 2.]

Folklorists have long recognized that tribal traditions have not the same historical value in all parts of the globe. In Polynesia, where the world of dreams and visions did not merge with the daily life so inextricably as in North America, where there were professional schools for preserving a correct memory of tribal occurrences and rights, and where we can compare the genealogies and tales of islanders who were isolated for several hundred years, we may employ the native traditions with considerable confidence (though not, of course, uncritically) to recover the main sequence of events in the centuries preceding European penetration into the Pacific. But our Canadian Indians seem to have lacked the historical sense, as we interpret history. Many of the plains' tribes embellished with impossible myths so recent an event as the acquisition of horses; the Five Nations of the Iroquois failed to preserve any credible account of the formation of their great confederacy about 1580; and the Ojibwa narrate fantastic fairy tales about the part they played in the War of 1812. The Indians of the British Columbia coast and hinterland, who evolved a complicated caste system in which the inheritance of rank and property depended largely on kinship and the memory of kinship rights, have so interwoven fact and fancy in their legends that, unless we can confirm them from other sources, we cannot trust them even for the events of the early nineteenth century. The many conflicting accounts given of Bini's career strikingly illustrate this "romanticism" in traditional lore. One version has been given above—a composite account derived from the statements of three old men who discussed the subject together. It should be compared with the "history" of Bini published by Father Morice in 1904 (pp. 235-236), and with the following accounts given by two old Bulkley Indians who also had associated with the prophet in their youth.

1. Bini's home was at Moricetown, but, in the spring following Sisteysel's death, he and his people went to fish near his brother's grave about 15 miles

west of Burns Lake. I was then 14 or 15 years of age, and living with my uncle 20 miles to the eastward. Bini, or, as he then called himself, Samtelesa (the sky-name given him by his brother), walked several times around Sisteyel's grave, and feeling dizzy, lay down in his house. He lay there for 3 days, apparently dead, but his people made no attempt to bury him, for he had told them that he would die and come to life again. After watching over him for three days they heard a song mounting inside his body until at last it issued from his mouth. He then rose up and began to speak:

"I went up to the sky and talked to God, who told me that his house would come down to this world and make it a happy place to live in. He ordered me to teach you this song, which you must continue to sing day after day, until God's house descends:"

gitaksiya asenla kyo satyinkai'o-nai
e hye ha . . .
(Big house up above. We two come down together.)

That evening the people danced and sang his song.

Next day Bini died again, but only for about 3 hours, when he recovered as before, breathing another song:

yizikli e e yaneketiltsai.
(Horses stamp the ground as they gallop.)

He explained his new song thus: "By and by many horses will come to our country, and there will come also priests who will teach you what I teach you now."

On the third day he fell down and died for about 2 hours, bringing back the song:

niba hanzu li'sta.
(Our good father has many good things.)

When he died on the fourth day, he produced the song:

e ye he noxlen e.
(Look at him (God));

and on the fifth day:

sba kyo tagakwas ele e'kat nesoltse.
(My great father caused me to be born on top of a cross.)

After he had danced and taught the people this last song, he made a number of little tin crosses, and, calling out the men and women one by one, tied a cross round each person's neck and baptized him by sprinkling water over his head with a stick also shaped like a cross. He then made the sign of the cross over the disciple and conferred on him a new name.

Bini moved his home to Hagwilgate when the Gitamtanyu phratry erected its totem-pole esrił, and scores of natives from all the surrounding villages had gathered to attend the ceremony. He warned them that a great sickness was approaching the country, but that if they danced and chanted his songs it would not harm them. Many of the Indians, however, refused to believe him. When smallpox did attack the Carrier in 1862, Bini gathered the Hagwilgate people at an open spot about 2 miles from the village and made them dance round in a great circle, the children on the outside of their elders, all holding boughs shaped like crosses. He then ringed in the dancers with a long rope, and proclaimed that if the rope broke many of them would die. His prophecy came true, for a woman inadvertently touched and broke the

rope while she was dancing, and soon afterward many of the villagers fell sick and died. I was a lad at this time and danced with them.

Before and during the epidemic, Bini's disciples had danced for an hour or more every day, but after the epidemic he announced, "Hereafter you shall work for 6 days and dance only on occasional days; but on the seventh day you shall abstain from hunting and fishing and dance three times, at morning, noon, and night; because there are three gods, and you must pray to each, your prayers being dances. Furthermore, because there are three gods, three men must serve them, myself, Male (a man of the Gitamtanyu phratry), whom I have baptized Samali, and Gyedamskanish (of the Laksilyu phratry), whom I have baptized Teluza." People say that he also ordered 10 commandments received from God to be carved on a board; but I myself never saw this board, though I remember that three of the commandments were, "Do not steal; do not kill another by violence; do not kill another by sorcery."

Thereafter Bini preached on the 7th day only. At such times he wore the everyday Indian costume, but often carried a bell in each hand, for he said that by and by people would be summoned to prayers with a bell. While dancing, he held his arms nearly horizontal and fluttered his hands. Occasionally he fell down as if dead. Then the people would quietly sit in a circle round him and await the issue, while Samali, his official interpreter, placed his ear against Bini's mouth to catch the new song that came from above. As soon as the disciples learned it from Samali's lips, they rose and danced to it; and Bini joined them a few minutes later. The last song that Bini brought back ran:

e ya huballi hube nesiltchot.

(Light, light, took hold of me (so that I came to life).)

The prophet now traveled with his disciples all over the country, and appointed Samali and Teluza as his watchmen to punish wrongdoers. If anyone ventured to laugh when the people sang Bini's songs, these two men struck the offender with whips of caribou hide. Whenever, too, Bini summoned the people to confess, they stood one on each side of the sinner with their whips and inflicted whatever punishment the prophet ordered. Once Teluza ordered away a certain woman who came to confess, saying to her, "You are only a poor woman and don't need to confess. Go outside." The woman, however, stood her ground and said loudly, "Why should I go outside? I want to confess to Bini that you seduced me." Both disciple and master were thus put to shame, but Bini had to let the incident pass because he dared not dispense with Teluza's services.

Bini's travels throughout the country sowed the seeds of a great revival, which came to fruition when he erected the Fireweed totem-pole in the Hagwilgate canyon. The potlatch that he and his phratry held on that occasion attracted a large concourse of people who carried his songs and dances far and wide. Nevertheless, it was among the Hagwilgate Indians that his mission gained its chief stronghold; elsewhere there were many Carrier who refused to recognise his authority. Whenever he traveled round the country four strong young men always attended him to carry him over streams; for he had declared that heavy rain would inevitably follow the wetting of his feet. On one occasion, when his party had crossed a creek near Barret station and was waiting for him to overtake them, someone suggested that they should let him wade through the water and so find out whether his prophecy would really come true. No sooner had Bini stepped out on to the bank than the clear sky became overcast, the rain poured down in torrents, and the stream rose so rapidly that the fearful Indians thought the whole world was to be covered

with the deluge. At Bini's command they hastily built a lodge of spruce bark and frenziedly danced to his songs. Then the rain ceased, the stream subsided, and a warm sun dried up the land.

After Bini had been preaching for a number of years, he had a contest at Hagwilgate with three medicine men, Widak'kwats, Gukswo't, and Akyewas (the two last were Hazelton Indians), who resented Bini's vaunt that their power was insignificant compared with his own. The medicine men shook their rattles and sang their medicine songs, while the prophet danced and chanted the songs he had brought back from the sky. Soon afterward the three men died, and last of all, but in the same year, Bini died also.

The true cause of his death is uncertain. During a visit to Old Fort Babine he was asked to heal a man who was sick. He sipped up some water from a basin, intending to spout it over the patient; but suddenly he fell on his face dead. Some people say that he had used a medicine man's rattle over this patient, and conducted himself in other ways like an ordinary medicine man, though forbidden by God under penalty of death. But I myself believe that someone had poisoned the water.

2. Bini's wife quarreled with his sister, who was living in their hunting camp, and when Bini ordered her to give his sister some food she refused. Very angry, he carried off the two caribou hides that served him for bedding and went away to sleep in the woods. At sunset his wife looked for him, but found only his empty bed-skins. Anxious and contrite, she looked for him again in the morning, and when he was still missing, notified some relatives who were hunting in the vicinity. After a long search they found his shirt, still buttoned at neck and sleeves, high up in a tree, and on the ground some distance away, faintly breathing, his naked body, which they carried to his lodge. He remained there motionless all through the day and night. Next morning he began to utter strange guttural sounds, and when the people failed to understand him—for he was speaking in the language of the dead—he opened his eyes and beckoned to his nephew Samali. Samali, to everyone's amazement, understood what he was saying and interpreted his message. Bini declared that he had ascended to the sky and returned to teach them what was about to happen and what they themselves must do. Heaven, he said, had promised that the poor should be made rich and the rich poor; that the Indians should become like white men and speak a new language; and that great dogs (horses) would descend from the sky and raise a tumult as they ran about on earth. He himself was to unite in marriage, with fitting ceremony, every young man and young woman who had attained the necessary age; and the people were to dance with him day after day.

His relatives then conducted Bini from his hunting lodge to the village, where I myself saw him, being then about 8 years old. He was still unable to talk in our language, but used the language of the dead, which Samali interpreted for him. Yet he danced among the people, and they danced with him. One day he sent some young men to bring him a blossom-laden branch of a saskatoon tree, and as he danced with the blossoms in his mouth, ordered the people to dance their hardest with him. Presently he withdrew the blossoms from his mouth. To our astonishment they had changed to ripe berries.

Later a large crowd escorted him to Hagwilgate, and, at his command, assigned 12 young men to carry him over every stream. As we traveled along with packs on our backs (being very small, I myself did not carry a pack), some of the older people discussed what would happen if Bini wet his feet, and told the young men to let him wade through the next stream. When Bini saw his bodyguard walk over without waiting for him he said, "Very well. I'll wade

across. It was only to save you trouble that I made you carry me." Hardly had he set foot on the opposite bank when a terrific thunderstorm burst over us, though previously the sky had been cloudless. After this the Hagwilgate Indians believed all that Bini told them, and everything he prophesied has come true. He regained his ability to speak our Carrier tongue when we reached Hagwilgate.

Bini made only one mistake in his whole career, but that was a fatal one. He used a medicine man's rattle to heal a dying Babine native, and through thus contaminating the ways of heaven with those of the medicine men he brought about his own death.

The discrepancies and impossibilities in these biographies of the same reformer, all furnished by contemporaries and eyewitnesses of some of the events, show how little we can rely on Carrier traditions for reconstructing their earlier history. The natives have always lived in an age of miracles, and even today they look upon the interference of the supernatural world as an everyday affair, and see supernatural forces at work in the most trivial events. The mundane details of these events signify little compared with the necessity of maintaining a proper rapport between the Indian and the unseen world so that he may enjoy long life and successful hunting. To most of the Bulkley natives Christianity (and today they all adhere to the Roman Catholic church) has not abolished the supernatural world of their forefathers, but merely added a second one that has increased life's complexity because its teachers and missionaries condemn the old principality and demand undivided allegiance to the new. Some of the elder Indians, therefore, try to compromise. Christianity, they say, has introduced nothing that is radically new. Bini and his fellow prophets were ordinary medicine men, as others had been before them. Their shadows visited the sky in dreams, as other men's shadows had visited the homes of the animals; and they acquired from their dreams the usual medicine songs and medicine power. The dream-force that attacked Bini was not really different in kind from other dream-forces, though its "content" was different. The same dream-force had attacked Bini's uncle, Sami, then his brother, Sisteyel; that is why Sisteyel spoke rather crazily and at the last became blind. Bini happened to be made of sterner stuff than his predecessors; he gave full sway to the dream-force and thereby acquired the power to establish his gospel in the land. After Bini's death the same dream-force attacked his relative, Louis, but it was too strong for Louis, who could not obtain a medicine song and consequently became crazy and died. Last of all it attacked Jim Michel's wife, but, when the priest forbade her to voice her song, she also became crazy and died from the pent-up force to which she gave no outlet.

These struggles of the modern Bulkley Indians to reconcile their old religion with the religion that has been brought to them from

without stand out quite clearly in the career of an old Indian named Paul, who distinguished himself at Hazelton every Sunday by wearing a top hat, and a broad sash of purple satin thrown over one shoulder like a bandolier and decorated with gold rosettes and his name in gold letters, "Ease Paul" (pl. 34, fig. 1). The following incidents in his life were taken down from his own lips in 1924, the year before he died.

My father was Guxwoq, "Sleeper," a Hazelton Indian, but my mother was a Hagwilgate woman and my hunting grounds are at Mosquito Flat, 12 miles east of Hagwilgate. As a child I bore the name Sowetiaye, "Walking Away," but when I was about 14 I was given another name Axweras, "Persistent Person," and again, when I was about 19, Watex, "Land Otter." Finally when I became a man I took the name Skagilth, "Grizzly Bear That Sleeps Across the road;" but I prefer myself the "baptismal" name, Ease Paul, that was given to me in a vision.

When I was a boy my father, who had recently been made chief, invited the Hagwilgate, Hazelton, and Babine Indians to a great potlatch that he proposed to hold in a meadow near Babine Lake. Many Hazelton and Hagwilgate families traveled with my own family, and we camped together for the night at a place known as "Gitksan camping-place." There a nephew of Satsa'n named Aiyuwindet, who was too poor to marry and consequently had no wife to arrange his bed, sat up in the night and called to the moon, "Travel fast. It is uncomfortable sleeping here alone." Several people shouted to him to stop, because it was not right to speak thus to the moon; but he kept on calling until at last he became tired and fell asleep.

Next evening we reached the meadow where my father was to give his potlatch, and the women busied themselves in collecting fir boughs for our beds. Aiyuwindet's nose then began to bleed copiously. He scooped out a hollow in the ashes of a fireplace and let the blood drip into it; but the hollow soon became full. Someone brought him a root-basket, and that also he filled with his blood. He sat there silent, while messengers went from house to house summoning the people to witness the fate of a man who had dared to talk disrespectfully to the moon. Some one said to him, "Why do you sit there and bleed to death? Stand up and ask the moon to heal you." Aiyuwindet did not answer. Presently blood began to pour from his eyes and from under his nails; and at last he toppled over and died. His relatives drew his body to one side and debated what they should do with it. But that night nearly every one in the camp fell sick and many died, including my father; for smallpox had broken out among us.

After my father's death, my uncle became head of our household and we returned to Hagwilgate. He said to me, "So many people are sick that there are not enough left to hunt and we are starving. You are young and active. Take this gun and go with my son up Rocher Deboulé mountain, where you may come upon some mountain goats."

My cousin and I traveled all day without seeing any game, and at night we took shelter in a hunting-lodge on the slope of the mountain. Before dawn I woke my companion and said, "Get up. We must kill a goat today"; but he answered, "It is too early yet. Wait till dawn." So I lay down again.

As I lay there, just before the dawn, a strange man appeared and said, "Why have you come hither?" "There are many sick in our village," I answered, "and we are in need of meat." "I know that," he said. "Have you

any powder?" "Yes," I replied. "Give it to me," he then said. "It is your own fault that sickness has broken out amongst you. You have sinned and used rattles." Taking some of my powder in his hand, he poured on it pure water from his mouth and rubbed it over my neck. "This will keep you from becoming sick. Can you make the sign of the cross?" I made it with my whole hand, but he corrected me, saying "That is not the proper way. Make it with the two middle fingers only, for the thumb and the other two fingers are small. It is useless for you to hunt goats up here. I am the spirit of fish and can give you fish. Go home now and fish; and stop the medicine man from using his rattle, for it is he who has brought the evil spirits that are killing you."

The spirit vanished, leaving in my hand a little water, which I rubbed over my neck. As I rubbed, a numbness crept over my body and my breathing became troubled. I said to my cousin, "Help me back to the village. A great sickness is coming over me." In the village I lay ill for many days, and during that period I was able to foretell who of all those struck down by the sickness would die.

After my recovery I became an excellent hunter, and could kill as many as 20 caribou in a day. Our hunting lodges at Mosquito Flat were crowded with relatives dependent on me for meat. One night when all my household was asleep a great light suddenly filled the cabin and slowly concentrated over my head, leaving the rest of the house dark. Within the light I saw the figure of the Great Spirit holding a little child on his breast. It did not speak to me, nor could I speak myself, but when I moved my foot a little it disappeared and the light vanished. The Great Spirit visited me several times thereafter, even though I married, but only when perfect silence reigned. Once, too, white spirits visited me and told me that my name should be Ease Paul; that is why I wear those letters on my chest, though I have added my chief's title below them to appease my family. Now for 3 years no spirit has visited me, perhaps because my brain is growing weak. I have been a faithful Christian for 30 years, have never attended a ceremony where the Indians were using drums or rattles, and have constantly implored my countrymen to put away those instruments.

MEDICINE MEN

Among the Bulkley Carrier, as we saw in the last chapter, the old doctrine that every youth could, by seeking, acquire a guardian spirit and medicine power underwent radical revision through the influence of new ideas that seeped in from the coast. These new ideas largely reversed the previous attitude of the Indian toward the supernatural world. He still depended on that world to guide him through the vicissitudes of life, but he no longer regarded himself as the active agent in bringing about the necessary contact. Rather he believed that the spirit world itself selected its intermediaries (whether they willed it or not), and that it revealed its selection by producing a state of dreamy phthisis ending, unless properly treated, in death. While the intermediary lay inert and listless, unaware of the reason for his condition and, therefore, unable to cure himself without aid, his sickness evoked from his kinsmen contradictory explanations as earlier ideas struggled with new to hold their place. Some natives, the con-

servatives of their group, maintained that during his dreams the shadow of the patient had wandered to the home of the eagle, the salmon, or the bear, beneath some lake or mountain, where it had remained imprisoned, unable to return; that the body in consequence languished, and the sick man could not regain his health until a medicine man recaptured the shadow and restored it to its home. Others conceived that the shadow returned from the spirit world, indeed, but acquired there a medicine song which remained below the threshold of consciousness pent up like an ill-digested meal, sapped away the man's strength, and caused a slow languor and decline; these Indians, therefore, described him as being afflicted with the medicine-song sickness, and sought his cure through a revelation of the buried medicine song and its out-welling from his lips. Quite different was the interpretation favored by the majority of the natives. They asserted that entrenched within the patient's body lay some supernatural force—the shadow of a bird or an animal; that without reinforcement from the power in other medicine men, the sick man lacked the ability to throw off this incubus or to transform it into a source of strength; and that while the communion of the man's and animal's shadows certainly induced subconscious dreams and one or more medicine songs, no cure was possible until the patient was relieved of his burden or beheld with his own eyes the supernatural shadow within him and acquired from without the additional power necessary for its control. These variant theories led to three slightly different schools of practice. One group of practitioners claimed to recover the shadow from its supernatural prison house; another to open the patient's eyes to his dreams and release his pent-up medicine song; while a third sought to discover and extract the incubating shadow, then either to reinsert it, if the patient was fitted to receive it again, or else to dispose of it in some other way. In their actual treatment of individual cases, the first and third groups of practitioners looked for the ebullition of a medicine song just as much as the second group; but they regarded the song as an invariable concomitant of the sickness rather than its primary cause.

When a man became ill, therefore, his wife or kinsmen called in a medicine man, who brought with him a bag containing his outfit—a rattle (into which some practitioners summoned their guardian spirits), a coronet of grizzly-bear claws, a bone or skin image (bea) of his guardian spirit, animal or fish, to suspend from his neck, and a skin cloak, usually the hide of a bear or wolf. After donning this paraphernalia and seating himself beside the patient, he demanded a bowl of water, sipped up a mouthful and blew it out again to lubricate the passage of the "sickness." He then shook his rattle and chanted one of his dream, or medicine songs, in which the

audience joined. Sipping up more water he chanted a second song, sometimes a third. Finally, he sat silent with his eyes closed, but with his mind searching out the innermost recesses of his patient's body to discern, if possible, the shadow.

Any practitioner, whatever his school, might declare the shadow missing, for all natives believed that medicine men commonly used their powers to steal the shadows of their enemies. If this was the doctor's diagnosis, he returned home, and during the night sent forth his own shadow to secure the release of the captive, or to regain it by force and lodge it for safekeeping in his body. In the morning he visited his patient again, proclaimed his success, and, dipping up a little water from a basin, sipped it into his mouth and spouted it over the sick man. The audience then drummed and chanted the doctor's medicine song while he shook his rattle and danced vigorously round the room. After several minutes he stopped, rapped himself from stomach to chest, vomited the errant shadow into his cupped hands, and, laying them on the patient's head, blew it into his body. Thus he restored the vital spark, dispelled the cause of the sickness, and set the patient on the road to health.

A practitioner of the first school, however, might find that the shadow was imprisoned in the home of an eagle or a bear; that the patient's malady arose, not from sorcery, but from enforced contact with the supernatural world. He then restored the shadow in exactly the same way as if it had been stolen by a medicine man, but his patient forthwith burst into song, the medicine song that his shadow had learned during its imprisonment. This outburst of song marked the first step in his recovery, and also in his acquisition of medicine power and elevation to the rank of a medicine man.

It was not possible to ascertain what special symptoms, if any, the medicine men correlated with the loss of a shadow. Every practitioner claimed the power to discover (though not always to release) a shadow held captive by another medicine man; but he also maintained, whenever the sickness seemed attributable to enforced contact with the spiritual world, that only a medicine man who had experienced the same contact, i. e., contact with the same supernatural being, was able to effect a cure. Hence, he often declared himself unable to discern the cause of a man's illness, and advised the relatives to call in other practitioners. Several in turn might shake their rattles and chant their songs over the sick man before one of them would undertake his cure.

We have seen how the practitioner of the first school operated; he pretended to bring back the shadow from the home of the animal or fish that had imprisoned it. The practitioner of the second school adopted a different method. Sitting beside his patient with a bowl

of water in front of him, he discerned and disclosed the sick man's dream, and bade him recall the medicine song that went with it. The revelation of the submerged dream released the song, which escaped as by explosion from the patient's lips. As it died away he belched out his accumulated sickness and obtained relief.

If a man falls ill with a medicine song that does not come out of him he wastes away and dies; but if it comes out of him and he sings it night after night, he recovers his health and becomes a powerful medicine man. Just as eating bad food causes a pain in the stomach, and, unless vomited, sickness and death, so it is with the song; unless it comes out of you, unless you sing it to the accompaniment of a rattle, and vomit after singing, you become very ill and die. The missionaries now tell us that this singing is wrong, so today people who are stricken with songs are afraid to let them issue and in consequence fall sick and die. My own daughter has this malady; she has spells of craziness, because she is afraid of the priest and seldom allows her song to issue. Whenever she does allow the song to come out of her for a few nights she feels better, and if she would only sing every night for a year she might recover completely. But she has another sickness also, for she was caught by kyan (see below, p. 567); so I am afraid it would be very hard for any medicine man to cure her of both maladies.

For many months young Djolukyet lay on his back, afflicted with a medicine sickness that no one seemed able to diagnose. Finally, his parents called in a famous medicine man named Wisanwan, who brought to assist him about a dozen other practitioners. The boy lay in the middle of the room beside the fire, the medicine men sat in line facing him, and the large audience lined the walls. Each medicine man in turn walked round the patient, singing and shaking his rattle; and the laity swelled his song with their voices, while his comrades, with closed eyes and pounding rattles, concentrated their thoughts on the case before them and prayed for a cure. Last of all Wisanwan rose and said, "Djolukyet here lies near to death, absorbed in his dreams. I will reveal those dreams to him; I will bring the object before his eyes." "Good," ejaculated his assistants; "We will help you with our prayers." Wisanwan placed a beaver hide on his own chest, and another on Djolukyet's, for the beaver was not only his own eyilseni, the object of his own dreams, but of Djolukyet's also, though the boy did not know it. He then removed from his back the hide of a mountain goat, another eyilseni that he possessed, and laid it on the floor beside the fire, where it waved up and down of its own accord as he shook his rattle. With his free right hand he raised the beaver hide on Djolukyet's chest—raised it just a little, for it clung as though it were the patient's own skin. Instantly Djolukyet obtained release, became conscious of his dream, and, opening wide his mouth, exploded with the medicine song that he still uses today:

sa-bekyo asinler setelner aiyakke.

(A big Dolly Varden trout did it to me; it tried to swallow me. O my.)

Waving his hands in the air he rose to his feet and sang this song again and again. Every evening for about a year and a half he sang and danced until at last he was completely cured, and able himself to practice as a medicine man. During his convalescence and training, another medicine man made for him a wooden image of the Dolly Varden trout, his eyilseni, to suspend from the ceiling over his head; and whenever Djolukyet danced and sang beneath this image it swayed to and fro of its own volition.

The practitioner of the third school began like the others; he sipped a mouthful of water, blew it out, and sang one of his medicine songs to the shaking of his rattle. After repeating this procedure two or three times he exclaimed, "Now I see what is wrong with you. I see the shadow of a bear (or other animal) inside your body. You have been dreaming of bears so often that at last one has taken possession of you. Or you have done wrong, eaten fresh meat in the company of an unclean woman, and the angry bear has lodged itself inside you." His assistants called out, "Remove it from his body." The medicine man chanted a few minutes longer, working himself into a state of ecstasy that brought out the perspiration on every limb; he then laid down his rattle, beat a tattoo on the patient's chest with both hands, and pulled out (or sucked out and caught in his hands) the obsessing bear-shadow. Holding it firmly aloft like a bayonet, he cried, "What shall I do with it? Shall I put it back inside him? Shall I make it enter my own body? Or shall I send it away?"

Often it rested with the patient himself to decide the shadow's future. If he said, "I am too weak and ill to endure it. Put it inside your own body," the medicine man laid his hands on his own chest and blew the bear shadow into himself. Being already gifted with bear medicine, or, in other words, having the bear as his guardian spirit, he sustained no harm, and his patient, relieved of the incubus, gradually recovered his health. He recovered also if he requested the shadow to be sent away, and the medicine man blew it into space. But if he said, "Put it back inside me," then he signified his desire to retain the bear as a guardian spirit, and required help from the medicine men to endure and control it. Accordingly they rose to their feet, still singing, and gathered round the fire, where each in turn received the bear shadow and warmed it over the hot coals before handing it on to his fellows. Thus shearing it progressively of its strength they passed it again, after two or three rounds, into the hands of the principal medicine man, who waved it to and fro before the patient's eyes that he, too, might see and recognize it, although it remained invisible to the laity. He then laid it against the patient's chest, blew it into his body, and bade him sing his dream song. With the singing of the dream song the ceremony ended for the day, unless the medicine man discovered a second shadow lurking within the sick man's body and treated it in the same manner.

In most cases a medicine man, whatever his school, had to work over his patient, night after night, for several weeks or months. Theoretically, his powers of healing increased with the amount of skins and money he received in payment, although the resources of a Carrier family were very limited, in spite of contributions from

its kin. Moreover, whether a patient regained his health quickly or slowly, he needed several months of training before he was ready to graduate as a fully qualified medicine man. So usually 1 or 2 years elapsed between the time of his submission to treatment and the date of the final potlatch when his "physician" publicly inducted him into his new station and allowed him to hang out his shingle.

All the people of the village were invited to this potlatch. While the laity crowded against the walls, the medicine men who had assisted in the cure sat in line facing the ex-patient, who lay in the middle beside the fire. The procedure varied a little according to circumstances. Sometimes the ex-patient merely danced a few times round the room behind his healer and instructor, both shaking rattles and chanting the ex-patient's song or songs. On other occasions each medicine man arose in turn, shaking his rattle and chanting a song of his own that was taken up by the audience. Rubbing the novice's chest, he caught in his hands the incubating shadow, inserted it into his own body with a prayer that it might receive some of his strength, and restored it to the novice again. So strenuously did he labor in his task, so vehemently did he strive to impart some of his own supernatural power, that the perspiration poured down his face and he returned to his seat well-nigh exhausted. After each of his assistants in turn had carried out his part, the principal medicine man raised the novice up, placed a coronet of grizzly-bear claws on his head, and exhorted him to chant his medicine song. The novice then walked round the room, shaking his rattle and chanting his song, all the medicine men fell in behind him, and the entire gathering joined in the singing. A few presents distributed at the close of the ceremony concluded the potlatch. A new medicine man had made his debut.

In outward appearance these medicine men—now called diyinne, but in earlier times nilkin—were indistinguishable from other Indians except at ceremonies, when they wore the coronet of grizzly-bear claws, the special cloak, and the necklet with the bone image of the guardian spirit, that were mentioned on a previous page. A few, to ensure success in the chase, painted or carved the images of their guardian spirits on their snowshoes and arrows. Morice states (1904) that Carrier medicine men farther east, especially those of Stuart Lake, painted them also on rocks, but the Bulkley Indians deny this practice, asserting that such pictographs as occur in their own territory were made for pastime only.

Of the special powers credited to a medicine man through his possession of guardian or dream spirits, first and foremost was his ability to restore human shadows that had been lost or stolen, and to cure persons obsessed by the same spirits as himself, or, as some

Indians expressed it, afflicted with the same dreams. Many thought that the violation of a taboo rendered a man peculiarly liable to obsession by an angry spirit, and that confession aided the medicine man in his diagnosis, though it could not alone effect a cure. Since the spirits were numerous, and a medicine man could control only those with which he himself had communion, the Indians needed a specialist for every class of spirit (bear, beaver, etc.), and required many medicine men to keep their communities in health. They still remember another theory of disease, namely, that it arose from a stick, a stone, or other object magically implanted by a sorcerer, and removable only by a medicine man's discernment and suction; but this theory they discarded many years ago in favor of the doctrine of a lost shadow or of obsession from the world of spirits. Today, they say, the medicine man who practices witchcraft does not implant something in his victim's body, but steals and imprisons his shadow; and though this occurs quite commonly, being partly responsible for the high mortality from which they suffer, they no longer dare to kill the suspected sorcerer, as happened not infrequently in the nineteenth century. As late as 1885, indeed, Kwi-s, the chief of the Beaver phratry, shot a medicine man whom he suspected of stealing his brother's shadow; for his brother had intrigued with the medicine man's wife, and both the woman and her lover had died soon after the aggrieved husband composed and openly chanted a song, "My wife shall die."

The most powerful of all Hagwilgate medicine men was Yip, who died during that great epidemic which we now know was smallpox. As it carried off one man after another he could see it traveling through the air, and dreamed that he should catch it in a salmon basket. He said to the villagers, "If I can hold this sickness in a salmon basket until the cold weather comes we shall be saved; but if the basket explodes I myself shall die 2 days later." The people set the trap on the dry ground and watched over it all night. Shortly before daylight it shook and burst. Yip died 2 days later; the smallpox was too powerful even for him.

The medicine man whose guardian spirit was a bear, a beaver, a caribou, or other animal enjoyed, the natives say, unusual success in killing that species of game. He was permitted to eat its flesh, and did so quite freely, although among the Stuart Lake Carrier, according to Morice, it would have been taboo to him.

Two Hagwilgate brothers who were hunting bears one summer sat down beside a small lake and watched two loons swimming round and round in the placid water. Presently one man turned to his brother and said, "You have told me that you are always dreaming about loon. See the wakes of these two birds, stretching like ropes toward us. Take hold of one wake and capture the bird at its end. Then I will believe you." His brother answered, "You know that no one has ever done that before. Nevertheless, I will try." He rubbed his hands in the water, and the end of the wake

approached him. He pulled on the wake as though it were a rope, and the loon drew nearer and nearer until he captured it in his hands. Then he laid the dead bird at his brother's feet and said, "Here is the loon. Let us eat it." But his brother was afraid and answered, "If I eat it I may die. Truly you are a medicine man."

Some medicine men were credited with power to control the weather. Dressed in their special costumes they would shake their rattles, chant their songs, and call for rain or sunshine. In a droughty summer such a man could cause the rain to fall by merely washing his body in a creek.

There are many eyewitnesses still living who attest the marvelous feats ostensibly performed by these medicine men through power derived from dreams. One man, they say, ripped open his stomach while he was dancing, and by merely passing his hand over the gaping wound made his body whole again; another allowed his head to be split open with an axe, and after a brief interval rose up unharmed; a third rubbed his finger over a hard boulder and produced a deep groove visible to this day; and several swallowed fire from blazing torches of birchbark.

About 40 years ago, at a time when many Indians from Hagwilgate, Hazelton, and other places had gathered at Old Fort Babine, a number of medicine men gave a display of their powers. Some pushed porcupine quills deep into their bodies, others, knives that had been heated in the fire. Then someone scornfully asked George, a young Babine medicine man, what he could do. George answered, "Bring me two dishpans and fill them with clear water." When the pans had been set before him, he shook his rattle and danced till the perspiration streamed down his body—for a medicine man's powers always increase as he perspires. He then raised his hand in the air and prayed for power to fulfill his dream, a dream that his stomach filled with black fluid for 3 days, emptied itself, filled with blood, and emptied itself again. Still praying and leaping he approached the two pans, lifted one in his hands and carried it round for inspection. The clear water had turned to blood. He spilt a little beside the fire, laid the pan down, called on the people to sing faster and louder, and, after more dancing and leaping, raised the second pan. In this one the water had become thick and black like tar. Suddenly he swung around and emptied it over his fellow medicine men, who crouched and covered their faces in fear. The black fluid, as it fell, changed to eagle down, which lighted gently on their heads like soft snow.

A spectacular but not uncommon feat was fire-walking, of which perhaps the latest exhibition occurred at Hagwilgate in 1918. An eyewitness on that occasion stated that after the unconsumed logs from a large fire had been rolled to one side, leaving a bed of red-hot coals and ashes, the medicine man, a Moricetown Indian, walked four times barefooted through the glowing embers and emerged unscathed, although his feet sank nearly 5 inches into the ashes. Two other natives who had witnessed a similar performance some years earlier declared that the medicine man was wholly unconscious of his move-

ments, and that, without the testimony of his countrymen, he would have regarded the episode as a dream.

We have seen that the Bulkley Indians, under influences that seeped in from the coast, obtained the notion that medicine power came from the spiritual world not by man's seeking, but through sickness that attacked him even against his will; yet that they still clung to their earlier ideas in regarding this spiritual world as inseparably associated with the world of animals, birds, and fish. It was still the beaver, the eagle, or the salmon that imprisoned a man's shadow in its mysterious home and taught him a medicine song; or else it was the shadow of one of these creatures that took possession of his body. There were, however, other influences, coming in from the same source during the first half, apparently, of the nineteenth century, that gave rise to a slightly different class of medicine men, a class that introduced among the Bulkley Indians features that properly characterized the widely spread Cannibal Society of the Pacific Coast. These new medicine men received their "call" not through the usual form of sickness, but through a violent hysteria that recurred every few hours or days, when it induced in the subject cannibalistic cravings that made him a menace to his fellow men, even his own kin. In the eyes of the Indians he was kyanilkyot, seized by one of those mysterious forces called kyan that have their home in the mountains; and he could be cured only by a kyanyuantan, a man who had experienced a similar affliction and acquired the power to control his kyan. The cure came slowly, in from 1 to 3 years, but on his recovery the patient also became a kyanyuantan, an accredited member of the loosely organized group or society whose speciality was the treatment of this strange complaint.

About 32 years ago, i. e., about 1892, Old Sam, who is now our principal kyanyuantan doctor, was camping out in his hunting grounds when he heard a cry, "lu hu," from a neighboring mountain. The cry was repeated, and though he had never been ill in his life before, a burning fever spread over his body, passed away, and came on again. He prepared his bed for the night and was about to lie down when he heard other sounds from the mountain, the beating of a drum and the thumping of sticks on sticks, that brought to his mind thoughts of kyan and its incursions. Suddenly there came a whistling noise, and something, he knew not what, lifted him from his feet, and hurled him to the back of his lodge, lifted him again and hurled him almost into the fire. There he lay in a daze, but after a few minutes he rubbed some cold, wet snow over his face and cleared his brain.

In the morning he returned to the house where he had left his wife and children. Hitherto he had been very fond of them, but now he was conscious of a deep antipathy and would not go near them. As the inmates were preparing for bed they heard a queer sound from something that had accompanied Old Sam; but no one paid any attention to it, and in the morning the whole party started out for Hagwilgate several days' march away. Throughout this journey Old

Sam's brain seemed to cloud at intervals, and he nourished an impulse to devour his children; but he offered no open violence, and the party reached Hagwilgate without mishap. I was then a lad in my teens, and can remember seeing them arrive late one afternoon, men, women, and even children carrying packs on their backs.

Three or four days after their arrival Old Sam cleaned four steel traps and prepared to set them along Bulkley River. His wife, knowing that he was not feeling well, remonstrated, but he answered her, "The winter is long and the children need more clothes. A foxskin or two will help us." "I will go with you then," she said, "and stand back when you set the traps." So the two went out in the morning, set their traps about 2 miles from Hagwilgate, and started home together in the moonlight. As they walked along, there came from the mountains a peculiar sound like the whirl of wings or an approaching tempest. It drew nearer, and from the woods rose an answering clatter as of a medicine man's rattle. Old Sam trembled violently, for he could see the kyan that to his wife's eyes remained invisible; and when a whistle shrieked he fell flat in the snow, his clothes dropped from him, and he vanished from sight. His wife fled in panic to the village, where she gasped to my mother and others, "My man was telling me a hunting story to shorten our homeward walk when he fell to the ground, shed his clothes, and disappeared."

About half an hour later Old Sam himself arrived. He was stark naked, his eyes were gleaming, and his quivering lips gave forth wild shrieks of "hu hu hu." Gnashing his teeth, he tried to seize one of his children, but the people restrained him and forced some garments on him. One of his relatives hastened away immediately to Kispiox, whence he returned on the following afternoon with a kyanyuantan doctor named Djolusanak and his assistants.

Old Sam had been quiet during the day, but as evening approached the frenzy attacked him again. He tore off his clothes, broke open the door, and raced about in the snow. Djolusanak and his kyanyuantan assistants pursued him, while the members of the cognate kalullim society inside the house pounded long planks with sticks and chanted medicine songs. Old Sam knocked down several of his pursuers and tried to bite them, but Djolusanak caught him by the hair and with the help of others dragged him indoors. So contagious was the malady from which he suffered that no one was allowed within except the kyanyuantan and kalullim people; but listeners outside the house heard Djolusanak remark, "I have discovered what is wrong with him. He desires human flesh. Tomorrow I shall give him dog to eat"; and late that evening Old Sam's brother bought six fat dogs.

The villagers prepared a great feast for the following day. Soon after dawn Djolusanak sent round word that they should stay in their homes, and that when he escorted Old Sam through the houses, one after another, they should cover their heads with blankets and pray that Utakke would cure him. At the same time he warned them that Old Sam was so dangerous he might break loose and bite the face of anyone who neglected to cover himself. In spite of this warning I peeped through a little hole in my blanket, and saw him, stark naked, devouring an unskinned dog that he clutched in his arms; and people say that he devoured six dogs as he visited from house to house. His guardians finally led him back to the potlatch hall, where they danced around him, and shook their rattles. Then he woke up sane, and said "What is the matter with me? I must have been dreaming." Since that time he has experienced no further attacks.

Old Sam had what we call Indian sickness, that only an Indian doctor can cure. It is most prevalent in the vicinity of Kitimat, where many kyan haunt a neighboring hill. Once a man caught in that district by kyan became so

violent that the people, afraid to wait for a doctor, put hot stones on his stomach and burnt a hole right through him. He jumped to his feet and ran shouting towards the mountain, where he disappeared without leaving a trace. Kyan took possession of him permanently.

One old Bulkley Indian cherished the idea that kyan was but a collective term covering all the spirits of the animal world, and that possession by kyan was not a new phenomenon, but merely a variation of the old relationship that had always existed between the Indian and this spiritual domain. The shadows of the grizzly, the otter, the owl, the salmon, and other creatures, he claimed, dwell in houses beneath lakes or inside mountains, and when a man is seized by kyan, becomes kyanilkot, his shadow wanders away to one of these houses during his dreams and becomes imprisoned there. Smoke or water then seems to swoop down into his body at intervals, rendering him crazy, and he cannot recover until a kyanyuantan travels in his dream to the same house and recovers the shadow. The most violent form of insanity arises from the otter, which sometimes (in dreams) takes the form of a girl or youth, seduces a man or woman and carries off its victim's shadow; insanity from this cause is well-nigh incurable. He himself, he believed had been kyanilkot, caught by kyan; and he actually shook with incipient hysteria as he described his experience. He was traveling to Babine, and had camped for the night under a group of trees when he began to tremble violently and was seized with a mad impulse to run away. Unable to eat or sleep he lashed his body to a tree and lay down on the ground. Then a black eagle shouted to him from the top of a mountain, and, swooping down, settled with a loud explosion on a tree above his head. He swooned, and did not recover until nearly sunset the next day. During this trance he seemed to enter a great tunnel in the mountain, where two songs came to him from opposite directions. One ran:

he ye nesateltsai eyesenlea he ya he ya.

(A noise that moved away into the distance took hold of me.)

And the other:

he ya he ya tsilyak wate eyesenlea.

(A man who remained in the mountain took hold of me.)

Now and again, even today, the same strange feeling comes over him, but it always vanishes as soon as he takes his rattle and chants these songs. Because he has been caught by kyan, he ranks as a medicine man, and is sometimes called in to heal the sick. When he sings and shakes his rattle over his patient, night after night, he can generally see within the patient's chest the shadow of the grizzly, the beaver, or whatever creature it may be that has caused the sickness. Then he withdraws it into his hands, forces his own power

into it, and restores it to the patient's body. But he is not a kyanyuantan, is not a member of that society, because the kyan that attacked him was not powerful enough to bring on insanity or to call for treatment by the kyanyuantan.

The majority of the Bulkley Indians flatly rejected this interpretation. To them this old man was an ordinary diyinne or medicine man, and his visitation from the animal world was quite different in character from an attack by kyan. Some distinguished three kinds of sickness (apart from wounds and ailments obviously brought on by material causes): The ordinary medicine sickness induced by contact with shadows of the animal world and characterized by phthisis and dreamy languor; violent insanity caused by an otter in human form; and possession by kyan. Still more limited the number to two, regarding the otter sickness as only an aggravated form of possession by kyan. They often spoke of kyan as though it were a formless, indefinite but living force, as when they described it as a devouring sickness that travels invisible, though just as much alive as a man or animal; yet quite as often they insisted that there were many kyan, not all possessed of equal powers, whence some of their victims became violently insane and others only mildly deranged. What primarily distinguished seizure by kyan from every other sickness was a periodic hysteria or dementia associated with a craving for human flesh.

There can be no doubt that this kyan sickness, and the kyanyuantan society based on it, was copied from the cannibal society of the neighboring Gitksan, itself derived from the tribes of the coast. Among the Gitksan, too, the initiates concealed their rites from the laity and devoured human corpses and dogs as they paraded through the villages—or at least pretended to devour them, for in recent times they have not actually eaten the raw flesh, but chewed alder bark instead and let the red juice drip from their lips. The lay Indians in both tribes stand in such awe of the society that they commonly propitiate its members with trivial gifts in order to retain their goodwill; and at Hagwilgate any one who enters a member's house by mistake, even though he is himself a medicine man, atones for the error with a small sum of money. Their awe of the society rests mainly on fear, for they credit its members with power to drive kyan into any person who offers it affront. Hagwilgate natives have heard that at Skeena Crossing—and what happened there might easily happen in their own community—

A man once ridiculed the cannibal society and accused it of deceiving the people; but a short time afterward he himself, through the agency of the society members, was seized by kyan and became demented. The society escorted him through the village and worked over him until his condition became more normal,

then ordered him to stay alone in the mountain all winter and eat devilsclub. When he returned at the end of the winter the kyan gripping him was so powerful that though they bound him with ropes he broke away, killed and ate two or three men and threw away their bones. The society then said, "We can't restrain him. Let him loose." Instantly he vanished toward the mountain and was not seen again for a whole year. Then one night the villagers heard loud shouts of "hu hu" from the top of the mountain. The laity hid in their houses, while the members of the kyanyuantan and kalullim societies hastily put on their head bands, necklets, armlets, leglets, and skirts of red-cedar bark, sprinkled their heads with swan's-down, and gathered in an open spot, beating a drum. Then the man flew through the air crying, "hu hu hu," and, lighting in their midst, said, "my kyan is so powerful that if I remain among you I shall devour you all. So I shall not come back again." As he spoke feathers sprouted from his arms and face and he changed to an eagle that flew away and disappeared over the mountain. This was his fate for ridiculing the kyanyuantan society.

Today, nevertheless, whatever may have been the case in the past before European influences began to break down the social order, there is an important difference in the attitudes of the two peoples toward the phenomenon. It may mean nothing that the Bulkley Carrier, who now considers everyone a noble, at least potentially, believes that in his community any individual whatsoever may be seized by kyan and ultimately gain entrance to the society, whereas the neighboring Gitksan limits membership to persons of noble rank and regards that class alone as liable to invasion by the supernatural force. The Carrier, however, looks upon the kyan sickness as a calamity that he would gladly avoid, even though recovery makes him a member of the society and brings him prestige and profit; but the Gitksan, except insofar as he is modernized and scorns his old customs, regards membership as highly desirable and the qualifying sickness as a matter of little concern. Indeed, if he is of noble birth, he may even offer himself as a candidate, indicating that in many cases the sickness is either simulated or self-induced. To the one people the society is primarily a group of medicine men joined together to treat a peculiar and dangerous disease; to the other it is an organization for conferring prestige and influence on a limited section of the community by means of a spectacular initiation rite that invokes the sanction of the supernatural.

The following episode will illustrate this attitude of the Gitksan:

About 1913 a low-born youth of Kisplox (a Gitksan village 16 miles from Hagwilgate) acquired a little wealth through working in the coastal canneries, and became so ambitious that he determined to enter the wilala society, the name by which the kyanyuantan, or cannibal society, is known among the Gitksan. He made his ambition known, but the members of the wilala and kalullim societies, at a joint meeting, decided that his low birth debarred him from the wilala society, but allowed him to enter the inferior kalullim. This, however, did not satisfy him. He invited the villagers to a potlatch at which he imitated in his dance the frenzy of the wilala member, and, before distributing the huge pile of skins, coats, and money he had heaped on the floor, made

his grandmother step forward and announce, "This huge pile of goods belongs to the poor young man whom you refused to make a wilala." The members of the society said nothing, but the next time the people gathered in the potlatch house they set side by side near the fire a goose with level outspread wings and a small duck that had one wing stretched high in the air. Then a wilala man rose up and asked, "What is the meaning of this? Is not this goose a noble bird?" "Yes, it is indeed a noble bird," responded his fellow members. "But this duck here, of what use is it?" he questioned. "It is a worthless bird that no one wants," they answered. "If that is the case, why does it stretch its wing so high above the goose?" And the answer came amid laughter, "It wants to be a wilala." Thus they humiliated the presumptuous youth.

Such an incident could hardly occur among the Bulkley Indians, where the kyan sickness seems never to be fictitious or consciously self-induced, but is looked upon as fatal unless treated with unremitting care. In the winter of 1924-25, during my visit to Hagwilgate, Old Sam's wife was smitten by the disease, although she was well advanced in years, short, stout, and apparently healthy. An attack of hysteria overcame her each evening toward sunset, and she whistled shrilly and cried, "hu hu." In her dreams she had seen a stick about 4 feet long wrapped in three places with cedar bark; and throughout the day, as she lay on her couch against the wall of her house, a copy of this stick lay beside her. At times she would wander painfully to the kitchen behind, using the stick to lean upon.

The sickness had lasted for several days until her husband, devoid of confidence in the neighboring white physician, determined to use his own power as a kyanyuantan doctor and to treat her in accordance with the old-time custom. The noise of his drumming and singing disturbed the white school teacher on the reserve, who ordered Old Sam and the fellow members of his society to cease their humbug; but since he was afraid to enter Old Sam's house, his exhortations from without passed unheeded. He complained to the white policeman at Hazelton, and to the Indian agent there. This alarmed Old Sam and his people, for they feared that the sick woman, deprived of proper treatment for her malady, would grow worse and die. They recalled two similar cases within the preceding 10 years when the Indians had listened to the priest and had refrained from using their old-time method; and two other cases when the priest and the white doctor had sent the patients to the insane asylum at New Westminister, near Vancouver. All four of these patients had died within a few months, whereas their own treatment, they believed, had nearly always succeeded. Old Sam himself had been cured, and the wife of Felix, my interpreter; and there were two other women in the village suffering from the same malady who were almost cured.

The Indians, therefore, invited me to attend one of their performances that I might substantiate their protest that it was neither

improper nor harmful. It might begin at 4 o'clock, they said, or at 6 o'clock, whatever time the symptoms overtook the sick woman. I reached Felix's house at 4 o'clock and went over with him to interview Old Sam. His wife seemed quite normal at that hour, but he promised to send us word as soon as her ailment developed. We therefore returned to Felix's house and waited. The account that follows is taken directly from my notes, written during the ceremony and revised the following morning.

Just before 6 a messenger put his head inside the door and announced that the patient was becoming restless. Felix had gone to visit a neighbor for a few minutes, but his wife, who, as a member of the kyanyuantan society, was to play a leading part in the performance, hastily dressed, combed her hair, and placed in a flour sack the head band of cedar bark that she would wear throughout the ceremony. Her brother and I followed her to Old Sam's house, a new building consisting of a large, rectangular living room with a kitchen behind. In the center of the living room was a camp stove, along the right wall half a dozen chairs, and on the opposite side, against the other wall, Old Sam's wife, lying on a pile of blankets. In three corners were some wooden chests, while in the right-hand corner nearest the door lay a blind old woman, wife of Netipish, chief of the Gilserhyu phratry, who was slowly dying in the Hazelton hospital. There she lay throughout the entire evening, helpless and apparently unconcerned.

Two other Indians, a man and a woman, had entered the house just ahead of us. The woman, who was dressed entirely in black, had been stricken by the kyan sickness 2 years before, but her cure was now almost complete. In her hand she carried a stick about 18 inches long, representing the stick that had appeared in her dreams. The man, like the brother of Mrs. Felix, belonged to the kalullim society, whose members assist the kyanyuantan society in their rituals.

We sat on the chairs at the side of the room, quietly talking. From time to time Old Sam's wife emitted from her bed a shrill whistling sound, and at intervals a "hu" like a distant wolf. The two women sitting near me caught the infection and broke their conversation with similar sounds. Presently the woman in black rose and drew down the blinds on all the windows so that no one could peer in from the outside. Then she lit a lantern and went out, returning a few minutes later with a young Indian woman, the wife of a Chinaman who was living on the edge of the reserve. This Chinaman's wife was convalescing from the most dangerous of all ailments, violent dementia, caused by constantly dreaming about the land otter.

After a brief conversation together, the three women removed their moccasins and unbound their hair, and the woman in black drew off the moccasins from the feet of the principal patient, Old Sam's wife. Mrs. Felix took out of her bag the head band of red-cedar bark, the woman in black produced similar bands from a chest in the corner, and every person in the room (except myself) placed one on his or her head. The women then sprinkled eagle down over their hair, while Old Sam brought out a tambourine and pushed in front of our chairs two planks 7 feet long by 4 inches wide, which we were to pound with sticks. Finally Mrs. Old Sam shuffled from her bed into the middle of the room and squatted there; the woman in black squatted behind her, and the Chinaman's wife placed herself third in the line. Old Sam, Mrs. Felix, her brother, and the third man remained seated on the

chairs against the wall, Mrs. Felix's brother holding the tambourine, the others short sticks with which to pound the planks. Thus we waited in silence.

Suddenly a whistle shrilled, blown by Old Sam, though none of us saw it. To the Indians it blew kyan into the room. The Chinaman's wife flung her head to the floor with a shriek and beat a wild tattoo with her hands on the bare boards, while her two companions sighed loudly "hu hu hu," and swayed their bodies up and down and from side to side. Old Sam from his chair began to shout his medicine-song, and his assistants joined in, beating the tambourine and pounding the planks. The three women in the middle were seized with violent hysteria; their eyes were staring and dilated, their bodies swayed, their hands quivered as with a palsy. Old Sam's wife, holding her long stick before her in both hands, raised it up and down jerkily; the woman in black swung her shorter stick first to one side, then to the other; while the Chinaman's wife, more violent than either, shuffled along the floor, her head down and her hands beating the boards or clawing the air rhythmically in front of her. Occasionally this woman raised her head and faced the singers in an attitude of wild adoration, trying, like her companions, to join in the song, but, like them, able to utter only shrieks, or whistling sounds, or loud sighs of "hu hu hu."

The song, repeated over and over again, louder and with more frantic drumbeats and pounding of sticks whenever the women's frenzy threatened to break out into greater violence, lasted some 15 minutes. It contained two or three significant words, but from lack of an interpreter I could not follow them. Suddenly it stopped, and there was an interval of about 10 seconds during which the women sighed loudly and repeatedly "hu hu."

Old Sam now started up another song, translated thus by Felix, who came in at this moment and sat down beside me:

A big beaver's nose goes inside the mountain.

The music stirred up the women again, causing them to resume their frantic gestures. Sometimes they faced the drum and executed a kind of squatting dance in front of it, their waving arms and swaying bodies reminding me strongly of Malayan dances. The extreme paroxysm of their first frenzy, however, had passed over, and their movements seemed more controlled by the rhythm of the chant. As the song continued Mrs. Old Sam began to "hu hu" vigorously again, and Mrs. Felix, who herself had caught the infection and "hu hued" once or twice while pounding her plank, rose and slowly danced on her toes toward her. Stretching out her hand, she raised Mrs. Old Sam to her feet, braced her arm with her own, and led her round the room in a slow rhythmic dance, during which the patient continued to bow her head over her horizontally held stick and toss it backward again. The woman in black danced on her toes behind them, flinging out her short stick first on one side, then on the other. Last of all, after two or three futile efforts, the Chinaman's wife struggled to her feet and danced in their train, with her head lowered, her face almost concealed by her hair, and her hands waving gracefully to right and left alternately. As they passed me, so close that I had to move back my chair, I could see their fingers quivering as if palsied; but both their feet and their hands kept perfect time with the song and the drumbeats.

At the close of this song, which also lasted about a quarter of an hour, Mrs. Felix retired to her seat, the three patients sank slowly to the floor, breathing heavily "hu hu," and Old Sam hobbled over to them to shout the same cry "hu," in their ears, one after another. His wife, only half-conscious apparently, pushed back the hair from her forehead, then pulled out a pan of water from beside the stove and mechanically washed her hands, while the

other two women squatted in an attitude of exhaustion. In less than half a minute Old Sam started a third song, which Felix translated as

Something goes into the water,

explaining that old Sam, by "hu huing" in the women's ears, had expelled some of the kyan from their bodies into the air and was now driving it into the pan of water. The three women remained squatting, swaying their bodies as in the earlier songs, but less violently; and when the song ended Mrs. Old Sam pushed the basin of water under the stove again.

The fourth song was in the Carrier language also, being, like the three preceding, one of Old Sam's own medicine-songs. It ran:

Many wolves come for something to eat.

The women continued to squat throughout its repetition, but the Chinaman's wife shuffled a little around the floor.

The fifth song was wordless; the sixth a song of the kalullim society, in the language of the Haida Indians of the Queen Charlotte Islands, which my interpreter could not understand. As soon as it commenced, Mrs. Felix rose and slowly hopped in front of Mrs. Old Sam to lead them in another dance. They stood in line one behind the other, Mrs. Felix facing them and moving her arms like a band conductor to make their feet and bodies keep time with the slow music. Mrs. Old Sam waved her stick up and down in front of her, the woman in black swung her stick from side to side, and the Chinaman's wife waved her arms gracefully to left and right alternately. The dance was perfectly timed and would have found favor in any music-hall. When it ended Old Sam again hobbled forward to "hu" in each woman's ears, even in Mrs. Felix', since she also seemed to have become infected and cried "hu hu" occasionally with her patients.

The last song, also a chant of the kalullim society, was in the Gitksan language. It ran:

The strong man afflicted by kyan is eating something.

The women still breathed "hu" occasionally as they repeated their dance, and Mrs. Old Sam emitted one or two whistling sounds. So when the song ended and they squatted on the floor again, Old Sam hastened over to "hu" into their ears, and to beat them upward on chest and back with a bundle of eagle feathers in order to expel any kyan that still remained in their bodies. Each woman gave a loud-breathed "hu" as it left her and Old Sam blew it away from the crown of her head. But from the woman in black it seemed very reluctant to depart; even though Old Sam beat her vigorously with his eagle feather and shouted "hu" in her ears, she still "hu hued" hysterically. At last he dropped his feathers and rubbed her vigorously with his hands, when with one dying shriek "hu-e-e" she subsided and sat quiet.

The performance was now over. It had lasted a full 2 hours, and every one was weary. The patients, to all appearance perfectly normal again, pushed back their disheveled hair, rubbed their eyes, and retired to the walls to rest. The tambourine and planks were hidden away, the cedar-bark head bands replaced in the chest, and all traces of the eagle down carefully removed. Presently the woman in black replenished the fire and examined the kettle to see if the water was boiling, for we were all to share in a light supper before returning to our homes. Then the men gathered around me to ask whether their remedy for the dream-sickness was not perfectly reasonable and proper. I told them

that I could see nothing wrong in the ceremony, but advised them either to muffle the tambourine a little or to hold the performance in a house farther away from the school teacher and thus avoid any further complaints.

The performance just described dissipates all doubts concerning the reality of the kyan malady among the Bulkley Indians, for clearly the morbid condition of each woman was neither fictitious nor consciously self-induced, although Old Sam deliberately provoked a temporary paroxysm. It would seem reasonable to conjecture that the Indians, generally speaking, are somewhat unbalanced mentally. They believe that the world around them is full of supernatural beings or forces that are constantly interfering in human affairs, and they readily fall victims to their hallucinations. The notion of a supernatural force or forces lurking in the mountains that may strike them down at any moment induces a condition of periodic hysteria. Since kyan is supposed to be most active in the evenings when darkness begins to close in, it is at that time that auto-suggestion brings on the first signs of hysteria. The blowing of Old Sam's whistle was the spark that ignited the smouldering fire; the women became frantically hysterical, but in a manner conditioned by their beliefs and by the many cases of hysteria they had seen previously. The beating of the drum and planks, the rhythm of the music, checked their frenzy in its first stages, and gradually governed all their movements until they danced, swayed their bodies, and moved their limbs in perfect time with the slow and measured notes. Mrs. Felix' leadership in the dance also helped to bring them under control; and the hysteria was forced to express itself in slow, rhythmic movements until the patients became physically exhausted and their minds cleared. During periods of normality they encountered no social barriers or restraints, and incurred no feeling of inferiority, because they believed their malady unavoidable and fully expected permanent cure. So in time (some cases, the Indians say, require 3 years), they might well outgrow the mental and pathological conditions that induced the hysteria and become fully normal again.

The kyanyuantan, or cannibal society of the Bulkley Indians, then, consists of a group of men and women who are credited with power to heal a peculiar type of hysteria or dementia because they themselves have recovered from the same malady. The society appoints no definite leader, apparently, but one man usually stands preeminent over the rest by reason of his social standing or of the unusual medicine power he is presumed to derive through overcoming the dementia in its most violent form. There are no formal meetings apart from the clinics at which new patients are treated, and certain sessions at potlatches when candidates are initiated into the subordinate kalulim society. From these meetings outsiders are excluded because the

dementia is deemed to be contagious, and no one would voluntarily expose himself to its onslaught. Members are entitled to charge for their services, and enjoy a certain amount of prestige; but their standing at all ordinary ceremonies and potlatches remains unaffected, and today not a single chief belongs to the society, though some may have been members in earlier years.

The kalullim society of the Bulkley Indians is younger than the kyanyuantan. The Indians said that it came from the Gitksan when Old Sam was stricken with the kyan sickness some 40 years ago, but did not take firm root until about 1900, and then only among the Indians of Hagwilgate and Moricetown. Membership is limited to the nobles, that is to say, to the men and women who have assumed titles and claim definite seats at potlatches. Many of the younger Indians are, therefore, ineligible, not because they are debarred from assuming titles, but because they no longer value them enough to scatter their wealth on the necessary potlatches. While they fear to speak disrespectfully of the society, they tend to regard it as a profit-making organization, because its members regularly assist the kyanyuantan doctors in treating patients afflicted with the kyan sickness, and the patients, or their relatives, naturally pay for their services, though on a smaller scale than they pay the kyanyuantan. The majority of the villagers, however, hold the society in higher esteem. To them it is a true medicine-society, for its members have actually experienced the mysterious force of kyan, albeit in a weakened form, and thereby acquired power to assist in the treatment of kyan sickness, though unable themselves to effect a cure. Indeed, they are considered the only people who dare assist in the treatment, because the disease is highly contagious and dangerous, and their past exposure has given them immunity. Moreover, even if some of the members have enrolled deliberately, submitting themselves of their own free will to a kyan infection induced either by a qualified member or by a kyanyuantan, others have caught the infection involuntarily, and only failed to become eligible for the kyanyuantan society because their malady was so slight. Consequently, the kalullim society is really a lower order of the kyanyuantan, though the societies are mutually exclusive and members cannot pass from one order to the other.

A man (or woman), we will presume, is indisposed, and the ordinary medicine men or diyinne diagnose his ailment as a slight infection by kyan, and consequently outside of their scope. The patient's relatives approach the members of the kalullim society and entreat their aid, which is promised for the next feast or potlatch. His initiation into the society then follows the same general course as if he is in perfect health, but merely aspires to become a member. On the first evening of the feast, when the man is sitting quietly in the pot-

latch hall among the audience, one of the leaders of the society (or else a kyanyuantan doctor), slipping outside unnoticed, suddenly bangs on the door and shrieks a wooden whistle. The candidate falls prostrate to the floor, for the thoughts of every member are concentrated on him and the whistle is theoretically charged with kyan. A member may now raise one of the society's songs, to which his co-members beat time by pounding on wooden planks. They encircle the candidate, lift him to his feet, and lead him round the fire, with loud shouts of "hu hu hu" or "hap hap hap." Any kyan that has infected him now supposedly flees before the kyan blown into the room by the whistle, and the force that resides in the cries of the members. Once only they circle round the fire, then they go outdoors, leaving the spectators silent in their places, afraid to follow lest they too be stricken by kyan, or else seized and mulcted a heavy fine.

Now from without comes the sound of a chant, and, at its conclusion, a clapping of hands and cries three times repeated of "pr pr pr." The candidate has been "wafted" to kyanberhya, the "house of kyan," some empty dwelling as far from the village as possible which the laity scrupulously avoid for the time, if indeed they are aware of its use. There the society members sing with the candidate all night, leaving him just before daylight to return to their homes. Sometimes they allow him to walk as usual about the village during the daytime; if he is wealthy, and therefore certain to pay liberally for his initiation and to distribute much largess among the people, they may even escort him to the potlatch hall so that the laity may join in their prayers for his recovery to health (a ceremony called by the Gitksan name *gela-ls*). More often, however, they keep him secluded for 3 or 4 days until the potlatch is drawing to its close.

On the third or fourth night of the potlatch all visiting chiefs dance in succession until nearly dawn. Then the head chief of the candidate's phratry steps forward, holding a spoon of sheep horn whose handle is wrapped with red-cedar bark. Slowly he marches, singing his own special song, and, standing beside the fire, thrice raises the spoon aloft and cries, "hu." Then, at the shout "kalullim" from a leader of that society, he pours the grease into the fire and says, "May this grease be as a bridge whereby you (the candidate) may return to us." All now retire to their homes to await the reappearance of the vanished man.

Before noon the next day a kalullim member makes the circuit of the village and invites the people to stand at their doors and watch for something to happen. A near relative of the candidate (usually his father's brother) dresses up in full dance regalia, dons a wooden mask representing one of his clan crests—we will say the grizzly—and, imitating the gait of that animal, searches round the outskirts for

the missing man, who has concealed himself in some prearranged hole in the ground or in a crevice among the rocks. The members of the society follow the "grizzly," and, as soon as he noses out his quarry, drive him away, or, if he is himself a kalullim member, remove his mask and merge him in their throng. Then, singing, they escort their new member inside all the houses in the village, where every inmate who is not a member covers his head with a blanket lest he be rushed off to the same hiding place, initiated into the society, and forced to pay a heavy indemnity.

After the novice and his escort have vanished from sight, the villagers resume their usual occupations for an hour or so, when a repetition of the procession again sends them hastily to their blankets. Only when the procession approaches for the third time are they free to gaze their fill.

The society now secretes itself in the novice's hiding place, and toward evening sends a messenger to gather the villagers in the potlatch hall. The audience lines the walls of the room while the kalullim members conceal themselves just inside the door behind a curtain guarded by two men, one of whom is a near relative of the novice. Drawn out by these two men, the novice emerges from under the curtain, prances with his relative round the room, gesticulating with his hands, and vanishes from sight again. He reappears a few minutes later, shaking a rattle, and executes a formal dance with his relative. Then his helpers bring in the food that has been provided by his phratry, and, when the audience has eaten, the blankets, strips of moose hide, and other goods that are to be given away. A fellow kalullim belonging to the same phratry as the novice distributes these goods, after which the people return to their homes. But an hour or so afterward the members of the society reassemble in the potlatch hall for a private feast, from which they carry away as their own booty the dishes and cutlery furnished by the novice.

For 2 or 3 days more the novice must secrete himself in the vacant house and each evening learn from his fellow members the society dances and songs. Some one composes one or two new songs for his use, and these also they practice in the evenings. The villagers are then invited to attend the final ceremony in the potlatch house, to which the leader who blew the whistle brings a rattle and an extra head band made of cedar bark, and another member of the society an extra cedar-bark collar. The head band and the collar they place on the novice as he sits in front of them, and the leader, shaking his rattle, announces that his protégé is now a fully ordained kalullim and privileged to enjoy that title (pl. 34, fig. 2). The ceremony then closes with a distribution of food. Later the new member quietly pays everyone who has played a prominent role in his initiation,

his payments varying from as much as \$30 to the leader who blew the whistle down to a single dollar, perhaps, to the men who encircled him with the collar. His total expense, including what he spends for food, often runs to as high as \$500.

Such is the general method of initiation into the kalullim society, but the exact details vary on nearly every occasion. Thus in 1921, for the first time, the society used the potlatch hall for the opening ceremony only, and held its other public ceremonies out-of-doors during the hours of daylight. It possesses perhaps a dozen whistles, all purchased originally from the Gitksan Indians by a chief of the Laksilyu phratry, who subsequently sold most of them to three men in the Gitamtanyu phratry. It may be worth adding that the leaders are not elected, but are simply the ranking men and women of their respective phratries.

Besides the kyanyuantan and kalullim, the Bulkley Carrier have still a third society known as the komitt'la, which was borrowed from the Gitksan Indians about the same time as the kalullim. Unlike the latter, however, it exists for purely social purposes, and has no connection with religion or with the healing of the sick. Initiation, which takes place in a potlatch, is comparatively inexpensive. Members are entitled to blow a certain type of whistle, and to wear head bands and collars of cedar bark dyed red in a solution of boiling maple bark. The whistle has a different shape from that used by the kyanyuantan and kalullim societies, whose cedar-bark head bands and collars, too (as well as the wristlets worn by the kyanyuantan doctors to protect themselves from the frantic biting of their patients) are not pure red, but mingled red and white, the latter being the natural color of the bark. In their dances the members of the komitt'la society do not gesticulate with their hands, like the members of the kalullim, but swing a wooden paddle. Some years ago it held private entertainments similar to those held by the kalullim people, but latterly the two societies have held their meetings jointly. Their combined membership is small and apparently decreasing, so that both will probably disappear within another generation. The kyanyuantan society, being more deep-rooted, may last a few years longer, but it too has passed its hey day.

APPENDIX 1
HUNTING TERRITORIES
GITAMTANYU PHRATRY

GRIZZLY HOUSE

1. An area about 20 miles long by 15 miles wide around Tayi (=Maclure?) Lake, near Telkwa, known as *chəchət*.
2. A strip about 3 miles square at Lamprey Lake, between François and Morice Lakes. This belonged originally to a clan of the Gilserhyu phratry, the Dark House, but was surrendered to the Grizzly House when the brother of its chief was mortally wounded by the sister of Netipish, the chief of the Gilserhyu phratry. The area was known as *cha pe'kaz*.
3. An area of unspecified extent around a creek north of Moricetown, known as *xəł tatsali kwa*, "the river in which people place their packs of meat to protect them from flies."
4. Two small lakes for trapping beaver in the Babine Mountains north of Barrett station, known as *uwitak*.

HOUSE IN THE MIDDLE OF MANY, AND ANSKASKI CLAN

1. A tract about 20 miles long by 15 miles wide along the middle reaches of the Morice River, known as *tsamik'aitchan*, "the bottom of the mountain on which *tsami* berries grow."
2. An area of undetermined extent around Trout Lake, between Owen Lake and the wagon road running to François Lake. Formerly there existed on Trout Lake a large potlatch house surmounted by the figure of a raven, the principal crest of conjoint clans. The area was known as *t'a-k'as'lenli*, "where the water flows into *t'a-k'az* lake."
3. The territory around a creek that flows into Owen Lake, known as *tazgli kwa*, "*tazgli* river."
4. A tract around Rose and Old Woman's Lakes, just west of Burns Lake, known as *djakaz*, "middle place."
5. A tract about 5 miles square on Buck Creek, near Houston, known as *tsanko 'sai*, "he remains in a graveyard."

GILSERHYU PHRATRY

DARK HOUSE

1. An area about 60 miles long by 30 miles wide around Tagetochlain Lake, between Morice and François Lakes, known as *tagitsoxlen*, "the place where the hunter watches for caribou to swim across."
2. An area about 25 miles long by 15 miles wide between the foot of Morice Lake, Morice River, and two creeks that join this river from the southwest and northwest. It belonged originally to the Tsayu or Beaver phratry, but was exchanged for a fishing station at Moricetown. It was known as *talbitskwa*.

THIN HOUSE

(Chief Guxlet's section of the clan)

1. The area from Hagwilget canyon to Moricetown, about 35 miles long by 28 miles broad, known as dizkle, "dead trees all pointing in one direction in the water."
2. A tract about 25 miles square around Owen Lake and Nadina Mountain, known as pitwinni.
3. A tract about 8 miles square halfway between François Lake and Houston, known as tatak, "creek joining two lands."

THIN HOUSE

(Chief Chaspit's section of the clan)

1. A tract about 20 miles square around Atna Lake, near Morice Lake, known as gilene-pin diltan, "place around the head of the lake."
2. A tract about 50 miles square just south of Morice Lake, known as neneka.
3. A tract about 35 miles long by 15 miles wide at the west end of Ootsa Lake, known as taiïla, "swampy place where brush grows in the water."
4. A tract about 40 miles square on both sides of François Lake, known as t'se konakaz, "one-eyed woman," because there is a tiny lake in the middle of a wide plain.

BIRCHBARK HOUSE

1. A tract about 30 miles long by 25 miles wide around the west end of Ootsa Lake, known as netanli, "waterfall."

LAKSILYU PHRATRY

HOUSE OF MANY EYES

1. An area about 20 miles square around Topley, known as aik'at, "beaver dam on top."
2. An area about 10 miles square at the head of the Telkwa River, known as tse'tseniïla, "much cottonwood coming down the river."

HOUSE ON TOP OF A FLAT ROCK

An area about 15 miles long by 20 wide on each side of the Bulkley River around Moricetown, known as ta'perte, "trail beside the water."

HOUSE BESIDE THE FIRE

1. A tract on the Zymoetz River below McDonnell Lake, known as kasklal k'watlat, "many grizzly at its end."
2. The Bulkley Valley from Barret Station to about Telkwa and McClure Lake, known as chost'let.
3. The lower part of Buck Creek and the country around Houston. Recently this has been given to the clan House of Many Eyes in the same phratry.

LAKSAMSHU PHRATRY

SUN OR MOON HOUSE, AND TWISTED HOUSE

1. A tract about 15 miles long by 10 miles wide at the head of a creek flowing from the southeast into the Zymoetz River, together with the mountain at its head. It was known as uiyeni, "far across."

2. A tract around a small lake and mountain at the head of Reisetter Creek that flows into the Bulkley River west of Smithers. It was known as guskibewiini, "lake containing suckers."

3. A tract about 8 miles long and 2 or 3 miles wide along the Morice River just east of Barret Station, known as neltsikyey, "source of neltsi or Bulkley River."

OWL HOUSE¹

1. A tract about 10 miles long and 5 miles wide at the head of the Suskwa River, wedged between territories belonging to the Gilserhyu phratry. It was known as alkane'te, "a trail crossing a beaver dam."

2. A tract about 40 miles long by 20 miles wide around the end of François Lake, known as nestikyey, "source of Nesti Creek."

3. A tract around two small creeks flowing from the south into Tahtsa Lake.

TSAYU PHRATRY

BEAVER HOUSE

1. Area around Telkwa River and Mooseskin Johnny Lake, known as taltse-wiyez.

2. A small area around Day Lake, near Forestdale, known as ndettsane.

3. An area around the head of Buck Creek, known as neltsisklat.

4. An area around Decker Lake, known as ndettlat.

¹ Hunting territories of this clan have been seized by the Sun or Moon clan, because the chieftainship of the Owl House, in the absence of male heirs, has descended to a woman who cannot maintain her rights against the chief of the Sun House, who is also chief of the phratry.

APPENDIX 2

PHRATRIC ORGANIZATIONS OF OTHER CARRIER SUBTRIBES

The phratry-clan system of organization seems to have extended no farther inland than the Bulkley River and Babine Lake, the two districts that bordered on the territory of the Gitksan. Some Carrier subtribes to the eastward ranged themselves into phratries whose chiefs bore hereditary titles; and they even adopted crests for these phratries, or for the chiefs who presided over them. Nowhere, however, did they subdivide their phratries into definite clans, nowhere did their chiefs erect large semicommunal houses or giant totem poles, nowhere was society clearly demarcated into the three strata, nobles, commoners, and slaves. The nobles comprised only the chiefs and their nearest relatives, who were far outnumbered by the common people; and the only slaves were prisoners of war, usually, if not always, women and children, who married their captors and obtained the same rights and status as other Indians. So unstable even were the phratries that today they are almost forgotten, and only resuscitated when members of these subtribes visit the Bulkley River or Babine Lake. The easternmost subtribe around Prince George, indeed, the Tannatenne, may never have adopted phratries at all, although its neighbors on Stuart Lake acquired the system, presumably through association with the Babine Indians. Father Morice (1892-93, p. 203 et seq.) has outlined the Stuart Lake system, which need not, therefore, be repeated. Here I shall merely append some brief notes on the phratries of certain other Carrier groups, whose locations may be found on the map on p. 476.

(a) FRASER LAKE SUBTRIBE (NATTLEWITENNE)

<i>Phratries</i>	<i>Crests of Phratries</i>
Tamtanyu-----	Grizzly, black bear, entire weasel, leaf.
Gilserhyu-----	Big frog, crane, small owl.
Laksilyu-----	Raven, big frog.
Llsamashu (lsamashu)-----	Owl, grouse, whale, sun or moon, half of weasel.
Tsayu-----	Beaver, owl.

The phratries in this subtribe coincide with those of the Bulkley Indians, and the chiefs of the Bulkley phratries were regarded as the real chiefs of the Fraser Lake phratries also. Nevertheless, the Tamtanyu and Gilserhyu phratries each acknowledged a local chief, and the Llsamashu had two local chiefs of coordinate rank. A man could not marry a woman of his own phratry unless she belonged to another subtribe; a Laksilyu man, for example, could marry a Laksilyu woman of Hagwilgate, but not of Fraser Lake. (Pl. 25, fig. 2.) Children belonged to the phratries of their mothers, but were not considered nobles unless their fathers were nobles. Thus the nephew (sister's son) and logical successor of the old man who claimed the chieftainship of

Gilserhyu phratry did not rank as a noble because his father had been a commoner; yet he expected to be the next chief of the phratry, if it still continued to exist.

(b) ENDAKO RIVER SUBTRIBE (NU'TSENI)

<i>Phratries</i>	<i>Crests</i>	<i>Chiefs' Titles</i>
Tam'tanyu.....	?.....	?
Tso'yezhotenne (small spruce people).	Woodpecker....	?
Yiselyu.....	Frog.....	1. Naselti-ai. 2. Tsekokak (Woman's Skin). 3. Pilancha (Big Hand).
Llsamashu.....	Grouse.....	1. Usakkye. 2. Guzkli'.
Tsayu.....	Beaver.....	?

An epidemic is said to have destroyed the Tam'tanyu phratry early in the nineteenth century. About the end of the century Naselti-ai, one of the three chiefs in Yiselyu phratry, adopted a personal crest, Frog, and about the same time the chief of Tsayu phratry, whose title was not recorded, adopted the personal crest, Wolverine.

(c) CHESLATA LAKE INDIANS (TATCHATOTENNE)

<i>Phratries</i>	<i>Crests</i>	<i>Chiefs' Titles</i>	<i>Chiefs' Personal Crests</i>
Tamtanyu.....	Grizzly.....	1. At'na..... 2. Nelli	Old Grizzly, Wolf.
Tsu'yaztotenne.....	Woodpecker....	1. Kles'al..... 2. Anaintil 3. Ne'tsan	Marten, lullim. ?
Yesilyu.....	?.....	?.....	?
Llsamashu.....	Grouse.....	Tsakwiltai (Butterfly).	Butterfly?
Tsayu.....	Beaver.....	1. Ayuna'tle..... 2. Nustel (Wolverine). 3. Tapise'yin.....	Eats Man. Wolverine. ?

About 1900 Kles'al, the chief of the Tsu'yaztotenne phratry, participated in a potlatch at Stellaco, at the west end of Fraser Lake, and seized the opportunity to dramatize his personal crest lullim. Under the pretext that he was going away to hunt he disappeared for 3 or 4 days. His fellow phratrymen then discovered him hiding near the village, adorned with the cedar-bark head band and wristlets that on the Bulkley River signify membership in the Kalullim society; and when they conducted him to the potlatch hall he chanted a song that is still used by that society in Hagwilgate. Probably he had observed its initiation rite at Hagwilgate, or else among the Gitksan, and after he returned to his own district converted it into a personal prerogative; for the society itself has never taken root around Cheslatta or Fraser Lakes.

(d) STONY CREEK SUBTRIBE (YUTA'WOTENNE)

<i>Phratries</i>	<i>Crests</i>	<i>Chiefs' Titles</i>	<i>Chiefs' Personal Crests</i>
Gilserhyu.....	Small owl.....	1. Sisarpai.....	Wolverine.
		2. Yazcho.....	Sturgeon.
Yesilyu.....	Frog, crane.....	1. Pe-yel.....	} Frog, crane.
		2. Lleanuñih.....	

The Stony Creek Indians claim that they never had more than two phratries, that a man inherited his phratry from his mother, and that his rank depended less on his ancestry than on the number of potlatches he was able to give. Anyone could become a chief by giving a certain number of potlatches; a lesser number bestowed on him the status of a noble. His children were then nobles, potentially at least, provided their mother also was a noble, but if either parent was a commoner, the children were commoners until they succeeded in raising their status by the necessary potlatches. In 1924 these Indians counted on their reservation two chiefs, two who had almost the status of chiefs, since each required to give only one more potlatch, about 20 nobles of varying grades, and some 150 commoners.

Before they were confined to a single reserve, they occupied two villages, one on Nulki Lake, the other on the neighboring Tatchik Lake. Some of them asserted that in former times all the Nulki Lake people belonged to the Yesilyu phratry, and all the Tatchik Lake people to the Gilserhyu. This is clearly impossible, since the phratries were exogamous units and every man must have belonged to a different phratry from his wife. It may be, however, that the hunting territory around these lakes was divided between the two phratries, the Tatchik Lake district going to the Gilserhyu and the Nulki Lake to the Yesilyu. Neither lake contained salmon, so the Stony Creek Indians used to merge during the fishing season with the Indians of Fraser Lake.

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1.



2.

MODERN VILLAGE OF HAGWILGATE.

(Photographs by C. M. Barbeau.)



1. CANYON IN THE BULKLEY RIVER, SHOWING THE MODERN HIGH-LEVEL BRIDGE AND THE RUINS OF THE OLD VILLAGE OF HAGWILGATE BELOW THE CLIFF.

(Photograph by D. Jenness.)



2. A FORT FRASER FAMILY OUTSIDE ITS HOUSE.

(Photograph by D. Jenness.)



1.



2.

A FORT FRASER INDIAN WEARING A CLOTH REPLICA OF THE ANCIENT COSTUME, THAT SHOWS HIS CLAN CREST ON THE BACK.

(Photographs by D. Jenness.)



1.



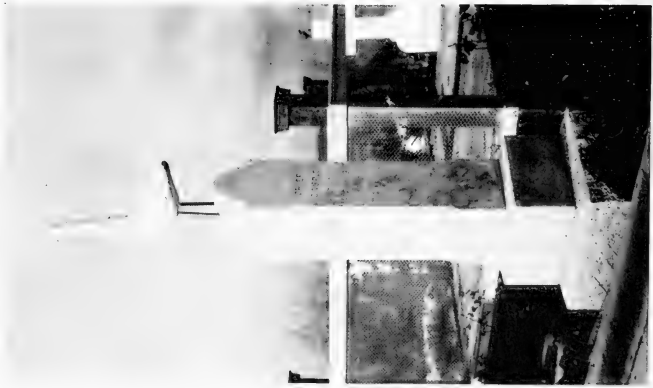
2.

SCENES AT A POTLATCH HELD BY THE LAKSILYU PHRATRY AT HAGWILGATE.
(Photographs by C. M. Barbeau.)



HAGWILGATE CARRIER DRAMATIZING HIS PERSONAL CREST.

(Photograph by Harlan I. Smith.)



1. A HAGWILGATE INDIAN'S TOMBSTONE, DE-PICTING HIS CREST.

(Photograph by D. Jenness.)



2. THE FOUR TOTEM POLES AT HAGWILGATE.

(Photograph by Harlan I. Smith.)



A CARRIER FAMILY AT ALKATCHO.
(Photograph by Harlan I. Smith.)



CARRIER GIRL DRESSING A HIDE.

(Photograph by Harlan I. Smith.)



FISH TRAPS IN THE CANYON AT HAGWILGATE.

(Photograph by Harlan I. Smith.)



1. VILLAGE OF FORT FRASER, ON FRASER LAKE.

(Photograph by D. Jenness.)



2. GRAVE OF BINI AT HAGWILGATE.

(Photograph by Harlan I. Smith.)



1. OLD PAUL WEARING HIS TOP HAT AND PURPLE SASH.

(Photograph by D. Jenness.)



2. HAGWILGATE INDIAN IN KALU'LIM COSTUME, VIZ. CEDAR-BARK HEAD BAND AND NECK-RING; LEATHER COAT WITH PEARL BUTTONS; CLOTH APRON WITH PENDANTS OF BEADS, THIMBLES, AND DEER HOOFS; AND CLOTH LEGGINGS.

(Photograph by Harlan I. Smith.)

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The Quipu and Peruvian Civilization

By JOHN R. SWANTON

THE QUIPU AND PERUVIAN CIVILIZATION

BY JOHN R. SWANTON

As is well known, the ancient Peruvians used knotted cords as a substitute, or partial substitute, for written characters. Knotted cords were employed as mnemonic devices in other parts of both the New and the Old Worlds but were nowhere elaborated to the extent that we find in the old Incaic Empire. For scientific studies of the existing quipus we are indebted to L. Leland Locke ("The Ancient Quipu, or Peruvian Knot Record," American Museum of Natural History, 1923), and to a study by Erland Nordenskiöld (1925) entitled "The Secret of the Peruvian Quipu," in two parts in No. 6 of his Comparative Ethnographical Studies. Nordenskiöld promised further publications on this subject but his untimely death put an end to the undertaking.

Mr. Locke's conclusions regarding the quipu are:

[1] The quipu was used primarily for recording numbers; [2] The quipu was probably used as *memoria technica*, in memorizing historical items, poems, lists of kings, etc.; [3] The quipu was not adapted to calculation; [4] A scheme of roughly suggestive colors was probably in use; [5] The evidence is intrinsically against the supposition that the quipu was a conventional scheme of writing. [And he adds] In conclusion, *the evidence is that all of the authentic quipu examined are numerical in nature*. It may be that through the irony of fate no specimens of genuine historical quipu, if they existed, have been preserved. It is recorded that great quantities of quipu were destroyed by the Spanish invaders.

Locke and Nordenskiöld both depend mainly upon Garcilaso de la Vega for historical information regarding the use of this device, and Locke is probably influenced as to its limitations by Garcilaso's statements, the following in particular:

The Quipu-camayus noted, by means of the knots, all of the tribute that was given to the Inca every year, specifying each household and its peculiar mode of service. They also recorded the number of men who went to the wars, those who died in them, those who were born and those who died in each month. In fine they recorded everything relating to numbers by means of the knots, even putting down the battles that were fought, the embassies that had been sent to the Inca, and the number of speeches and arguments that were used by the envoys. But neither the words nor the reasoning nor any historical event could be expressed by the knots. For there was no means of conveying the words that were spoken, the knots expressing numbers only and not words. To remedy

this defect they had signs by which they conveyed an idea of historical events and of reasonings and of speeches made in peace or war. These speeches were preserved by the Indian Quipu-camayus in their memories by means of short sentences giving the general meaning, which were committed to memory and taught to their successors, so that they were handed down from father to son. This was especially practised in the particular village or province where the event in question had taken place, and there it was remembered more than in any other place, because the natives valued their traditions. They had another way of preserving the memory of historical events and of embassies sent to the Incas; the Amautas, who were learned men, took care to put them into the form of brief narratives, or short fables, which were told to children and youths, and to the common people; so that by passing from one to another, they might be preserved in the memories of all. They also recounted their histories in the form of allegories, as we have related of some, and shall hereafter relate of others. Then the Haravicas, who were their poets, composed short pithy verses, in which the historical event was condensed. Thus they cast into traditional verse all that the knots were unable to record; and these verses were sung at their triumphs and festivals. They likewise recited tales to the Incas when the knights were armed and thus they preserved the memory of past events. But as experience has shown, all these were perishable expedients, for it is letters which preserve the memory of events. As the Incas had not attained to a knowledge of them . . . they invented such substitutes as they were able.

A system of knots of this kind does, of course, lend itself very readily to the expression of numbers and the method of recording these is made very clear by Locke and Nordenskiöld.

But it is evident that it is of little utility to have the exact number of things unless we know what things. Probably quipus were used by individuals for their own record, the objects, animals, or persons enumerated being lodged in the memory of the owner of the quipu. It would have been strange, however, if no mnemonic devices had been added to remind the user of the quipu of the specific application of the record. There would be occasions, particularly when the owner of the quipu was a public officer, when it would have been of importance to have such marks of identification in his quipu, and we have the best of evidence that these were made. These marks of identification were often peculiar colors. Garcilaso says:

The thing to which a string referred was understood by its color, for instance a yellow string referred to gold, a white to silver, and a red one to soldiers.

Bastian, on the authority of Calancha, adds to these black, signifying "time"; green, "killed in war"; carmine, "the Inca"; brown, "the curaca"; gray, "provinces"; variegated, "government"; blue, yellow, and white, "religion." De Nadaillac suggests some others. Color was not, however, the only classificatory device. Garcilaso continues thus:

Things which had no color were arranged according to their importance, beginning with those of most consequence, and proceeding in order to the most insignificant; each under its generic head, such as the different kinds of grain

under corn, and the pulses in the same way. We will place the cereals and pulses of Spain in their order, as an example. First would come wheat, next barley, next beans, next millet. In the same way, when they recorded the quantity of arms. First they placed those that were considered the most noble, such as lances, next darts, next bows and arrows, then shields, then axes, and then slings. In enumerating the vassals, they first gave account of the natives of each village, and next of those of the whole province combined. On the first string they put only men of sixty and upwards, in the second those of fifty, in the third those of forty, and so on down to babies at the breast. The women were counted in the same order.

Under some of these classes were subclasses:

Some of these strings had other finer ones of the same color attached to them, to serve as supplements or exceptions to the chief record. Thus, if the main strand of men of a certain age had reference to married people, the supplementary strand gave the number of widowers of the same age in that year. For these accounts were made up annually and only related to one year.

From Garcilaso's testimony it appears that he was particularly familiar with Indian accounts and that is perhaps why he lays so much stress on the fact that the knots expressed numbers only and not words. Of course, there is no probability that anything in the nature of a phonetic system was represented in the quipus. On the other hand, Garcilaso himself supplies pretty clear evidence that the quipu were used to indicate something more than mere numbers.

When an event is indicated by means of a picture, there is little or no tax upon the memory to interpret it, but when pictures or conventional signs have become used to recall something indirectly to the memory, as when a pictograph indicates a syllable or perhaps an entire word which the pictograph in some way suggests, it is merely a mnemonic and a knot or a notch cut in a stick or some other device might be substituted. The only advantage which the pictograph has is in the fact that the picture may recall the thing to mind, but when this is shifted in significance or conventionalized beyond recognition, it is on the same plane as the knot. If a simple knot signifies "one" and red "a warrior," then a simple red knot may be the mnemonic for "one warrior" just as truly as any pictographic symbol. And so one white knot might denote a single piece of silver, one yellow knot a single piece of gold, and so on. A supplementary strand might inform us whether the soldier were a widower or not and if this were green it might tell us that he had been killed. Just how many variations of the knots were possible I do not know, but Garcilaso himself suggests several such, and furthermore, in spite of what he has said regarding the limitations of the quipus to numbers, he makes statements about them elsewhere which seem not altogether in harmony with that assertion. I quote again:

The ordinary judges give a monthly account of the sentences they had pronounced to their superiors, and these to others, there being several grades of

judges, according to the importance of the cases. The way of making these reports to the Ynca, or to those of his Supreme Council, was by means of knots, made on cords of various colors, by which means the signification was made out, as by letters. The knots of such and such colors denoted that such and such crimes had been punished, and small threads of various colors attached to the thicker cords signified the punishment that had been inflicted, and in this way they supplied the want of letters.

If a murderer had been executed by strangling, the fact might thus have been indicated by a red knot having a small thread of some other color hanging from it to indicate death by garroting. The knot would then have become a mnemonic and a form of language. Garcilaso again indicates something more than mere numbers in the following passage:

The Quipu-camayus were referred to by the Curacas, and chiefs of the provinces to tell the historical events relating to their ancestors which they desired to know, or any other notable circumstance which had happened in their provinces. For these officers, like scribes and historians, kept the registers or Quipus handed down by their predecessors, and were bound by their office to study them constantly by means of the signs and indications in the knots, so as to preserve the memory of the traditions respecting famous past events. It was their duty to narrate these events when called upon to do so; and for this service they were exempted from other tribute. Thus the meaning of the knots was never allowed to slip from their heads. By the same means they gave an account of the laws, ordinances, rites, and ceremonies. From the color of the thread or the number in the knot they could tell the law that prohibited such and such an offense, and the punishment to be inflicted on the transgressor of it. They could set forth the sacrifices and ceremonies that should be performed on such and such festivals; and could declare the rule or ordinance in favor of the widows or the poor: and to give an account in short, of all things preserved by tradition in their memories. Thus each thread and knot brought to the mind that which it was arranged that it should suggest.

We do not know over how much territory the quipus had been standardized, but the above statements show that they were something more than mere records of numbers.

The following quotations may also be adduced, extracted from Locke's collection of references:

Polo de Ondegardo:

They preserve the memory of these Lords by their quipus, but if we judge by the time that each is said to have lived, the historical period cannot be placed further back than four hundred years at the earliest. . . . They have records in their quipus of the fish having sometimes been brought from Tumbes, a distance of more than three hundred leagues.

Fernandez Montesinos gives a list of kings, substantiated from other sources "which he claimed to have acquired from quipus through learned natives."

Cristoval de Molina:

They call them quipus, and they are able to understand so much by their means, that they can give an account of all the events that have happened in their land for more than five hundred years.

Don Pedro Sarmiento de Gamboa :

It is a thing to be admired to see what details may be recorded on these cords, for which there are masters like our writing masters.

José de Acosta : After seeming to minimize the value of the quipu, he says:

According to the varieties of business, as warres, pollicie, tributes, ceremonies and landes, there are sundry Quippos or braunches, in every one of the which there were so many knottes, little and great, and strings tied vnto them, some red, some greene, some blew, some white; and finally, such diversitie, that even as wee derive an infinite number of woordes from the foure and twenty letters, applying them in diverse sortes, so doe they draw innumerable woordes from their knottes and diversitie of colours. Which thing they doe in such a manner that if at this day in Peru, any Commissary come at the end of two or three years to take information vpon the life of any officer, the Indians come with their small reckonings verified, saying, that in such a village they have given him so many egges which he hath not payed for, in such a house a henne, in another two burdens of grasse for his horse, and that he hath paied but so much mony and remaineth debtor so much. The proefe being presently made with these numbers of knottes and handfulls of cords, it remains for a certain testimony and register.

Fr. Jeronimo Roman y Zamora :

As the things which they wished to count differed they made the knots larger or smaller and with differences of colors in the manner so that for one thing they had a colored (red) knot and for another green or yellow, and so on; but that which to me was most thrilling is that by the same cords and knots they counted the succession of the times and how long reigned each king and if he was good or bad, if he was brave or cowardly, all, in fine, that which could be taken out of the books was taken out of that.

Antonio de Herrera Tordesillas :

With these [quipus] they found a way to preserve all knowledge of their history, their laws and ceremonies, as well as their business affairs, with great exactness.

Fray Antonio de la Calancha : Locke says of him,

Calancha refers to the quipu many times in his voluminous work. It is significant that he usually connects the quipu with with some such word as memorials, traditions, or histories.

It seems evident from these quotations that most Spaniards who studied the quipus or heard accounts of them thought that they expressed qualities as well as quantities and that historical, legal, and political matters were recorded by means of them. This is confirmed also by the body of Incaic history preserved by Spanish writers. The narratives agree so closely that it is evident we are dealing with some-

thing more than memorized traditions and the only means of recording such events widely used was the quipu.

The great body of quipus certainly deal with numbers, and this fact has been used to minimize the idea that they carried narratives of any sort. It must be remembered, however, that all of the quipus we now have were obtained from graves, and if Nordenskiöld is right in his contention that they "contained numbers that were magical in the eyes of the Indians, and that *the numbers indicate days* [italics his]," the absence of narrative quipus from our collections is accounted for. But if, as he goes on to assert, "these quipus are grave calendars" and if "it is highly probable that, like the Maya codices, they are to a great extent nothing but books of prophecy and divination," like the Maya codices they may contain something more than numbers. Apart from these grave quipus, however, it is inherently probable that the greater number of them were either individually owned and used in recording the extent of the owner's property and his business transactions, or else were possessed by official enumerators of government properties and troops, including tribute. The quipu is without doubt better adapted to the preservation of tallies of this kind than to literary expression. But it is natural to suppose that legal, and particularly historical, records represented the last stages of evolution in this direction, that such quipus were fewer in numbers and that, being in the public repositories, they were heavily represented among those thousands known to have been destroyed by the Spaniards.

Beyond all this, what we know of Peruvian culture furnishes an inherent probability that some device for recording cultural and historical facts would have attained considerable development. It is generally held that the higher cultures of the Old and the New Worlds evolved independently of each other. It is also probable that several of the higher cultures within each grand division arose in comparative isolation. At the same time there is evidence that certain cultural elements were shared in common or that they were exchanged during the evolution of the cultures in question. Thus the cultures of Babylonia and Egypt were not without certain early exchanges. Crete took something from both, and we know that there were early and intimate relations between Babylonia and the Indus Valley. And finally, the cultural influences at work in old China are known to have emanated from the west. It is to be suspected that when the Iranian Plateau has been fully explored the connection between the higher civilizations of the Old World will become much more apparent.

In the New World two apical cultures have long been recognized, and discussions regarding the relations between these have been almost as heated as discussions of the relations between Babylonia

and Egypt. In certain particulars the culture of the Maya Indians apparently went beyond anything on the South American continent, particularly in their system of writing, their calendar, and their architecture.

But on a great many other counts Andean civilization shows decided superiority—in its arts, including ceramics, textiles, metallurgy, and masonry, in the ability shown in linking together numbers of unrelated tribes into an empire without the same terroristic practices as those resorted to in North America, and apparently also in the greater purity of its religious beliefs. But particularly they excelled in the economic basis upon which all great civilizations must rest. They had established terraced farms everywhere which were intensively cultivated and which were fertilized, whereas the "milpa" culture of the Maya never seems to have gotten beyond a more refined type of clearing and cropping, and removal to other land when the farm became exhausted. To Peru, or the immediate neighborhood of Peru, the entire world owes several varieties of beans, squashes and pumpkins, white and sweetpotatoes, tomatoes, and perhaps the pineapple and corn. The same region gave to medicine quinine and cocaine. It is also significant that only Andean civilization could show any native American domesticated animals of economic value. These include the llama and the alpaca. We must not assume that one limited area gave birth to all of these products. But in Peru, from whatever sources they were derived, there came to be gathered a greater variety of cultivated plants, and we may add domesticated animals, than was to be found in Middle America or anywhere else in the New World. Upon the whole, it seems to the writer that Andean civilization represented the higher of the two American peaks of culture. Probably it would simplify the matter too much but there is a temptation to dramatize the world cultural situation by calling the Old World culture Iranian and the New World culture Andean.

Over against the contributions of the Old World to our civilization we should, therefore, look for the maximum contribution and maximum originality in its contributions to the Andean region, and in most particulars there we seem to find them. The one striking exception, at first sight, seems to be in the graphic representation of ideas. In the Old World we have in Egypt the hieroglyphic system, in Babylonia the cuneiform system, in Crete a series of characters which has not yet been deciphered, in China an independent evolution of characters from pictographs, and apparently another in the valley of the Indus.

In the New World, however, it is only Middle America—indicated above as in most respects the lower American culture—which supplies us with pictographs and hieroglyphs which seem to have evolved

to the threshold of a phonetic system. In Peru there was nothing of the sort although tradition spoke of an attempt at something similar in earlier times. What we do have, however, is evolution toward an entirely novel method of expression, having the same originality in its field as were contributions of potatoes, beans, and corn in the economic field. It is true that incipient quipus had been used elsewhere, but only in Peru was an elaborate system of record and communication based upon them. Besides the arguments given above for supposing that this device was more highly developed and a much more perfect medium of expression than some recent students have thought, I therefore add the fact that something of the kind is called for by the accomplishments in other fields of the people who employed it. It is demanded by the very real splendor of the Andean civilization as a whole.

I do not pretend that knotty cords would be successful rivals in the long run to records made on papyrus, rice paper, maguey fiber or even clay tablets, but they must have had an advantage over stone when that was used for inscriptions, and perhaps an ethnologist who became an expert in manipulating knotted strings might find unexpected possibilities in such a form of expression.



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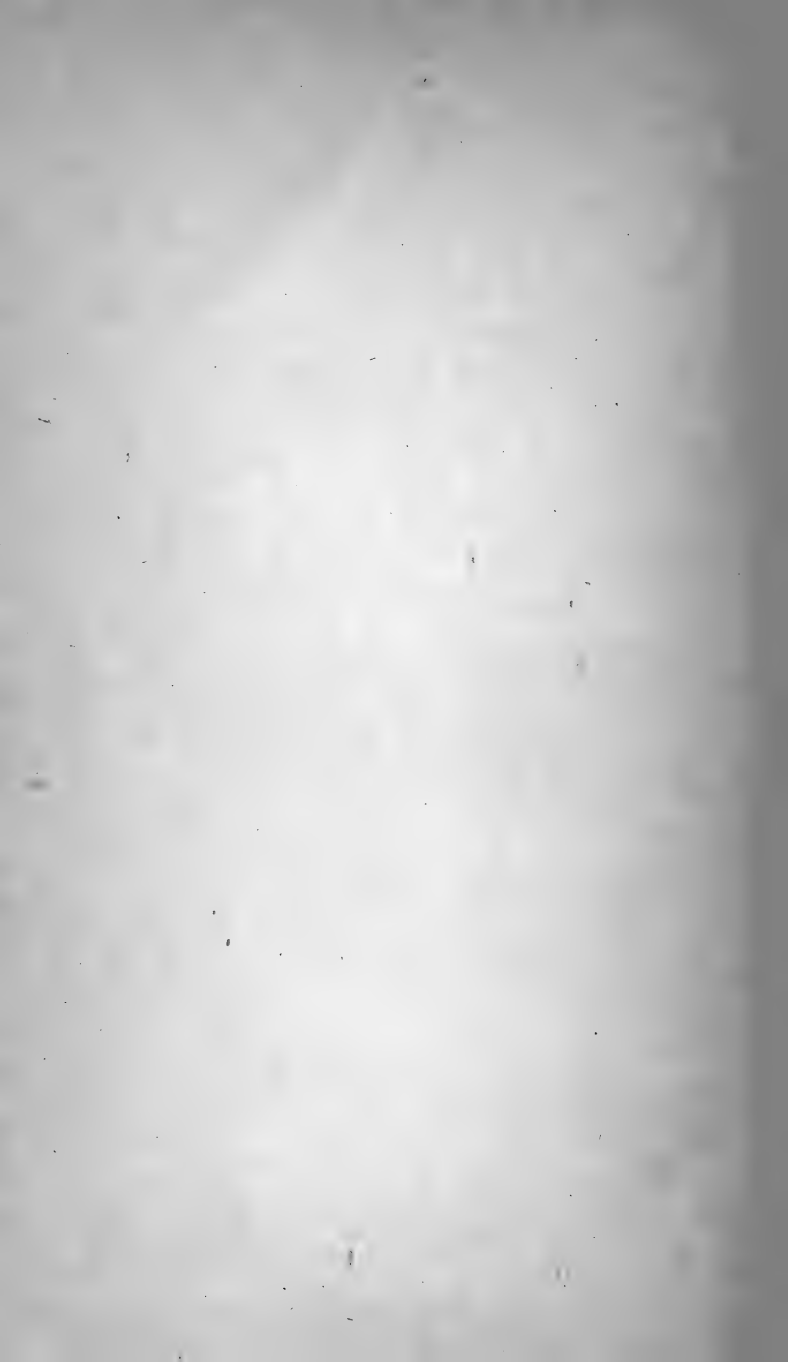
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