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PHONETIC CONSTITUENTS OF THE NATIVE  
LANGUAGES OF CALIFORNIA

BY

A. L. KROEBER.

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Until recently but little exact attention was paid to the sounds of American Indian languages. Some of the most valuable grammatical study has been conducted in spite of an uncertain phonetic basis. A large part of the linguistic investigations made have been carried on by men primarily ethnologists, many of whom had their training in biological or other sciences remote from linguistics. Of late, however, the principles and methods of phonetic research established by European scholars have begun to be applied to American Indian languages, largely through the entrance into this field of several students trained in the study of Indo-European philology. The consequence has been so gratifying, that, while work of this nature is still in its infancy so far as native American speech as a whole is concerned, it is already worth while to discuss certain results.

The aboriginal languages of California are those with which the writer is most familiar. Careful phonetic examinations of several of these idioms have been made by Dr. P. E. Goddard, Dr. E. Sapir, and Mr. T. T. Waterman, and aural observations are available for others by several authors. Since the number of unrelated languages in the area is large, there is opportunity to establish principles and tendencies common to diverse tongues. Conclusions arrived at may therefore be of use in the phonetic study of languages not yet examined, especially in the Californian

field, but also elsewhere, and may serve to enlighten the fundamental problem whether the linguistic families of America possess any underlying or general features peculiar to themselves as a class.

In vowels, open qualities prevail markedly over close in the languages of California. This is certain in practically every instance for e and o, and in most cases for i and u. The Athabascan dialects and Yana are the only ones for which any observer who has given definite attention to this point reports close sounds, and in Yana these are only i and u. So far as Yurok, Yuki, Wintun, Yokuts, Salinan, Yuman Mohave, and the Shoshonean dialects are concerned, e, o, i, and u are all invariably open. E and o are open also in Karok, Chimariko, Pomo, Maidu, Miwok, Costanoan, Washo, and probably in Wiyot, Shasta, and Chumash. In most of these languages i and u have also been heard as open, but it is possible that their close qualities may occur in addition. It is usually more difficult to distinguish close and open i or u than close and open e or o.

This practical uniformity in regard to vowel qualities raises the question whether a similar tendency may not be characteristic of North American languages in general. The descriptions ordinarily given of Indian vowels, as of u "like English oo" or by the orthography ū, are no evidence, unless emanating from a recorder having the distinction of quality clearly in mind. An English or German speaking person inevitably assumes all long vowels to be close unless he deliberately checks his unconscious impulse to perceive as he is accustomed to speak. The inaccuracy has frequently been perpetrated in California, not to the least extent by the present writer; and yet, greater care reveals the presence of scarcely any close vowel qualities; so that a sceptical attitude seems justified as regards many other American languages.

It is hardly necessary to add that a tendency for length to be associated with closeness and brevity with openness, or the reverse, has not been established in a single instance.

The predominance of open vowels accords well with the general reluctance toward lip movements frequently ascribed to the

North American Indians and observable among those of California. Rounding of the lips is particularly lax.

Greater breath or aspiration in vowels than is customary in European languages is present in certain cases in Hupa, Kato, and Yana, in the opinion of Dr. Goddard and Dr. Sapir, and always in northern Paiute according to Mr. Waterman.<sup>1</sup> The author has found that the vowels of Mohave, Luiseño, and Papago are quite uniformly spoken with stronger breath than are the vowels of European languages. Other observations are not at hand, but it seems likely that these instances also are only examples of a widely spread or even universal tendency. It is possible that the "laryngeal intonation" sometimes ascribed to American languages generally, is to be interpreted as consisting of this phenomenon.

The typically Shoshonean vowels ö and ü have been found in four other Californian families, Maidu, Miwok, Yokuts, and Chumash. The fact has been noted that these languages are all in immediate geographical contact with Shoshonean, and have therefore apparently borrowed the sounds from that family. Mr. Waterman has found, however, that northern Paiute possesses in reality only one sound, written by him ü, which is easily apprehended as either ü or ö. The same conclusion was reached by the author in regard to Papago, of the so-called Piman family, but actually related genetically to Shoshonean. On the other hand another Shoshonean dialect, Luiseño, distinctly shows both ö and ü in a few instances, though in general the sounds have been lost. In Yokuts also both occur, ü being related to ö in the system of vocalic harmony characterizing Yokuts in the same way as i is to e, and u to o. Maidu seems to agree with Yokuts, but in Miwok and Chumash the author's writing of ü and ö has been so inconsistent as to force the suspicion that they may be one vowel. A tolerable degree of acquaintance with a language seems pre-

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<sup>1</sup> This account was prepared after the completion of a study of the phonetics of the Northern Paiute language by Mr. T. T. Waterman. In the course of circumstances attending printing, the writer's paper is appearing first, but it is only just to acknowledge that without Mr. Waterman's previous examination of Paiute, as well as his study of Salinan, there would not have been sufficient exact material extant on several points to have made their present comparative discussion possible.

quisite to decide the question, as both sounds are strange to Indo-European ears and mechanical experiments hardly feasible. In all cases, however, the vowel or two vowels are produced with less rounding of the lips than in German or French close or open *ö* or *ü*; and the general method of formation seems to involve the tongue in position for *u*, the lips for *i*, or the inverse of the position for forming *ü* familiar to Europeans. The "impure" *u* and *o* that have been written in some of the above languages are probably only *ü* and *ö*, or open *u* and *o*.

Nasalized vowels, familiar from Siouan, are rare in California. As easily recognizable organically distinct sounds they seem to occur only in certain Yuki dialects. Some tendency toward nasalization has been noted in Athabascan and Salinan. The vocalic interjection meaning yes is however often more or less nasal, even in languages that appear to possess no nasalizing impulse in the vowels of formal parts of speech.

Frequently associated with vowels are glottal stops. These have been ascertained to occur in Hupa, Kato, Yurok, Wiyot, Yuki, Yana, Wintun, Maidu, Miwok, Yokuts, Salinan, the Paiute and Luiseño dialects of Shoshonean, and Yuman Mohave. They probably occur also in Chimariko, Shasta, Pomo, Washo, Costanoan, and Chumash. No language in California is as yet known to be without them, a circumstance that accords with their apparently normal occurrence throughout the continent.

In Yurok and probably some other languages, glottal stops which follow a vowel produce a more or less distinct echo or reverberation of the vowel after the release of the glottis; in Mohave and northern Paiute this is not the case.

Stopped or plosive consonants accompanied by glottal closure are for the most part easily recognized and have long been known in American languages. Their nature has however generally not been clearly understood by Americanists. Experiment as well as observation have shown that instead of being strongly stressed, that is, vigorously aspirated, they lack aspiration almost entirely. Some students have even thought of inspiration or suction. It is true that these sounds are produced with distinctly greater muscular pressure for the closure, and probably with greater violence of muscular release, than ordinary stops, so that the

name "fortes" is not inappropriate; but vigorous articulation of course is not the same as vigorous expulsion of the breath. The essential characteristic of the class seems to be that the impulse toward closure of the mouth by the lips or tongue is accompanied by a synchronous impulse toward general contraction of the muscles used in speech, at least as far down as the glottis; so that the occlusion by the lips or tongue for p, t, or k is paralleled by an occlusion by the glottis. One would expect that the impulse for release would also be simultaneous for mouth and glottis; but this seems doubtful. Some inquirers claim to observe a perceptible interval between the release of the tongue or lips and that of the throat; and the proved lack of aspiration seems to corroborate this opinion. The interval is however certainly very brief; and it is difficult to understand the frequency and readiness with which such a delicate correlation, as releasing one organ of speech the merest small fraction of a second before another, is produced, if this succession is necessary to the production of the sound. Certainly the acquirement of the ability to make these stops is not difficult even to one who has not used them before. It is possible, however, that the impulses to close and to release are contemporaneous for mouth and throat, but that the glottis lags a little behind the lips or tongue in both instances. At the closing this would have no special effect; but at the release it would permit of the lack of aspiration, or even suction, on which most students are agreed. In any event, the most correct designation of the group seems to be "stops with accompanying glottal stop," and the most appropriate orthography the symbols for the unvoiced stops of the same articulation with a superposed glottal stop. This orthography is however typographically difficult; so that a stop followed by a glottal stop is perhaps the most successful approximation ordinarily available. The point of exclamation after the stop expresses the "fortis" or muscularly pressed quality, but fails to render the all-important glottal action, and is open to cavil on the ground that to most Europeans it would suggest increased force of breath rather than the true quality of the sounds.

Stops with glottal closure have been found in Athabasean, Yurok, Chimariko, Yuki, Wintun, Yana, Maidu, Yokuts, and

Salinan. They probably occur also in Wiyot, Shasta, Washo, Pomo, and Chumash. They are lacking in Karok, Costanoan, Miwok, and in all Shoshonean and Yuman dialects as yet examined. Wherever found in California, they are produced with but moderate stress of articulation; the corresponding sounds in the languages of the Pacific Coast farther north certainly possess the "fortis" quality to a much more marked degree.

The "fortes" affricatives tš, ts, and tl also occur. It would seem that the entire combination of stop and continuant is in these cases accompanied by glottal closure, the throat not being opened until after the completion of the continuant š, s, or l. This would indicate that the release of the glottis has no direct connection with the release of the tongue, and is further evidence that the opening of mouth and throat in the pure stop "fortes" is not simultaneous. It also follows that the continuant member of the affricative fortes must be very brief, and the sound-complex a real unit. This circumstance, in turn, strengthens the conviction that the ordinary "non-fortes" affricatives are each essentially single sounds, in spite of their containing two elements. It should be added that "fortis" tl is as yet established for but few languages in California, though common farther north, but that ts or tš occurs with "fortis" quality in almost all languages that possess "fortis" p, t, or k.

Lengthened or doubled stop consonants, that is, p, t, or k with occlusion protracted appreciably beyond the ordinary, occur in northern Paiute, probably in Miwok, and very likely in other languages. In Miwok the phenomenon seems to be only part of a more general tendency, nasals, fricatives, and laterals appearing both in long and short form. Mohave lengthens continuants, but not stops. The writing of doubled consonants in itself is little evidence of their existence, on account of the natural English impulse to employ them as a designation of brevity of the preceding vowel. Most of the doubled consonants recorded in Hupa by Dr. Goddard are probably due to measured syllabification resulting from unusually successful efforts at clearness of pronunciation.

Probably the greatest phonetic difficulty encountered by students of North American languages has been the task of dis-

tinguishing between surd and sonant stops. This has long been recognized, and led first to the theory of "alternating" or unstable pronunciation, later to that of alternating apperception due to the existence of sounds "intermediate" between those familiar to the hearer. Investigators in California have encountered their share of the problem.

To begin with, it is obvious that so far as sonancy alone is concerned, a sound cannot be really intermediate between a d and a t, or a b and a p. It must either be voiced or unvoiced. It might however be voiced during occlusion or explosion only and unvoiced during the other part of its formation; or it might be accompanied by more or less breath pressure than is found respectively in sonant and surd stops in European languages, and thereby appear to depart from one type and approach the other.

In writing the Papago dialect of Arizona, the conclusion was reached that stops preceding a vowel normally resembled English sonant stops, but that those at the ends of words or syllables were surd and strongly aspirated. Mechanical experiments by Dr. Goddard confirmed this decision, and brought to light the further fact that the stops in initial position were voiced only during the explosion, their vocalization beginning immediately after the explosion. Subsequently the same status was determined for a related though quite distinct language, the Luiseño of southern California, and so far as the ear and observation alone are to be relied on, for Yuki. In Mohave also the initial stops are voiced during the explosion but final stops are unvoiced and more strongly aspirated. The Yurok stops have generally been heard as surds, but since surd stops in English words are pronounced almost like English sonants by the Yurok, while final stops are more aspirated than initial ones, it seems probable that this language is to be included in the same class. This relation of surd and sonant, or more exactly, the differentiation of what is organically one class of stops into weakly aspirated intermediates and strongly aspirated surds according to position, therefore characterizes several languages, and is likely to be found in others, both in and out of California.

Even where precisely this relation does not exist, intermediate

or explosion-voiced stops occur. This has been experimentally demonstrated for northern Paiute, Wintun, and Salinan by Mr. Waterman, and seems probable for Karok. In Pomo, Yukian Wappo, Chimariko, Maidu, Washo, Miwok, and Yokuts, sonant stops have been written, but in all of these languages heard by the author, surds and sonants are more difficult to distinguish than in English. This circumstance may in some instances be due to other causes, but it is safe to hazard the prediction that in most of these cases it will ultimately be explained by the surdness of the voiced stops during their occlusion, that is to say, their "intermediateness." In short, this type of sound probably occurs in the majority of California languages. It may therefore be presumed that it is by no means rare in other American idioms, and recognition of the type should prove to be the solution, in many instances, of the vexing problem of sonant versus surd stops.

The appended table shows the prevalence, in California, of intermediate stops, coupled in most cases with the occurrence of pure aspirated surds. It is also significant that fully voiced stops are almost lacking. In the one language in the area, Paiute, for which they have been experimentally determined, the sonant stops occur only medially and are so brief in closure as to be almost fricatives.

There seems to be also some tendency for the sonancy of consonants of all classes to be determined by position. In organically voiced continuants, the first portion is sometimes surd when they stand at the beginning of a word or syllable, and the last portion when they are at the end. In Papago not only stops but nearly all continuant consonants gain markedly in breath and lose in voice when they are not followed by a vowel. In other words, many of the consonants of this tongue are organically indeterminate, and become sonant or surd solely according to position. Yurok surd *m*, *n*, and *r* are also evidently only sonants that have lost their voice through standing isolated after a glottal stop. This phenomenon is another that promises to prove to be of more general occurrence than has been suspected.

In many American languages, particularly those of the Pacific coast north of the Columbia river, *k* and allied sounds have been



## OCCURRENCE OF STOPPED CONSONANTS.

	Sonant: sonant occlusion and sonant explosion	Intermediate: surd occlusion and sonant explosion	Surd: occlusion and explosion surd	Surd, aspirated	Surd, with pro- longed occlusion	Fortis: accom- panying glottal closure
Hupa		+		+		+
Kato		+		+		+
Yurok		+ <sup>1</sup>		+		+
Yuki		+ <sup>2</sup>		+ <sup>2</sup>		+
Pomo		+ <sup>3</sup>		+ <sup>3</sup>		+
Yana		+	+ <sup>4</sup>	+		+
Wintun		+	+ <sup>5</sup>	+		+
Salinan		+		+		+
Yokuts		+ <sup>6</sup>		+ <sup>6</sup>		+
Luiseño		+ <sup>2</sup>		+ <sup>2</sup>		
Mohave		+ <sup>2</sup>		+ <sup>2</sup>		
Papago		+ <sup>2</sup>		+ <sup>2</sup>		
Chimariko		+ <sup>3</sup>	+ <sup>7</sup>			+
Washo		+ <sup>3</sup>	+ <sup>7</sup>			+
Maidu		+ <sup>3</sup>	+ <sup>7</sup>			+
Miwok		+ <sup>3</sup>	+ <sup>7</sup>		+	
Costanoan		+ <sup>3</sup>	+ <sup>7</sup>			
Karok		+ <sup>3</sup>				
N. Paiute	+ <sup>8</sup>	+ <sup>9</sup>			+ <sup>8</sup>	

<sup>1</sup> Possibly unaspirated surd.<sup>2</sup> Organically one sound, determined by position.<sup>3</sup> Indicated by orthography.<sup>4</sup> Secondary only.<sup>5</sup> Doubtful.<sup>6</sup> Probable.<sup>7</sup> Uncertain whether unaspirated or aspirated surd.<sup>8</sup> Between vowels only.<sup>9</sup> Initially only.

found to occur in two positions, which may be designated as palatal and velar. In California the tendency in this direction seems to be less marked. In nearly all languages *k* sounds differ in position according to the vowels with which they are in contact, but this of course is a phenomenon familiar from English and other languages. Very few California dialects have been proved to have *k* sounds in organically distinct positions. Hupa and Kato possess velar *k* in addition to palatal or postpalatal *k*, but the posterior sound is rare. Luiseño and Mohave have both, probably Chimariko and Shasta also. Gatschet has recorded two *k* sounds for Klamath. In Pomo and Yurok, velars have often been heard; but it is not impossible that these tongues possess only one *k*, which is habitually formed rather far back in the mouth and in extreme cases is therefore likely to be heard as a velar sound. Northern Paiute and most Shoshonean dialects, Yokuts, Miwok, Wintun, Maidu, Yana, Yuki, and Karok seem to be of this type.

For the *t* class of sounds, position of articulation is more easily observed, and evidence of the presence of two series more abundant. Where such occur, the anterior is alveolar, dental, or interdental, the posterior alveolar or palatal. A distinctly posterior *t*, possibly formed with the back of the tongue against the palate and the tip depressed against the lower teeth, is found in Yokuts, Salinan, and Costanoan, and almost inevitably rings to English ears like *tr*. The same orthography has been used for a Dravidian sound which probably is very similar. The languages possessing *t* in two positions are Papago, Mohave, Luiseño, Salinan, Yokuts, Miwok, Costanoan, Yuki, Chimariko, and probably Pomo. The inclusion of Luiseño in this group is interesting, as northern Paiute, and probably most other Shoshonean dialects, possess only one *t*. Athabaskan, Yurok, Wiyot, Karok, Klamath, Wintun, Yana, Maidu, and Washo also seem to be characterized by only one series. The number of linguistic stocks showing two *t* series is however sufficiently large to be of consequence and to warrant the statement that in the Californian area there is a stronger tendency toward two *t*'s than toward two *k*'s.

Unvoiced l appears in a number of instances, but there has been much confusion between its simple continuant form and its occurrence as an affricative to t. Dr. Goddard has definitely established the presence of both types in Hupa. Both seem to occur also in Yurok, Wiyot, and Wintun. Certain Pomo dialects, Salinan, and Yuman Diegueño seem to possess only the continuant form, while Chumash and Shasta are as yet doubtful in this matter. Shoshonean, Yokuts, Miwok, Costanoan, Maidu, Washo, Yana, Klamath, Karok, Chimariko, Yuki, most Pomo and some Yuman dialects, and presumably Esselen, possessed only sonant l.

Most observers have also been troubled by s sounds. This has been due to the fact that s or š or both are often not formed precisely as in English and other European languages. Sh especially has been described as "between English s and sh." In some instances the difficulty has been due to the existence of only one sound, which differs from s and sh, but resembles both and is easily mistaken for them. This condition may be considered established for Mohave, Paiute, Wintun, Yana, and Yurok. In Hupa also Dr. Goddard recognizes only one s, described as nearly like English s. In the related Kato language, however, and in Karok, Luiseño, and Papago, two sounds analogous to English s and sh, but not identical with them, exist. For other languages, the question must be regarded as still open, although it seems likely that a number of them will prove to contain only one sound of s type. This phenomenon may also be of common distribution through America.

Another sound that has often been heard and recorded in different ways by the same recorder, is Californian h. In many languages this is pronounced with a certain amount of narrowing of the air-passage, at what point is not certain, but giving a perceptibility to the ear, and at the same time an approach to fricative character, not found in English h. Hence a considerable and not altogether unjustified inconsistency of orthography between h and x in many vocabularies and texts. This quasi-fricative quality appears in the h of Hupa, Kato, Yuki, Yana, Costanoan, Paiute, Salinan, Mohave, Papago; and probably also

in Miwok, Maidu, Washo, and such other languages as have been stated to possess the palatal or velar fricative *x* but show it only sporadically.

In general, fricatives, except of the *s* type, are sparsely represented in the languages of California. A true *k* fricative distinct from narrowed *h* is found in Athabasean, in Salinan, Chumash, and Yokuts, and probably in Karok, Shasta, Chimariko, and Pomo. It occurs also in Shoshonean Luiseño, but not in northern Paiute or Papago. The corresponding voiced fricative replaces stopped *g* in Yurok, and appears to occur also in Wiyot, in some Shoshonean dialects, in Kato, in Pomo, and in Chumash. *th* is known only in Mohave, the corresponding sonant in Mohave and Luiseño. *f*, also a rare sound in America, exists in Karok, in two Pomo dialects, and, it is said, in Esselen. While usually described as sounding as if labio-dental, it is more probably bilabial. *v* is abundant as a bilabial in nearly all Shoshonean and Yuman dialects, and occurs also in Karok and possibly in Wiyot.

*ts* or *tš* is found in every native language of California. Other affricatives, except for *tl* in several tongues, seem not to occur, except that *kx* has been noted in Karok.

The *s* element in affricatives is sometimes different from independent *s*. In Hupa Dr. Goddard writes only *s*, but *tš* and *ts*. In Mohave *s* and *tš*, but in Yurok *š* and *ts*, seem to render the values best. This would be further evidence that *ts* and *tš* are organic sounds, not combinations of *t* with *s* and *š*.

Surd nasal consonants, *m*, *n*, or *ng*, have been found in Hupa, in Yurok, in Yana, in Salinan, and in Papago. They are always final or adjacent to surd sounds, especially to glottal stops.

*r* occurs in Wiyot, Yurok, Karok, Chimariko, Shasta, Wintun, Pomo, and Costanoan; also in the Yuman languages and some of the Shoshonean dialects of southern California. The sound, while obviously not identical in all these languages, is too little understood to make comparison profitable, but it is interesting that its occurrence is over two territories, each somewhat irregular but continuous, indicating the transmission of the sound between distinct linguistic families.

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THE PHONETIC ELEMENTS OF THE  
NORTHERN PAIUTE LANGUAGE

BY

T. T. WATERMAN

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INTRODUCTION

The following notes on the phonetic system of the Paiute Indian language were obtained in August and September, 1910, with the help of a full blood, middle-aged Paiute named Dick Mahwee. This informant lived during his childhood in the vicinity of Long Valley, California, near Honey Lake. He now belongs to the group of people who live on Pyramid Lake Reservation, Nevada, but he spends the summers in Reno and elsewhere. His dialect seems to be almost identical with the Paiute language spoken in Oregon, except that it differs phonetically

in minor points, particularly in the occasional substitution of ty for ts.

There are two "Paiute" languages, both spoken in the Great Basin area and constituting part of the Shoshonean family. The southern or "true" Paiutes inhabit a large territory including southern Nevada, southwestern Utah, and northwestern Arizona. Their dialect belongs to the Ute type, being almost identical in structure with Ute and Chemehuevi. An outline of the phonetics and morphology of Ute has been published by Dr. E. Sapir.<sup>1</sup> The northern Paiute, who do not admit that this is their name, and employ the term only as they have learned it from the whites, live in northwestern Nevada, the border of California east of the Sierra Nevada, and in southeastern Oregon. The term Paviotso has sometimes been applied to them, though this is no more their own tribal name than the former is. Their language is practically identical with that of the Bannock of southern Idaho, and is very similar to the speech of the Mono, who live on the high western slopes of the Sierra Nevada. The present "Paiute" dialect belongs therefore to what has been described as the Mono-Paviotso or Mono-Bannock division of the Shoshonean family, and is not to be confounded with the "Paiute" as spoken by the Ute-Chemehuevi people.<sup>2</sup>

The apparatus used in analyzing the sounds consisted of a recording cylinder of a diameter of 13.3 cm., described elsewhere in this series of publications.<sup>3</sup> The cylinder was used in conjunction with tambours and recording needles of the usual type, and was driven at a uniform rate of seven revolutions per minute. The records illustrated below consist of double tracings, one from the lips and the other from the glottis. The lip-positions for various vowel sounds are represented by photographs. The information embodied in the present paper was obtained while working in collaboration with Dr. W. L. Marsden, of Burns, Oregon, who speaks the Paiute language and has recorded much information about it.

<sup>1</sup> *Science*, n.s. xxxi (1910), 350-352.

<sup>2</sup> *Univ. Calif. Publ. Am. Arch. Ethn.*, iv, 97, 1907; *Am. Anthr.*, n.s. xi, 267, 1909.

<sup>3</sup> P. E. Goddard, in *Univ. Calif. Publ. Am. Arch. Ethn.*, v, 2, 1907; also in *Boas Memorial Volume* (1906), 137.

The sounds of Paiute may be represented tabularly as follows:

<i>Vowels</i>				<i>Diphthongs</i>				
u, ü, o, a, e, i				ai				
<i>Consonants</i>								
	Stop			Fricative		Affricative		Nasal
	Surd	Sonant	Doubled	Surd	Sonant	Surd	Sonant	
Labial.....	p	b	p:					m
Dental .....	t	d	t:			ts,(ty)	dz	n
Alveolar.....				s	z			
Palatal .....	k	g	k:	(x)				ñ
Labialized palatal...	kw	(gw)	(kw:)					
		y,w,h,'						

## THE INDIVIDUAL SOUNDS

### VOWELS

#### u

The vowel represented by this symbol has something of the quality of oo in English book, but the lip position is more open (pl. 1, fig. 1). At times the sound seems almost to approach ü (as in English boot), but this seems to be due to the effect on the ear of the lack of opening, combined with occasional actual looseness or variability of lip-position. In duration (pl. 4, fig. 6) it is noticeably short.

#### o

The symbol o represents the sound of aw in English law, produced with the slight lip movement noted below as a prominent characteristic of all Paiute vowels. The lips (pl. 1, fig. 2) are more open and less rounded than in u. In duration o is usually short compared to English o, but is at times (for example, po, pl. 4, fig. 8) as long as the preceding sound.

#### a

This sound, to employ a well-worn figure, has approximately the quality of a in father. It is the most open of all the vowel sounds in the language, showing (pl. 1, fig. 3) considerable more opening than e (fig. 4), i (fig. 5), or ü (fig. 6). While not as brief on the whole as o usually is, it is comparable (pl. 2, fig. 5)

to the English sound of a in father<sup>4</sup> in being at times of very brief duration.

## e

In quality the sound represented by this symbol approaches e in met. Occasionally it is heard as having almost the closeness of e in they. It is however normally open (as in pl. 1, fig. 4), more open as a matter of fact than any vowel with the exception of a. In duration, e (as illustrated in pl. 3, fig. 7) is decidedly brief, showing rather less than half the length of ü wherever tracings of the two have been compared. The sound is rare.

## i

This symbol represents a vowel of similarly open lip-position, having something of the quality of i in pin. The lip-positions for this and the preceding vowel are as a matter of fact (pl. 1, figs. 4 and 5) almost identical. In duration also (pl. 4, fig. 3) it bears a close analogy to e.

## ü

This is an obscured vowel sound, produced with the lips in position for an i-sound and the tongue in position approximately for u (pl. 1, fig. 6). It has to the ear in spite of its other characteristics a rather definite ū quality and for that reason can hardly be called indeterminate or neutral. That the vowel quality is obscured is due to an elevation in the back part of the tongue, so that friction is produced by the passage of the breath between the tongue and the back of the palate. If this elevation were more pronounced, a soft velar r or g continuant would result. In actual fact, however, the tongue is raised only enough to obscure or thicken the sound slightly, and its vocalic timbre is maintained throughout. The larynx during the process of speaking this sound is lowered, as shown by the action of the exterior throat muscles. This results in an increased resonancy. It is of course hard to specify exactly what takes place in producing this sound, or any sound of its general type, for the phenomena involved do not lend themselves to investigation by

<sup>4</sup> E. W. Scripture, *Elements of Experimental Phonetics* (New York, 1902), 489 ff.



graphic methods. The above, however, seem to be its chief characteristics. In the matter of duration (pl. 2, fig. 1), ü seems to be quite anomalous, having noticeably greater length than either u or i (pl. 4, figs. 3 and 6), which it most nearly resembles.

#### DIPHTHONGS

##### ai

This sound, having the quality of ai in aisle, is extremely long in quantity, having as great or greater duration than the ü described above. The appended tracing (pl. 4, fig. 1), representing the word kai, no, illustrates its extreme length.

#### CONSONANTS

##### *Labials*

##### p

The sound represented by this symbol is a stop consonant of very weak and short occlusion, involving at the same time very much less aspiration than the p in English words as spoken by Americans. The sonancy begins approximately at the same moment as the explosion. In this respect the sound is of course markedly different from American English p (pl. 2, fig. 2), in which the sonancy is strongly postplosive. It differs from b as used by Americans in speaking English (fig. 3), in that in this latter sound the sonancy antedates the explosion by a considerable period. The results obtained by analyzing the Paiute sound graphically are not entirely consistent. There seems to be some uncertainty in the usage of the informant. For instance in fig. 1, pl. 3, the sonancy of p in puni, to see, begins considerably in advance of the explosion. In the following tracing of the same sound (fig. 2), the sonancy and the explosion are quite synchronous. In the third figure, finally (fig. 3), the sonancy follows the explosion after a short but well-marked interval. A number of tracings were taken of this sound in the course of the experiments, and such variability was found to persist throughout. The sonancy even where preplosive, however, is not as strong nor as long continued as in the corresponding sound °of

American English. The main characteristics of the labial stop as it occurs in Paiute are therefore three in number—first, a brief, normally surd occlusion, second, an explosion of slight aspiration, and third, some lack of uniformity as regards the point where sonancy begins. The sound occurs only initially in words.

## b

The labial stop just described assumes a somewhat different character when occurring medially. Under these conditions it becomes fully voiced (pl. 3, fig. 4). This full and complete sonancy is perhaps its essential characteristic and is a striking instance of Paiute laziness in speech.<sup>5</sup> The fact of sonancy is however attended by other changes. The mere presence of vocalization in the sound tends according to the well-recognized law to weaken the explosion, and this in turn involves a lessening of the lip pressure in occlusion. We have already seen that the most essential character of the initial stop, from which the present sound seems to be a derivative, is a relatively weak explosion as compared with that of English lip surds. When the sound is still further weakened as the result of sonancy due to medial position in a word, the occlusion becomes so abbreviated and the actual contact of the lips so light that the stop verges toward a continuant. It has as an actual fact often been recorded as a bilabial v.<sup>6</sup> Graphic analysis shows however that the occlusion, while brief, never actually disappears. For purposes of comparison a fairly representative tracing of "pabanaki," the plural of panaki, "Bannock" (pl. 3, fig. 4), is set alongside of a tracing of a bilabial v (fig. 5), as made by Dr. Marsden, who was assisting in the experiment. With these should be compared also the b of English "boy" (fig. 3). It will be observed that the curve which represents the explosive period of the Paiute b articulation is sharper than that for the continuant bilabial v, but not so abrupt or of such marked amplitude as that of the more strongly occluded English b. The occlusion in the Paiute medial sound

<sup>5</sup> Scripture, *op. cit.*, 360.

<sup>6</sup> See James Mooney, *Ann. Rep. Bur. Am. Ethn.*, xiv, pt. 2, pp. 10, 53 ff, 1896.

under discussion is however undeniably brief and light, and under certain circumstances the native Paiute informant probably slips over into a real continuant sound. The study of fourteen tracings of this sound, all of which resemble in character figure 4, seem to offer convincing evidence that the sound is organically a stop.

P:

Another labial consonant is a stop of double length, represented by p:, which however never occurs initially. It is uncertain whether or not this sound in process of word-building ever stands for the initial p described above. All that can be said is that the labial stops occurring medially are of two types, either fully sonant as just described, or purely surd with a double length of occlusion, as is the case with the sound now under discussion. Whether these two sounds are primary in the language, or both alike derived from the p as an effect of composition, can only be stated when the morphology is completely understood. The second of the two sounds is quite analogous to the sound described by Dr. Sapir in Yana<sup>7</sup> and Ute<sup>8</sup> and written by him p+ and pp. The tracing in pl. 2, fig. 4, reflects clearly its main characteristics—a double length of occlusion and a complete absence of vocalization. The extraordinary length of occlusion is clearly reflected in this tracing of the Paiute word kap:a, bed, as compared with that of an ordinary undoubled medial surd, such as the p in English tipping (pl. 3, fig. 7), which of course is “doubled” only typographically. The Paiute sound is therefore seen to be a really doubled consonant, in the sense in which the expression is employed regularly in phonetic discussions, although “lengthened consonant” seems on the whole the better term.<sup>9</sup> That the length of occlusion is attended by a correspondingly vigorous explosion is shown by the fact that the breath curve is very much higher for the medial than for the initial type of p. Compare pl. 2, figs. 1 and 5.

<sup>7</sup> Univ. Calif. Publ. Am. Arch. Ethn., ix, 5, 1910.

<sup>8</sup> Science, *loc. cit.*

<sup>9</sup> Scripture, *op. cit.*, p. 466; Scholle and Smith, *Elementary Phonetics* (London, 1903), p. 142.

## m

This sound, represented in pl. 2, fig. 5, seems to offer few features of note, except that it is possibly of somewhat shorter duration than English m. In this of course it merely shares the briefness of occlusion characteristic in general of Paiute consonants.

*Dentals*

## t

The chief characteristic of the sounds of the dental series, namely t, d, ts, dz, and n (but not s and z, which in Paiute are alveolars) is that they are formed with the tongue against the teeth. This lends them a semi-aspirate effect (see the amplitude of explosion, pl. 4, fig. 2), due to the fact that the greater part of the blade of the tongue is in contact with the gum just before release. The effect of the release is therefore quite noticeable. This is particularly striking, owing quite probably to the contrast offered to the other Paiute consonants which are pronounced without marked aspiration. It seems unlikely on the whole that the Paiute sounds are formed with any greater muscular effort than are the English sounds. The difference probably lies in the different surfaces approximated in the two types of enunciation. In the matter of sonancy the sound represented by t is closely analogous to the p discussed above.

## d

This symbol represents the sonant corresponding to t, and like b, the sonant form of p, occurs only medially. The remarks already made concerning b apply with equal force to the dental sonant d. The occlusion, namely, is very brief, so brief in fact that it often seems to be completely lacking (pl. 2, fig. 6). The sound was at first heard by the present writer as a briefly trilled r. The tongue as a matter of fact, in producing this sound, is not pressed against the palate, but merely flicked against it. The only difference between this sound and a weakly trilled r is that the r consists of a succession of rapidly repeated "flaps," while in the present sound there is only one.

## t:

Closely analogous to p: in its general characteristics, the dental surd represented by the present symbol differs in involving as a rule rather more explosive force, marked by an increase in aspiration (pl. 4, fig. 4, as compared with p: of pl. 2, fig. 4). In this feature of course the sound resembles t, as described above.

## ts

There occurs among the dental sounds an affricative, i.e., a stop with a surd occlusion, followed by a continuant release (pl. 4, fig. 3). Like the surd t, it occurs only initially, being replaced in medial position by dz. It is noticeable that the present informant alters the character of the affricative consonant which occurs in the Paiute spoken in the Malheur Lake region of Oregon. That is to say, he rarely articulates ts, substituting for it in most instances ty, replacing by a glide the sibilant release of northern Paiute. The two sounds are however closely related as regards tongue position, and it is moreover not at all certain that this shift is not an individual habit.

## dz

This symbol, as already mentioned, represents a sonant, occurring medially, corresponding to a ts occurring in initial position (pl. 5, fig. 7). No noteworthy features were brought out by the present study, beyond those already discussed as generally typical of medial sonants.

## n

The nasal sound of the dental series (pl. 4, fig. 5) is rather closely similar to the corresponding sound of English, with the exception that, like the Paiute m noted above, it is, as concerns its duration, rather brief.

## ty

The dental stops are occasionally modified by the substitution of a y-glide at the close of the regular dental articulation. This

would seem to constitute a consonantal cluster, were it not for the fact that the sound occurs as a variant of *ts*, which is of course a simple sound. In the speech of other localities, this *ty* is replaced by *ts* uniformly.

### *Alveolars*

#### s

The only alveolar sounds in Paiute are, as already noted, *s* and its corresponding sonant *z* (pl. 5, figs. 2 and 5). The first of these sounds is formed by an approximation of the tip of the tongue to the alveolar ridge. The fact that the breath escapes around a point instead of through a restricted passage between the tongue and the front wall of the palate, as in the *sh* of English "show," for instance, removes from the sound the thick quality which characterizes the English sound, which the Paiute sound would otherwise resemble. In addition, the lips are retracted instead of protruded as in English *sh*, and the opening between them is not perceptibly narrowed. This fact still further prevents friction of the escaping air and tends to render the Paiute sound clearer in quality and correspondingly shorter in duration than English *sh*. It is certain that the tongue as a whole is further retracted into the mouth cavity than in English *sh*, and that the surface is somewhat concave instead of convex.<sup>10</sup> Perhaps the most obvious difference of all is that there is a wide opening between the upper and lower teeth. That there is only one organic sound in Paiute is rendered almost certain by the fact that the informant is unable to distinguish *s* and *sh* in English, pronouncing such English words as "boys" and "face" somewhat as though they were spelled *boysh* and *fashe*.

#### z

This symbol has the value approximately of *z* in *azure*. It is the sonant form of *s*, just described, and is probably made in closely similar position. It therefore at times sounds like *z* in *zone*. There is no reason, however, for supposing that there are really two sounds.

<sup>10</sup> A similar sound in other languages has sometimes been described as "between *s* and *sh*." The tongue however is more nearly in position for *r* than for either of these sounds.

*Palatals*

## k

There seems at first acquaintance to be rather more variability in this sound than in the corresponding English palatal. That is to say, k before a back vowel gives the effect of velar q. For instance, kaiba, mountain, was at first written qaiba. This seems to be due in part to the psychological effect on the listener of the fact that real velars are absent from the language;—a fact tending to give the post-palatal k a correspondingly exaggerated value. It is doubtful in any case whether there is more variation in the k than in English. The point of contact for the k of the latter language wanders of course all over the palate, from a pre-palatal position for the k in “kit” to an extreme post-palatal position for the k in “come.” The post-palatal k in Paiute seems to be, in similar fashion, purely the result of association with such back vowels as a and o. As usual in palatal consonants, the explosion of k, for example in kimahu, come (pl. 2, fig. 5) is weaker than for that of p and t. It is noticeable, however, that the explosion of the back-palatal k in kai, no (pl. 4, fig. 1) is on the other hand more vigorous than for p and t.

## g

The sonant corresponding to k, represented by g, has few or no features worthy of comment. In the matter of the time and character of sonancy it is closely parallel to b and d, except that the g-occlusion (pl. 4, fig. 5) does not permit from its very nature of the marked acceleration that characterizes Paiute b and d.

## k:

The doubled consonant of the k series is closely analogous in most of its features to the other doubled consonants. Its general character is exhibited in the appended tracing of tik:a, to eat (pl. 4, fig. 7).

## ñ

This symbol represents the palatal equivalent of the dental n, the sound which occurs finally in English sing. Other than

long duration, which is rather irregular in Paiute (pl. 2, fig. 4), it presents no striking differences from its counterpart in English.

*Labialized palatal*

kw

There is reason to believe that all of the palatal sounds occur also in labialized form. That is to say, we ought to find kw, gw, and kw:. As a matter of fact, only the first of them (pl. 4, fig. 4) has been so far encountered. Additional material would in all probability bring the others to light. There is no reason for supposing that this is other than a simple sound, such as is often met in American languages. That is to say, the rounding of the lips accompanies the tongue contact for the k. The symbol represents a modified k, not a consonantal cluster.

OTHER SOUNDS

y, w, h, ' , (x)

Of the remaining symbols, y (pl. 5, fig. 4) and w (pl. 2, fig. 7) represent sounds not markedly different apparently from the corresponding sounds of English, except that w is accompanied toward the end by a somewhat less rounding of the lips. Of the aspiration represented by h (pl. 5, fig. 1) as it occurs initially in syllables, it can only be said that in process of word composition it is sometimes obscured or thickened by movements of the tongue and lips which interfere with the escaping column of breath. Thus it often sounds like the soft velar fricative x. In the case of a word recorded by the writer as *mauxu*, however, it is worthy of particular notice that the friction is produced by the escaping column of air at the lips, and not by friction between the tongue and velum. The real velar fricative usually represented in orthography by x, does not occur then, organically. When it does occur at all it seems to be merely a by-product of the tongue adjustments which go on during the escape of the breath, in preparation for various consonants. The glottal stop (') (pl. 5, figs. 7 and 8), finally, is of distinctly weak character when compared with the stop in many American tongues. It is



rather a slow glottal stricture than a real glottal stop or catch. This "weakness" is reflected in the fact that there are in Paiute no whispered or echo vowels. Although the modified glottal stop is of very frequent occurrence in Paiute, it is doubtful if it ever has any etymological significance.

#### ASPIRATIONS

The vowels of northern Paiute have been found to be peculiar in this, that they contain more breath than English vowels. The appended tracing of the Paiute word *po*, to write (pl. 4, fig. 8) exhibits this character, especially when contrasted with the tracing of English "pay" (pl. 2, fig. 2). It will be observed that the *o* in *po* begins with the needle already at some altitude above the normal breath line, and mounts steadily, showing a continuous increase in the volume of escaping voiced breath. The vowel of English "pay," on the contrary, is almost level with the "line of rest" traced by the needle when no breath at all is escaping. It appears, therefore, that while the consonants of Paiute contain less breath than those of English, the vowels contain more. At the close of a Paiute word, the vocalization ceases some time before the rush of breath is checked. This results in a final aspiration at the end of most final syllables. At times there is even an augmented rush of breath at the close, as in the present case, indicated by the small rise in the breath tracing after the cessation of sonancy. This "rise" varies at times in amplitude, showing that the amount of aspiration is not always constant. It seems to be always the secondary effect of aspiration contained primarily in the vowel itself. In compounds it usually occurs in thickened form. For example, *tuwai*, to stop over night, when compounded with *yak:wi*, to do, gives *tuwai-x-yak:wi*, where the aspiration takes the form of a soft palatal fricative, owing to the fact that the tongue is raised from the *ai* position to the *y* position while the surd beneath is escaping. For that reason it has not been represented in the present paper by an additional symbol. Every final syllable in Paiute is in this sense closed either by a glottal stop or by "aspiration."

## SUMMARY

To sum up, then, the principal features of the Paiute phonetic p; t; and k; occur only medially. On the other hand, the weakly sonant stops, p, t, and k, occur only initially. All the other sounds occur in any position, with the possible exception of ñ. The language does not admit of consonantal clusters, either initially or medially, and every syllable is open except for ' and h final.

One other phonetic peculiarity of Paiute remains to be mentioned—that is, the occasional and seemingly arbitrary substitution of w for m. There seems to be in the present instance no confusion of values between the two, but rather a clear-cut substitution of one type of consonant for the other. The informant is able to distinguish the two sounds without difficulty, and to articulate them correctly. It is possible of course that a Paiute who does not know English so well might have difficulty in so distinguishing them. It might be mentioned in passing, however, that the present writer has encountered a similar substitution in the Yurok language spoken along the Klamath river in northern California.

Several features of Paiute phonetics are worthy of mention in more detail, from the point of view of general interest.

## GENERAL FEATURES

The absence from Paiute of several types of consonant strikes one at first acquaintance as perhaps its most impressive feature. There are for example in Paiute no lateral or velar consonants, as far as any records of it have been obtained, either graphically or in the form of texts. Although the informant from whom the present facts were secured articulates laterals in English words without difficulty, this facility seems to be the result of long association with whites. This leaves for the tongue a rather bare scheme of consonants. The impression of simplicity is strengthened by the fact that fortes and aspirated consonants seem equally with velars and laterals to be foreign to the genius

of the language. It is these facts which give the tongue the rather misleading effect of being phonetically simple.<sup>11</sup>

There are however in Paiute certain peculiarities which render the tongue anything but easy to transcribe. These peculiarities are of three sorts. There is in the first place a general lack of incisiveness in Paiute articulation. Besides this general looseness, or apparent carelessness in pronunciation, two wide points of difference between Paiute and English come out in the stop consonants. The sonants show a very much later vocalization, and the surds show on the whole very much less aspiration, than in English as spoken by ourselves. Both of these characteristics lead to considerable confusion between the various classes.

This absence of incisiveness, to take up the first point, is very marked in all of the various series of sounds in Paiute. The stop consonants, for example, both surd and sonant, are characterized by a very light closure, and except for the doubled stops by a relatively brief period of occlusion. This gives them a quality which is extremely baffling to the English ear. In the matter of position of tongue contact considerable variability is shown, although this shifting seems to be largely due to the effect of adjoining vowels. This last trait is on the whole more marked than in English, although as is well known there is in the latter tongue enormous variability. Paiute is however quite different from English in several other points, all more or less related. There is very much less lip movement than in English. When the lips are parted in an English word for the escape of a vowel, moreover, there is an accompanying movement of the lower jaw. This jaw movement is still more marked in French, to which fact is due in part the greater purity and clearness of French vowel sounds. In Paiute, however, the lower jaw is held almost rigid. That is to say, while on the whole there is less lip articulation than in English, there is proportionately still less movement of the jaw. This fact tends of course to obscure and render less pure the Paiute vowel sounds. A further curious tendency exists in the present Paiute informant, toward opening only one side

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<sup>11</sup> Cf. E. Sapir, *Science*, *loc. cit.*

of the mouth in speaking.<sup>12</sup> Each of these tendencies has a very decided effect in confusing the student.

Consonants which owing to phonetic laws in word-building shift from surd to sonant offer in Paiute many interesting problems. Those which are surd or weakly sonant in initial position, take on a full sonant character when following a vowel. This phenomenon of course occurs at times in English, but seems to be in Paiute a law which applies everywhere except in the case of the doubled consonants. Sonancy tends as we have seen to weaken aspiration, and this again is accompanied by a very slight occlusion. An instance of the operation of this law in Paiute is the case of the labial stop represented in initial position by the symbol *p*, which becomes fully voiced when in medial position, and in that position is represented by *b*. Here the very weak occlusion which is indirectly due to sonancy, gives the sound at times an aural effect approaching bilabial *v*. This latter sound however seems never to occur actually in pure form. A similar lightness of occlusion affects the dental stop consonant represented in initial position by the symbol *t*, in medial position by *d*. In the case of this medial *d*, occlusion in the sense in which the term applies in English sounds can hardly be said to occur. The tongue, as we have seen, is merely flicked against the palate, producing at times on the ear the effect of a weakly trilled *r*. The sound is however manifestly an organic stop of the *t* series, replacing an initial surd *t*. Moreover, there is but one flap of the tongue instead of several successive flaps as in *r* proper. The fact that a dental sonant stop gives the aural effect of an *r*, while a sonant labial stop gives the effect occasionally of a bilabial *v*, illustrates the extreme lightness of occlusion.

Paiute speech therefore is characterized by considerable lack of vigor in making closures, by some indeterminateness of position, by absence of jaw movement in making openings for the passage of the voice, and certainly by lack of freedom in lip movement, which movement may even be limited chiefly to one side of the mouth aperture. These features would account in

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<sup>12</sup> It seems hardly likely that this is a general tendency on the part of the speakers of Paiute. It certainly tends however to obscure the articulation of the present informant.

large part for the obscurity of Paiute enunciation. The two remaining factors, moreover, tend in the same direction. The first of them, the fact that Paiute stop consonants contain or involve very little "aspiration," is so marked that it becomes one of the important features in the language. The presence or absence of aspiration is of course particularly noticeable in connection with labial stops. For this reason two illustrations are appended showing graphically the composition of Paiute p compared with the similar sound in American English and French. The word chosen for analysis is the Paiute word "piza," good (pl. 5). The tracing was taken with Rousselot tambours, as described above, and represents the action of the breath at the lips, and the accompanying activity of the vocal cords. Consideration of the tracing, when compared with the corresponding sound in English, p in "pay" (pl. 2, fig. 2) as spoken by an American, makes the following points evident. In the first place, the altitude of the Paiute tracing is not nearly so high as that of p in "pay," showing that the expulsion of the breath is accomplished with much less force than in English. This absence of aspiration or breath is reflected in all the tracings taken of Paiute stops. It will be noted in the tracings, moreover, that the p curve in "pay," besides its greater amplitude or altitude, has quite a different outline from the p of the Paiute word. It is in general conformation very much sharper, or more pointed, and the whole curve is "hooked," with the point bent forward in the direction of revolution. The English vowel itself on the other hand, is traced at a lower level than the vowel of the Paiute word. That is to say, the return of the needle in the English word *after* the p, is carried to a much lower level than in Paiute, showing that the outrush of breath in English is very suddenly checked. These facts point to the conclusion that the English sound is accompanied by a sharp but not sustained expulsion or explosion of the breath. Otherwise the rebound of the needle could not be so sudden nor so complete. The characteristics of p in English "pay" are therefore the result in part of a firm closure and not purely the outcome of an expulsion of breath from the lungs. In other words, the closure of the lips is so firm and so complete that it checks and compresses the advancing

column of air in the mouth passage until it gathers considerable "head" and expands outward when released. Certainly an actually labored *p*, accompanied by a rush of breath from the lungs direct, does not give aurally or graphically the effect of the English *p*. In the light of this, therefore, the Paiute sound requires a different definition. Its characteristic quality is not so much the result of lack of aspiration (since there is little real aspiration in the American English sound), as it is of the absence of a firm closure and long occlusion.<sup>13</sup> This lack of "aspiration" or amplitude in the tracings of Paiute sounds, is therefore to be considered as a corollary of the lack of vigorous closure already described as a characteristic of Paiute phonology. It seems probable after some study, that much of the difficulty in hearing Paiute correctly comes from the absence of "aspiration" in the consonants.

The third difficulty of Paiute phonology, which adds not a little to its general obscurity, lies apart from the other two and concerns the question of sonancy. In general, the sonancy of Paiute voiced stop consonants begins late. The most obvious comparison is with English as it is spoken in California. On this basis, the Paiute stop consonants offer the following points of interest. The sonancy begins normally only with the explosion of the consonant—that is, with the release of the column of air at the lips. This at once sets the Paiute sounds in contrast to the ordinary spoken English, for in the latter tongue the sonancy begins of course some time before the explosion. (See the relative time of sonancy in the appended tracings, pl. 2, figs. 1, 2, 3.) All of the Paiute stops, therefore, are to the ear rather confusing, sounding at times like full sonants of the American English type and at other times like plain surds. Difficulty has been experienced in transcribing nearly every word in the Paiute tongue which begins with a stop consonant. All sorts of inconsistencies have crept into such material as was recorded. The phenomenon here is probably parallel to that of the familiar weak *h* in Cockney English, which as a matter of fact is always present before every

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<sup>13</sup> For the latter point see the discussion of the lengthened or doubled Paiute *p*: above (pl. 2, fig. 4), where a long occlusion gives a tracing exactly similar to English *p*.

initial vowel, but which gives psychologically the effect of a complete absence of aspiration or of a full aspiration, according as the listener anticipates a full h or an unaspirated vowel. The appended illustration shows graphically the normal type of Paiute labial stop consonant in initial position, in which the sonancy begins with the explosion, and illustrates the difference between p in Paiute (pibodo, pl. 2, fig. 8) and the b in English (boy, as spoken by the writer, pl. 2, fig. 3). In addition to the presence of preplosive sonancy in our sound which is normally absent in Paiute, it will be noted in the tracing that the method of vocalizing is precisely the opposite with the Paiute and with ourselves. The Paiute word opens normally with very light vocalization, and the vibrations gradually take on greater and greater amplitude, reaching their maximum during the articulation of the vowel which follows the consonant. This progressive vocalization is perfectly characteristic of Paiute sounds, and occurs in this form in all of the tracings taken. In the English word of which a tracing is shown for comparison, however, spoken by an American, exactly the opposite is true, and the vibrations exhibit their greatest amplitude prior to the explosion of the breath at the lips. Whatever else may be true, the initial stops of Paiute offer therefore many points of contrast to those of California English. What has been said of the labial series has been found by experiment to apply also in the case of the dental and palatal stop consonants. The Paiute sound differs from the English surd in that there is less aspiration and earlier sonancy, and from the sonant in that in the Paiute sound the sonancy approaches its maximum intensity gradually, and begins on the whole later in point of time. That is to say, the Paiute sound is in each case intermediate between those English surds and sonants made in corresponding position.

The variability of the Paiute initial stops in the matter of sonancy has already been mentioned. To make the point clear a series of eight words were chosen arbitrarily, all beginning with labial stops and all of them causing confusion in transcription, owing to the fact that the initial consonant in each case could not be determined satisfactorily. From twenty-five to thirty-five tracings were taken of each word, and the results analyzed as

regards the time of sonancy merely. The outcome of this analysis may be represented in tabular form as follows:

TRACINGS CLASSIFIED ACCORDING TO THE TIME OF SONANCY IN THE INITIAL CONSONANTS.

Paiute words	No. of tracings	Sonancy preceding explosion	Sonancy accompanying explosion	Sonancy following explosion
1. puni, to see	34	22	9	3
2. po, to write	26	8	9	9
3. pua'a, a friend	27	17	....	10
4. pū, indef. pron.	28	1	15	12
5. piza, good	28	8	16	4
6. pūhū, duck	28	....	10	18
7. po, trail	28	....	16	12
8. pubua'a, friends	27	....	24	3

The words of this tabulation show a degree of phonetic variability that is quite unlike anything so far brought to light in English. Even in the latter tongue, of course, variations do occur in considerable number. The same individual, whatever tongue he may speak, does not articulate a given word every time in exactly the same way. There may be observed in the tabulation of the Paiute words, however, a *complete* lack of uniformity. Two articulations of the same word, as in the case of puni (1) or pua'a (3), stand very often at opposite ends of the scale as regards the inception of sonancy. This uncertainty has been found by experimentation to extend to the palatal stops as well, and this fact would make it seem that variability in the time of the inception of sonancy is in general a characteristic of Paiute.

It will be seen therefore that in the matter of orthography we have few problems to face. There are of course three classes of sounds in the stop series to be represented typographically. There is in the first place, an initial consonant, of varying degrees of sonancy, with a tendency however away from sonancy of the preplosive type, and accompanied in very slight degree by aspiration. In the second place, we have a sound which at least in some cases stands in place of the p, when word composition would cause the p to follow a vowel. In this latter case, the sonancy is complete and of pronounced character while the



aspiration and the closure are lighter in character than in the former case. Finally, we have a type of consonant, occurring like the second in medial position, where the occlusion is of double length, the closure firm, and the explosion very marked.<sup>14</sup> These last named consonants are purely surd. The obvious course, and the one followed in this paper, is to represent the somewhat aspirated initial consonant by p, and the less strongly aspirated and more fully sonant medial consonant by b. The choice of a symbol for the remaining type of consonant is an arbitrary matter. Numerous devices have in the past been employed. Labial consonants of this type have been represented by p+ and by pp,<sup>15</sup> and might quite accurately be represented in other ways—for example by a macron over the consonant or by a consonant with a subscript numeral. The symbol p: has been adopted here. On the whole the matter of orthography in Paiute offers comparatively little difficulty.

There is in Paiute only one type of consonant which is characterized by a full and vigorous occlusion. These are the so-called “doubled” or “long” consonants mentioned above. Medial consonants in Paiute are of two types only, as already mentioned,—either sonant or surd with a double length of occlusion. The fact that the closure in these latter is very firm is evidenced by the fact that the explosion, as reflected in the movement of the recording needle, is very much more violent than in the initial stop of the same word (for example, pl. 2, fig. 4). The length of the occlusion is reflected in the breath curve by a straight horizontal line which immediately precedes the explosion. When the Paiute word kap:a is compared with English tipping, it will be seen that the occlusion of the medial consonant in Paiute is actually twice as long as the corresponding consonant in the English word. This Paiute sound is therefore a genuine doubled consonant, in the sense in which the term is ordinarily used,<sup>16</sup> and has no organic counterpart in spoken English. The contrast may be pointed by the fact that in the

<sup>14</sup> The precise interrelations of the doubled and sonant stops to the initial stops has, as noted above, not been rendered certain at the present time.

<sup>15</sup> See above, p. 19.

<sup>16</sup> See above, p. 19, note 9.

English word tipping the consonant which is typographically doubled is much weaker than the initial consonant, while in Paiute the "doubled" consonant has a double length of occlusion and a much more violent explosion. It is therefore the only consonant in Paiute which exhibits vigor of articulation.

Speaking in general terms, the simplest type of sound capable of articulation is the nasalized vowel consisting of vocalized breath passing freely through the mouth and nasal passages. Our English phonetic habit of closing the posterior nares as a preliminary of speech has become so fixed that the articulation of nasalized vowels now presents for us no little difficulty. Nasalizations occur however with considerable frequency in American tongues, a classical instance being the Siouan or Dakota, a group of languages, by the way, which seem phonetically to bear many points of analogy with Paiute. It is a matter of some surprise that they should not be present in Paiute, a language which otherwise shows a marked tendency toward phonetically simple sounds. The few cases in which a nasalizing disposition was thought to be present were however investigated by the aid of nasal olives and tambours, quite without result. No amount of coaxing would bring to light anything which could be called nasalization, although such sounds usually analyze to better advantage than any others. It seems likely then that nasalizations are lacking in Paiute, in spite of their presence in the related Ute language.

From what has been said, it becomes clear that there is in Paiute a tendency to apply as little effort as possible to articulation. We have seen that occlusions are light—so light that *d* sounds almost like *r*, and *b* like a continuant bilabial *v*. The only consonant in which closure is firm, is where an occlusion of double length gives ample opportunity for close contact to develop. We have seen that there is a minimum of lip and jaw movement. It is easy to multiply cases which demonstrate the indolence of the Paiute subject in articulation. The Paiute *s*, for instance, is a case in point. An *s* of the English type of course requires an extremely nice correlation between the tongue and the palate. The surface of the tongue for this sound is rounded, or made dome-shaped, and approached with consider-

able, though unconscious, care to the front part of the palate, leaving a narrow passage. The care necessary in producing the sound is shown by the fact that in the careless and inexact speech of children the attempt is often abandoned completely, and the tongue allowed to slip forward until it rests against the palate. This gives "toap" for "soap" and similar mistakes. English sh, in which the tongue as a whole is retracted from its difficult position close to the palate, is much easier to articulate. A tipsy man accordingly, whose muscular correlations are obstructed by the presence of considerable quantities of alcohol in the system, uniformly substitutes sh for the more difficult s. The Paiute also has followed this simplifying tendency. The tongue is very much retracted, even more than in English sh, and is much less rounded. The tip, rather than the surface, is approached to the palate. This is one more instance, therefore, of the Paiute avoidance of difficult articulations. It is for this reason not a matter of surprise that no consonantal clusters exist in Paiute. In fact the Paiute speaker finds it difficult apparently not only to shift instantly from one consonant position to another, but even from a closure to a vowel position. Such shifts are often aided by the interpolation of glides. For example, in place of igahu, he enters, we occasionally find igyahu, where the glide has a very definite value to the ear. It probably arises in a slow and gradual release of the tongue muscles after the occlusion for the g, the vocalization being carried over from the vowel without interruption. Other examples are owixyu, he dies, which etymologically is the result of the combination owi-hū; and yudzixyū, from yudzi-hu. Not only, therefore, are occlusions light in Paiute, and easy positions preferred to hard ones, but the absence of consonantal clusters and the interpolation of glides between consonants and vowels prove the presence of a tendency to simplify phonetic processes still further. The articulation at least of the present informant shows a disposition to carry phonetic simplification to an extreme.

## EXPLANATION OF PLATE 1.

## Paiute lip positions.

- Fig. 1.—u in puni, see.  
Fig. 2.—o in po, trail.  
Fig. 3.—a in piza, good.  
Fig. 4.—e in ego, tongue.  
Fig. 5.—i in piza, good.  
Fig. 6.—ü in nümü, people.



1. u



2. o



3. a



4. e



5. i



6. ü

PAIUTE LIP POSITIONS



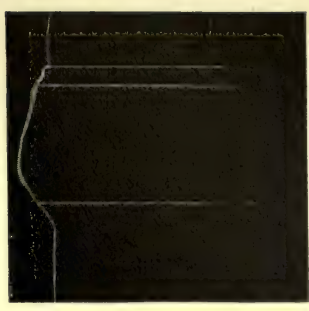


EXPLANATION OF PLATE 2.

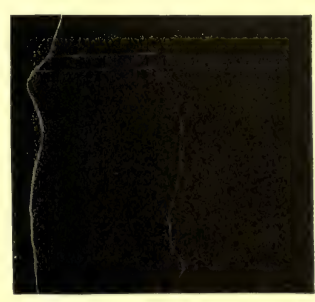
Tracings of Paiute sounds, breath and glottis.

- Fig. 1.—pū, duck.
- Fig. 2.—English p in pay.
- Fig. 3.—English b in boy.
- Fig. 4.—dibiña, ask.
- Fig. 5.—kap:a, bed.
- Fig. 6.—kimahu, come.
- Fig. 7.—wada, a kind of seed.
- Fig. 8.—pobodo, road.





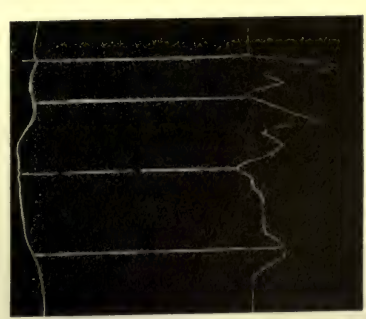
1. p i



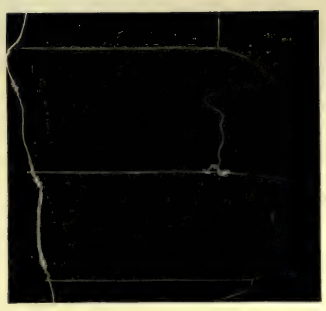
2. p ay



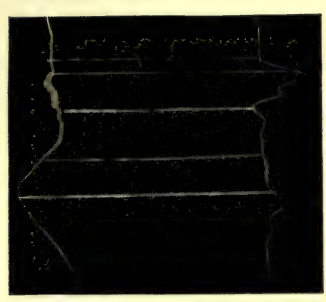
3. b oy



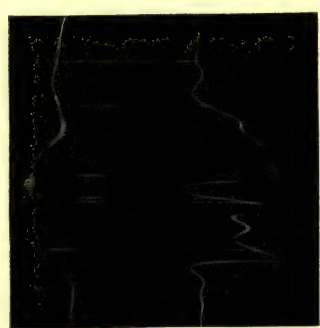
4. d i b i n a



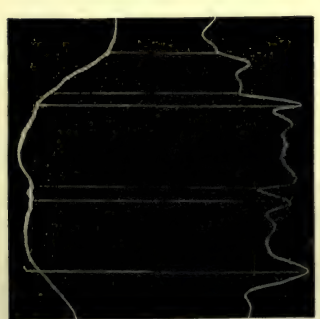
5. k a p: a



6. k i m a h n



7. w a d a



8. p o b o d o

TRACINGS OF PAIUTE WORDS





### EXPLANATION OF PLATE 3.

#### Tracings of Paiute sounds, breath and glottis.

Fig. 1.—p in puni, see.

Fig. 2.—p in puni, see.

Fig. 3.—p in puni, see.

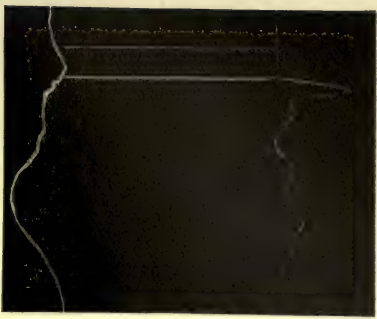
Fig. 4.—ego, tongue.

Fig. 5.—pabanaki, Bannocks.

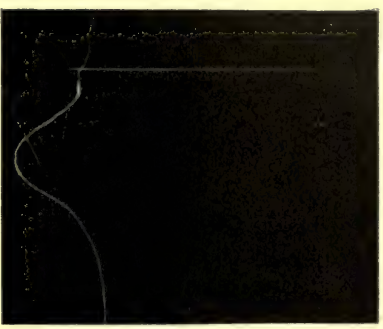
Fig. 6.—bilabial v's in nivavi, artificial variation, by English-speaking subject, from Paiute nibabi, snow.

Fig. 7.—English tipping.

Fig. 8.—nümü, people.



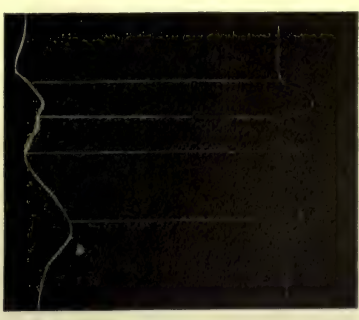
1. p of puni



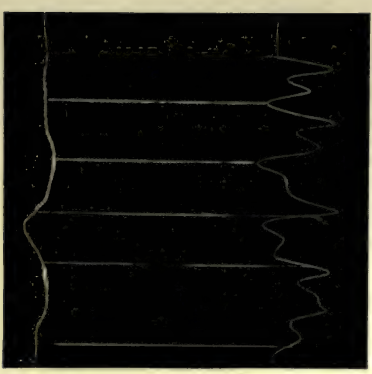
2. p of puni



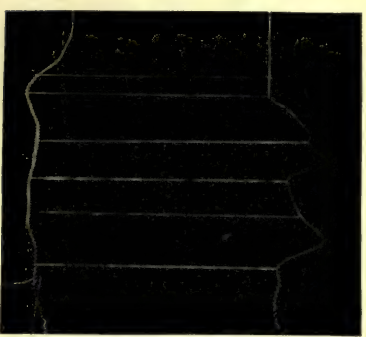
3. p of puni



4. e g o



5. pa ba na ki



6. ni va vi



7. ti ppi ng



8. ni ti mi ti

TRACINGS OF PAIUTE WORDS



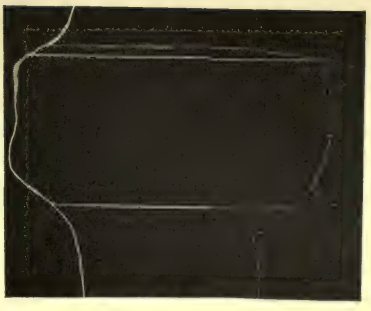


EXPLANATION OF PLATE 4.

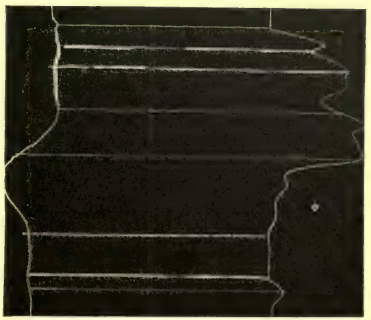
Tracings of Paiute sounds, breath and glottis.

- Fig. 1.—kai, no.  
Fig. 2.—tibu(x)wainu, spy-glass.  
Fig. 3.—tsidzi'a, girls.  
Fig. 4.—kwat:i, shoot.  
Fig. 5.—nüga, mine.  
Fig. 6.—uhu, it is so.  
Fig. 7.—tik:a, eat.  
Fig. 8.—po, write.

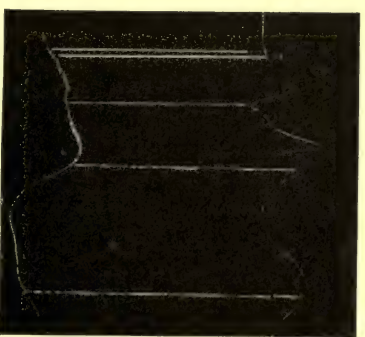




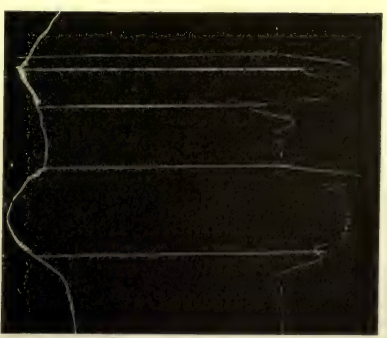
I. k a i



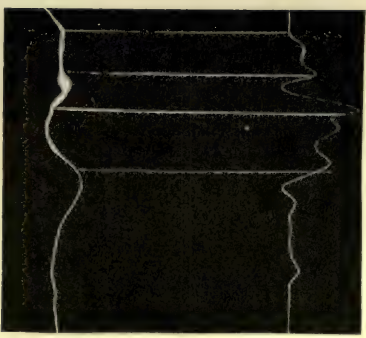
2. t i b u x w a i n u



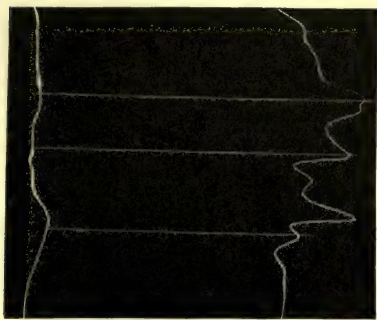
3. t s i d z i ' a



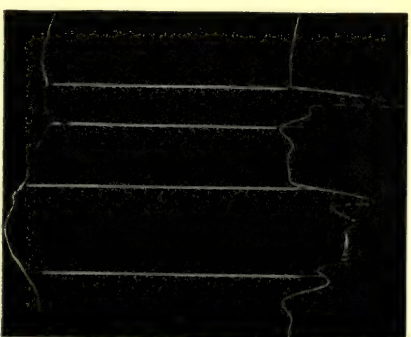
4. k w a t i



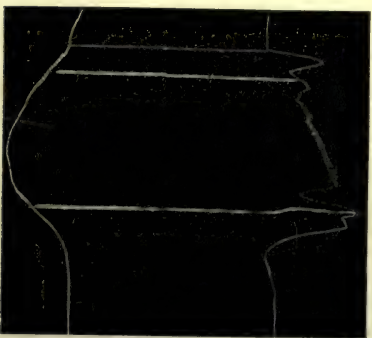
5. n u g a



6. u h u



7. t i k a



8. p o

TRACINGS OF PAITTE WORDS

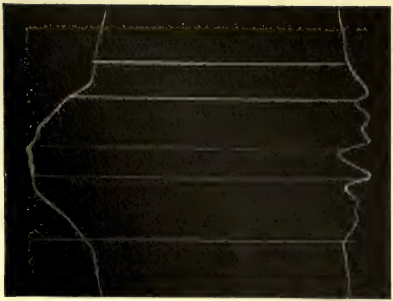




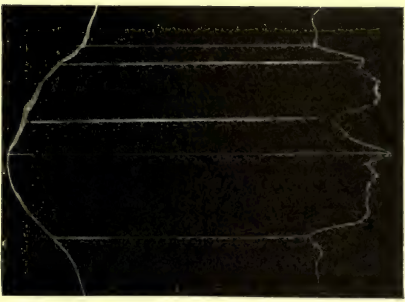
EXPLANATION OF PLATE 5.

Tracings of Paiute sounds, breath and glottis.

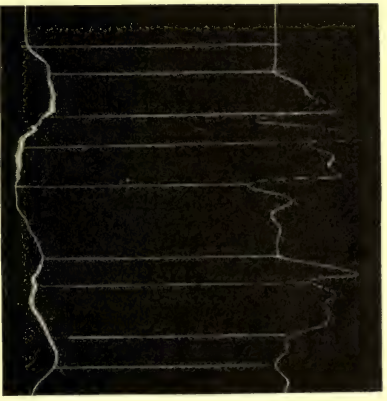
- Fig. 1.—hibi, drink.
- Fig. 2.—piza, good.
- Fig. 3.—nodoty:aina, sore-throat.
- Fig. 4.—yabi, hurry.
- Fig. 5.—sida, bad.
- Fig. 6.—güi, bite.
- Fig. 7.—idza'a, coyote.
- Fig. 8.—tsi'a, girl.



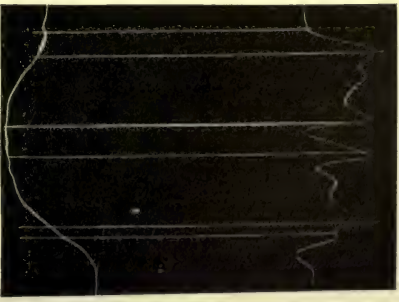
1. h i b i



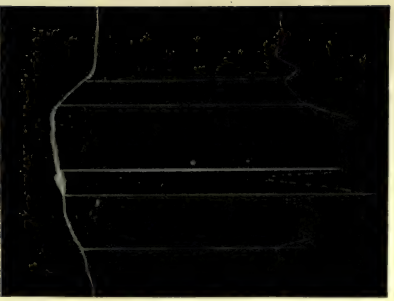
2. p i z a



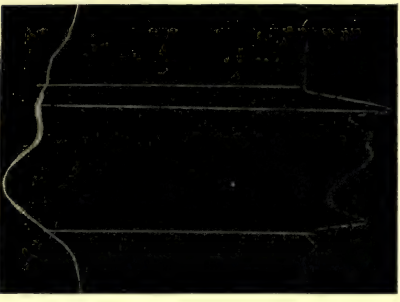
3. n o d o t y : a i n a



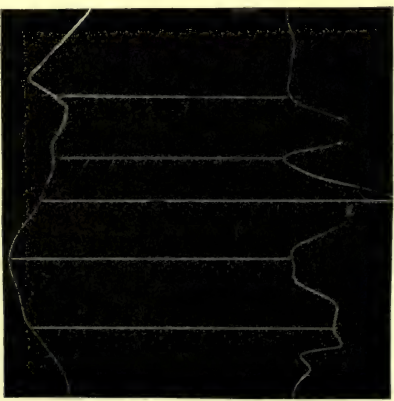
4. y a b i



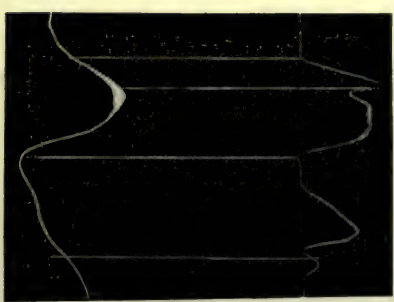
5. s i d a a



6. k i r i



7. i d z a ' r a ' a



8. t s i ' r a

TRACINGS OF PAIUTE WORDS



# PHONETIC ELEMENTS OF THE MOHAVE LANGUAGE

BY

A. L. KROEBER

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## INTRODUCTION

The present description of the sounds of the Mohave language, one of the members of the Yuman family in the southwestern United States, is based on an intermittent acquaintance of ten years, supplemented by experimental studies made in 1910. Certain suggestions, such as the orthography adopted for the h-sounds, are due to Mr. John P. Harrington, with whom the phonetics of the language have been discussed.

The ethnology of the Mohave has been under investigation by the writer at various times since 1900. No special study of the language was attempted, except so far as made necessary by ethnological inquiries; but the desire of recording proper and common names correctly, and repeated acquaintance with the

tongue, led to a determination of many of its phonetic features. When it was recognized as desirable, more recently, to extend to a wider range the phonetic methods first applied to American languages<sup>1</sup> by Dr. P. E. Goddard in his essay on the phonology of the Hupa language, the general familiarity acquired with Mohave made this tongue seem a satisfactory one for experimental determinations.

The Mohave employed for this purpose were Captain Jack Jones, designated hereafter as informant one, and Achorahanyava, who will be known as informant two. The former speaks English, the latter Spanish, but as both are more than fifty years old, and Mohave is their habitual speech as well as mother-tongue, the results arrived at are unquestionably typical for this language. Palatal contacts were taken only of informant one, with a false palate of aluminum. After this had been marked with intersecting lines, it was photographed without reduction. The records taken were immediately drawn on prints previously made from this photograph of the blank palate. While such a free-hand method does not attain to the accuracy of a photograph made of each record, the corresponding lines on the palate and the print insure a very close approximation to an absolutely correct reproduction; and as no two palatograms of the same sound are exactly alike, it seemed better to compare several guided drawings of as many contacts of one sound, than to depend on the one or two photographs of palatal impressions which could be taken in the same period. The most correct method obviously is to secure a series of photographs of impressions and to select the most nearly normal or average for each sound; but such a course involves the expenditure of much time. The present informant has two of his teeth reduced to the roots; the second molar on the right and the last on the left side. These gaps appear as protuberances respectively on the left and right sides of the palatal diagrams, but do not seem to have interfered with normal utterance. The subject's palate, besides being asymmetrical, is rather high, so that the false palate, from the side on which the tongue touches it, is deep, and the view of its

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<sup>1</sup> Present series of publications, v, 1-20, 1907.



sides, especially toward the rear, is considerably foreshortened.

The speech of informant two is rapid and his voice rather high-pitched. For this reason the kymograph tracings made by him are less clear, with the tambours used, than those obtained from his companion. His laryngeal tracings in particular show such small amplitude of vibration as to be difficult to reproduce. A number of the clearest tracings from the mouth of this informant are however appended for comparison.

The audible elements of the Mohave language are 28 in number, without counting long vowels and several doubled consonants, whose greater length may or may not be original and organic.

*Vowels:*

u o a e i

*Consonants:*

	Stops, Surd and Intermediate	Labialized Stops, Surd and Intermediate	Fricatives, Surd	Fricatives, Sonant	Africative, Surd and Intermediate	Nasal Continuants, Sonant	Lateral Continuants, Sonant	Trilled Continuant, Sonant	Semi-vowels	Breathis
Labial	p	...	...	v	...	m	...	...	w	...
Dental	...	...	θ	ð	...	...	...	...	...	...
Alveolar	t	...	s	...	te	n	l	...	...	...
Prepalatal	t̟	...	...	...	...	ny	ly	r	y	...
Postpalatal	k	kw	...	...	...	...	...	...	...	...
Velar	q	qw	...	...	...	...	...	...	...	...
Glottal	'	...	...	...	...	...	...	...	...	h, ʔ

#### VOWELS

The vowels of Mohave are all characterized by slight lip movement, especially in the direction of rounding or retraction, resulting in an invariably open quality; and by containing more aspiration than the vowels of European languages. To at least some extent both of these habits are prevalent among all the Indians of California, and appear to recur more or less typically in many North American languages.

As regards lip position, a noticeable difference exists between those photographically recorded from the two subjects. Informant one (figs. 1-5) has accustomed himself to unusually careful enunciation for purposes of phonetic recording. He possesses

also unusual mobility and control of the muscles used in speech, as shown by a considerable mimic ability. The photographs of his lips therefore show extreme positions, such as would but rarely be attained in actual speech, even by himself. The lip positions of informant two (figs. 6-10), which differ much less from one another, accordingly reproduce much more accurately the normal exterior articulations of Mohave vowels; but those of informant one show to what extent the movements of the lips can be exaggerated, or it would be better to say, performed without abridgment, without appreciably affecting the characteristic qualities of the several vowels.

As regards aspiration, all final vowels, whether accented or unaccented, and many of those before consonants, are spoken with much breath. In the tracings, this breath usually increases in strength toward the end. This may in part be due to a gradual accumulation of expelled breath in the tube connecting the mouth and the tambour, but is certainly not the principal cause, since the mouthpiece used did not tightly enclose the lips, and was provided with perforations closed only lightly with cotton. Moreover practically every final vowel shows toward its end, if it is long enough, a distinct and often sharp rise, with which it concludes. During this rise, which of course means increased stress of breath, the voice-vibrations lose in amplitude, usually ceasing at the moment the breath attains its maximum force (figs. 64, 72). In vowels followed by a consonant, the curve is often similar. In this case the voice vibrations also cease at the crest of the breath explosion, so far as appears from the breath tracings; but simultaneous glottal tracings reveal that in most instances the vocal chords continue to vibrate until the needle indicating the breath movements has again fallen to normal level, when the glottal vibrations cease or change in character for the ensuing surd or sonant consonant (figs. 66, 67). In any event the breath rise is in the vowel, not after it; and where a tracing appears to show the opposite, it is only that the apparatus is not attuned to sufficient delicacy to indicate the diminishing vibrations of the vocal chords. That these should diminish is natural, since the structure of the glottis tends to make the amount of

breath and vocalization in inverse ratio. The most significant point is that the aspiration attains its maximum force while the voice-vibration, in other words the vowel, is still going on. The breath therefore is an integral part of the vowel, not an addition. The vowels of Mohave accordingly differ from those of Hupa, which are either unaspirated like those of English, or aspirated through the addition of a sustained but surd breath. Aspirated *a* in Hupa might therefore not improperly be written *ah* or *a'*; but to represent Mohave *a* by either of these symbols would be misleading.

Mr. Waterman has recently shown<sup>2</sup> that in Northern Paiute the vowels contain a similar strength of breath; and tracings made by him or the writer from Wintun, Salinan, and Luiseño informants, reveal about the same condition, so that the character of the Athabascan aspirated vowels would seem to be unusual in the Californian region. Papago, an Arizona tongue of the Pima group, however possesses vowels followed by a distinct surd breath.

Generally speaking, Mohave vowels contain as much breath as consonants, their tracings being exceeded in height only by those of the explosions of final stops. That the tracings present much variability in this regard is due in part to the use of different tambours, the rubber diaphragms of which vary in sensitiveness to vibrations of different pitch and in susceptibility to large movements such as are caused by the breath.

The tracings of vowels adjacent to voiced continuants, such as *w*, *y*, *r*, *l*, *ly*, show a less distinct rise, and the point of demarcation between vowel and consonant is usually not discernible in the record (figs. 81, 82, 91, 107, 112). This indicates that in combinations like *orro* or *elye* the amount of breath is fairly constant until the final acceleration, when the voice of the ultimate vowel begins to die away and its aspiration increases correspondingly.

There is no organic nasalization of vowels in Mohave, although tracings regularly show a transmission of vocalization through the nose as well as the mouth, probably in direct proportion to

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<sup>2</sup> Present series, x, 13-44, 1911.

the stress of the vowel (figs. 47-53). This transmission may take place through the solid parts of palate and nose rather than directly through the naso-oral air-chamber.

u, ù

The back vowel shows little lip rounding (figs. 1, 6) and is open or broad in quality. For this reason it has been indicated when long by ù, the symbol ū being associated, in most modern European languages, with closeness as well as length. The false palate used shows practically no contact for this sound (fig. 14).

o, ò

The o sound, long or short, also is open and does not affect the palate. It will be seen that the lip position is not very different from that of u (figs. 2, 7), and in rapid or slovenly speech the two sounds are sometimes hard to distinguish. O is somewhat less common than u.

a, ā

A (figs. 3, 8) is produced with wider lip opening than other vowels except e, and, the tongue lying flat, the palate is not touched. Long a has been represented by ā, as its quality is that usually associated with this symbol. A is the most common of the vowels.

When a is unaccented and short, at the beginning and end of words and syllables, it is usually very much slurred, so as to lose much of its distinctive quality or to become entirely inaudible. This is perhaps sometimes accompanied by incomplete laying flat of the tongue, owing to the influence of the following or preceding sound making itself felt in the very brief interval that the vowel lasts. The resulting short colorless vowel has usually been heard and written as possessing more of an e-timbre than any other quality; but in every instance of slow and careful enunciation such neutral e sounds are recognizable as merely brief or weakly voiced renditions of ordinary a.

It is probable that every Mohave stem word, and every syntactical word except those closing in a few grammatical terminations like -k, -tc, and -m, ends in a vowel. Since many words have the accent on other than the ultimate syllable, abbreviated final -a is very common. As in rapid or even in ordinary speech

it is usually inaudible, especially after stops, the question arises whether this a is not slurred to the extent of being whispered or even unvoiced. This does not seem to be the case; for all successful kymograph tracings show glottal and often even breath vibrations for this final sound. Ama't-a, earth, may be heard as ama't- or even mat-, but in carefully made tracings always appears as ama't-a. It is true that informants are likely to speak with more than usual effort at clear enunciation in producing tracings, so that even uniformity of these visible records can hardly be taken as an absolute indication of the practice followed in normal speech; but it is a fact that this final a has always been heard either as a voiced vowel or not at all, never as a surd echo. Informants have also never criticised the rendition of the sound in question by a voiced a. This contrasts markedly with the practice of Papago, in which true surd final vowels occur. The difference extends to other Indian languages. In the Shoshonean group, for instance, Ute is said by Dr. Sapir<sup>3</sup> to possess surd vowels. Northern Paiute,<sup>4</sup> on the other hand, shows some tendency to slur final vowels, much as does Mohave, but without their attaining surdness. The same is true of Luiseño.

The situation in Mohave therefore resembles the case of English as regards many of its short unaccented vowels.

Although the slurred vowel in Mohave is always a, it remains, however, to be ascertained by comparison with related languages whether it always represents original a.

Unaccented initial or final a is weakened in composition; aha, water, but almost ha'-avu'lypo and ha'-kuvilya (fig. 113), place-names; aha't-a, domestic animal (figs. 90, 141), horse, as compared with (a)ha't-tcoqa, dog (figs. 95, 140).

e, è

E, long è, is spoken with wider aperture of the lips than any other vowel including a, but with little retraction (figs. 4, 9). The tongue is raised until it reaches the gums in the region of the last two molars (fig. 13). E is a less common sound than i.

<sup>3</sup> Science, n.s., xxxi, 350-352, 1910.

<sup>4</sup> As observed from the informant reported on by Mr. Waterman in the present series, x, 13-44, 1911.

## i, ì

The lip position for i and ì is narrower than for e, but only slightly more retracted (figs. 5, 10). The tongue is considerably more raised anteriorly (fig. 11). This is the most frequent vowel next to a.

## LABIALS

P, v, m, and w are bilabial. There are no labio-dental sounds in Mohave.

## p

The labial stop p is invariably surd during its occlusion. The vocal chords begin to vibrate, somewhat gradually, immediately after the commencement of the explosion of the sound. In some instances this vocalization is exactly simultaneous with the release for the explosion (compare the q̇ in fig. 54), in other cases it is synchronous with the end of the puff as indicated by the highest point reached by the tracing needle (fig. 66); but these are apparently only unintentional variations from the norm of inception of sonancy, which falls in the middle of the explosion (fig. 67). The last part of this sound is therefore voiced and it is more exactly described as an intermediate than as a surd stop. It has usually been heard as intermediate between American English b and p, and was written b nearly as often as p until its nature began to be understood.

Essentially the same kind of stop has been found in various positions of articulation in Hupa, Kato, Paiute, Wintun, Salinan, Luiseño, and Papago.<sup>5</sup> In Hupa and Kato entirely surd aspirated stops also occur, a circumstance which has led Dr. Goddard to represent the dental and palatal intermediates by the sonant symbols d and g. This should, however, be interpreted as nothing more than a matter of orthographic convenience. In Papago and Luiseño final stops are never intermediate but entirely surd and considerably aspirated. In these two idioms there is no question of two distinct classes of stops; the same stop is partly sonant, or surd and aspirated, according as it does or does not stand before a vowel. This is also the Mohave rule, which is however circumscribed by the fact that all stem words end in vowels,

<sup>5</sup> Present series, x, 7-9, 1911.

and that *k* is the only stop which, through being a grammatical ending, occurs as the termination of words. *P* is therefore never final. It has also not been found before the few surd continuants, *θ*, *s*, and *h*. It does, however, precede other stops, such as the *-k* just spoken of; and in these cases it bears no trace of sonancy (fig. 56).

In the tracings the explosion of *p* is usually somewhat lower than that for *t*; it is, however, both higher and more sudden than that for *k*. The period of occlusion is normally longer than the period of explosion. With the sensitive tambour mostly used, the record of the occlusion is generally not a straight line, but a slight rise followed by a gentler decline and sometimes a second gradual rise before the needle suddenly rises at a sharp angle to mark the explosion (fig. 106). These membrane undulations during the occlusion probably mark nothing more than rebounds of the needle from the sharp decline at the conclusion of the preceding vowel. The first steep downward stroke of the needle at the beginning of the tracings of medial *p* might be interpreted as already part of the occlusion, if simultaneous tracings from the glottis (fig. 67) were not frequently voiced during this descent of the breath needle: indicating that the sound element represented by this stroke is still part of the vowel. The occlusion of initial *p* and other stops is usually a straight line (fig. 66).

It is in accord with what has already been said about the relative amount of breath in Mohave consonants and vowels that the tracing for *p*, obviously one of the most puffy and easily aspirated of all sounds, rarely surpasses the adjacent vowel curves very greatly in height and sometimes falls below them.

v

*V* presents no peculiarities beyond being invariably bilabial. In the tracings it is usually rather heavily voiced (figs. 77, 80, 96). In carefully articulated speech it is often reproduced by an ascending and descending curve between the end and beginning of the curves marking the preceding and following vowel (figs. 96, 142). At other times, however, *v* shows merely a sustentation of breath at the same level as in the adjacent vowels, or even a drop between them (figs. 113, 117).

## m

M also presents no peculiarities. It is usually of the same length as stopped consonants or spirants, longer than short vowels, and shorter than long vowels. When before p, it is simultaneous with the occlusion of this sound, which is not of greater duration than ordinarily. In such cases the first part of the occlusion is voiced, the second half unvoiced (fig. 60). When m is initial, its sonancy often begins gradually, and at least sometimes does not set in until some time after the lips have been closed (figs. 54, 70). In final m the tracing often shows no explosion whatever, indicating that the lips are parted gradually or not at all (figs. 55, 65, 68).

A number of words such as a'mmo, mountain-sheep (figs. 49, 72), amma'ya, sky (fig. 50), hammulyé', ashes (fig. 127), tinya'm-mot-e, not dark, contain an m with prolonged occlusion. This is somewhat less than twice the length of ordinary m. It is impossible to say whether this "doubled" m represents in all cases an assimilation of two consonants or is an organic constituent of the language distinct from m. On account of this uncertainty, which applies also to a similar lengthening of other continuants, mm has not been reckoned as a separate phonetic element of the language. A few doubtful tracings, as of manya, you (fig. 52), perhaps show long mm in initial position. Should they be confirmed, mm would of course have to be regarded as entirely distinct from m.

Like the other labials, m of course does not affect the roof of the mouth.

## w

W is a rare sound, much less common than v, and has not yet been found at the beginning of any word. In careful enunciation it can readily be distinguished from v by the greater rounding of the lips. It does not appear to differ appreciably from the voiced w of English (figs. 88, 103, 135).

## INTERDENTALS

## θ, δ

The fricatives θ and δ, surd and sonant respectively, are



spoken with the tongue between the teeth or against the upper teeth. In some cases the lower part of the upper gums is also touched by the tongue, as shown by palatograms (figs. 16-18). The sounds are essentially the same as the two values of English th. The sonant,  $\delta$ , is perhaps "doubled" in some words, as ta' $\delta\delta$ itca, corn (figs. 61, 92). Surd  $\theta$  has not yet been found lengthened. Both sounds usually show in tracings as a rounded curve, rising and falling again (figs. 86, 98, 129). In certain other Yuman dialects Mohave  $\theta$  is replaced by s.

#### DENTAL-ALVEOLARS

The dental or alveolar sounds t, s, n, l, tc, are not all formed at the same point, as the palatograms reveal.

##### t

T is usually audible as more truly dental than English t, and sometimes is clearly visible as interdental. Palatograms, however, show that in all cases the tongue is in contact also with the gums (fig. 23). The small untouched anterior area, which is found in all palatal impressions made of this sound, is due to a depression in the informant's palate which the tongue does not readily fill; but for this individuality, the t-contact would be even more posterior. As regards voice and breath, what has been said of p applies to t.

##### s

The surd fricative s is more anterior in articulation than t, the tongue position agreeing with the posterior one sometimes assumed for  $\theta$  and  $\delta$ : touching the upper teeth and lower part of the gums (fig. 19). In the tracings s shows like  $\theta$  (fig. 65). In a number of Indian languages the sound has been described as between English s and sh, or somewhat different from both. To some extent this is true of Mohave s, but in its audible effect it approximates rather to s. Informant one's pronunciation of English s and sh shows that he articulates the former like his s sound, the latter more posteriorly and with troughing of the tongue (figs. 20, 21).

S is probably long or doubled in *issona'*, woodpecker, and appears to be of unusual length in most tracings of *sa'ma $\delta$ ik*, does

not know. In as'a'sim, nods repeatedly (fig. 65), a reduplicated form, a probable glottal stop following the first s gives the effect of length of the continuant.

## n

The sound n also differs somewhat from t in place of articulation, the contact being on the gums (fig. 22), but following the teeth more regularly than for t. In all other respects n agrees with m, even to its absorption in the occlusion of stops, as in mastamho'inte (figs. 47, 83), and its lengthening in hannava' (fig. 80) and other words.

## l

This lateral sonant continuant is formed by a contact similar to that of n, the breath escaping on the side, in the case of informant one, through the gap caused by the loss of his right molar (fig. 29). The anterior contact is forward of that in English l. This position has been observed also for Luiseño l, and in Hupa by Dr. Goddard. In tracings the beginning and end of intervocalic l can usually not be marked definitely; often the two adjacent vowels and the included l form one nearly straight line, either ascending or descending (figs. 82, 107). Near its inception, however, the curve of l sometimes shows a distinct dip, which is even more prominent in the related sound ly. Dr. Goddard has commented on the same feature in Hupa and Kato l, and it appears regularly in tracings of l in Yurok, Wintun, Paiute, Luiseño, and Papago. Dr. Goddard explains the momentary dip as probably due to a single lateral movement of the tongue.

L is one of the continuants that are lengthened, as in ye'llaka, goose (fig. 108).

## tc

The affricative tc shows a contact against the roof of the mouth almost identical with that of t (fig. 24). Its tracings resemble those of stops, the duration of the release which contains the c (š) element not being appreciably longer than the explosion of t or p (figs. 77, 78, 92, 94). The effect of this sound is the same as that of English ch.

An apparent lengthened tc occurs in aha'tcoqa, dog (figs.

95, 140), really aha't-tcoqa, from aha't-a, domestic animal.

In a few words, such as aha'nya-mi'tscurqa, a species of frog (fig. 87), and a'tsqueqa, a bird (fig. 137), probably the bittern, ts was consistently heard and written. This ts is likely to be only a varying apperception of tc, or possibly a modification of it by the following velar k.

#### ALVEOLAR-PREPALATALS

The alveolar-prepalatal sounds of Mohave are probably even less related to one another than the dental-alveolar class. They comprise t, ny, ly, r, and y.

##### t.

For lack of a convenient typographical symbol, this character has been employed to designate a t formed slightly farther back than the t discussed. With careful enunciation the tongue touches the palate only over a narrow band back of the gums above the front teeth. The gums proper, as well as the teeth, are entirely free. Along the sides of the mouth, however, the tongue is less elevated than for t (fig. 26). Towards the rear of the palate, therefore, t̄ is more alveolar and less palatal than t. When t̄ is less carefully pronounced, the tongue touches the gums as well as the fore-palate (fig. 25). In such cases the palatal contact for t̄ is very similar to that for t, but can nevertheless be distinguished from it by a greater width of untouched palate in the region of the first molars.

The purest contact for t̄ is very similar to that for r (fig. 27), which is no doubt the cause of an audible r tinge in the stop. Such words as amat-a, earth, and ahat-a, horse, were at first consistently written amarta and aharta. A back or palatal t̄ distinct from front or dental t is found in a number of the native languages of California, including Luiseño, Yokuts, Salinan, Costanoan, Yuki, and perhaps Pomo and Miwok. In Yokuts and Salinan the r-tinge is also characteristically audible, but, in contrast to Mohave, after the t̄. In Yuki the r-affection is lacking, and the effect of the sound resembles that of tc.

T̄ has not been found initially in Mohave. As regards sonorancy, aspiration, and length it is identical with t.

## ny

A palatalized n, which is of course a simple sound, is as common as dental n. At the middle incisors, the tongue touches the palate but little farther back than for n. Farther to the rear, however, the tongue is more raised and in contact with a greater expanse of the roof of the mouth, until, in the region of the second molars, or the interstices between the first and second molars, the tongue touches the palate in a complete or nearly complete transverse band. From there back, the tongue becomes more and more depressed, until at the posterior end of the last molar it is in contact only with the gum. The palatograms reproduced in figures 31 to 33 show the degree of variability in the production of this sound.

Tracings of ny from the mouth sometimes evince vibrations (fig. 63), which must be referred to vocalization transmitted through the buccal opening on account of imperfect closure between tongue and palate. In some words, such as mā'nya (fig. 52), ny is short as compared with the vowels; in anyā' (fig. 48) and nyamaθā'm (fig. 51) it is long.

The double letter ny is of course orthographically incorrect for a simple sound. It has, however, been chosen as the only typographical facility available other than ñ, the employment of which seemed undesirable on account of the almost standardized use of this character to denote ng in American languages.

## ly

Ly is a palatalized sonant l which is more common than the unpalatalized sound. It corresponds to surd l or surd tl of some other Yuman dialects. The palatalization is less thorough than for ny, particularly the complete contact across the palate at the second molars being absent. Some portion of the entire length of the roof of the mouth is however touched, as the palatogram (fig. 30) shows. If this contact were simultaneous for all parts, a complete closure would be formed, resulting in a stop. The sound is however a continuant, so that one part of the contact must be made and concluded before the remainder begins. Nevertheless the sound is not merely l plus y, for a superposition of palatograms for l and y (figs. 29 and 12) gives

a different contact. In kymograph tracings *ly* shows heavy voice vibrations (figs. 54, 91), and regularly presents the dip already mentioned as characteristic of *l* (figs. 113, 117).

*r*

A short trilled *r* is found in Mohave. The tip of the tongue is flicked a few times against the top of the gums (fig. 27). The contact is a little lower and more forward than for *t*. Figure 28 shows by contrast a palatogram of English *r* as spoken by the informant. In the tracings *r* not only appears as well voiced, but presents undulations corresponding to the movements of the tongue. In some cases the undulations begin in what seems clearly to be part of the preceding vowel (figs. 79, 111, 115, 142, 144), or continue into the following one (fig. 101). It may be that the tongue, anticipating the ensuing *r*, begins to "roll" slightly, though without touching the roof of the mouth, during the progress of the vowel.

*R* is one of the continuants found in lengthened form, written *rr*. For informant one, the number of tongue movements in *r* varies from one (figs. 87, 111) to four (figs. 56, 79, 85, 89), averaging two (figs. 75, 94); in *rr*, from two to seven, with an average of three or four (figs. 59, 101). Informant two, who habitually speaks faster than his companion, makes only one or two tongue movements for *r* (figs. 139, 142, 144), and two (fig. 136) or sometimes three or four (fig. 125) for *rr*.

*R* is a rare sound initially.

*y*

*Y*, which occurs both initially and medially, is formed with a somewhat greater contact of the tongue on the palate (fig. 12) than *i* (fig. 11). In tracings it is usually impossible to separate from the adjacent vowels (figs. 81, 132, 134). An apparent diphthong *ai* is resolved, in careful enunciation, into *aya*. Thus *amma'ya* (fig. 50), *se'lyea'ya*, usually heard as *amma'i*, *se'lyea'i*.

POSTPALATALS AND VELARS

*k*, *q*, *kw*, *qw*

The back consonants of Mohave are all stops, but are four in number. Organic palatal *k* can be distinguished from or-

ganic velar k, designated by q. Each of these is spoken both with the lips in normal position and with the lips rounded. Hence the labialized palatal kw and velar qw, which are simple sounds. Both in tracings and palatal position kw and qw are indistinguishable respectively from k and q.

In sonancy, breath, and length, all four of these sounds agree with the stops previously described. K is the only stop that has been found finally in words. In this position it is entirely surd, and with a more strongly aspirated and longer sustained explosion than otherwise (figs. 56, 82, 105). In this it agrees with final *te*. The tracings for all the k sounds differ somewhat in shape from those of p, t, t, and *te*. In most instances the descent of the needle to mark the beginning of the occlusion is more gradual, the horizontal line indicating the period of total closure shorter, and the ascending line produced by the explosion less nearly vertical, than for the anterior stops. In extreme cases the tracing for k or q therefore has the shape of a capital V (figs. 67, 78, 113), as compared with the vertical, horizontal, and vertical strokes produced by a p or t. This difference indicates that the approach of the articulating parts is more gradual for k than for the anterior sounds. It is obvious that the lips and the tongue-end, being more mobile than the back of the tongue, make contact with more of an edge and more suddenly. When the rear of the tongue touches the back hard palate or the velum, it is one rounded surface that approaches another. The greater time consumed in making the closure complete and again removing it, seems to be at the expense of the closure itself: the total duration of k is the same as that of p and t.

Q is audibly distinct from k chiefly in being produced with greater muscular exertion. It frequently sounds forced or labored.

The contact of both k and q varies somewhat, and in many words positions can sometimes be obtained for k which are as posterior as some of the anterior contacts of q. In most instances, however, the average articulation of the two sounds is distinct on the false palate as well as audibly, the k-position of

only a few words, such as qara'è'rva (figs. 89, 142), being difficult to determine.

The organic difference between k and q, or kw and qw, is of course entirely independent of the varying positions assumed by the tongue, in Mohave as in other languages, as k precedes a front or a back vowel.

In k in its normal position, as before a, the tongue touches the palate from the second molar back. The false palate used was cut off squarely at the rear of the last molars. In about half of the impressions made, the contact extended entirely across the false palate, or nearly across it, in a narrow band along the hind edge (figs. 37, 38); in the other instances the contact did not show and was therefore more posterior (figs. 39, 40). The contact is apparently firmest between the middle of the tongue and the roof of the mouth; in several cases portions of the gum immediately adjacent to the last molar or two were touched but lightly or not at all. For k before u the position is practically identical, but probably slightly more posterior (figs. 35, 36). K before i, however, is much more anterior. It did not seem feasible to obtain reliable palatograms of this sound without the following i. The impressions taken therefore include both k and i, but as the i-contact proves to be much smaller than that for ki, the whole of the latter must be regarded as due to the k (fig. 34). It can be seen that the palate is completely covered by the tongue as far forward as the second molars; and even forward of this line the k-contact rises higher up from the teeth toward the median line of the palate than that of i.

In q and qw the middle of the false palate was never touched by the tongue. In many cases there was a small area of contact in the region of the hindmost teeth, but usually not adjacent to them (figs. 42, 43). In other instances, especially in the word aqā'qa, raven, whose onomatopoeic origin perhaps induces an extra effort at throaty articulation, the false palate was practically or entirely untouched (figs. 44, 45, 46). These results indicate that at least the principal contact in q and qw is really velar.

Kw is a common sound, qw hardly less so. Q is probably not as frequent as k, but is by no means rare.

The nasal continuant in k position does not occur in the language, although the Mohave pronounce it without difficulty and employ it frequently in the distorted forms which words assume in their songs.

#### BREATHS AND GLOTTAL STOPS

##### h and ʻ

There are two h sounds in Mohave, which probably correspond very nearly to the two indicated by the same symbols in Yana by Dr. Sapir.<sup>6</sup> The sound ʻ, which has been established only as an initial, is faint, and usually escapes observation until some familiarity with the language has been acquired. It occurs most frequently as a prefix indicating the third person possessive or subjective in nouns and verbs. In tracings ʻ is often invisible (figs. 58, 67), at other times shows as a slight and short bulge in the upward rise preceding vowels (figs. 55, 94). The sound may be compared to the Cockney h.

H is medial as well as initial, and even final in syllables, as in *ahmaʻ*, quail, *ahtāʻ*, cane, *ahʻāʻ*, cottonwood. It ordinarily presents a more pronounced and longer rise and fall than ʻ in tracings, but its curve when initial is nevertheless quite modest (figs. 93, 99). It sounds stronger when it follows a vowel, but in tracings generally only carries on the final upward curve of the preceding vowel (figs. 109, 110, 119), except when it is succeeded by a consonant, which normally increases its vigor (figs. 76, 104, 118). After stopped consonants, as in *maʻthāk*, north (figs. 70, 97), it appears as a distinct sharp rise and fall immediately after the explosion of the stop. It has similar quality in *marhoʻ* (fig. 115), and *mastamhoʻinte* (figs. 47, 83). A number of tracings of the word *hamaʻkhava* (fig. 93), however, have a different character, the explosion of the k and the h being apparently combined into one expulsion of breath, which differs from the explosion of ordinary medial k in being higher, sharper, and entirely surd.

To the ear, h, especially when preceded by a vowel, has

<sup>6</sup> Present series, ix, 5, 1910.



something of the quality of a fricative in k-position. Breath tracings also usually show distinct vibrations (figs. 76, 84, 90, 95, 110). As synchronous tracings from the larynx are however entirely smooth, it is clear that the sound is purely surd and that its vibrations are due to friction produced by constriction at some point above the glottis. The quality of the sound makes it probable that the constriction is in the region of the rear palate. Dr. Goddard has described the same phenomenon in connection with the, h of Hupa and Kato,<sup>7</sup> Mr. Waterman has determined it for Paiute,<sup>8</sup> Dr. Sapir indicates it for Yana,<sup>9</sup> and it extends also to other languages, such as Yuki.<sup>10</sup> In all these tongues the sound has been recognized as essentially an h in spite of its approach to fricative character.

A sound often heard as hw, even xw, seems to be a combination of h with short unaccented o preceding another vowel: hoã'lya, hoa'mi.

Glottal stops have not been heard or determined at the beginning or end of words, but occur as organic constituents within words and between vowels that are brought into juxtaposition by the compounding of words or stems (figs. 66, 68, 78, 89, 124). In rapid speech they are likely to be slurred out of existence, especially by informant two (figs. 78, 100, 124, 142). They appear after a number of continuant consonants, as in aθ'ÿ, salt, ah'ã, cottonwood (figs. 55, 62, 65, 120), but are doubtful after stops (fig. 79). A glottal stop shows in a breath tracing as a low, nearly level line; it is the same in a record from the glottis.

#### STRESS AND PITCH ACCENT

Many Mohave words are to our ears definitely accented on the last syllable. Such are anyã', sun, haly'a', moon, aθ'ÿ, salt, avi', stone, ipa', man, kwaθiðè', shaman, hamo'k, three, teimpã'pk, four, nyamaθã'm, tomorrow, ahmo', mortar, melyeqe', throat. When the stress is on any syllable preceding the final, it is some-

<sup>7</sup> Present series, v, 12, 1907; xi.

<sup>8</sup> x, 24, 1911.

<sup>9</sup> ix, 5, 1910.

<sup>10</sup> x, 11, 1911.

times fairly well marked, as in *ka'veik*, south, *pā'ya*, all, *mā'nya*, you, *sa'maḍik*, does not know, *vī'ka*, seven, *ī'wa*, my mouth, *ḥenya'ā'ka*, woman; or more frequently is so evenly balanced that it seems to rest on two syllables. Thus *aha't-teoqa* or *ahat-teo'qa*, dog, *a'laik* or *ala'ik*, is bad, *a'lakwisa* or *ala'kwisa*, a tribal name, *ama't-a* or *a'mat-a*, earth, *amma'ya* or *a'mmaya*, sky, *a'mmo* or *ammo'*, mountain-sheep, *mī'hù* or *mīhù'*, your nose, *a'tsqueqa* or *atsqe'uqa*, a bird, *ò'tùra* or *òtù'ra*, gambling poles, *ma't'āra* or *mat'ā'ra*, playground, *hama'khava* or *ha'mak-hava*, Mohave, *so'qwilya* or *soqwilya*, a hawk, *ḍokupì'ta* or *ḍo'kupì'ta*, owl, in each of which pairs the first form seems to the writer the more correct, though the other has also been heard.

Of more importance than stress in the accentuation is pitch. While the writer's ear is poorly trained for the observation of this quality, he finally received the impression that that syllable of a word which appeared to be most strongly stressed was spoken in a higher pitch than the others. Measurements of wave lengths made in a number of tracings that are of large enough size to render this procedure feasible, corroborated this subjective judgment. Thus it was ascertained that in *ò'tùra*, *'i'pùka*, *ta'ḍḍitea*, *vī'ka*, *a'mmo*, *ama't-a*, *mā'nya*, *mastamho'inte*, *orrò*, *ihne'*, the vowel indicated by the accent was from one to three or four full tones of the diatonic scale higher than the other vowels.

The average vibration rate per second for the raised syllable is twenty-five per cent, or a major third, above that of the remainder of the word, irrespective of the position of this syllable. The only exception was *vāra*, no, which was always heard stressed on the first syllable, but in most of the tracings available appears to have the second a higher-pitched. In words like *ama't-a*, *'i'puka*, *ta'ḍḍitea*, the final short or slurred *a* is normally considerably lower in tone than both preceding syllables.

The contrast in pitch is particularly striking in *a'ha*, water, *ah'ā'*, cottonwood; and *ā've*, rattlesnake, *avè'*, mouse. It must be observed, however, that in *ah'ā'* and *avè'* the higher-pitched vowel also sounds stressed; in *a'ha* and *ā've*, on the other hand,

the stress on the first syllable is usually apparent only when the words are compared with their counterparts. A'mmo, ò'tùra, ama't-a, and other words which were varyingly written while attention was being given only to force of utterance, are also uniformly spoken with higher pitch on the vowels marked. As a similar doubt as to stress rarely arose concerning words which subsequently proved to have the last syllable high-pitched, it seems probable that increased stress and higher tone coincide in words accented on the ultimate, but that when the accent falls elsewhere it consists only of a rise in pitch, which to the English ear has at first somewhat the appearance of more forcible utterance. Or the difference may be due to the fact that the English ear is less accustomed to a final rise and therefore notes it more readily. It is also possible that a sharply rising tone may have to be distinguished from a less noticeable high but level tone, or a circumflex one; but the tracings secured are scarcely sufficiently delicate in pitch indication to determine. At any rate it seems clear that heightened pitch rather than increased stress constitutes the normal accent in Mohave.

A similar condition appears to characterize the Yurok language of the opposite end of California. This is however the only tongue in the state for which pitch-accent has as yet been definitely determined. Dr. Goddard denies any considerable function of pitch in his careful analyses of Hupa and Kato.<sup>11</sup> Dr. Sapir does not indicate the quality in his writing of Yana,<sup>12</sup> and Mr. Waterman has failed to find it in Northern Paiute.<sup>13</sup> The writer has observed pitch inflections in Papago, but as they consist only of a regular falling of tone in the course of all words, they scarcely constitute an accent. For the other languages of the area observations are however still too imperfect to be worth much, so that the status of Mohave may prove to be by no means exceptional.

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<sup>11</sup> v, 18, 1907; xi.

<sup>12</sup> ix, 1-235, 1910.

<sup>13</sup> x, 13-44, 1911.

## PITCH VALUES OF VOWELS OF MOHAVE WORDS

The number of vibrations per centimeter of tracing, corresponding to about one-fifth of a second duration, was found to be as follows in one or more tracings of the subjoined words. Many records were obtained in a low-pitched voice, to which the tambours used were more sensitive.

- a'ha: a', 50; a, 33.  
 ah'ā': a, 32, 38, 26; ā', 40, 41, 37.  
 ā've: ā', 33, 35; e, 29, 29.  
 āvè': a, 32, 31; è', 38, 40.  
 vī'ka: i', 37; a, 23.  
 orrò': o, 30, 31; ò', 41, 44.  
 ò'tùra: ò', 30, 31; ù, 27, 24.  
 a'mmo: a', 34, 43, 41; mm, 36, 43, 41; o, 29, 33, 33.  
 ama't:a: a, 33, 32; m, 35, 39; a', 46, 46; a, 29, 30.  
 ta'òðitea: a', 32; i, 29; a, 23.  
 'i'puka: i', 30; u, 27; a, 23.  
 mastamho'inte: a, 34; a, 38; o'i, 40.  
 nyamaθā'm: a, 31; a, 31; ā', 38.  
 ihne': i, 31, 34, 31; e', 31, 37, 34.  
 mā'nya: ā', 45, 50, 52; a, 45, 39, 45.  
 vā'ra: ā', 37, 25, 34; a, 37, 27, 41.



EXPLANATION OF PLATE 6

Lip-positions for vowels.

Informant one:

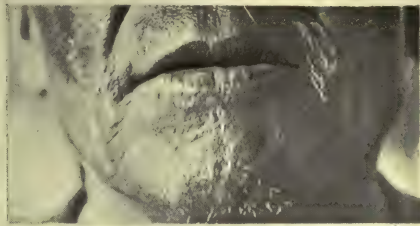
- Fig. 1.—u in ɪ'hù, my nose.
- Fig. 2.—o in ɪðò', my tooth.
- Fig. 3.—a in ah'á', cottonwood.
- Fig. 4.—e in āvè', mouse.
- Fig. 5.—i in aθ'ɪ', salt.

Informant two:

- Fig. 6.—u in ɪ'hù, my nose.
- Fig. 7.—o in ɪðò', my tooth.
- Fig. 8.—a in ah'á', cottonwood.
- Fig. 9.—e in āvè', mouse.
- Fig. 10.—i in aθ'ɪ', salt.



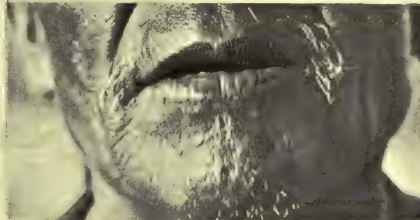
1 u



6 u



2 o



7 o



3 a



8 a



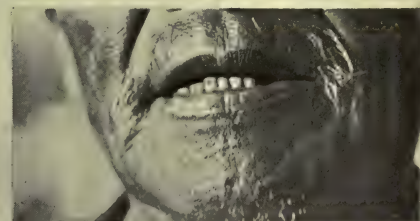
4 e



9 e



5 i



10 i

MOHAVE LIP POSITIONS.



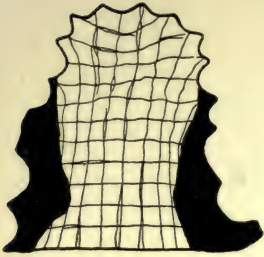




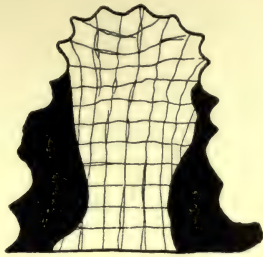
EXPLANATION OF PLATE 7

Palatograms from informant one.

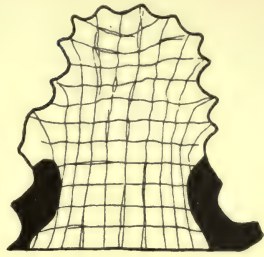
- Fig. 11.—i in *avì'*, mountain.  
Fig. 12.—y in *ayā'*, mesquite bean.  
Fig. 13.—e in *āvè'*, mouse.  
Fig. 14.—u, part of *iyù'm*, seeing.  
Fig. 15.—w in *wa*, part of *avì'-waθa*, the name of a place.  
Fig. 16.—θ in *θa*, part of *θara'pk*, five.  
Fig. 17.—θ in *aθ*, part of *aθ'i'*, salt.  
Fig. 18.—δ in *aδ*.  
Fig. 19.—s in *aspā'*, eagle.  
Fig. 20.—English s in *so*.  
Fig. 21.—English sh in *show*.  
Fig. 22.—n in *na*, part of *na'maθa*, raccoon.



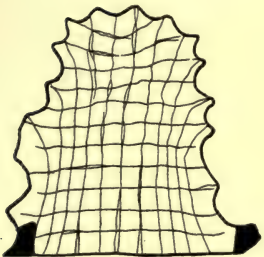
11 l



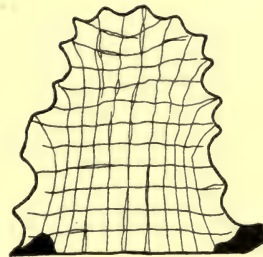
12 y



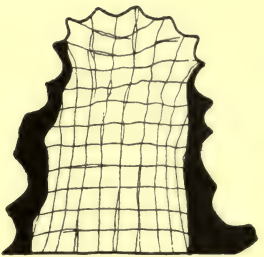
13 e



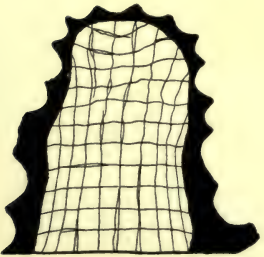
14 u



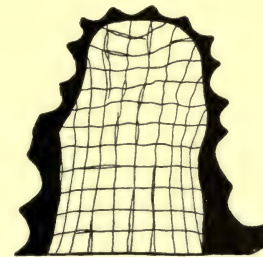
15 w



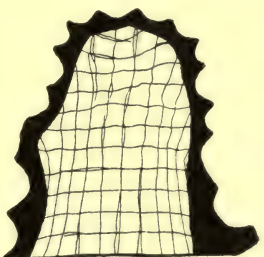
16 0



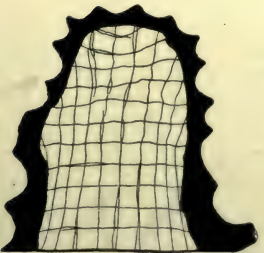
17 0



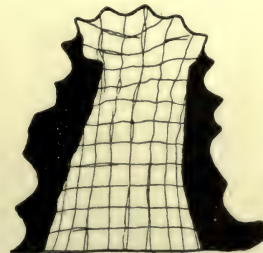
18 8



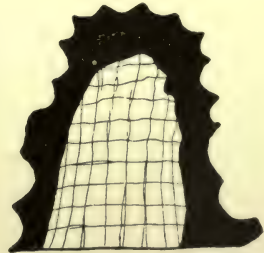
19 s



20 Eng s



21 Eng sh



22 n



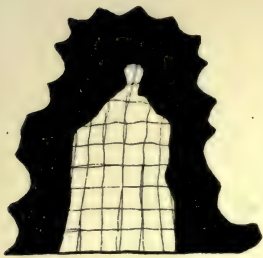


EXPLANATION OF PLATE 8

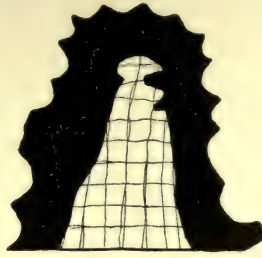
Palatograms from informant one.

- Fig. 23.—t in ahtā', cane.  
Fig. 24.—te in hatea', Pleiades.  
Figs. 25, 26.—t. in ama't.a, earth.  
Fig. 27.—r in arrā', interjection of astonishment.  
Fig. 28.—English r in row.  
Fig. 29.—l in lap, part of lapalā'pa, flat.  
Fig. 30.—ly in haly'a', moon.  
Figs. 31, 32.—ny in anyā', sun.  
Fig. 33.—ny in mā'nya, you.  
Fig. 34.—ki, part of ki'ōlk, come here!

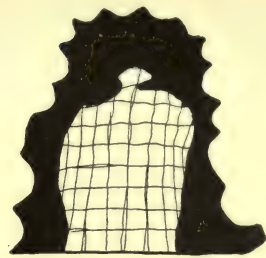
72<sup>a</sup>



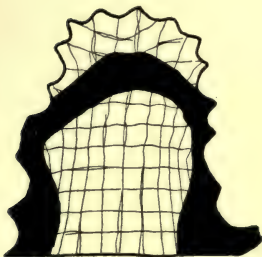
23 t



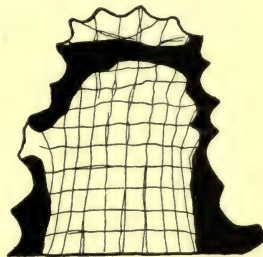
24 tc



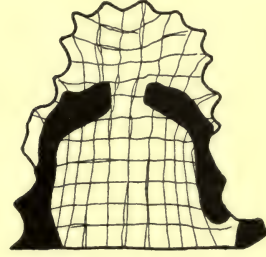
25 t



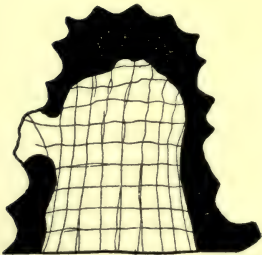
26 t



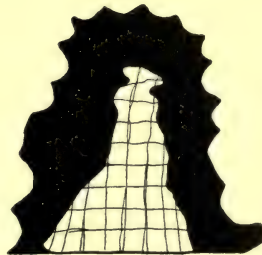
27 r



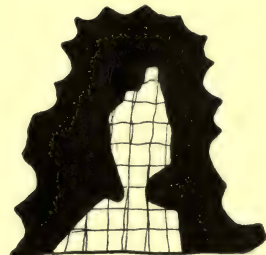
28 Eng r



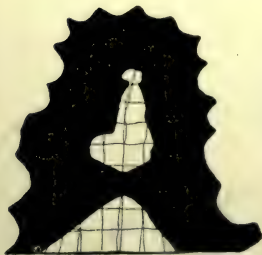
29 l



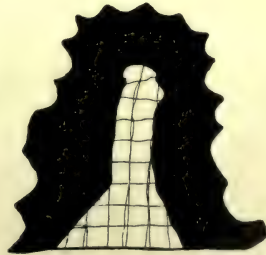
30 ly



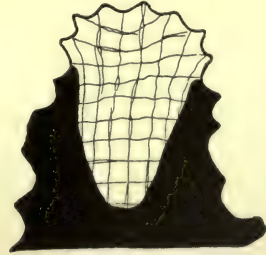
31 ny



32 ny



33 ny



34 kt





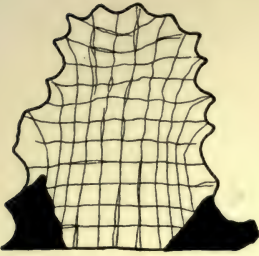


EXPLANATION OF PLATE 9

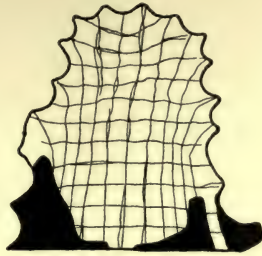
Palatograms from informant one.

- Figs. 35, 36.—k before u in kupo', carrying frame.  
Fig. 37.—k in ka, part of ka'navak, tell.  
Figs. 38, 39.—kw in kwa, part of kwaθidè', medicine-man.  
Fig. 40.—k in pāpk, part of teimpā'pk, four.  
Figs. 41, 42.—q, possibly k, in qa, part of qara'è'rva, name of a place.  
Figs. 43, 44.—qw and q in aqwā'qa, deer.  
Fig. 45.—qw in qwa, part of qwalyinyo', tule.  
Fig. 46.—q in aqā'qa, raven.

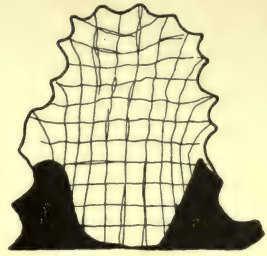
79<sup>a</sup>



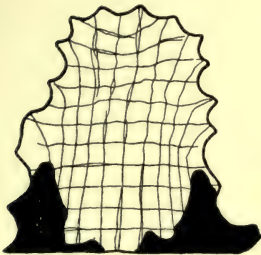
35 ku



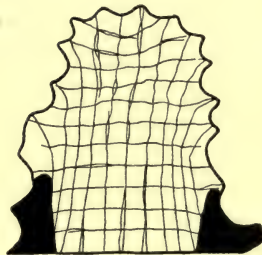
36 ku



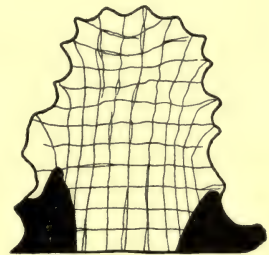
37 ka



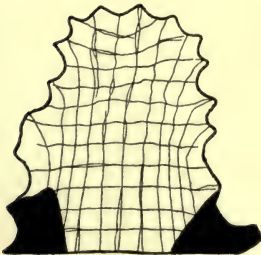
38 kwa



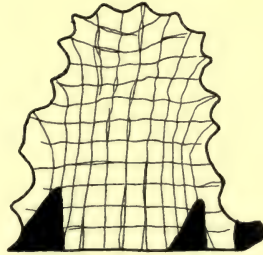
39 kwa



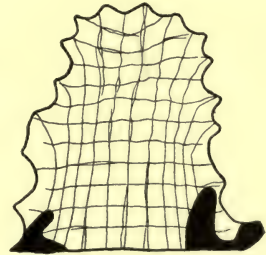
40 -k



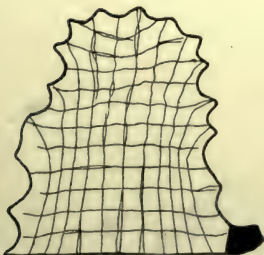
41 qa



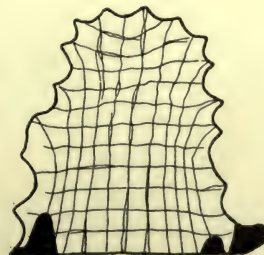
42 qa



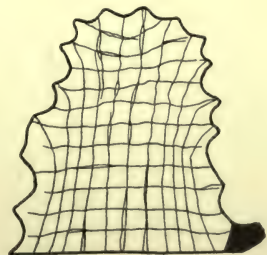
43 qwa



44 qwa



45 qwa



46 qa





EXPLANATION OF PLATE 10

Tracings from the nose and mouth of informant one; nose above.

Fig. 47.—mastamho'inte, syntactical form of mastamho', an important mythological character. Cf. fig. 83.

Fig. 48.—anyā', sun.

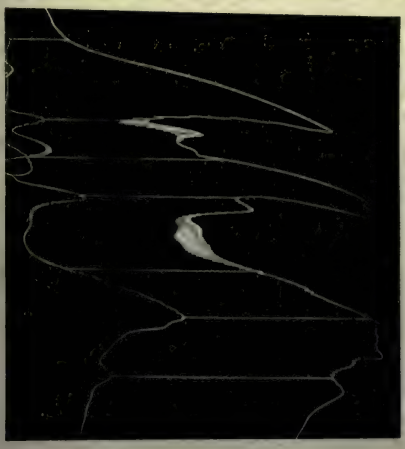
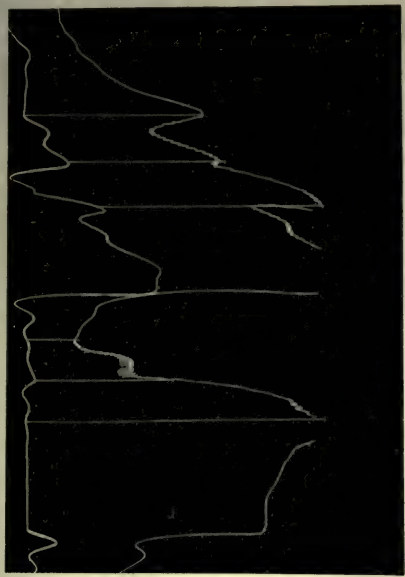
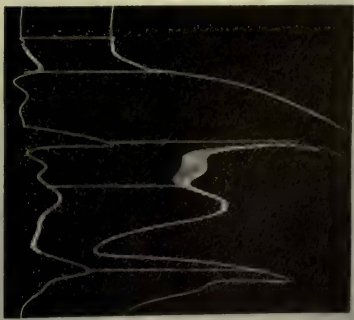
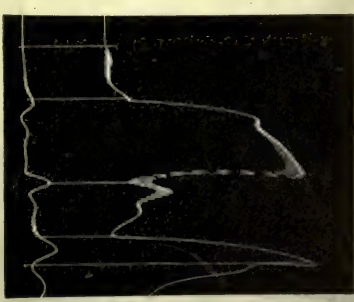
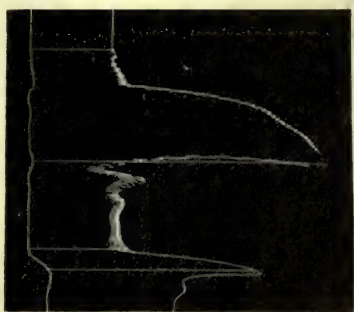
Fig. 49.—a'mmo, mountain-sheep. Cf. fig. 72.

Fig. 50.—amma'ya, sky.

Fig. 51.—nyamaθā'm, tomorrow. Cf. fig. 86.

Fig. 52.—mā'nya, you.

Fig. 53.—na'maθa, raccoon.









EXPLANATION OF PLATE 11

Tracings from the mouth and glottis of informant one; glottis below.

Fig. 54.—*melyeqe'*, throat. Cf. fig. 91.

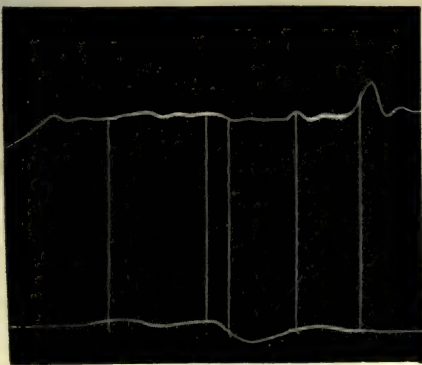
Fig. 55.—*'iv'a'um*, standing. Cf. fig. 100.

Fig. 56.—*θara'pk*, five.

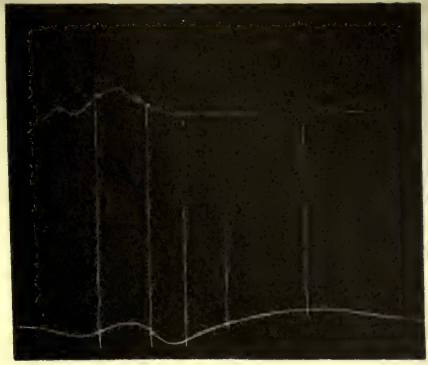
Fig. 57.—*ama't.a*, earth. Cf. fig. 122.

Fig. 58.—*'i'puik*, dead.

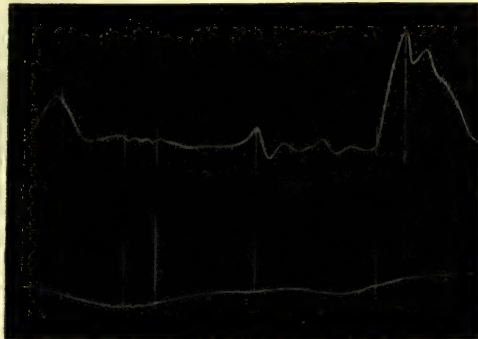
Fig. 59.—*orrò'*, the nighthawk. Cf. figs. 101, 133.



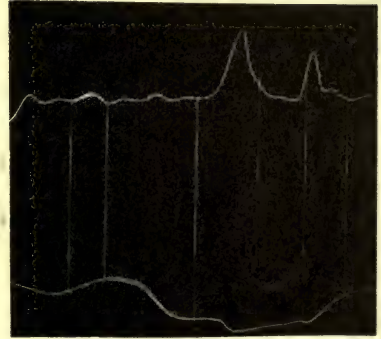
m e l y e q e  
54



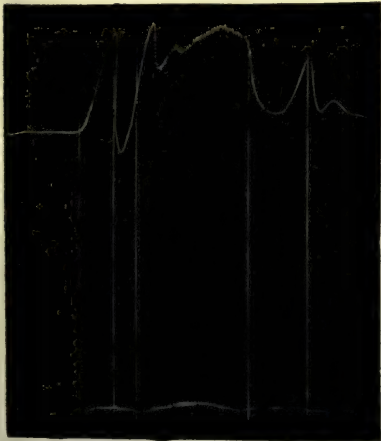
r i v ' a u m  
55



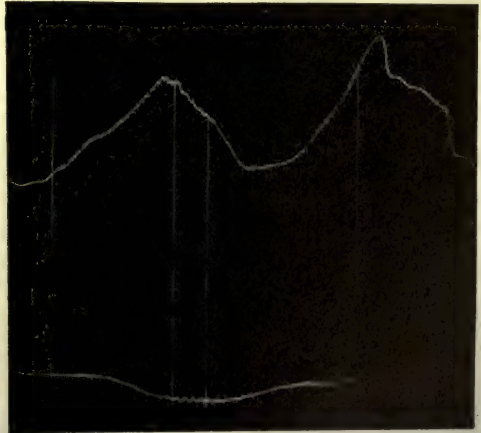
θ a r a p a k  
56



a m a t a  
57



r i p u i k  
58



o r r ò  
59





EXPLANATION OF PLATE 12

Tracings from the mouth and glottis of informant one; glottis below, except in fig. 65.

Fig. 60.—teimpā'pk, four.

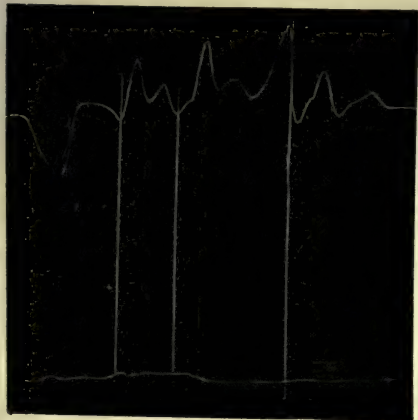
Fig. 61.—ta'ḡḡitea, corn. Cf. fig. 92.

Fig. 62.—aθ'i', salt.

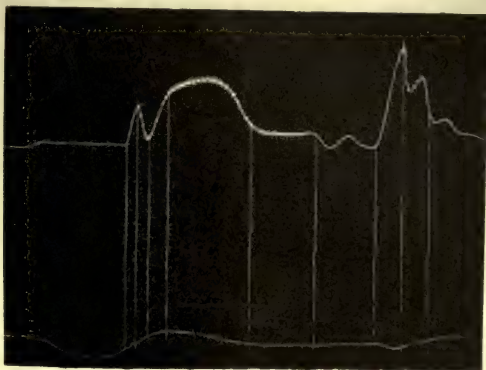
Fig. 63.—inye'pa, I.

Fig. 64.—vi'ka, seven.

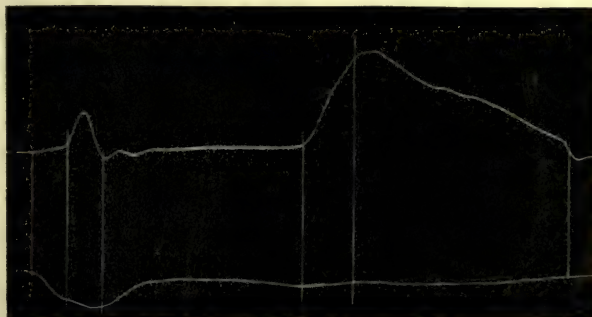
Fig. 65.—as'a'sim, nodding repeatedly.



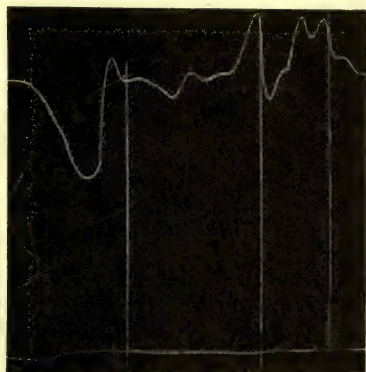
tcimpāpk  
60



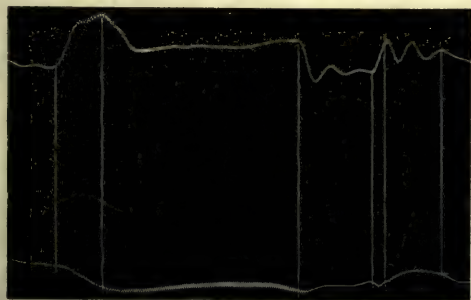
taḡḡiṭca  
61



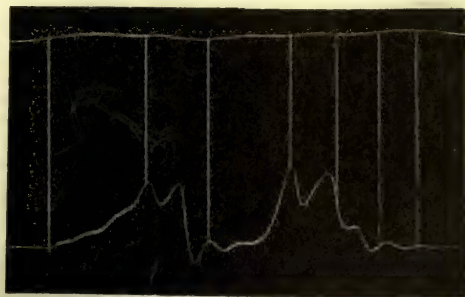
aθ'i  
62



inyepa  
63



vika  
64



as'asim  
65



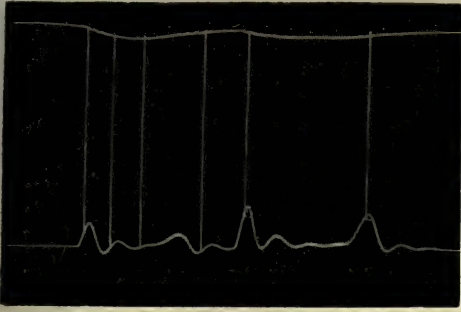




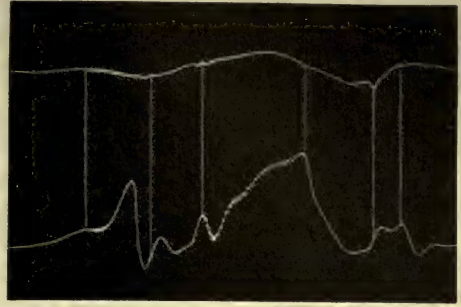
#### EXPLANATION OF PLATE 13

Tracings from the mouth and glottis of informant one.

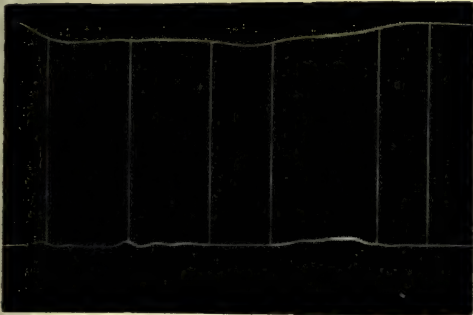
- Fig. 66.—pi'ipa', somebody. Glottal tracing above. Cf. fig. 124.  
Fig. 67.—'i'puka, its end or beginning. Glottal tracing above.  
Fig. 68.—ka'ŋ'm, give! Glottal tracing above.  
Fig. 69.—a'htot-a, grape-vine. Glottal tracing above.  
Fig. 70.—ma'thāk, wind, north. Glottal tracing above. Cf. fig. 97.  
Fig. 71.—ka'veik, south. Glottal tracing above. Cf. fig. 105.  
Fig. 72.—a'mmo, mountain-sheep. Glottal tracing below. Cf. fig. 49.  
Fig. 73.—ā've, rattlesnake. Glottal tracing below. Cf. fig. 123.  
Fig. 74.—āvè', mouse. Glottal tracing below.



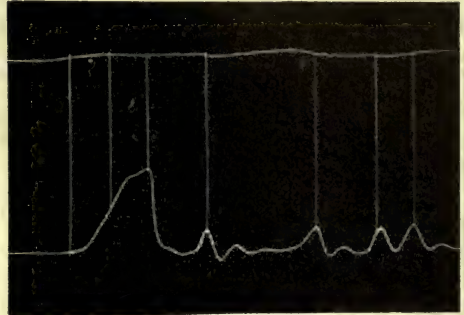
p i ' i p a  
66



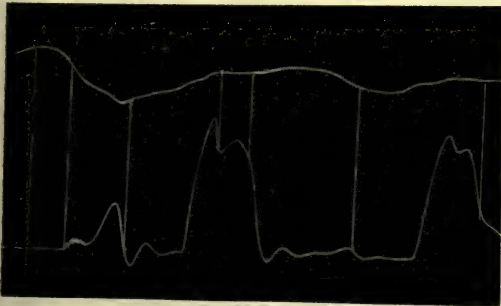
r i p ù k a  
67



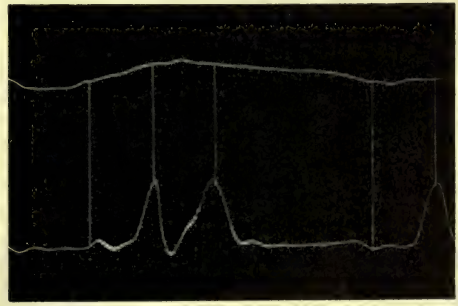
k a ' i m  
68



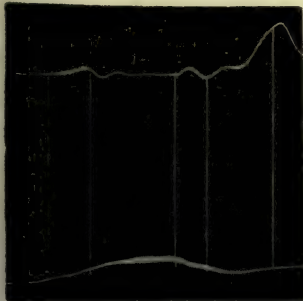
a h t ò t a  
69



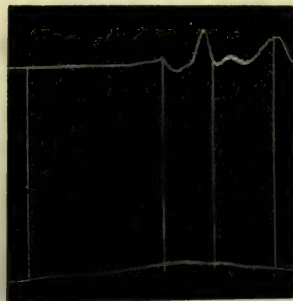
m a t h ā k  
70



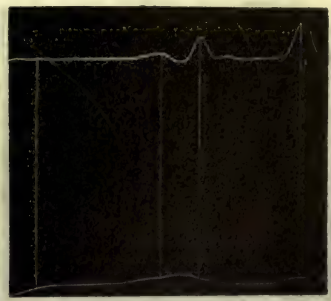
k a v e i k  
71



a m m o  
72

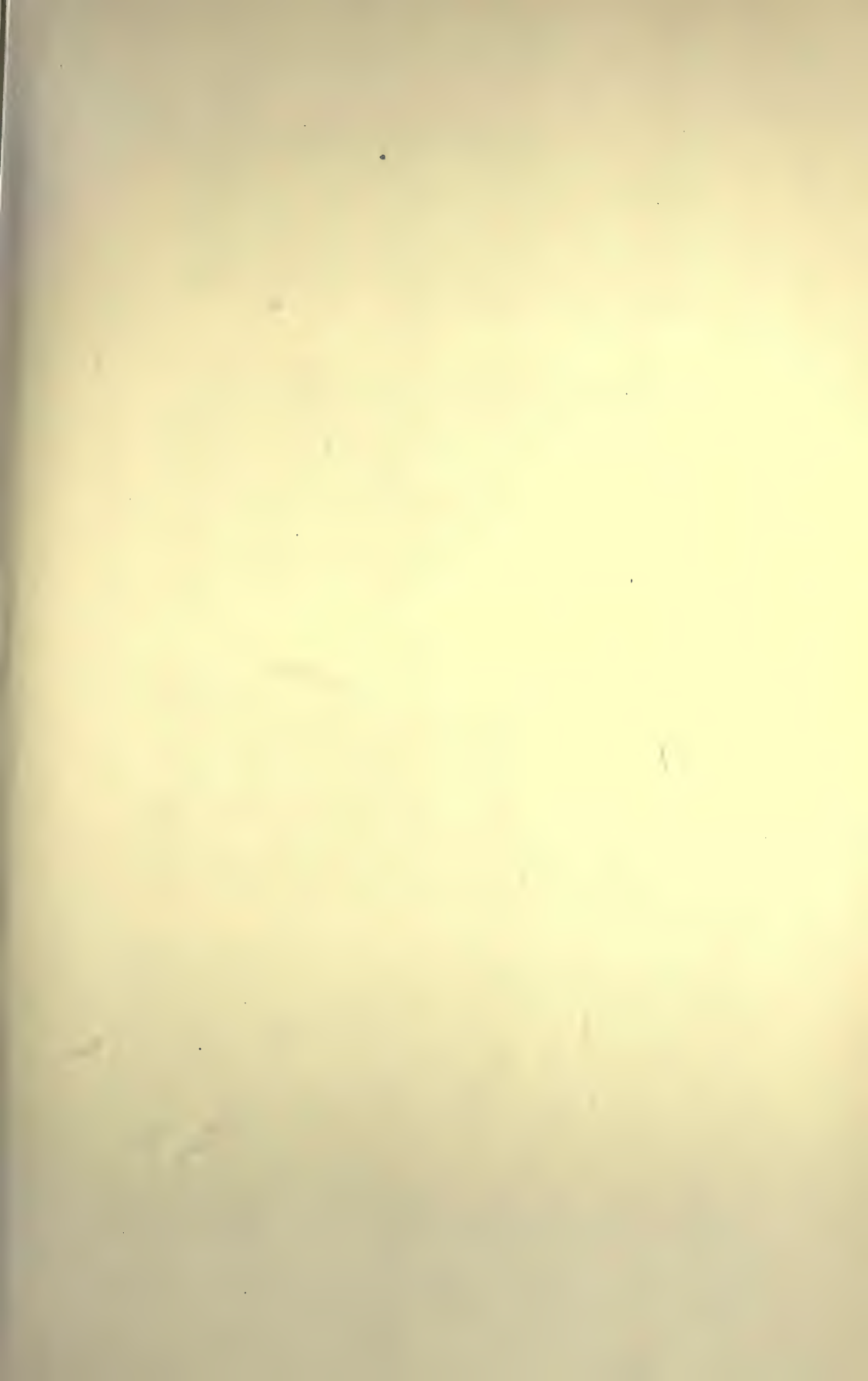


ā v e  
73



ā v è  
74





EXPLANATION OF PLATE 14

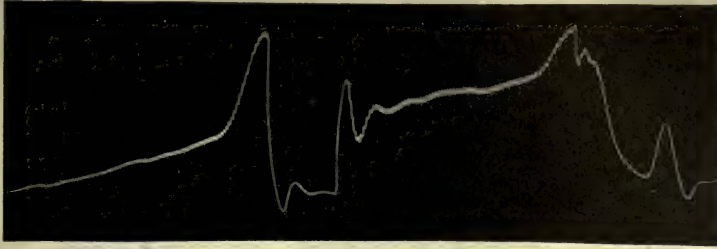
Tracings from the mouth of informant one.

Fig. 75.—ò'tùra, gambling poles. Cf. fig. 121.

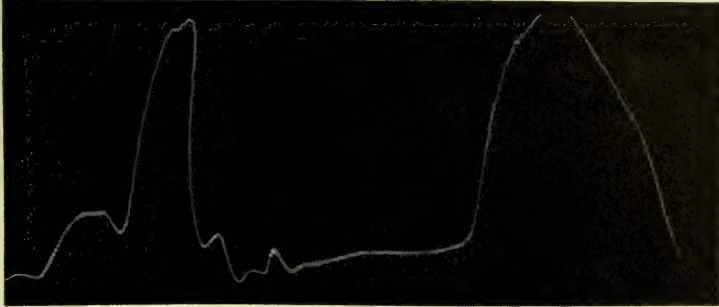
Fig. 76.—ihne', drift-wood.

Fig. 77.—vã'ptite, nothing. An a that has not been heard appears between the p and t. Cf. fig. 143.

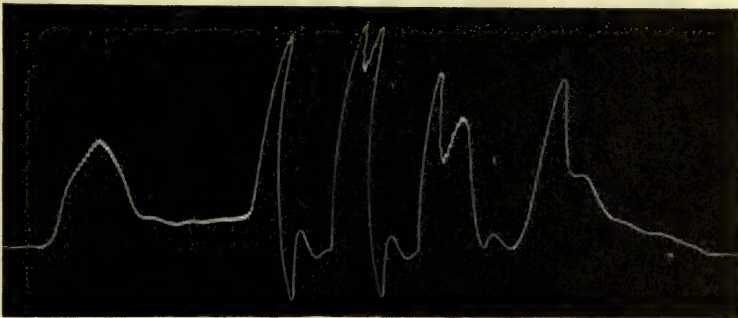
Fig. 78.—kwora 'ã'koè'vite, elder brother, from kwora 'ã'ka, old man, and o 'è'vite. The glottal stop in the latter word, and that which should separate the two elements of the compound, do not show in the tracing and have probably been slurred out.



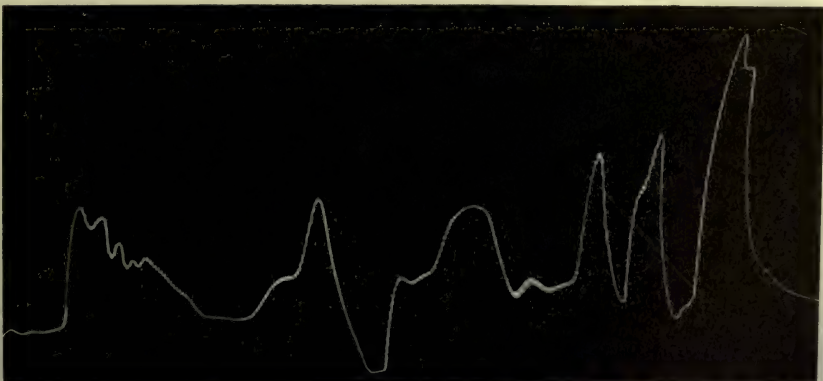
ò t ù r a  
75



i h n è  
76



v ā p [a] t i t c  
77



k w o r a ' a k [a] o ['] e v i t c  
78



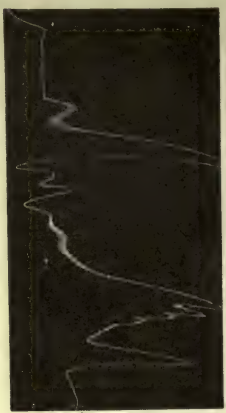




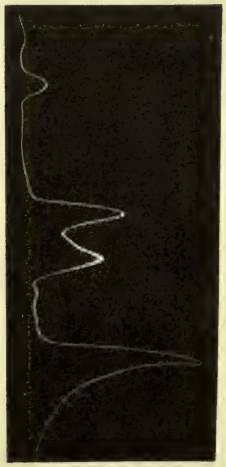
EXPLANATION OF PLATE 15

Tracings from the mouth of informant one.

- Fig. 79.—ma't'āra, play-ground, field.
- Fig. 80.—hannava', an insect.
- Fig. 81.—ayā', mesquite bean. Cf. fig. 134.
- Fig. 82.—a'laik, bad.
- Fig. 83.—mastamho'inte, a mythological character. Cf. fig. 47.
- Fig. 84.—ōta'ha, dice.
- Fig. 85.—vā'ra, no. Cf. fig. 139.
- Fig. 86.—nyamaθā'm, tomorrow. Cf. fig. 51.
- Fig. 87.—mi'tsqrqa, part of aha'nya-mi'tsqrqa, a certain kind of frog. Ts perhaps equals te.



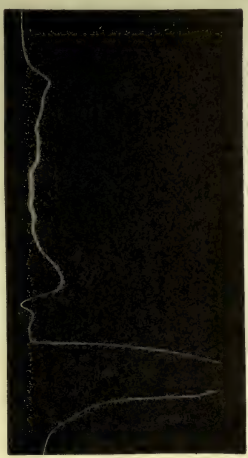
m a t' a r a  
79



h a n n a v a  
80



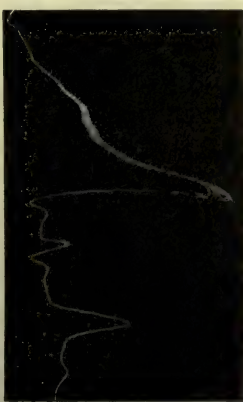
a y a  
81



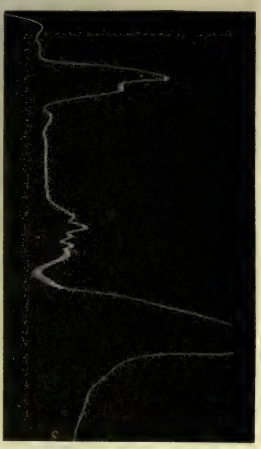
a l a i k  
82



m a s t a m h o i n t e  
85



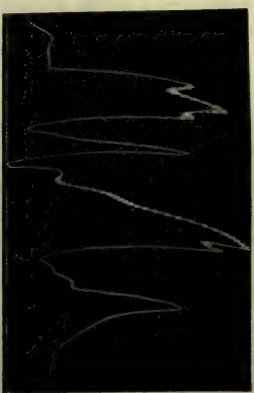
o t a h a  
84



v a r a  
85



n y a m a o a m  
86



m i t s q u r q a  
87

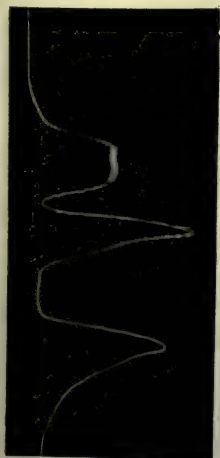
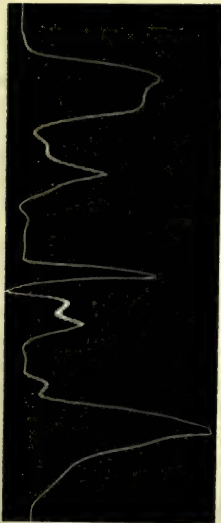
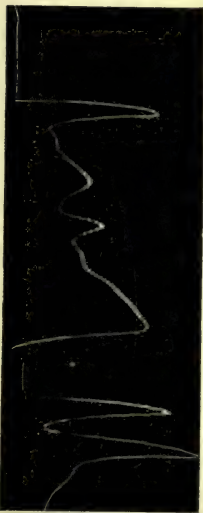
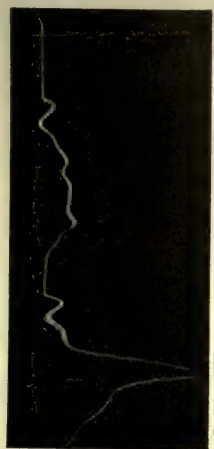
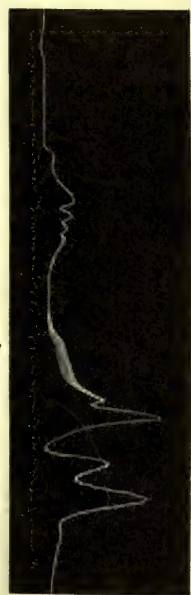
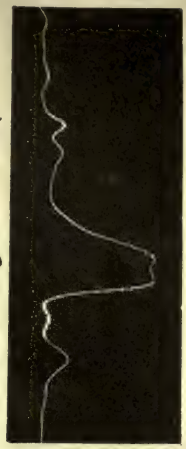




### EXPLANATION OF PLATE 16

Tracings from the mouth of informant one.

- Fig. 88.—avi'-waθa, name of a place.  
Fig. 89.—qara'è'rva, name of a place. The initial may be k. Cf. fig. 142.  
Fig. 90.—aha't-a, domestic animal, now horse. Cf. fig. 141.  
Fig. 91.—melyeqe', throat. Cf. fig. 54.  
Fig. 92.—ta'ððitea, corn. Cf. fig. 61.  
Fig. 93.—hama'khava, Mohave.  
Fig. 94.—'itcie'rqa, its excrement.  
Fig. 95.—aha't.tcoqa, dog. From aha't-a (fig. 90). Cf. fig. 140.  
Fig. 96.—ava', house.



TRACINGS OF MOHAVE WORDS.



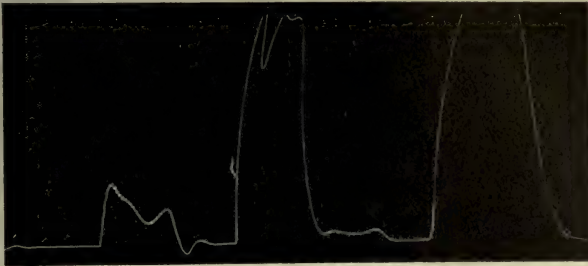




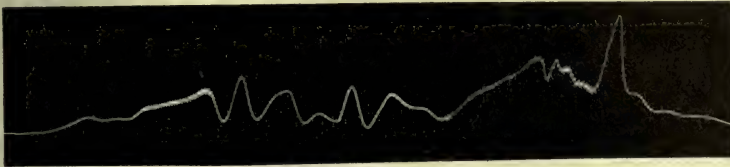
### EXPLANATION OF PLATE 17

Tracings from the mouth of informant one.

- Fig. 97.—ma'thāk, wind, north. Cf. fig. 70. .
- Fig. 98.—ìðo'-kuval'ra, name of a place. A glottal stop has usually been heard between a and ì.
- Fig. 99.—hamo'k, three.
- Fig. 100.—'iv'a'um, standing. Cf. fig. 55.
- Fig. 101.—orrð', the nighthawk. Cf. figs. 59, 133.
- Fig. 102.—ko're, now, well, then, come. Cf. fig. 144.
- Fig. 103.—ì'wa, my heart. Cf. fig. 135.
- Fig. 104.—ahtā', cane.
- Fig. 105.—ka'veik, south. Cf. fig. 71.
- Fig. 106.—ðokupì'ta, owl.



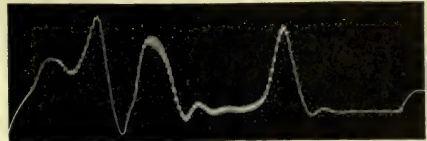
m a t h ā k  
97



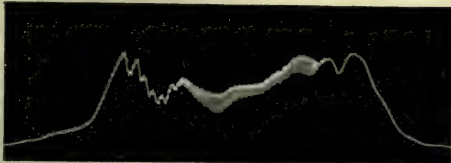
ì δ o k u v aì r a  
98



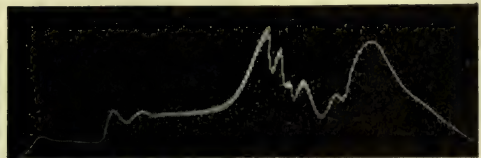
h a m o k  
99



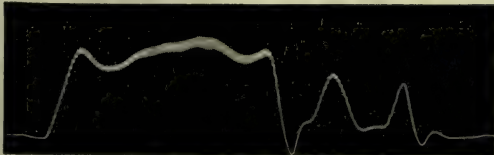
r i v ['] a u m  
100



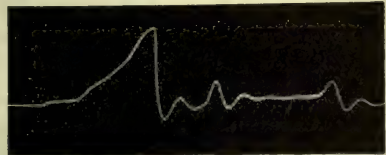
o r r ò  
101



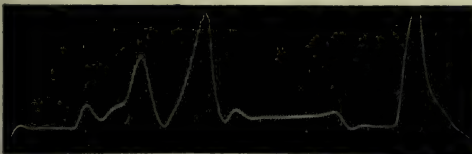
k o r e  
102



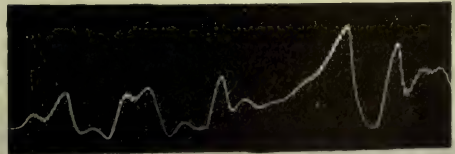
ì w a  
103



a h t ā  
104



k a v e i k  
105



δ o k u p ì t a  
106



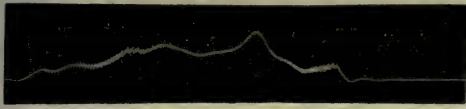


EXPLANATION OF PLATE 18.

Tracings from the mouth of informant one.

- Fig. 107.—lù'lim, fly slowly.  
Fig. 108.—ye'llaka, wild goose.  
Fig. 109.—ì'hù, my nose.  
Fig. 110.—'ì'hù, his nose. Cf. fig. 119.  
Fig. 111.—meremè'rem, straight.  
Fig. 112.—arrā', interjection of astonishment. Cf. fig. 136.  
Fig. 113.—aha'-kuvì'lya, name of a place.  
Fig. 114.—arra', interjection of surprised fear.  
Fig. 115.—marho', fox.  
Fig. 116.—sò'qwilya, a species of hawk.  
Fig. 117.—mā'tavilya, a mythical character.  
Fig. 118.—ahmo', mortar.

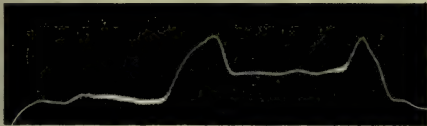
929



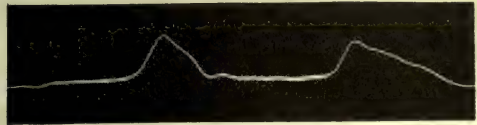
l u l i m  
107



y ella k a  
108



i h ü  
109



e i h ü  
110



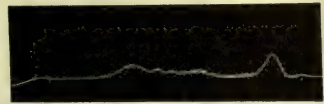
m e r e m è r e m  
111



a r r ā  
112



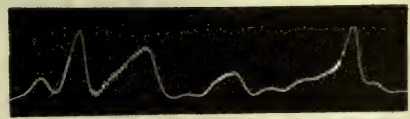
a h a k u v i l y a  
113



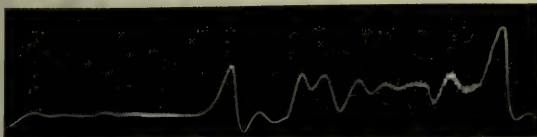
a r r a  
114



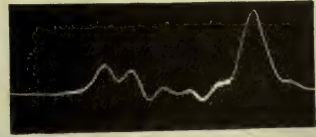
m a r h o  
115



s ò q w i l y a  
116



m ā t a v i l y a  
117



a h m o  
118







EXPLANATION OF PLATE 19

Tracings from the mouth of informants two and one.

Informant two:

- Fig. 119.—'l'hù, his nose. Cf. fig. 110.  
Fig. 120.—ah'ā', cottonwood.  
Fig. 121.—ò'tùra, gambling poles. Cf. fig. 75.  
Fig. 122.—ama't.a, earth. Cf. fig. 57.  
Fig. 123.—ā've, rattlesnake. Cf. fig. 73.  
Fig. 124.—pi'ipa', somebody. The glottal stop seems to have been slurred out. Cf. fig. 66.

Informant one:

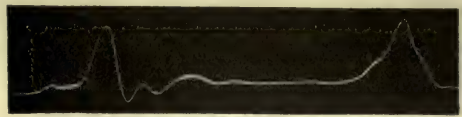
- Fig. 125.—qì'rrim, fly fast.  
Fig. 126.—ahpe', metate.  
Fig. 127.—hammulye', ashes.  
Fig. 128.—ipa', man.  
Fig. 129.—òù'mòum, but.  
Fig. 130.—ipa', arrow.  
Fig. 131.—memepù'ka, knee. Probably from i'me, my leg.  
Fig. 132.—pā'ya, all.

949



i h u

119



a h a

120



o t u ra

121



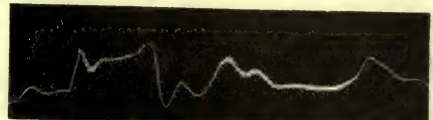
a m a ta

122



a v e

123



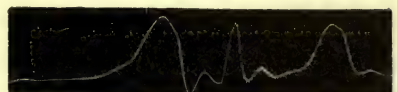
pi ji p a

124



q i rri m

125



a h p e

126



h amm u lye

127



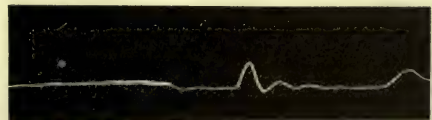
i p a

128



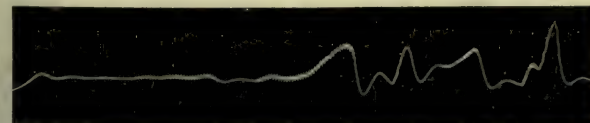
o u m o u m

129



i p a

130



m e m e p u ka

131



p a y a

132

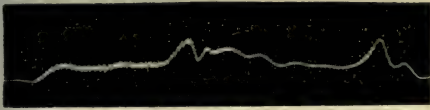




EXPLANATION OF PLATE 20

Tracings from the mouth of informant two.

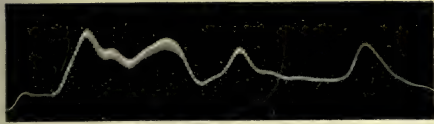
- Fig. 133.—*orrò'*, the nighthawk. Cf. figs. 59, 101.  
Fig. 134.—*ayā'*, mesquite bean. Cf. fig. 81.  
Fig. 135.—*ì'wa*, my heart. Cf. fig. 103.  
Fig. 136.—*arrā'*, interjection of astonishment. Cf. fig. 112.  
Fig. 137.—*a'tsqueuqa*, a bird, probably the bittern.  
Fig. 138.—*alyha'*, hermaphrodite.  
Fig. 139.—*vā'ra*, no. Cf. fig. 85.  
Fig. 140.—*aha't-teoqa*, dog. The initial *a* seems to have been slurred out of existence. Cf. fig. 95.  
Fig. 141.—*aha't-a*, domestic animal, horse. Cf. fig. 90.  
Fig. 142.—*qara'è'rva*, name of a place. The glottal stop is slurred over. Cf. fig. 89.  
Fig. 143.—*vā'ptite*, nothing. The word seems derived from *vā'ra*, no (figs. 85, 139). The undulations of the tracing of *ā* suggest a following *r*, which however does not appear in the tracings and has not been heard. Cf. fig. 77.  
Fig. 144.—*ko're*, now, well, then, come. Cf. fig. 102.



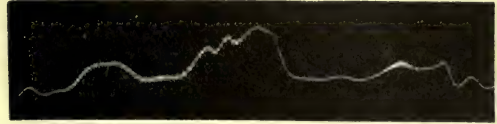
o rr ò  
133



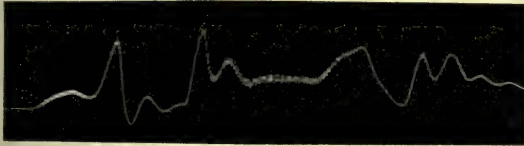
a y ā  
134



ì w a  
135



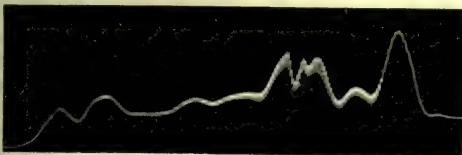
a rr ā  
136



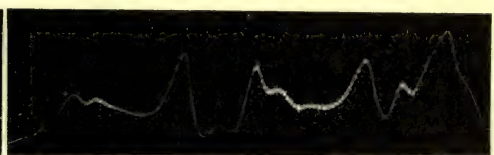
a tsq eu qa  
137



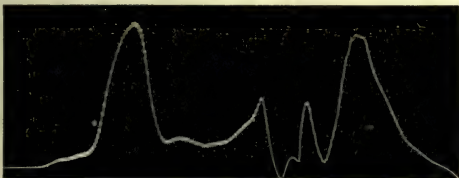
a ly h a  
138



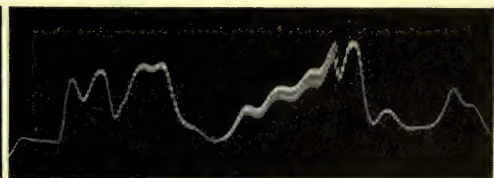
v ā r a  
139



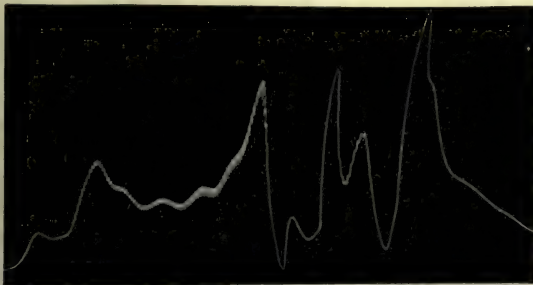
[a]h a ttc o qa  
140



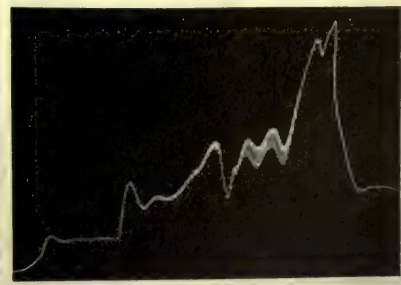
a h a t a  
141



q a r a ['] è r v a  
142



v ā p t i t e  
143



k o r e  
144





## UNIVERSITY OF CALIFORNIA PUBLICATIONS

IN

## AMERICAN ARCHAEOLOGY AND ETHNOLOGY

Vol. 10, No. 4, pp. 97-240, pls. 21-37

December 14, 1912

THE ETHNOLOGY OF THE SALINAN  
INDIANS

BY

J. ALDEN MASON

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## INTRODUCTION

The major part of the material embodied in the present paper was collected in Monterey County, California, during the month of September, 1910, while the writer was enjoying the facilities afforded to him by the University of California as University Fellow in Anthropology at that institution. The oldest two members of the stock, Perfecta Encinales of the San Miguel, and José Cruz of the San Antonio division, afforded information through various interpreters, foremost among whom was J. Alonzo Forbes, Esq., Justice of the Peace of San Antonio Township, who performed the same service for Dr. H. W. Henshaw in 1884. Many thanks are due to him for his kindly aid, and also to Miss Muriel Dutton for her kind permission to inspect and photograph many objects of ethnological and archaeological interest in Dutton's Museum, at Jolon. Indebtedness must also be acknowledged to the authorities of the Academy of Pacific Coast History—the "Bancroft Library"—of the University of California for permission and aid in inspecting their records, and particularly to Miss M. H. Van Gulpen for permission to read her manuscript translation of Fages.<sup>1</sup>

As data on many important points was entirely missing, due to the almost complete loss of aboriginal culture among the present Indians of the northern missions, material has been incorporated from various other sources. Through the courtesy of the Bureau of American Ethnology access has been had to certain ethnological notes collected by Dr. Henshaw in 1884 from informants now deceased, and other items of importance have been gleaned from the writings of various travellers and visitors to the missions. Notable among the latter is Alexander S. Taylor, who visited the missions in 1856, sent many of his manuscripts and other material of the mission period to Washington, and recounted his observations in *The California Farmer* in 1860.

Little attempt has been made to give the scientific names of

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<sup>1</sup> See note 9.

plants or animals mentioned, as it was usually impossible to secure specimens or descriptions sufficiently accurate for identification. Native names, when given, are generally of the San Miguel dialect. San Antonio words are accompanied by the symbol (A).

As the matter of Salinan phonology and linguistics will be dealt with exhaustively in other papers, merely a brief description of the values of characters used in native words will be given here.

p, p', p!	Intermediate-sonant, aspirate and fortis bilabial stops respectively.
t, t', t!	Intermediate-sonant, aspirate and fortis dental stops.
t, t', t!	Intermediate-sonant, aspirate and fortis tongue-blade alveolar stops. These are common sounds in several stocks surrounding the Salinan. While simple sounds, they resemble a t with following r glide, and have generally been written tr by untrained English-speaking observers. They are produced by the blade of the tongue instead of the tip, and with a difference in the release, producing a semi-affricative effect approaching tc.
k, k', k!	Intermediate-sonant, aspirate and fortis palatal stops.
ts, ts!	Intermediate-sonant and fortis dental affricatives.
tc, tc!	Intermediate-sonant and fortis alveolar affricatives (c = sh).
s	Dental sibilant, like English s.
c	Alveolar sibilant. Acoustically midway between English s and sh.
h, x	Voiceless spirants of less and greater palatal friction.
l, l	Sonant and surd variants of lateral intermediate. The degree of sonancy depends on position in word.
m, m; n, n	Sonant and surd variants of nasal intermediates. The degree of sonancy depends on position in word.
w, y	As in English.
'	Glottal stop or catch.
"	Aspiration.
˘	Nasalization
a, e, i, o, u	Vowels possessing their usual phonetic values. They are generally and normally open. In some words a close quality is approached which has not been here differentiated.
A	As in English "but."
E	Indeterminate vowel, as in English "sir" with suppressed r.

## GEOGRAPHY

## NOMENCLATURE

The existence of the Salinan family as an independent linguistic stock was first definitely settled by Major J. W. Powell<sup>2</sup> in 1891 following the investigations of Dr. H. W. Henshaw among the Indians of California in 1884. In pursuance of his ideas regarding priority of nomenclature, he adopted the term Salinan from Latham<sup>3</sup> who, in 1856, had applied the name to the aboriginal inhabitants of the drainage basin of the Salinas River. Latham, however, used the term Salinan more comprehensively than Powell, including the Esselen; the Ruslen, the Carmel, and the Soledad dialects of the Costanoan stock; and "possibly" the Gioloco, a Pomo people. For many years the affinities of the languages of southwest California were in dispute, but since the appearance of Powell's *Linguistic Families*, the independence of the Chumashan, Salinan, Esselen, and Costanoan families from one another has not been questioned.

Like many of the stocks of California, the Salinan Indians seem to have had no name for themselves, and no name for them is known in any other Indian tongue, so the name "Salinan," while of European origin, must be unconditionally accepted. Dufлот de Mofras<sup>4</sup> speaks of the Indians at San Antonio as Tatche or Telamé. These are easily identified as Tachi and Telamni, two neighboring tribes of the Yokuts stock, some of whom were brought to the missions. Shea<sup>5</sup> in his preface to Father Sitjar's *Vocabulary of San Antonio Mission* says that Taylor calls the Salinans Sextapay, but also "gives the same name San Antonio or Sextapay in a list of the ranches of the Mutsun Mission of Soledad," for which reason he hesitates to use the term.

<sup>2</sup> J. W. Powell, "Indian Linguistic Families," 7th Ann. Rep. Bureau of Ethn., 101-102, 1891.

<sup>3</sup> R. G. Latham, Trans. Philolog. Soc. London, 1856, 85.

<sup>4</sup> Dufлот de Mofras, Exploration du Territoire de l'Oregon, II, 392.

<sup>5</sup> J. G. Shea, Vocabulary of the Language of San Antonio Mission, p. vii.

## HABITAT AND BOUNDARIES

Little is really known concerning the limits of the Salinan territory. According to Kroeber,<sup>6</sup> their country comprised "from the sea to the main ridge of the Coast Range, and from the head of the Salinas drainage to a short distance above Soledad," comprising the southern half of Monterey County, the northern part of San Luis Obispo County, and parts of San Benito County, California. These boundaries may be somewhat too extensive. The head of the Salinas drainage is within a few miles of San Luis Obispo, the native name of which was tixilini according to Taylor.<sup>7</sup> It is not known whether the latter name is Salinan or Chumashan, but as the blood at this mission was prevailingly Chumashan with a mixture of Salinan, it may be assumed that the boundary was somewhat north of San Luis, very probably, as the writer was informed, at Santa Miguelita, or Chuquilin as identified by Taylor.<sup>8</sup>

Santa Lucia Peak was probably the northern limit of the Salinan stock, it being reported to the writer that the mountain was shared equally by the Soledadeños (Costanoan), Carmeliños (Esselen?), and Antoniños (Salinan). This peak, as the largest in the region, could naturally have served as a division point, and the above statement is at least plausible. From the mountain the line would run generally northeast to the Yokuts boundary, and southwest to the sea in the vicinity of Lucia. Fages,<sup>9</sup> however, whose observations usually seem to have been carefully made, gives all the country for twelve leagues around San Antonio to its dependent natives. This territory would

<sup>6</sup> A. L. Kroeber, "Salinan Family," *Handbook of American Indians*, Bureau Am. Ethn. Bull. 30, II, 415.

<sup>7</sup> A. S. Taylor, "The Indianology of California," *California Farmer*, Feb. 22, 1860.

<sup>8</sup> *Ibid.*, Apr. 27, 1860. On this date appeared Taylor's article on the Indians of San Antonio Mission, and is the date to be understood whenever reference is made to Taylor without accompanying date.

<sup>9</sup> Probably the best account of the natives of the coast of California between San Francisco and San Diego is that written in 1775 by Don Pedro Fages, lieutenant of Portolá and afterwards comandante and governor of California. A partial translation is published in *Nouvelles Annales de Voyage*, tome CI, Paris, 1844. A copy of the text is in the Bancroft Library. This is the work referred to whenever Fages is mentioned.

extend to Posts, and include a region generally assigned to the Esselen. Of the boundary between the Salinan and Yokuts, or Tulareño, as they are called by the present Salinans, one can do no better than to repeat the statement of Taylor<sup>10</sup> to the effect that it is not known how far to the east the Salinan ranged. It has generally been accepted that the Salinan territory extended to the crest of the Coast Range, the watershed between the Pacific and the Tulare lakes. While this conviction is based largely on the negative evidence that no Yokuts tribes are known to have lived west of the range, yet there is no clear cause for disputing the accepted theory, unless it may be the doubtful statement by one of the aged informants that the boundary was near San Lucas. The present town of Cholame<sup>11</sup> is at the foot of the range, though the Salinan village of that name is said to have been the nearest village to San Miguel Mission. At any rate the mountains of the Coast Range were probably merely hunting grounds and contained no permanent settlements of either stock.

Nothing is known concerning the Esselen-Salinan boundary.

#### TOPOGRAPHY

The country is, generally speaking, rough. The greater part of the coast is extremely rocky and mountainous, the cliffs generally rising sheer from the water to a considerable height.<sup>12</sup>

<sup>10</sup> A. S. Taylor, *op. cit.*, Feb. 22, 1860.

<sup>11</sup> Cholame is the most persistent of native village names. Taylor says, "Cholami or Cholam is the nearest rancheria to San Miguel, 30 miles s.e. of San Antonio." Henshaw's Migueliño informant, Anesmo, claimed to speak the dialect of *teo'alamtram*, the largest of the villages of San Miguel, at the town of Cholam. Duflot de Mofras (I, 383) states that it was projected to build a fort against the incursions of the Yokuts in a place three leagues to the east of San Miguel called *Telamé*. The same writer speaks of the natives at San Antonio as *Telamé*, the connection with the Yokuts *Telamni* being evident. Modern maps place the town, rancho, and creek of Cholame about twenty-two miles east of San Miguel at the head of Antelope Valley, the easiest pass to the Tulare Lakes. It would seem, then, that the name Cholame may be from the Yokuts *Telamni*, and that the rancheria *teo'alamtram* may mean "Tulareño village," i.e., the nearest village to the Yokuts country.

<sup>12</sup> "A coast running northwest and southeast full 20 leagues; all this coast is a bold coast without any harbor, and there extends a chain (cordillera) of sierras along the whole of it, very lofty, and it is as high by the sea as on the land within; the sea beats upon it; they saw no population or smokes, and all the coast, which has no shelter on the north, is uninhabited." Cabrillo, Translation in U. S. Geo. Surv., Wheeler, VII, 309.

The country from ten to fifteen miles inland is mountainous, inhospitable and nearly impassable. It is heavily wooded and furrowed with cañons and the streams are small and unnavigable. Towards the south, near the bay of Los Esteros, the country becomes more open and the cliffs less precipitous, and several good bays appear, such as San Simeon. Inland, the San Antonio and Nacimiento rivers have cut narrow valleys running generally southeast. These streams, like the Salinas River, are generally dry in the summer and torrential in the winter. The valley of the latter river is relatively narrow and the surrounding country hilly and well wooded.

Oaks of various species dominate the flora and redwoods are common in the mountains near the sea. Bears were formerly found in great numbers, together with mountain lions, which are still occasionally shot. Antelope are said to have been common; deer are still very numerous and the country is over-run by ground squirrels, though the excessive number of the latter may be due to the great diminution in the number of coyotes and predatory birds. Fages says of the fauna and flora, "There are the same land animals here as in the former places—bears, deers, antelope, wild sheep, rabbits, hares, squirrels, etc. Of vermin and poisonous animals there are vipers, tarantulas, and scorpions, larger than usual, but their bite does not correspond proportionately to their size. Among the birds no species is lacking which has been mentioned in other chapters, and besides these, quail and very blue ring-doves and turtle-doves, swallows and calendar-larks are seen here. Of fish in fresh water there are large trout and that called machuro. Lastly the timber is the same as in the other regions."

#### DIVISIONS

At present the Salinan stock comprises two dialects, not very dissimilar, and apparently mutually intelligible. These are known as Antonino and Migueliño, from the missions at which they were formerly spoken. The former dialectic divisions can be only conjectured. From Mission San Antonio in 1811, the following report was forwarded to Mexico,<sup>13</sup> "Two distinct

<sup>13</sup> A. L. Kroeber, *A Mission Record of the California Indians*, present series, VIII, 13, 1908.



languages spoken by the Indians are known: the predominant language, that of the site of the mission, which is understood to the east, south, and north and the circumference of the west; and the less important, which those speak who are called 'beach people' (playanos), on account of having come from the bays of the ocean. These are few in number, and not only understand the predominant language but also speak it perfectly." From San Miguel it was reported,<sup>14</sup> "The neophytes at this mission speak four languages: that of San Antonio, which is reputed the principal one; that of the shore (la playana), which is the one spoken by those settled on the coast; the Tulareño; and another, that of the people of the south." Eliminating from the last-named report the language of the Tulareño (Yokuts), and that of the south (Chumash), we find that there are two languages mentioned from each mission, not the dialects now known as San Antonio and San Miguel, but the speech of the people of the inland—the principal dialect—and that of the people of the shore. Had this "Playano" language been reported from San Antonio alone, it would probably have been interpreted as Esselen, but reported from both of the missions it is doubtless a mere variant dialect of the Salinan. These people are reported as having been "few in number," and doubtless succumbed very early. Fages<sup>15</sup> probably refers to them when he remarks that the fishing people on the shore were inferior in build and in courage to the hunting tribes inland. There would seem, therefore, to have been two "languages" of the Salinan stock, one of the valleys, comprising the existing dialects of San Antonio and San Miguel, and a language of the shore which has entirely disappeared, leaving to us no idea of its degree of divergence. It is worthy of note that in the above quoted "Mission Record" the dialects of the two missions are not differentiated and were probably considered as similar if not identical. Shea<sup>16</sup> states that "It is said that the dialects amounted to twenty." Dr. Henshaw was similarly informed that each village had a more or less divergent dialect. These statements are difficult to reconcile; the uniform condition in California is one of

<sup>14</sup> *Ibid.*

<sup>15</sup> Fages, *op. cit.*

<sup>16</sup> J. G. Shea, *op. cit.*, p. viii.

practical agreement between the villages composing a dialect except for a small number of words under temporary tabu. The limits of the dialects, moreover, are generally sharply defined. The probable explanation is that the two dialects of San Antonio and San Miguel, while variant, were conceived as similar when opposed to the divergent language on the coast, and the speech of the component rancherías of the respective dialects, while practically identical, had sufficient peculiarities to enable their respective inhabitants to be identified.

## VILLAGE AND PLACE NAMES

According to Fages, there were twenty villages within a radius of twenty miles of San Antonio. Taylor copied the names of many of these from the records of the mission and succeed in locating some. They are:

Atnel	(Possibly atne'l, plu. of at = "oak.")
Chacomex	(te!āxome'c. See below.)
Chitama	In the mountains near the coast. (tāma'—"men," tā'ma—"my house.")
Cholucyte	
Chunapatama	(See Chitama.)
Chuquilin	San Miguelita.
Chuzach	
Chinnisel	On Monterey River.
Ejmal	On the beach.
Ginace	
Iolon	On Rancho los Ojitos. (Probably Jolon, holō". See below.)
Lamaca	On the shore. (lam, stem "to eat," or "food.")
Lima	(Possibly lemaṭa'm. See below.)
Quina	Quinada.
Seama	
Steloglamo	
Subazama	(z = ṭ in Sitjar's orthography; tā'ma—"my house.")
Tecolom	Rancho Arroyo de San Lorenzo of Rico. (Cholam?)
Tetachoya	Ojitos.
Texja	(Possibly texa'—"rock." See below—Teshaya.)
Tsilacomap	
Zassalete	
Zumblito	

Derivations in parenthesis are by the writer, others by Taylor.

Taylor personally collected and located the following native village names:

Teshaya	The nearest rancheria to San Miguel. (te!ōla'm. sibly texa', "rock." See above, Texja.)
Sapaywis	On present Salqualco, (sapē'wis. See below.)
Cholami or Cholam	The nearest rancheria to San Miguel (te!ōla'M. See above, Tecolom; below, te!ōla'M and teo'alamtram; also note 11.)

Other rancherías were on the present sites of Piojas and Copeta de Goronice. Henshaw gathered the following village names and information:

tēssospē'k	Four miles northwest of San Antonio.
skâtītā'gi	Two miles north of San Antonio.
ko'ie	Meaning "flag" or "bulrush."

These three villages belonged to the San Antonio division. About ten rancherías originally formed the Migueliño branch. These disintegrated very rapidly after the founding of the mission and the names of only three were remembered. These are:

teo'alamtram	At the town of Cholam. This is said to have been the largest and most important of the San Miguel villages. Henshaw's informant, Anesmo, claimed to speak this dialect. (See above, Cholami or Cholam.)
tēcau'mistram	In upper Cholame Cañon.
trolole'tram	Near the Santa Margarita Ranch in San Luis Obispo County.

The suffix tram (tām) is the word for "house." According to Henshaw it means also "village."

Village names remembered by the writer's informants are:

ma'til'ce'	A village on the coast.
telāxome'e	A village eight miles northwest of San Antonio. From telāxo'm—"face-washing." (See above, Chacomex.)
tsililākaka	A village on the coast.
sapē'wis	A village near Pleyto. (See above, Sapaywis.)
na'sil	A village at Pleyto. na'sil is acorn atole.
holō'	Jolon.
telo'xwal	A village near Bradley. The word means a red stone.
telola'm	A village near San Miguel. Cholam. (See numerous notes and references.)
t'olole'	A village near Cholame. (See above, trolole'tram.)

Other native names are Sagollin—the headwaters of the Salinas River between San Miguel and Santa Margarita, reported by Taylor; p̄mkola'm—Santa Lucia Peak; holamna'—the vicinity of Jolon, meaning an arroyo; and teau'tēmmak (te!au'tēmak)—the site of Jolon, meaning “where there is plenty of cattle,” reported by Henshaw. The writer was informed that Santa Lucia Peak was called ti'aṭ'āula from the name of a plant (unidentified) which grows there. Reliz Cañon is known as cemē'ni.

Two groups of people to the west of the mission are mentioned. According to Henshaw the lemātra'm lived about twenty miles west of the mission, and were not connected with it. This may refer to one of the villages of the “playano” group.<sup>17</sup> Both Henshaw and the writer were informed of a group of Indians about twenty-five miles to the west of San Antonio, known as lemeknela't. These may also be a group of beach people, but more probably are the Esselen, the name somewhat resembling Ecclemach, one of the synonyms for the Esselen.

The Indians afterwards gathered into Soledad Mission are said to have been the greatest enemies of the Salinans; probably this refers to one of the southern Costanoan groups. Fages makes the statement that the natives of the Santa Lucia mountains were eternally at war and always in fear of enemies a few leagues away. Numerous items make it appear, however, that the Salinan Indians were on perfectly friendly terms with the Yokuts tribes to the east, and that frequent visits were made by the former to the Tulare lakes and by the latter to the sea.

## HISTORY

### PRE-MISSION PERIOD

The dearth of material on Salinan ethnology is due mainly to the fact that there is no pre-missionary history of the region. In fact, less than two years elapsed between the time of the first expedition of Europeans through the country and the founding of San Antonio Mission. A second factor contributing to the

<sup>17</sup> lēm means “above”; lemāṭa'm would be “house above” or “village above.”

lack of knowledge, and one of equally great importance, is the relatively small number of travellers who visited the region. The situation of the country between the two important ports of Monterey and San Luis Obispo, together with the absence of seaports within the region itself, made it a country of relative isolation. Comparatively few visitors made the rough journey to the Salinan missions, and those who did spent little time there. Compared with the information at hand concerning the Chumash of San Luis Obispo and the Costanoan and Esselen of Monterey, what we have on the natives of San Miguel and San Antonio amounts to practically nothing. There must be, however, considerable unpublished and as yet unavailable material from these missions, both in the great libraries of the Church and of the Franciscan Brotherhood, and in other public and private collections, which, it is hoped, may on inspection reveal much of the vanished culture of the people.

The first European to behold Salinan territory was Cabrillo, who sailed up the coast to Cape Mendocino. His description of the Salinan coast has already been noted.<sup>18</sup> He saw no natives and declared the coast to be uninhabited. Between his voyage in 1542 and the expedition of Portolá in 1769 many ships sailed along the coast. Sebastian Vizcaino<sup>19</sup> skirted the coast in 1602 on his way to Monterey Bay. Four rush canoes put out to meet him from a bay said by Taylor to be "probably San Luis Roadstead or that of San Simeon." Coming from the former port the natives undoubtedly would have been Chumash, but if from the latter they may have been Salinan. "Rush canoes" (tule balsas) were probably not used by the Chumash. Vancouver<sup>20</sup> reports that, while sailing down the coast from Monterey in 1792, in about latitude 35° 35'-40', a canoe of wood resembling those used by the Nutka put out. These natives were probably Chumash, but in both of these cases we are in doubtful territory, as indeed is the case with most records of early travellers.

The expedition of Portolá which discovered San Francisco Bay in 1769 offered the first undoubted view to European eyes

<sup>18</sup> See note 12.

<sup>19</sup> *The Voyage of Vizcaino*, probably by Padre Ascension. Translated and published in Taylor, *op. cit.*, June 26, 1861.

<sup>20</sup> George Vancouver, *A Voyage of Discovery—round the World*, iv, 317.

of the Salinan Indians. The Jesuit missionaries who had established missions along the coast of Lower California were expelled by royal decree in 1767, and their stations turned over to the Franciscans. Don Gaspar de Portolá was appointed governor of the Californias, and sailed from Tepic in that year with a number of Franciscan friars to replace the Jesuits. Fray Junipero Serra was appointed head of the missions of California. Disturbing news now came of the encroachments of the Russians on the shores of Alaska and the Northwest, and it was decided that to insure to the Spanish the possession of the ports of San Diego and Monterey, discovered by Vizcaino in 1602, they should be fortified. Portolá, the governor, volunteered to lead a land expedition, and two vessels were sent by sea. With all the zeal of a pioneer, Serra accompanied the expedition together with four other friars, for the purpose of founding missions in Upper California. The twin expeditions left Lower California in the spring of 1769 and met at San Diego, where Serra founded the first of the Upper California missions, San Diego de Alcalá, July 16, 1769. Portolá decided to push on to Monterey with his force, leaving Serra at the newly founded mission. He left San Diego July 14 on a journey, the main facts of which are probably well known. They did not recognize Monterey Bay and pushed on until they reached San Francisco Bay, October 31, 1769. Realizing the fact that they had passed Monterey Bay, they returned, reaching San Diego January 24, 1770. Many of the members of the expedition kept diaries of the trip; some of these have been printed, others are as yet inaccessible and may contain valuable ethnological information.<sup>21</sup>

Little mention is made of the Salinan Indians in any of the published diaries by members of the expedition. Fearful of missing Monterey Bay, they kept close by the sea during the

<sup>21</sup> The Official Account of the Portolá Expedition and the Diary of Portolá have been published by the Academy of Pacific Coast History, University of California (Publ. Acad. Pac. Coast Hist., I, nos. 2-3, 1909), but contain little of ethnological interest. The Narrative of the Portolá Expedition, by Miguel Constansó (*ibid.*, I, no. 4, 1910), contains much of interest on the Santa Barbara Chumash. The diaries of Vila and Costansó have been published by the Academy of Pacific Coast History (Publ. II, nos. 1 and 4, 1911); those of Font and Anza, and Fages' document are in preparation. The latter has already been referred to as of great interest. The diary of Anza contains much on the Pima, Yuma, Papago, Maricopa, etc.

entire trip. After reaching the site of San Luis Obispo about September 4, instead of following the easy road down the valley of the Salinas, they followed the sea, and for three weeks cut their way through the rough Sierra de Santa Lucia to Monterey Bay. During these three weeks they encountered seven rancherias of natives. Portolá<sup>22</sup> estimated their respective numbers at 60, 30, 80, 400, 60, 200, and 220. Not all were on the direct route of travel. The Indians welcomed them, came in bodies to meet them, escorted them to their villages, and gave them considerable food, for which Portolá returned beads and other trinkets. They returned by the same route and revisited four of these villages besides three new ones of 60, 30, and 60 estimated population. Had the expedition travelled by way of the Salinas River, it is probable that greater numbers of natives would have been met.

Of the various natives of the southern half of California, the highest degree of culture seems to have been reached by the Chumash of the Santa Barbara Channel and the Shoshoneans and Chumash of the Channel Islands. The Chumash north of Point Concepcion were, if we may believe early reports, much poorer and less capable than their brethren on the Channel, probably being culturally not very different from the Salinan. Most of the early travelers to the region compare the Indians of San Francisco and Monterey Bays unfavorably with the Chumash. Vancouver<sup>23</sup> says of the men he saw in a wooden canoe a little to the north of San Luis, "By their ingenuity they seemed to differ materially from the insensible beings of San Francisco and Monterey." Fages terms the Santa Barbara Indians "the Chinese of California." Boscana<sup>24</sup> divides the Indians of California into three groups. Two of these are those between Monterey and the extreme northern boundary of the Mexican domain and those between Santa Barbara and San Lucas. "Those between Santa Barbara and Monterey differ materially from these as regards their habits; being much more industrious and appear as an entirely distinct race."

<sup>22</sup> Diary of Gaspar de Portolá, *Publ. Acad. Pac. Coast Hist.*, 1, no. 3, 33 [63], 1909.

<sup>23</sup> G. Vancouver, *op. cit.*, iv, 317.

<sup>24</sup> Gerónimo Boscana, Chinigchinich, published in Robinson's *Life in California*, 239, 1846.

This classification includes the Chumash and Salinan as a higher type. Boscana, however, probably knew of the natives to the north of Point Concepcion only by report, and is using the Chumash of the Channel as a type of all the Indians to Monterey. Generally the Salinan aborigines are classed with the Monterey type of native and compared unfavorably with the Chumash. Costansó<sup>25</sup> says that the country north of the Santa Barbara Channel was not so thickly populated nor were the natives as industrious as those to the south, but they were equally affable and gentle, and in another place<sup>25a</sup> remarks "This part of the country is practically uninhabited." Portolá<sup>26</sup> remarked of some natives at the foot of the Santa Lucia Mountains that they were more docile than the natives of the Santa Barbara Channel, that they did not live in regular houses like the latter and that the villages consisted of fewer inhabitants. This particular group may have been visiting the coast on a fishing expedition, thus accounting for the absence of permanent houses. Palou<sup>27</sup> states that the region between Santa Barbara and San Antonio and that between San Antonio and Monterey were not so populous as the Channel region, but yet sufficiently dense to support other missions.

Of the actual life of the Salinan Indians in pre-mission times, more must be assumed than can be actually proven. The general mode of life probably differed in no important phase from that of the other stocks of Central and Southwestern California, and will be considered in detail later.

The stock probably never numbered more than a few thousand individuals.

#### MISSION PERIOD

Less than two years after the passage of Portolá through the country, Frayes Junipero Serra, Buenaventura Sitjar and Miguel Pieras journeyed up the Salinas from Monterey, where they had established Mission San Carlos Borromeo de Monterey, June 3,

<sup>25</sup> Miguel Costansó, *The Narrative of the Portolá Expedition*, Publ. Acad. Pac. Coast Hist., I, no. 4, 51 [141], 1910.

<sup>25a</sup> Costansó, *Diary*, 53.

<sup>26</sup> Portolá, *op. cit.*, 31 [61].

<sup>27</sup> Francisco Palou, *Noticias de la Nueva California*, 1857.



1770, twenty-five leagues to Los Robles, and founded Mission San Antonio de Padua, the third mission in Upper California, July 14, 1771 (pl. 21, fig. 1). One native witnessed the ceremonies. Taylor reports that the nearest Indian rancheria was called Teshaya, Texja, or Texhaya; other reports refer to it as Sextapay. The neighboring country seems to have been very well populated, Fages remarking that there are said to have been more than twenty villages within a radius of seven leagues from the mission, without counting those on the route to Monterey. The mission grew very rapidly, as the natives were friendly. Within two years 158 converts had been made and by 1820-1830 there are said to have been no more gentiles within seventy-five miles.<sup>28</sup> At one time (1790) it was the largest mission in California, and was always noted for its well-kept condition. Its maximum size was attained in 1805, from which date the number of the natives gradually decreased until its secularization in 1835. The following table gives the population at the mission at various dates. Those not specifically designated are taken from A. B. Lewis.<sup>29</sup>

1780	585	1820	878
1790	1076	1822 (Taylor)	834
1800	1118	1828 (Wilkes)	671
1802 (Humboldt)	1052	1830	681
1805	1124	1834 (de Mofras)	1400
1805 (Engelhart)	1296	1842 (de Mofras)	150

These figures show a gradual increase to 1805, followed by a gradual decrease to 1834 and then a sudden collapse. De Mofras's figure for 1834 is clearly a great over-estimate; Engelhardt's sum for 1805 disagrees with Lewis's and would seem to have less claim to correctness. Otherwise the figures have the appearance of accuracy.

The Mission of San Miguel (pl. 21, fig. 2), sixteenth in point of age of the missions of California, was founded July 25, 1797, twenty-six years after the establishment of San Antonio. In the presence of a great number of natives Padre Lasuen, who became the resident, assisted by Padre Sitjar from San Antonio,

<sup>28</sup> A. B. Lewis, "San Antonio Mission," in *Handbook of American Indians*, *op. cit.*, II, 424.

<sup>29</sup> *Ibid.*

founded the mission. Engelhardt<sup>30</sup> refers to the native name of the site as Vahia or Vatica,<sup>31</sup> but most authorities, including Taylor, speak of it as Cholam. As the leaven had already been spread, the mission grew very rapidly; fifteen children were offered for baptism the first day and the maximum size was reached in 1814. From this time the population gradually decreased until the mission was secularized in 1836. A table of population at different dates, taken from Lewis<sup>32</sup> and other authorities follows.

1800	362	1828 (Wilkes)	748
1802 (Humboldt)	614	1834	599
1810	973	1834 (de Mofras)	1200
1814	1076	1840	350
1822 (Taylor)	936	1842 (de Mofras)	30

Here also is a rise, a fall and a drop. Excepting for De Mofras's estimate of 1200 for 1834, which is manifestly high, the table seems to give a correct impression of the rise and decline of the mission. Up to 1834, 4348 baptisms had been performed at San Antonio and 2562 at San Miguel. Included in this number were practically all the members of the Salinan stock then in existence and all the neophytes who had died in the sixty-three years since the founding of the mission, besides considerable numbers of Yokuts at either mission, some Chumash at San Miguel, and possibly a few Costanoan and Esselen at San Antonio, though of the latter we have no record.

The Salinan Indians welcomed the missions and gave no trouble. Engelhardt<sup>33</sup> states that the natives of San Antonio were more tractable than those at San Diego or Monterey, and gladly helped in the erection of buildings. The neighboring Yokut tribes, however, frequently raided the lands of the mis-

<sup>30</sup> Zephyrin Engelhardt, *The Franciscans in California*, 404.

<sup>31</sup> The sound usually denoted by the symbol v, either bilabial or dento-labial, is absent in the Salinan language and initial w is very rare.

<sup>32</sup> A. B. Lewis, "San Miguel Mission," in *Handbook of American Indians*, *op cit.*, II, 449.

<sup>33</sup> Z. Engelhardt, *op. cit.*, 258. Fages, "They are gentle and affable and willingly divide with the Spanish the little that they have." Taylor, "They learned the Spanish very soon and were very docile and tractable."

sions.<sup>34</sup> San Miguel was particularly open to their attacks, as de Mofras<sup>35</sup> remarks, "donnant un accès facile à la grande vallée des Tulares."

Under the mission regime, every inducement was held out to the natives to give up all their old culture and customs and to adopt that of the Spanish *in toto*. All the Indians were concentrated at the missions, and after baptism were not again allowed to leave, except to bring in new material for conversion. Whether the latter came willingly or by force was not considered important. Such encouragement was given to the production of gentiles for neophytic candidacy, that if we may believe the claims,<sup>36</sup> by 1830 all the living Indians of the Salinan stock, as well as numbers of the Yokuts<sup>37</sup> and other neighboring stocks, had been gathered into the missions. The neophytes were taught the rudiments of civilization and Catholicism; they built the buildings of the missions, raised the crops and tended the stock. In every respect except that of the loss of liberty they were in a condition far preferable to the native one, as there was always an assurance of food and shelter. At both of the missions the padres took a keen interest in the welfare of their flock. Both Fathers Sitjar at San Antonio and Juan Martin at San Miguel were credited with great familiarity with the native idiom, the former having left a large and valuable vocabulary,<sup>38</sup> besides other material in the language. Engelhardt<sup>39</sup> states that the huts of the neophytes were of a more substantial character at San Antonio than at San Carlos. Robinson<sup>40</sup> reports that everything at the mission was in perfect order in 1830, the natives cleanly and well dressed.

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<sup>34</sup> E. Bryant, *What I Saw in California*, 371, says of the country between the two Salinan missions in 1846, "But few attempts appear to have been made to settle this portion of California. The thefts and hostilities of the Tular Indians are said to be one of the causes preventing its settlement."

<sup>35</sup> D. de Mofras, *op. cit.*, I, 383.

<sup>36</sup> Engelhardt, *op. cit.*, 264; A. B. Lewis, *op. cit.*

<sup>37</sup> A. S. Taylor, *op. cit.*, "Both missions always contained Indians from the Tulare lakes."

<sup>38</sup> Buenaventura Sitjar, *Vocabulary of San Antonio Mission*, edited by John G. Shea, New York, 1861.

<sup>39</sup> Z. Engelhardt, *op. cit.*, 260.

<sup>40</sup> Alfred Robinson, *op. cit.*, 81.

Naturally, every phase of primitive religion was strictly tabu, and all contra-European customs prohibited. It is not strange that with such an atmosphere there should now be left merely faint recollections of the primitive culture.

#### POST-MISSION PERIOD

Following the secularization of the missions and the departure of the padres most of the Indians dispersed, to some extent returning to their old customs, but retaining the best features of civilization. At San Antonio Padre Ambris came and spent the remainder of his life ministering to his scattered flock, while at San Miguel the mission is still in use. A. B. Lewis<sup>41</sup> gives the population for San Miguel as 350 in 1840, but de Mofras<sup>42</sup> reports only 30 in 1842, and 150 at San Antonio.

While the Salinan country was not one of the great mining centers yet it had its share of frontier troubles, and it is probable that the natives suffered greatly through the diseases and the demoralizing influences of the time. This was probably the time of their greatest numerical loss. Taylor gives no idea of the number in 1856, but Shea<sup>43</sup> in 1861, stated that "less than fifty Indians still remain." Henshaw<sup>44</sup> estimates the population at "only about a dozen" in 1884, and Kroeber<sup>45</sup> states that "at present their total number is perhaps twenty, most of them near Jolon." Both of the latter estimates are probably rather low. The scattered condition of the Indians at present, as well as their complete civilization, provokes an under-estimate. From personal impression the writer was inclined to place the number at about Kroeber's estimate, but careful inquiry produced the names of forty-one full-blood Salinans, thirteen of whom claim to be of the Migueliño division, and twenty-eight of the Antoniño, but as they have intermarried to a considerable extent, little

<sup>41</sup> A. B. Lewis, *op. cit.*, 449.

<sup>42</sup> D. de Mofras, *op. cit.*, I, 320.

<sup>43</sup> J. G. Shea, *op. cit.*, viii.

<sup>44</sup> H. W. Henshaw in J. W. Powell, *op. cit.*, 102. "In 1884 when Mr. Henshaw visited the missions he was able to learn of the existence of only about a dozen Indians of this family, and not all of these could speak their own language."

<sup>45</sup> A. L. Kroeber, "Salinan Family," *loc. cit.*

purity of speech or blood is possible.<sup>46</sup> Of the thirteen Migueliño, none are children and all are able to speak the language, but three only are of sufficient age to remember anything of the older culture. Only one patriarch exists among the group of San Antonio, while eleven are children or unmarried young people, unable to speak the tongue. The other sixteen are of middle age.

These few survivors of the stock live in scattered families in the valleys of the San Antonio and Nacimiento rivers near Jolon, and, except in blood, differ in no wise from the other native sons. Ranching and stock-raising afford employment for the majority of them. Some have ranches of their own with houses of adobe, while others are employed by the larger ranchmen of the region. Several raise fruit and vegetables. Intermarriage to some extent with the Mexicans of the district has taken place, and this will probably be the fate of the rest of the Salinan blood. Scattered as they are, Spanish has become almost more of a mother tongue than the "idioma." The latter is used only by the older Indians when conversing with each other; the children use Spanish, except those who have been educated in the public schools, who can speak and read English. The language will doubtless disappear in a comparatively few years, and the blood and physical type will probably not survive much longer.

## ECONOMIC LIFE

### FOOD

With the Salinans, as with most of the natives of California, vegetable food doubtless supplied the greater part of the sustenance. As we have seen, game was more than ordinarily plentiful, especially deer, but with the primitive weapons upon which the aborigines depended, it is doubtful if venison could ever have been a staple food. Acorns, which are very abundant in the region, doubtless formed the principal staple, seeds and smaller animals being also of more importance than the meat of larger game. Of the dietary Taylor merely remarks, "For food

<sup>46</sup> Henshaw was informed in 1884 by his San Antonio informant, Hilario, that there were but five natives who spoke the San Antonio idiom correctly. The others used more or less of the San Miguel dialect in their conversation.

they used the pine-nuts and acorns which are still extraordinarily abundant in the vicinity." Fages goes into greater detail, writing, "There are three kinds of acorns and other seeds and fruits, one round like a cherry with a red color, from the substance of which seed they make good tamales. They call it it 'yslay'<sup>47</sup> and they eat the little meat that it contains. There is also much 'pil' and 'tecsuma' about which I will speak later. There are *madroñas* and three different kinds of chia (sage), one bulky like a lentil, and the others more slender, much nut-pine like that of Spain and a kind of seed, very small, white and of the shape of a nut, which mixed with flour makes food like tortillas, delicate and agreeable to the taste as if they had kneaded them with lard. Another seed is like rice, of a yellow color, and ripens best when there is the greatest rain. It has a very sweet flavor. This when cooked resembles vermicelli. They roast them to make their porridge. They have plenty of sugar and molasses." "Tecsuma" is later described as a plant with a flower like a rose and a thick stalk with a pod containing an oily seed known as "pil." It is further said that the sap of the reed-grass and of another tall leafy shrub was collected and dried to make the good sugar and molasses above mentioned.

This account is very circumstantial and doubtless correct, but as none of the plants mentioned are used for food at the present time, it has not been possible to identify any of them.

Oaks of divers species supplying great quantities of acorns are found in the Santa Lucia Mountains and the valleys of the San Antonio and Nacimiento. At least six of these species were distinguished by the Salinan natives, who valued them for different purposes and in varying degrees. While the statement is not definite, it seems that acorns from live-oaks were preferred for mush, those of deciduous oaks for bread. Of the former three varieties were used, *exau'wat'*, *t'io'i*, and *paxa'kil* in the order of preference. Of the latter *p'a'pix* and *p'ā't* were

<sup>47</sup> *Islay*. Cf. A. L. Kroeber, *Mission Record*, 12, Report from San Fernando: "chia (seeds of sage), called *pasill* in their language; *islai*, called *chamiso* by them." Also, note, *ibid.*, 13: "Compare P. S. Sparkman's *Prunus ilicifolia*, Luiseño *chamish*, Spanish *islaya*." *pa'sil* was given as the Salinan word for chia. The identity of these words is evident, but unexplained. They are evidently Indian names, but whether adopted by the Spanish from some stock and spread by them, or whether a case of pre-historic identity or borrowing, is not known.

used. Cmo' was another oak sometimes used.<sup>48</sup> Fallen acorns afforded the principal stock, but they were also secured by knocking down such as could be reached with long poles, trees never being felled for their yield.

Until required for use, acorns were stored in granaries, k!atā'. These were large basket-like receptacles made of white willow twigs, built on the ground adjacent to the houses, without any stone foundation and lined and covered with grass. When desired, the acorns were taken out of the granary, broken open with a small stone and placed in the sun to dry. After thorough drying, they were pounded in a stone mortar until a fine flour was obtained. The acorn flour was always leached in a basket, the stitches of which were sufficiently far apart to allow the water to percolate through, but it is said to have never been done in the sand. The latter method is by far the more common in California, being noted among the Costanoan,<sup>49</sup> Yokuts,<sup>50</sup> Luiseño<sup>51</sup> and other peoples of the central and southern culture, as well as being the exclusive method of the northern area. The practice among the Chumash is not yet known, but practically all the other people of California used the sand-hole for leaching. Fages reports the use of the basket at Monterey and does not mention the sand-hole. Too much reliance should not be placed on unsupported individual testimony, but the statement by an aged Californian Indian woman that sand-leaching was not known among her people is at least worthy of note. After leaching, the acorn flour was made into either mush, na'sil, or bread, k!one'. For the former, the flour or dough was mixed with water to the proper consistency and heated in the cooking-basket until it was considered done. It was generally eaten from the basket

<sup>48</sup> Specimens of these varieties could not be obtained, nor an accurate description of them. An unsuccessful effort was made to identify them from the following brief descriptions: exa'uwat', a live-oak with spined leaves; t'io'i, a large white tree with a white acorn growing on the coast; paxa'kil, an oak with pointed leaves and a very large acorn which grows on the hills; p'a'pix, an oak with serrated leaves, called by Henshaw "post oak"; p'ā't, an oak with small serrated leaves and a large acorn, called by Henshaw "white oak"; cmo', an oak with smooth, non-spined leaves. Acorns were known by the generic name, k'āp', (A) k'a'.

<sup>49</sup> A. L. Kroeber, Mss.

<sup>50</sup> A. L. Kroeber, Mss.

<sup>51</sup> P. S. Sparkman, *The Culture of the Luiseño Indians*, present series, VIII, 194, 1908.

by means of the hollow of the hand, expert performers being able to clean the entire hand with one swift sweep, according to observers. Abalone shells and basket-hats were occasionally used by more fastidious diners. Acorn bread was baked in the earth-oven. Cakes of dough about three inches in diameter were placed between two layers of grass and cooked over night.

Seeds of many varieties were eaten and doubtless formed a considerable item in the Salinan dietary. They were gathered with seed-beaters and baskets in the usual manner and kept in seed-granaries, *sap'k'a'ts!*, until required for consumption, when they were ground and boiled in the cooking-basket to make soup or mush, not parched on trays with coals as is the common Californian custom. Wild oats, which covered the hills in many places, were the staple seed, and are said to have been cultivated, but this statement is probably applicable only to the post-mission period. No agriculture has ever been proven for any Californian Indian people, despite claims to the contrary.<sup>52</sup> The seeds of three species of grass were eaten, as well as the seeds of the wild sunflower. Chia, the seeds of the sage, pinole which was made from white corn,<sup>53</sup> and other unidentified seeds were eaten.

In common with most of the Californian aborigines, the Salinans were probably termed "diggers" by the immigrant whites. Whether or not they merited the name is not certain. The oldest woman of the tribe does not remember the use of the digging-stick, and does not recognize the digging-stick weight. But at least one root was eaten, the mescal. This ubiquitous plant is subjected to practically the same treatment wherever found. It is dug up with a stick and cooked for two days in the earth-oven, after which it is considered ready to be eaten.<sup>54</sup>

Clover, of which three species are distinguished, was greatly relished and eaten from the stalk without preparation. Buck-eyes were eaten, probably after having their poisonous properties leached out, as is the custom among the Yokuts and other neigh-

<sup>52</sup> La Pérouse, *Voyage Autour du Monde*, II, 202, claims that the natives at Monterey raised maize before the coming of the Spanish. Powers states that the Klamath are reported to have raised tobacco.

<sup>53</sup> Pinole was given as an aboriginal food material. La Pérouse (see note 52) supports the claim. Yet corn was probably introduced by the Spanish and at once became a staple product.

<sup>54</sup> Fages describes the preparation at San Luis Obispo.



boring tribes. Elderberries, blackberries, strawberries, gooseberries, Christmas berries,<sup>55</sup> chuckberries,<sup>56</sup> Indian potatoes,<sup>57</sup> wild grapes, prickly-pear cactus, and numerous other berries and fruits were eaten. Two species of pine-nut were known, one of them a very common variety, and the other found only in the mountains on the coast. Mushrooms were not eaten, though Fages reports that they were relished by the Costanoans at Monterey, and the Yokuts make use of them. The habit of chewing gum from a plant or tree, as is reported for some of the groups to the south,<sup>58</sup> seems to have been unknown.

As regards animal food, the California Indians in general are practically omnivorous. Of the larger game, bears alone, and particularly grizzly bears, are not often eaten, a fact due probably as much to their ferocity as to the supernatural shamanistic power and human resemblance imputed to them. Among the smaller animals the dog, wolf, and coyote are tabu among some groups, while among others the skunk alone is not eaten. Of the birds, owls, hawks, condors, buzzards and eagles are not eaten in some localities, due partly to reverence for them and partly to a dislike for their flesh.

Like the other California natives, the Salinan Indians ate all flesh, fish, and fowl, with a very few exceptions, including most of the reptilia and some insects. Of the mammalia the skunk alone was specifically excepted, while the custom regarding the canine family is unknown. Old bears were not esteemed, but cubs were considered a delicacy. All birds without exception are said to have been eaten, as well as their eggs, which were prepared by boiling. In dietary matters the Salinans resembled the Miwok much more than the Yokuts, for the latter relish the skunk and tabu the carnivorous birds.<sup>59</sup>

The tribes of central California were less fastidious in the matter of reptilian food than were the people to the south. The

<sup>55</sup> Cf. P. S. Sparkman, *op. cit.*, 194, "Toyon or Christmas berry, *Heteromeles* or *Photinia arbutifolia*."

<sup>56</sup> Not identified. Possibly a corruption of "choke-cherry."

<sup>57</sup> Possibly camass. Powers, *op. cit.*, 426, states his belief that a potato-like plant consumed by the Yokuts is a species of camass.

<sup>58</sup> P. S. Sparkman, *op. cit.*, 196.

<sup>59</sup> A. L. Kroeber, Mss.

Shoshonean tribes of Kern River share with the southern Yokuts a dislike for all reptiles, while the northern Yokuts<sup>60</sup> and Miwok<sup>61</sup> consider them proper food. The Salinans, on the whole, shared the view of their northern neighbors. Snakes and most other reptiles were eaten, being cooked in the ashes of the fire, while frogs were eaten or not according to individual choice. The Antoniños, the more northern group, are said to have eaten lizards, but they were not relished by the people of the San Miguel moiety. Yellowjacket larvae were held individually over the fire on a spit and eaten, but other grubs were not favored. Grasshoppers were rare in the country.

Sea-food doubtless furnished the major part of the sustenance of the people on the coast. Those inland probably speared salmon on the Salinas and caught trout and suckers in the smaller streams. Journeys were made to the sea and also, it is said, to Tulare Lake for fish. Bullheads and sep'ta'L, an unidentified fish, were procured from the ocean, besides red and blue abalones, clams and sk'en', an unidentified shell-fish. These were eaten either raw or cooked. Crabs were eaten, as well as sea-weed. The latter was heated over the fire on a stick and eaten with mush or bread, probably for the salt flavor it imparted. Powers<sup>62</sup> and Goddard<sup>63</sup> have noted the eating of sea-weed among other groups of Californian Indians.

All meat was prepared in one of three ways. If desired for immediate consumption it was roasted over the flames or in the coals of a fire. For gradual consumption it was baked over night in the earth-oven, after which it would keep a week or more. If it were necessary to keep it a longer time, it was dried in the air or "jerked." Meat was seldom or never boiled in the cooking-basket.

The "cooking-basket" mentioned is a water-tight basket in which boiling is done, and is found all over California. The food to be cooked is put in the basket and covered with water. Then heated stones are continually introduced until the water

<sup>60</sup> A. L. Kroeber, *Mss.*

<sup>61</sup> S. Powers, *op. cit.*, 351.

<sup>62</sup> *Ibid.*, 50, (Yurok); 150, (Pomo)

<sup>63</sup> Pliny Earle Goddard, *Life and Culture of the Hupa*, present series, 1, 31, 1903.

becomes hot enough to cook the food. The "earth-oven" is likewise an almost universal method and is made by digging a hole in the earth which is then lined with stones and a fire built therein. When the stones are hot the fire is removed, grass laid over the stones, and the food to be cooked placed in the hole and covered with more grass. Sticks and earth and more hot stones are then laid over the hole and left for a considerable period. The heat is retained very well and the food gradually cooked. Most foods were cooked during one night, but others required a longer time, as much as two days.

Fire was made by twirling a drill of poison-oak wood, t'ENEple'', upon a hearth of willow. Two men to relieve each other and continue the friction were often necessary for the operation.

#### HUNTING AND FISHING

A sharp line of distinction seems to have separated the Salinan people into two divisions marked by physical, linguistical and cultural differences. Throughout most of western California a difference was noticed and recorded by the earlier travellers<sup>64</sup> between the fishing people on the coast and the hunting people inland. The latter are generally credited with being larger, better built, and more courageous. While the shore people undoubtedly hunted game and the inland group made journeys to the ocean for sea-food, yet the one were primarily fishers and the other hunters. Although San Antonio Mission is not more than fifteen miles from the sea, yet the ruggedness of the intervening mountains renders it a journey of so much hardship and duration that it is doubtful if it was undertaken often by villages of sedentary hunters. Fishing trips are said to have been made to Tulare Lake, but whether this information is applicable equally to the pre-mission and post-mission period is not known. Since game, however, is said to have been very plentiful in the Salinan mountains it probably furnished by far the greater supply of animal food.

Deer were generally hunted by stalking, a method which obtained among almost all of the California natives. The hunter

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<sup>64</sup> Fages, *op. cit.*

covered his head with a stuffed deer-head and cautiously approached the deer under cover of the brush. The direction of the wind was ascertained by dropping a little dirt, and the deer were approached from the leeward side. A good hunter could imitate the movements of the deer so accurately that he could approach quite close and kill several before the animals suspected any danger. The careful hunter always chewed tobacco assiduously while approaching the game, as this tended to make it drunk and less wary. Bears were caught by putting bait near their accustomed trails or caves and hiding in holes near by, from which the animals could be shot several times with ease. Smaller game, such as rabbits and small birds, were probably caught by the use of nets, t'e'LTAL, though this was denied by the Antoniaño informant, José Cruz. The practice was admitted among the San Miguel division. Snakes were caught by means of sticks. No specific mention was made of communal hunts for deer, bears, antelope, and rabbits, but as these were practiced by all Californian Indians, there is little doubt that they were known. Nor was mention made of traps and pitfalls for larger game such as are in use over most of California, but as the use of these latter is denied by some of the Yokuts,<sup>65</sup> their existence among the Salinan may also be doubted.

Salmon probably were speared on the Salinas, but the country was not a salmon region, due to the lack of rivers on the coast. Trout are found in the mountain streams, but fish on the whole are scanty in the inland country. Fish are said to have been caught in Tulare Lake by means of nets of milkweed fibre, and certain other fish, probably salmon, were speared with a fish-spear, cik'nai'. Fish were also obtained by poisoning the water of lakes and streams. For this purpose two plants were used, țepā'lomoi and tēni's (A). The former is described as a tall plant with a pungent odor. The Yokuts tribes<sup>66</sup> similarly used two plants for poisoning the water. One of these is the buckeye, the other probably the soap-root, which was often used by the California aborigines for this purpose. Fish-hooks and lines

<sup>65</sup> A. L. Kroeber, *Mss.*

<sup>66</sup> *Ibid.*

were used by the Chumash,<sup>67</sup> and fish-traps by practically all the neighboring stocks, but the use of either is not a matter of record among the Salinan natives. It is probable that the "playano" people had developed an exclusively fishing culture, and had methods of their own for the procuring of sea-food, but their entire disappearance has rendered our knowledge of their culture impossible.

The knowledge of any possible hunting or fishing ceremonies or restrictions has long since disappeared.

#### ARCHITECTURE

One of the distinguishing features of the southwestern culture area is the use of communal houses sheltering four or five families. They are described<sup>68</sup> as being fifty or sixty feet in diameter and accommodating fifty or more people. They were dome-shaped "like the half of an orange," and were arranged in a semicircle in the village. In the central Californian area small houses for one family were the rule. Powers<sup>69</sup> says of the Miwok houses that they were "very rude affairs of poles and brush-wood," and early travellers<sup>70</sup> declare the same to be true of the other members of the "Mutsun" family, the Costanoans at Monterey. They evidently had no definite village arrangement. The Costanoans are said<sup>71</sup> to have made several different kinds of houses. Some were entirely of tule, some brush shelters over excavations in the hillsides, while others were round, with a high conical roof like an inverted basket. The Yokuts tribes<sup>72</sup> made conical or wedge-shaped houses of poles and tule thatch, generally without excavation. These houses were nicely arranged in a straight row and often connected to make a communal house. Summer brush shelters were also used. Nothing is known of the Chumash sweat-houses, but those of the entire south-central region were small semi-subterranean structures used only for sweating.

<sup>67</sup> U. S. Geol. Survey, Wheeler, vii, 222, 1879. Also *Diary of Anza*, mss. translation by Mr. C. E. Chapman.

<sup>68</sup> Costansó, *Narrative*, 43 [133]; Fages, *op. cit.*

<sup>69</sup> Powers, *op. cit.*, 350.

<sup>70</sup> F. W. Beechy, *Narrative of a Voyage to the Pacific*, ii, 51, 1831.

<sup>71</sup> A. L. Kroeber, *Mss.*

<sup>72</sup> *Ibid.* Also S. Powers, *op. cit.*, 370.

The houses of the Salinans were also probably of several different kinds. The common house is described by native informants as a quadrangular but made without excavation. No standard size was mentioned, but Mr. Forbes is the authority for the statement that they averaged about ten feet square. This is about the usual size of dwellings in the central area. A post was erected at each corner and one in the center. Four roof poles connected the center and corner posts and across these other poles were laid and the whole covered with a thatch of bundles of tule or a species of rye-grass lashed on with strips of bark or withes. The walls were also made of tule. A smoke-hole was left in the center of the roof and the fire built in the middle of the house. No mention was made of sleeping stages such as were used by the Chumash at San Luis,<sup>73</sup> nor is it known how the houses were grouped in the villages. Houses of a larger size were mentioned, but no details given. But as their erection was attended by a celebration, it is probable that they were communal houses similar to those in use by the neighboring Chumash or Yokuts people. Other houses are said to have been sometimes made of brush with roofs of tule, the door being merely an opening in the brush. By this may be meant the summer houses used by the majority of Californian Indians.

Sweat-houses, kwap', were ordinarily small, hemispherical, partly subterranean structures. A circular excavation of about four feet in width and half a foot in depth was made and brush placed around, arching over to meet at the top. Earth was heaped on the brush to keep it in place and to retain the heat. The fire was built in the center of the house, the bath being taken in the heat and smoke, as among all California Indians. Both men and women are said to have frequented this sudatory or "temescal."

On the occasion of the erection of a large dwelling house, a very large sweat-house was also made and kept as a permanent place for dances and ceremonies. This use of the sweat-house for dances is usual in the northern part of the central culture

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<sup>73</sup> Fages, *op. cit.*; Costansó, Narrative, 47 [137].

area, as among the Maidu,<sup>74</sup> but is not found among the Yokuts or the other people of the south-central and southern culture areas.

Menstrual huts are claimed to have been unknown, but Taylor says that the expectant mother retired to a brush hut near a spring. Whether this was a special hut or the usual brush shelter is not known.

#### DRESS AND PERSONAL ADORNMENT

As nearly a century and a half has elapsed since Padre Sitjar commenced his task of clothing the nakedness of his flock, little reliance can be placed on the statements of the present Salinan Indians concerning the dress of their aboriginal forefathers, and most of our information must come from early reports. While there are many descriptions of the dress of the natives of Monterey (Costanoan) and San Luis Obispo (Chumashan), there is little on the intervening territory.

There is no ground for belief that the Salinan costume differed in any marked degree from that of the majority of Californian natives. Broadly speaking, in all of the central and southern part of the state men wore nothing in the summer, or at most merely a breech-clout. Women wore an apron, generally consisting of two pieces, front and back. In winter both sexes wore robes or blankets, *eLēmī'*, of fur, or of woven rabbit or otter skin. Moccasins were ordinarily not worn.<sup>75</sup>

The costume of the Salinans probably followed this general plan. Vizcaino<sup>76</sup> makes the ambiguous statement that each rush canoe which met him off the Salinan coast contained two naked Indians who were covered with goat-skins when they came aboard. The women wore aprons of tule, according to Taylor. Neither moccasins nor any other coverings for the feet were known. Rabbit skins and more rarely otter skins were sewn together with twine and woven to make cloaks and blankets for protection in the winter. Basket hats were worn by the women

<sup>74</sup> R. B. Dixon, *The Northern Maidu*, Bull. Am. Mus. Nat. Hist., xvii, 168, 1905.

<sup>75</sup> Costansó, *Narrative*, 45 [135]. H. H. Bancroft, *The Native Races*, I, 367, gives many references for the dress of the California natives.

<sup>76</sup> Vizcaino, *op. cit.*

and may have been sometimes worn by the men when carrying burdens, as among some other groups. In later times they were worn by the vaqueros of the missions, while the women wore cloth turbans on their heads. The neophytes of the missions were dressed fully in cloth or buckskin.<sup>77</sup> No scarfs of any kind were made by the natives previous to the coming of the Spanish.

The aboriginal coiffure is nowhere mentioned, but the abundance of the hair and beard is remarked by many observers.<sup>78</sup> The latter was plucked in pre-missionary days.<sup>79</sup> Much disagreement is found in the writings of early travellers<sup>80</sup> with regard to the native Californian method of wearing the hair and beard. But since most of the observations were made subsequent to the founding of the missions, the natural suspicion is that with a few exceptions, whenever cropped hair and full beards were noted, it was due either to the universal habit of cutting the hair short during mourning, or else to the example of the whites. Possibly all of the natives of southern California wore the hair long and plucked the beard close.

No yellowhammer head-bands, feather cloaks or aprons, or other feather ornaments such as are typical of California are remembered by the surviving Salinan natives. The use of feathers for decoration by the Yokuts is known to the older Salinan Indians, but they deny the existence of the custom among themselves. No mention is made by any traveller of the use of feather decorations by the Salinans, but such evidence is negative

<sup>77</sup> A. S. Taylor, *op. cit.*

<sup>78</sup> A. S. Taylor in particular noticed the pilous development.

<sup>79</sup> *Ibid.* "In the old times, before becoming Christians, they pulled out their beards."

<sup>80</sup> S. Powers, *op. cit.*, 280, says that the Kombo (Yana) alone of Californians cropped their hair to within an inch of their heads; Fages, *op. cit.*, noticed that the hair was worn loose at San Luis Obispo; Boscana *op. cit.*, 239, states that "all Indians between Monterey and the extreme northern boundary of the Mexican domain shaved their heads"; Palou, in Forbes' *History of California*, 182, says, "All natives of Upper California, both men and women, cut their hair very short, particularly on the death of any of their friends or relatives"; La Pérouse, *op. cit.*, II, 197, says that the natives of Monterey cut their hair to four or five inches, and that about half of the adults had beards. The Northwest Maidu, according to Dixon, cut their hair. Among most of the Yokuts tribes, according to Kroeber, the hair was worn long, but some of the men of other tribes cut it. The majority of other observers report long hair in California. Bancroft, *op. cit.*, 365, gives many references on hair and beard in the state.



and inconclusive; differences are quickly noted by observers, resemblances taken for granted. The sole mentions of feather ornaments by native informants are that feathers were attached to the shaman's sticks, and that head-dresses of feathers reaching to the shoulder, with single eagle feathers extending from the forehead forward, were used by dancers at the Kuksui dance.<sup>81</sup> This probably applies to the "big head" head-dress used in the same dance by the Maidu and other central Californian natives and may be an extraneous influence. While it is very doubtful if a usage so typically Californian as the wearing of feather decorations could have been entirely lacking among the Salinan, yet evidences seem to point to the conclusion that it did not reach the same development here as among the other stocks of central California.

Ear ornaments of abalone, *kanelt'É'*, were worn, but nose ornaments were not used, though the use of the latter by the Yokuts tribes is known to the Salinans.

Tattooing was practiced by many of the neighboring tribes,<sup>82</sup> principally upon the women. Palou<sup>83</sup> says, "The coast people tattoo, chiefly the women, but less so than the natives of the islands." The usage among the Salinans is nowhere stated, and was specifically denied by one informant, but as in the former case was probably practiced.

The Salinan natives shared with the other stocks of the coast region a great fondness for painting themselves on frequent occasions.<sup>84</sup> Red, white, blue and yellow were the favorite colors. The red was made from cinnabar,<sup>85</sup> which is mined in the surrounding region, and the yellow from the root of a plant, possibly

<sup>81</sup> See pp. 177, 188; also note 183.

<sup>82</sup> Yokuts, A. L. Kroeber, Mss.; Costanoan, La Pérouse, Beechey, Petit Thouars, and others quoted in Baneroft, *op. cit.*, 370.

<sup>83</sup> F. Palou, in Forbes' History, 183.

<sup>84</sup> Costansó, Narrative, 45 [135]; Fages, *op. cit.*; and many other writers note the considerable use of paint and stain by the natives of the coast.

<sup>85</sup> The Spanish word was translated by Mr. Forbes as "a mercury ore." Cinnabar (mercuric sulphide) is common in the country and is generally accepted as the basis for the native red paint. Cf. Baneroft, *op. cit.*, 370. Putnam, in Wheeler, *op. cit.*, 22, states that the supposed cinnabar found in the graves on the Santa Barbara Channel turned out to be hematite (ferric oxide), and that Dr. Yarrow doubted the use of cinnabar on physiological reasons. Sparkman, *op. cit.*, 209, reports the use of hematite for red paint by the Luiseño.

*Psoralea macrostachya*.<sup>86</sup> The blue may have been wad;<sup>87</sup> the source of the white paint was not ascertained.

#### TRANSPORTATION

The Salinans were doubtless thoroughly sedentary in their habits and little given to travelling. Their habitat was restricted and mountainous and the rivers unnavigable. Occasional journeys to the sea and to Tulare Lake for fish probably accounted for most of their migrations. The inland people probably never made or used boats or rafts, though information is ambiguous on this point. It was a matter of knowledge to them, however, that tule balsas or rafts, *tuwipē'*, were used by the Yokuts. The "playanos" or fishing people of the coast must have had some variety of boat and probably made balsas of tule after the general central Californian type. In about the same latitude Vizcaino<sup>88</sup> met a tule raft and Vancouver<sup>89</sup> a wooden canoe with energetic and intelligent occupants. As the Chumash are known to have made wooden boats of boards, and were considered to be a superior type of native, the natural inference is that the canoe in question was made by the most northerly Chumash, while the balsa was a product of Salinan handicraft, and that in this respect at least the cultural and linguistic boundaries coincide.

Burdens of all kinds were doubtless "packed" on the back. The large carrying basket was carried by means of a rope of bark which went over the forehead and under the basket like a net, but it is claimed that it was used for carrying seeds alone. The use of a carrying net of hide was admitted, but later denied by the same informant. It may be that the carrying basket was set in a net to be carried, as among the Cahuilla.<sup>90</sup>

Babies were carried in the ubiquitous cradle, *te'aname'*. This was of a triangular shape, the framework consisting of two strong sticks with smaller sticks laid across to form a bottom or

<sup>86</sup> Used by the Luisiño, Sparkman, *op. cit.*, 209.

<sup>87</sup> Hydrous oxide of manganese; used by the pre-historic Chumash, Wheeler, *op. cit.*, 262.

<sup>88</sup> Sebastian Vizcaino, *op. cit.*

<sup>89</sup> George Vancouver, *op. cit.*, iv, 317.

<sup>90</sup> A. L. Kroeber, *Ethnography of the Cahuilla*, present series, VIII, 47, 1908.

back. The child was held in by strips of rawhide, or probably originally of buckskin, with a band going over its head. This cradle is similar to one of the two types used by the Yokuts and the Maidu, the description corresponding well with cradles still in use among the latter Indians.

The use of snow-shoes is unknown to the present natives and probably never was known to their ancestors. Little or no snow falls in the country.

#### MATERIAL STANDARDS

##### *Currency*<sup>01</sup>

Beads, *xe'nes*, constituted the standard of wealth and value. Those of Salinan manufacture were made from mussel or abalone shells in three colors. Blue beads, *kicho'tél*, were valued the most, pink beads, *k'mělli*, so-called because of their shininess, next, and lastly white beads, *trě'pinoctu'*. The most valuable beads were elongated and came from an unknown locality at a considerable distance. Two of these would make a man wealthy. These may have been either the dentalia of the northerly peoples, or the "long beads and noselets made by the 'islanders'" as suggested by Dr. Henshaw. These latter were made of the columella of a univalve mollusc<sup>02</sup> and were also highly valued by other natives, such as the Yokuts.

Beads were put on strings, probably of sinew, and the string valued according to its length. As among all Californian Indian tribes, the strings were measured to certain standard distances on the body.

Dr. Henshaw's San Antonio informant, Hilario, gave the following units as the standards for value in beads:

1. The smallest unit was called *wāse'na'* and was measured from the tip of the middle finger to the wrinkle in the middle of the palm, or more accurately, to the knuckle. A string of common white beads of this length had a value of about five cents.

<sup>01</sup> For the following notes I am solely indebted to Dr. H. W. Henshaw, by whom they were collected in 1884, and to the Bureau of American Ethnology, by whose permission they are here presented.

<sup>02</sup> Probably similar to those found in graves on the Santa Barbara Channel. See Wheeler, *op. cit.*, pl. xiii.

2. The principal unit was the distance from the base of the thumb folded against the forefinger obliquely across to the tip of the little finger. It was known as *tâlta'so*, "one its name," and had a value of about ten cents.

3. The third unit ran from the base of the thumb over the tips of the fingers, around the wrist to the starting point. It was termed *mawí'ya* and valued at about twenty-five cents. This was the largest unit, and was merely repeated for the measurement of greater lengths.

Anesmo, the San Miguel informant, gave a multiplicative system which is rather uncharacteristic of California and probably due to European influence. His units were:

1. A string of beads from the tip of the middle finger to the wrinkle in the middle of the palm is called *tewí'* and valued at about five cents. It is identical with the Antoníño *wase'na*.

2. Double the length of the *tewí'* is the main unit, *tâiitra'so*, "one its name"; it corresponds to the Antoníño *tâlta'so*, and is valued at a like amount, ten cents.

3. *kúkstra'so*, "two its name," is double the length of the preceding, and worth twenty-five cents.

4. *kecotrá'so*, "four its name," is double the length of the preceding, and worth fifty cents.

5. *catêltra'so*, "eight its name," is double the length of the preceding, and worth one dollar.

6. A unit of practically the same length as the *kecotrá'so* is the *kama'wi*. This was measured by passing the string of beads from between the index and middle fingers over the tip of the little finger, around the elbow and across the forearm to the starting point. This measure may have been used also by the Antoníño under the name *kicatra'sko*, but the information on this point is not clear.

From between the index and middle fingers at the base, across the back of the hand to the tip of the little finger somewhat extended was a bead measure used in paying small gambling debts. It was known as (A) *tâlhenna* ("one —") and (M) *kâ'kslumawi* ("two —").

The reply from the Mission of San Miguel in the "Mission Record"<sup>93</sup> is largely devoted to a discussion of currency. It reads, "The money of the Indians has been, and still is, beads, which they now lend without usury. In their wild state, usury consisted of the daily augmentation of the value of the amount lent, for instance a real of beads; and those who lent the real grew richer by as many reales as the original real was days in returning to their hands. This custom was practiced by those

<sup>93</sup> A. L. Kroeber, *Mission Record*, 18.

to the east of this mission." Dr. Kroeber's note that "No such custom of borrowing at interest has been otherwise reported from California" needs no further comment. Yet the report is very circumstantial and has the appearance of authority, and must have some basis. Just what this basis was can hardly be conjectured.

#### *Measures*<sup>94</sup>

"The San Antonio Indians computed time by moons, the new moon being the point of departure. Time of day was reckoned by the height of the sun. Night was irregularly divided into intervals, as darkness, a short time after darkness, midnight, and so on until dawn."

Other measures are primarily for length, but may be used also for beads. These are as follows:

1. Small objects were measured by the span of the thumb and index finger extended. This was termed *tölmä'n*, "one hand," by the *Antoniño*, *ma'wu* by the *Migueliño*.

2. A still smaller measure was used at San Antonio, the width of the thumb, *tölmeä'n*, "one finger."

3. An arm's length measured from the tip of the thumb and forefinger joined was called *tewai'yutopoka* by the *Antoniño*.

4. The span of the outstretched arms was used as a measure by both groups. It was measured across the breast, from the tip of the thumb against the forefinger, and was known as *ko'keutapoka*, "two —."

5. A step or pace was called *a'cileli'ya* and was used in measuring short distances.

6. Long journeys were estimated by suns. A short distance was called *te'lowanayu*, a long distance *te'kwaona'yu*.

Seeds or other commodities bartered in bulk were measured in baskets of a standard size. Four different sized baskets are named, *spo'kaiha*, *s'la*, *wú'kkupt'* and *kilpa'hl'*.

<sup>94</sup> The following data, exclusive of the word-derivations, are also from the notes of Dr. Henshaw.

*Numerical System*

The numerals have been observed and noted by various writers<sup>95</sup> and, allowing for variations in orthography, they show practical uniformity as far as eleven. Lists collected by the writer are appended with others for comparison.

SAN ANTONIO		
<i>Sitjar</i>	<i>Coulter</i>	<i>Mason</i>
1 tól	kitol	t'ol
2 caquiche	kakishe	ka'k'eu
3 lappay	klap'hai	klá'pai
4 quicha	kisha	k'i'ca'
5 ultrao	ultraoh	o'lt'au
6 painel	painel	payá'nel
7 que'tté	t'eh	te'
8 shaanel	shaanel	caa'nel
9 tetatsoi	tetatsoi	te'tet'o'e
10 zoe	tsoeh	t'o'e
11	tsosoktohl	t'o'e-ta'x-t'ol
12	lapaiksha	t'o'e-ta'x-ka'k'eu
13	lapaiksha-trekh-tol	
14	huoshosho	
15	lapai-ultrau	
16	k'pesh	
SAN MIGUEL		
<i>de la Cuesta</i>	<i>Hale</i>	<i>Mason</i>
1 toi	tohi	toix
2 kakisu	kûgsu	kā'kec
3 lappai	tlúbahi	la'pail
4 kisa	kesa	k'e'ca'
5 ulthrat	oldrato	oltā'to
6 payátel	paiate	payá'tel
7 tep	tepa	t'e'p
8 saatel	sratel	ca't'el
9 titithrupe	teditrup	te'tet'o'pal
10 thrupe	trupa	t'o'pal
11 thrupe-thracolop-toi		
12 thrupe-tracolop-kakisu		
(up to two-tens, etc.)		

<sup>95</sup> Sitjar's list is published in Shea, *op. cit.*, p. xii; it is the oldest list, but the Spanish orthography is misleading. De la Cuesta's list was taken in 1821; it is in Santa Barbara, but a copy was made for the Smithsonian Institute and is now in the Bureau of American Ethnology. The lists by Coulter and Hale are published in vol. II of the Transactions of the American Ethnological Society. Further available lists were those by Drs. Henshaw and Kroeber and the writer.

According to Dr. Henshaw's information, the term for one means "all alone." For all purposes it is simple and unanalyzable. Coulter's kitol is k't'OL, "it is one." The symbol for two contains the root for four, ca', and may mean "half of four." The root for three is la'pai, the k- prefix being the sign of the intransitive verb, "it is three." Four seems to be the smaller unit; the root is ca', the k- prefix as before. The term for five appears to contain the same root as ten, and is said by Dr. Henshaw to refer to the first, which is very probable. It would then be (t)O'L-t'a'o, "one-his-fist."

The terms for six are evidently derived from those for three by adding a plural suffix -a'neL (A) or -a'teL (M). Thus payā'neL is lapaia'neL, "threes," the syllable LA disappearing. The terms for seven appear simple. Eight is again caa'neL or caa'neL, "fours." Nine is evidently a subtractive word, "one-from-ten," and ten is analogous with five and may be one of the numerous Salinan plural forms, "fists."

Above ten, the terms in all but Coulter's list proceed by regular addition, "one-and-ten," "two-and-ten," "two-tens," etc. Coulter's system, however, is so like similar systems among the surrounding stocks, that there is little doubt that it is the aboriginal one, the others being adapted from the European systems. Eleven is plainly "one-and-ten." Twelve, lapaiksha, is evidently lapaik'ca', "three-it-is-four." Thirteen is plainly "twelve-and-one." Fourteen, like seven, betrays no evidence of composition. Fifteen is "three-five," possibly "three-fists." Sixteen is a simple term as would be expected of "four-fours." The k- prefix is again the verbal sign, confirming the simplicity of the term, "it-is-?"

The simple terms of Salinan are thus seen to be one, three, four, seven, ten, fourteen, and sixteen. Two, five, six, eight, nine, eleven, twelve, thirteen, and fifteen are compounded. The system is a multiplicative quaternary one, as was determined by Dixon and Kroeber,<sup>96</sup> proceeding by four, fours, three-fours, and sixteen. The smaller unit appears to be four, the larger one sixteen. The system probably continued on to two-sixteens,

<sup>96</sup> R. B. Dixon and A. L. Kroeber, "Numeral Systems of the Languages of California," *Am. Anthr.*, n.s., IX, 690, 1907.

etc., but data to prove this are lacking. The quaternary system was that in use by the neighboring Chumashan stock and by one of the Yuki languages.<sup>97</sup> For numerals not reached by the multiplicative quaternary system, there are other devices; of addition, as in eleven; subtraction, as in nine; multiplication, as in fifteen; and possibly division, as in two. The original system of the San Antonio dialect, with the probable derivations would then probably be

1	t'ol	"all alone"
2	ka'k'ca'	"half-four"
3	La'pai	three
4	k'ca'	"it-is-four"
5	t'o'lt'a'o	"one-his-fist"
6	Lapai-ā'neL	"threes"
7	te'	seven
8	ca'a'neL	"fours"
9	t'o'L-te-t'a'o'e	"one-from-fists"
10	t'a'o'e	"fists"
11	t'a'o'e-tax-t'ol	"fists and one"
12	Lapai-k'ca'	"three-it-is-four"
13	Lapai-k'ca'-tax-t'ol	"three-it-is-four-and-one"
14	wococo	fourteen
15	Lapai-(t')ol-t'a'o	"three-one-his-fist"
16	k'pec	"it-is-sixteen"

#### MANUFACTURES

With the exception of basketry alone, the topic of Salinan manufactures would be germane more to the subject of archaeology than to that of ethnology. With this single exception, no objects are manufactured by the present Indians. Very few specimens of any description of native manufacture are preserved, and, except for several objects of wood of known authority, all of these are stone implements of which it can merely be said that they were found in the region ascribed to the Salinan people. As with all of the typically Californian natives, there is no cause for belief that any other people ever inhabited the region, and all archaeological objects occurring there may be assumed to be the product of the ancestors of the present natives.

<sup>97</sup> *Ibid.*



### *Work in Stone*

Mortars, *toxó'l*, and pestles, *pa'ne*, of various shapes and sizes are found in numbers throughout the Salinan region. Plate 25, figure 1, shows many such mortars of varying sizes and shapes. In some the hole is insignificant compared with the size of the stone, while in other cases the cavity occupies most of the rock, walls only being left. On a number of them may still be seen the circle of pitch or asphaltum where the basket hopper was attached. Many of them are of irregular shape, while others show carefully rounded exteriors and two in the foreground are delicately made specimens of a truncated cone shape. In the case of these as well as some of the others it is probable that they were used for vessels as well as for mortars. At least one of the objects shown in the group is obviously a pot rather than a mortar, but is made of the same hard sandstone as the rest. Several of them have large holes in the bottom, probably the result of continued use.

Mortar holes in the bedrock are found in many places throughout the Salinan area. One place noted (pl. 29, fig. 1) is not a stone's throw from the house of Perfecta Encinales at the foot of Santa Lucia Peak. Yet she was unable to give any information concerning it. The holes are of varying sizes and depths. No pestles remained.

The question of Californian mortars has been a prolific source of dispute even when the aboriginal usage is known. Large stone mortars with carefully made exteriors are found over the entire state, but are never manufactured by the natives. To the north of San Francisco, possibly as far south as Monterey, they are regarded as having supernatural powers and their true purpose is not recognized. In this region acorns are ground on a flat stone, generally by the help of a basket-hopper rested on the stone. The usage among the Yokuts and the other tribes of eastern California varies. The most usual method is probably the use of the bedrock mortar,<sup>98</sup> though the Yokuts say that

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<sup>98</sup> The bedrock mortar has been observed among the Yokuts, A. L. Kroeber, Mss.; the Maidu, Dixon; the Luiseño, Sparkman; and others.

both these and the portable mortars were made by Coyote.<sup>99</sup> Occasionally by the latter stock a basket-hopper was made and attached to a stone mortar by pitch or asphaltum.<sup>100</sup> Wooden mortars are also used by the Yokuts<sup>101</sup> and the Cahuilla.<sup>102</sup> In the southwestern culture area the typical method is the attachment of a basket-hopper to a mortar by means of asphaltum,<sup>103</sup> but for the latter unshaped stones of the proper size are taken, the exteriorly worked mortar being here as elsewhere archaeological.

The latter method of making mortars by affixing basket-hoppers to unworked stones was probably the method in vogue among the Salinans, as evidenced both by the statements of the surviving natives and by the testimony of the rings of asphaltum, sma'k!, seen on mortar stones. An equivocal statement would seem to indicate that the mortars were also used occasionally without the basket-hopper attachment. The use of the bedrock mortar is not remembered by the present Indians, though their former use is attested to by their frequent occurrence in the region.

Diminutive mortars are also often found in the region (pl. 26, fig. 1; pl. 27, fig. 1). Those observed vary from six to eighteen centimeters in diameter and are made of sandstone of different degrees of hardness. The depression is generally less in proportion to the bulk of the mortar than is the case with the larger specimens. These were probably used for macerating pigment or toloache, or as cups for drinking the latter, for which purpose similar objects are used by the Indians of the southern missions.<sup>104</sup> A broken metate is represented among the mortars on plate 25, figure 1. It is of considerable size and bulk with a concave surface. Of the former manufacture and use of these

<sup>99</sup> A. L. Kroeber, Mss.

<sup>100</sup> S. Powers, *op. cit.*, 377.

<sup>101</sup> A. L. Kroeber, Mss.

<sup>102</sup> A. L. Kroeber, Cahuilla, 40.

<sup>103</sup> The stone mortar with basketry rim is the typical form among the Luiseño, *cf.* Sparkman, and the Cahuilla, *cf.* Kroeber. It is frequently found in the archaeological remains of the Santa Barbara Channel, and was probably the form used by the recent Chumash.

<sup>104</sup> *Cf.* T. T. Waterman, *Religious Practices of the Diegueño Indians*, present series, VIII, 294, pl. 21, 1910.

metates nothing could be learned. Mexican metates of the typical tripedal concave "chute" type with rectangular mullers of the same material are possessed by many of the Indians as well as by some of the whites, but were not observed in use.<sup>105</sup>

Pestles and mullers are frequently found and are difficult to distinguish. Some were doubtless used for both purposes. Ten are shown on plate 26, figure 2. Most of them are of a black rock, well shaped and smoothed, and ranging from twenty to thirty-five centimeters in length. It is noticeable that none of them are of the rough, irregular, bulky type used by the Yokuts and Miwok, but approach rather the typical well-made archaeological Chumashan specimen.<sup>106</sup> Probably only the best examples of pestles have been preserved, and ruder specimens may be found on closer investigation, but on the whole it seems probable that a better type was made and used than those of the Yokuts and Miwok. Some of them show slight irregularities in shape. All of the mullers have evidently been used also as pestles, being differentiated from the latter mainly by shorter length and by the flattening of one side. Both of the ends were used in the mortar.

One pestle observed is of such fine workmanship as to provoke a suspicion that it may be an importation from Chumash territory (pl. 25, fig. 2, specimen 4). It is 46 centimeters in length, circular in section and 6.5 centimeters in greatest diameter. The handle end is finished in a knob which has been roughly carved to represent a head (pl. 27, fig. 2). The carving may be post-mission and possibly not even native. Realistic carving is unknown in California except in the region of the Santa Barbara Channel. The latter region is, however, sufficiently near to the Salinan to exert some influence on it, if not to cause the interchange of objects of manufacture. A diminutive pestle probably intended for use with the small mortars was observed (pl. 27, fig. 4). It is of black stone, and is 12.5 centimeters in length.

Two large vessels of steatite were observed (pl. 25, fig. 2, specimens 2, 3). One is a finely worked, regular bowl, and stood in a niche beside the door of San Antonio Mission, containing

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<sup>105</sup> Cf. A. L. Kroeber, *Cahuilla*, 51.

<sup>106</sup> G. W. Wheeler, *op. cit.*, 70-86.

holy water. It is of nearly faultless outline, 25 centimeters in diameter, and there is a noticeable rim around the lip. It is not impossible that it may have been brought from the Santa Barbara region, where similar vessels are more common. The other vessel is a cooking pot, a black concretion on the exterior betraying its use. It is 16.5 centimeters in height by 24 centimeters in greatest width, and with an opening of 15 centimeters in width. There is a rim around the lip. Nothing is remembered by the natives concerning these steatite vessels, but it is said that the stone can be obtained at the coast.

Two well-made arrow straighteners of black stone were observed (pl. 27, fig. 3). These are roughly oval in shape with a flat base, and are respectively 15.8 and 9.7 centimeters long. Both are decorated with rough striations, the larger also with cross-hatching. The implement and its use are recognized by the natives. The stone, *pomnawé'É*, was heated and the arrow, *tete'yEN'*, pulled through. Whether the purpose was to straighten or to smooth the arrow was not ascertained.

Examples of the ubiquitous perforated stone known as the



digging-stick weight<sup>107</sup> are found in the region. Specimens are not recognized by the present natives, who suggest them as weights for nets. An interesting specimen is figured on plate 27, figure 1. It is about 6.7 centimeters in diameter and 3 centimeters in height. One edge is much battered and broken. The central hole perforates the stone at a considerable angle, and a ridge surrounds either orifice. A stone object, shown in outline in text figure 1, was recently found near Jolon. No similar implements have been reported from the region, but the object is strongly reminiscent of the stone mauls used by the Yurok and the other Indians of northwest California. Nothing is known about the specimen, which may be an importation.

Arrow points and knife blades display no great individuality. They are generally of white, black, or red flint and do not show much care or delicacy of workmanship. The arrow-heads (pl. 28) are often of rough and irregular design and few show the careful flaking which is generally given by Indians to their hunting weapons. The shapes vary from roughly triangular to diamond shaped, and few show barbing. Plate 27, figure 4, shows a well-shaped and barbed flint spear or arrow point, 14.5 centimeters in length, and a rough "knife-blade" of the same length. Nothing of ethnological interest could be learned concerning these flint implements; their use is evident.

#### *Work in Other Materials*

A good type of pottery is made by the Yuman and the southern and eastern Shoshonean groups in California, but this art was unknown to the Chumash and their near Shoshonean neighbors. A different and much inferior variety was made by the southern Yokuts and the Mono, the culture being probably indigenous.<sup>108</sup> The Yaudanchi Yokuts made diminutive hollow balls of clay as receptacles for tobacco.<sup>109</sup> The aboriginal usage among the Salinan is doubtful. In later times lumps of clay, *Loi'to*, found near San Miguel were moulded by hand into small cups and fired in a wood fire, care being taken not to make the

<sup>107</sup> Cf. H. W. Henshaw, *Perforated Stones from California*, Bull. 2 Bur. Am. Ethn., 1887. Also Wheeler, *op. cit.*, 135-189.

<sup>108</sup> A. L. Kroeber, *Cahuilla*, 55.

<sup>109</sup> A. L. Kroeber, *Mss.*

heat great enough to break the clay. The principal use of these little pots, t'ekausne", seems to have been to hold candles at Christmas, it being admitted that pottery was never used for cooking. This may be an outpost of the Yokuts pottery culture, or it may be indigenous, but more probably it is entirely post-mission and due to European influence. Specimen 1 in plate 25, figure 2, which was used to hold holy water at the door of San Antonio Mission as a companion to the steatite bowl, is of a coarse pottery, but of its previous history nothing is known.

Dishes were sometimes made of wood. A suitable piece was taken and the interior hollowed out until the desired shape was attained. Whether they reached the excellence claimed for the wooden dishes made by the Chumash<sup>110</sup> is a matter of doubt. Spoons were sometimes made of small abalone shells. The pipe, t'ono", was of a straight piece of reed, to'tle, tubular pipes of stone and wood, such as are typical over the greater part of California, being not recognized. Dr. Kroeber<sup>111</sup> reports the same fact for the Yaudanchi Yokuts whose pipes were of cane. Combs or hair-brushes, cenome", were made of soap-root, as is the general custom all over the state. The root was first washed well, then a small piece of wood laid parallel with it and the rootlets tied to this to make them set in one plane. Hunting bows were of "pine" backed by sinew and with a sinew string. They were not long, about three feet, but it is said that it took a strong man to bend one. The fish-spear was made with a rigid, non-detachable point.

No work in feathers is recollected by the present natives and no specific description of any such work among them has been noted. The use of feather head-bands, capes, and aprons was denied, though their use by the Yokuts was known. A feather headdress was worn by the performers in some of the dances and the shaman's stick had feathers on it.<sup>112</sup> The only object made of bone which is remembered was the awl, tetā'xk. This was made as usual by sharpening the end of the ankle-bone of a deer. Mats of tule are said to have been unknown.

<sup>110</sup> Costansó, Narrative, 45 [135].

<sup>111</sup> A. L. Kroeber, Mss.

<sup>112</sup> See pp. 129, 183, 185; also note 183.

Articles of clothing were made from buckskin, at least in mission days. A carrying net was made of rawhide, probably superseding aboriginal buckskin. The skin was cut into strips and the net made by tying the strips together at the intersections by means of milkweed twine. The latter useful product<sup>113</sup> was also used for making nets for fish and rabbits, and is now used in basket making. The stalks of the milkweed are gathered and fully dried. The strong fibrous bark is then peeled from the stem, crushed and rolled on the knee into a long strand. Two of these strands are then twisted together to form a twine string of considerable strength. The fibre is called *pita* by the Spanish, *t'matL* by the natives.

### *Basketry*

The preëminence of basketry-making among the aboriginal arts of the California natives is well exemplified by the before-mentioned fact that it is the sole surviving representative of Salinan aboriginal manufacture. Yet the number of Salinan baskets known to be preserved is very few, and probably all of these are of quite recent manufacture. Some of the ranchers in the vicinity of Jolon possess a few of these, one is in the collection of the museum at Jolon, and several others may be in the possession of collectors. The University of California possesses thirteen specimens, constituting probably the majority of the Salinan baskets now in existence. So far as is known, all the basketry is the product of one woman, Perfecta Encinales, the oldest woman of the Salinan stock, and of her several daughters. It is evident that with such conditions, no unchallengeable statements can be made concerning Salinan basketry. On the other hand, the well-known conservatism of Californian basket makers in their work, the ready confession of any unaboriginal technique, as well as critical study of the baskets themselves, invite the conclusion that in all the more important respects the baskets observed exemplify the individuality of the aboriginal products. No baskets of any considerable age, and, with one

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<sup>113</sup> Milkweed fibre was much used by the natives of southern California. It is mentioned by Sparkman among the Luiseño, by Kroeber among the Yokuts, several times by Powers, etc.

doubtful exception, none made by other women than the family named are known, neither is there any description of a Salinan basket published, so that willingly or not, the art and knowledge of these few must be considered typical of the stock.

Coiling is the typical technique of all central and southern California, including those natives of the Shoshonean stock whose culture is Californian rather than plateau, viz., the Mono, Panamint, Luiseño, Cahuilla and their neighbors. Twined weave is used in this region, but chiefly for rough work for the most commonplace purposes, for which coiled weave would be unsuited. Little is known concerning the aboriginal basketry of the Chumash, Salinan, and Costanoan, but it has always been assumed that they followed the typical preference for coiled weave. This conclusion may or may not be justified. Costansó<sup>114</sup> speaks of the "baskets and vessels of reeds" and again reports that "the large vessels which contain water are made of a very strong texture of rushes, coated inside with pitch, and they give them the same shape as our jars." Several of these water jars found in a cave in Chumash territory are in the collection of the University.<sup>115</sup> They are of twined weave. These jars are mentioned by other visitors to the region and were evidently very plentiful and typical. Other writers<sup>116</sup> mention baskets of roots from the Chumash, evidently referring to a coiled weave. Of Costanoan basketry absolutely nothing is known. But it is significant that the only specimen of Costanoan basketry known to the writer is a winnowing tray of twined weave, made with great care and in unique and design (pl. 36, fig. 2). While an assumption of equality between the two weaves, or a preference for the twined technique in the coast region south of San Francisco, would be gratuitous and probably misleading, yet evidences seem to point to a greater use of the twined weave in this region than is usual in California. The baskets in the possession of the University seem to support these conclusions. It is impossible to decide to what an extent modern example and preference have affected the art; doubtless they have wrought some changes, but the baskets of twined weave made by the

<sup>114</sup> Costansó, *Narrative*, 45 [135].

<sup>115</sup> Nos. 1-14495 to 1-14503.

<sup>116</sup> Fages among others.



present Salinan women are made with care and taste and serve no utilitarian purpose. New materials and new shapes have been introduced, and the weave has probably undergone an artistic development, but to be capable of such improvement, it must have been originally on a higher plane than twined weave generally is in central California.

The before-mentioned granaries, k!ātā', for storage of acorns and seeds, may be considered under the term basketry. These were built of white willow twigs and probably without any regularity of technique, the twigs being merely interlaced. They stood about two feet high, about three feet broad at the base and sloping inwards to leave an opening of about eighteen inches, making a receptacle of a truncated cone shape and probably much like the granaries used by the Cahuilla, Mohave, Diegueño, and other Indians of the southern arid regions for the storage of mesquite, corn, and other products.<sup>117</sup>

Large carrying baskets, pēta'tl, about thirty inches in height, were also made of white willow, the exact shape being unknown. The material, willow, and the fact that a strong loop was used at the rim of the basket to strengthen it, as well as a comparison with the common usage among the Yokuts and other known peoples of south and south-central California would seem to indicate that the carrying basket must have been of twined weave. This was at first stated, but later it was claimed that they were made with a coil.

The seed-beater, ṭōna'l, was a looped stick of oak, and basketry beaters are said to have never been made. Shallow coiled trays, sāma'k', were however used for this purpose as well as for winnowing seeds.

Basketry hats, ts!waketE'', were made in coiled weave, the exact shape being unknown. One made recently, but claimed to be on the old pattern, was round with a high crown, somewhat convex top, and a brim. The latter feature is doubtless modern. Hats with brims were nowhere made in California and Fages particularly remarks that the hats of the Chumash lacked brims.

Basket mortar-hoppers were also of coiled work and fastened

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<sup>117</sup> Otis T. Mason, *Aboriginal American Basketry*, Rep. U. S. Nat. Mus. 1902, 356, pl. 102, 1904. A. L. Kroeber, *Cahuilla*, pl. 2.

to the mortar with asphaltum obtained at the coast. The bottoms were never cut out of ordinary coiled baskets and the sides used as mortar hoppers, and it is claimed that no hoop was used around the rim to strengthen them.

Ordinary coiled baskets, *tēca*”, and trays, *ēa*, were of various shapes and sizes and adapted to divers uses. The common deep baskets were used for storing and cooking and for keeping water in the houses. Baskets with fine interstices were used for leaching acorn meal. Trays and bowls up to eighteen inches in diameter were made and used for miscellaneous purposes.

Bottle-shaped or vase-shaped baskets were not made, though the natives are cognizant of the fact that they were made by the Yokuts. Asphaltum or pitch was never applied to baskets to render them water-tight, but the “*lameknela't*” Indians are said to have made such baskets. These natives may be the Esselen, of whose basketry nothing whatever is known. Asphaltum-lined baskets are known to have been quite typical of the Chumash, to whom the name “*lameknela't*” may refer.

Small trinket baskets, *tope's*, are made of twined tule in different shapes and sizes for various household uses. These must have played a small part in the aboriginal utilitarian scheme and have doubtless undergone an aesthetic development, but must have an indigenous basis and can hardly be ignored.

Two types of coiled basketry are found among modern Salinan baskets, but one of these, while unique and interesting, is admittedly not aboriginal. The other native technique strongly resembles that of the Yokuts and differs to a considerable degree from the few preserved specimens of Chumash work. It is generally very well made, the stitches and coils being small and regular, the shapes artistic, and the weave water-tight.

A bundle, generally about eight, of grass stems forms the foundation for the coil of the Salinan basket. This grass seems to be the same as that used by the Yokuts,<sup>118</sup> *Epicampes rigens*, *t'onawe'* The sewing is done in splints of “*bunch grass*,” *Cladium mariscus*(?), *k!o'i*. This is preserved in water until required for use, when it is taken in the teeth and fingers and

<sup>118</sup> *Ibid.*, 474.

dexterously split into halves. These splints are then seraped with a knife to a uniform thickness and width and sewed around the coil by means of an awl, each stitch including several of the stems of the coil below, and generally appearing between two of the stitches of the coil below, the latter being seldom bifurcated. They average between fifteen and nineteen to the inch, equalling the closest of Yokuts work, and the coil foundation is seldom visible as it is in the basketry of the southern missions and in a large part of Yokuts work. Borders are regularly finished in a plain coil, the end being inconspicuous. Four baskets of this description, two of them unfinished, are in the University collection<sup>119</sup> and are shown on plates 31 and 32, figures 2 and 3.

A somewhat different type of coil is that of a large tray,<sup>120</sup> ska'pe (pl. 33). This was made about 1875 by Coleta, an old Indian woman who belonged to one of the Costanoan missions but had spent her life at San Antonio. The basket may thus contain extra-Salinan elements. It is identical in appearance with some similar trays collected from the Yokuts. The foundation is of a large, coarse grass, the weft of a broad, thick splint, and the stitches very far apart, averaging three or four to the inch, and including much of the grass of the under coil at each stitch. The border is finished in a two-strand braid, including most of the outer coil in the twine.

One of the baskets in the collection of the University of California<sup>121</sup> (pl. 31, fig. 2) has a most unusual technique consisting of two simultaneous coils. These two coils were commenced simultaneously, one enclosing the other so that they alternate up the side of the basket. This requires, naturally, a change at every revolution in the coil which is being sewed, for when the uppermost coil has been sewed as far as the end of the coil immediately below, it must be dropped and the then lower coil continued until it reaches a corresponding position above the former coil. When questioned in regard to this technique, the maker replied that the "old people" made baskets

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<sup>119</sup> Nos. 1-14991, 1-14992, 1-14993, 1-14994.

<sup>120</sup> No. 1-14987.

<sup>121</sup> No. 1-14992.

in that way and she wanted to see if she could imitate them. This statement would seem to indicate that the technique is aboriginal; indeed, its individuality would preclude the explanation that it may be due to modern influence.<sup>122</sup>

The second variety of coiled basketry, however, is admitted to be unaboriginal, and is claimed to be an invention of the maker, Perfecta Encinales. The "invention" is rather an adaptation, though sufficiently radical a change to suggest at least an aboriginal basis for the technique, if no more. The technique may best be described as a one-rod foundation coil with duplex stitch. The rod foundation is taken from the wicker cover to demijohns, tana'st, while the weft may be either the outer bark of the root of the "bunch grass," *Cladium mariscus*(?), or, more commonly, the raffia-like fibre from the milkweed, t'Emā'L, used by many California Indians for nets and cord and called by the Spanish "pita." The technique requires a weft of a soft and flexible material and this fibre is generally threaded on a modern needle which is used instead of an awl. The method of sewing is likewise unusual. The flexible weft tends to curl and to leave uncovered sections of the rod foundation. To obviate this all the stitches are made in the form of a figure 8. By means of the needle the threaded weft is brought from the inside of the basket over the topmost coil, in between this coil and the next one below, entirely around this inner coil, thus giving it a second sewing, and in again between this coil and the outer rod, sometimes being passed under itself in the crossing. Each coil thus receives two layers of weft, the second superimposed on the first.

Two unfinished baskets in single-rod coiling are shown on plate 32, figures 4 and 5. Figure 5<sup>123</sup> is the base of a milkweed fibre basket, the fibre dyed with modern colors. Figure 4<sup>124</sup> is made of the root of the bunch grass. A finished basket in this

<sup>122</sup> The duplex coil basket has never before been noted, to the writer's knowledge. There is, however, a basket of this technique in the collection of the University of Pennsylvania, said to come from the Cliff Dweller region. Whether these isolated examples are spontaneous individualities or have a connection is not at present evident.

<sup>123</sup> No. 1-14989.

<sup>124</sup> No. 1-14990.

technique is shown on the same plate, figure 6, by courtesy of the owner.<sup>125</sup>

In all of the coiled baskets observed the coil runs in a clockwise direction. No generalization should be made with such a poverty of material and authorship, but as the general tendency in Californian basketry, with a few exceptions, is toward a clockwise direction,<sup>126</sup> it seems probable that Salinan baskets follow this general rule. Nevertheless, although the direction of the coil is similar in every basket, the method of operation varies with the technique. Coiled baskets with grass foundation are held with the inside to the weaver, the coil progressing clockwise in that position, and the sewing being inserted from the inside, but in rod-foundation basketry, the basket is held with the base to the operator, the coil being thus sewed in a counter-clockwise direction.

The only native decorative material is the black from the root of the fern or bracken, *Pteridium aquilinum*, k!é'ciapowat. Whether the varicolored juncus so typical of southern mission basketry or the redbud employed by the Yokuts were ever used will probably never be known. They are not used to-day. The fern root, as in the case of the weft material, is kept in water until it is needed, and is sewn in place of the latter when it is desired to make a design. As a substitute the ordinary weft splint is sometimes soaked in the juice of the elderberry, which dyes it a dark blue. This color is of course less intense and less permanent than the fern root, but is often used at the present time. A still more degenerate substitute for the fern is the use of modern ink which is occasionally painted on the stitches after the weaving is completed. The raffia-like weft of the rod-foundation basket lends itself easily to modern dyes which are often used in this technique, almost spoiling the baskets from an ethnological point of view.

Most of the baskets now made are further cheapened by the introduction of modern glass beads and yarn. The former are used on both coiled and twined work, being threaded on the

<sup>125</sup> The Dutton Museum at Jolon, California.

<sup>126</sup> A. L. Kroeber, Cahuilla, 49; "California Basketry and the Pomo," *Am. Anthr.*, II, 339, 1909.

stitches or on the twines of the weft. Yarn is sometimes caught between two stitches of the coil.

The materials used for making twined basketry are limited to two, tule, k!a'mte, and the white willow, pesxe't'. The latter is used for large and coarse work only, such as granaries, if these can be included in the term basketry, and twined carrying baskets. Tule is used for the small trinket baskets which have been already mentioned and discussed. These are of small size, but of different shapes and with different variations in the weave. In their present state they serve no useful purpose except to contain small objects. Five baskets of this technique are shown on plates 34 and 36, figure 1.

Both warp and woof of twined weave are of the same material, either twigs of white willow or young shoots of tule, and the weaving is always done in two-strand twining. Tule baskets are commenced with four thick groups or bundles of dry shoots, the bundles arranged in pairs, one pair over and at right angles to the other pair (pl. 35, fig. 2). Around these bundles two strands of tule are twined, the bundles gradually separating into smaller groups and finally into single warp elements as the diameter of the basket increases, and the weft elements enclosing progressively fewer warps at each twine. Additional warp elements are added as needed, the ends being allowed to project for an inch or so on the outside until the basket is finished, when they are cut off close to the body. As new weft strands are needed, the unused end of the former strand is laid parallel to a warp strand and included in the twine, thereby requiring no cutting of the end. The end of the new weft, however, is left projecting like a new warp element until finally trimmed off. Most of the baskets are made with a constricted top, the width of the opening being less than the greatest width of the basket. To accomplish this the diameter is lessened by pulling the warps closer together, by dropping some of them, or most commonly, by combining several warp elements in one turn of the weft.

The border may be finished in one of two ways. The warp elements may be turned over outwards and caught under the last row of twine against the next warp to the left. The more

common finish, however, is a double border. The warp elements, after being caught under the last row of twine, instead of being cut off, are intertwined to form an outer border. Passing down through the last row of twine they pass under the end of the second warp to the right, turn upwards and to a height of one-eighth inch above the inner border, over the end of the next warp to the right, and then turn down under the second warp to the left and are cut off.

Artistic feeling is generally displayed in tule baskets by changes in the weave, principally by means of crossed warp. This is generally accomplished by crossing adjacent elements, the twining resuming a short distance above when the elements have again separated to their normal distance. The twine is continuous, traversing the crossed warps at a slight angle, at which point a double crossing of the warps is required because of the double width. Here irregularities of weave sometimes occur, due probably as much to the carelessness of the maker as to the requirements of the weave. Uneven crossings are found as well as substitutions of the warp and weft. The twine never incloses the warp in pairs at the point of intersection, but always entwines single elements at regular intervals, making a more or less hexagonal opening. When more than two warps are crossed, making more than one row of openwork, variations of the weave sometimes occur. A row of twining always separates every crossing of the warp. When no more than two rows of open work are made, the warp elements are twined on each other, so that each returns and approaches its normal position. As many as three successive rows of open work are seen on some of the baskets.

One unfinished tule twined basket (pl. 35, fig. 1)<sup>127</sup> is unique. Around the widest part of the body extend two rows of crossed warp separated by two continuous rows of twine. The crossings of the warp are very irregular and careless. Above this the normal twine begins in four places at approximately equal distances apart, the inter-spaces being filled with a continuation of the crossed warp weave, the warps being crossed and turned irregularly. Since the warps are always entwined above the

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<sup>127</sup> No. 1-15000\*.

point of crossing, this necessitates a constantly increasing elevation of each successive row of twine, causing a wavy border line to result. It is probable that the basket would have been finished with the wavy border line now shown, but such cannot be predicted with certainty.

Modern decorations in the form of beads and ribbon are applied to these baskets, the former being caught in the twines of the weft. Tule baskets are made from the exterior, the basket being finished in its proper condition, not subsequently turned inside out, as is the practice among some California Indians. In making, the bottom of the basket is held towards the worker, the twine progressing clockwise as the hollow of the basket is looked into, and the strands taking a downward direction on the exterior.

Unfortunately little is known concerning the basketry of the Chumash and the Costanoan. As evidenced by a few baskets in the possession of the University,<sup>128</sup> the basketry of the Santa Barbara Chumash was built on a three-rod coil, the sewing generally in juncus. Archaeological specimens show a tendency to replace the three rods by a bundle of rods, stems and twigs of different sizes, at least in the large storage baskets. In either case the stitches are wide apart and show the foundation plainly. They display no resemblance to Salinan coiling, and differ from the basketry of the southern missions by having a rod foundation. The typical pitched water-jars of the Chumash have already been mentioned. Of Costanoan basketry we also know little, practically no baskets or descriptions remaining. According to Petit-Thouars,<sup>129</sup> the baskets at Monterey were decorated with colors, feathers, and pearl beads. It is probable that their basketry most closely resembled that of the Miwok. The Salinan work on the whole, except for the greater importance of twined work, which as we have seen, may be typical of the whole coast region, shows greatest affinities with Yokuts work, and little or none with that of the Santa Barbara Chumash.

<sup>128</sup> Nos. 1-14495 to 1-14503. Cf. O. T. Mason, *op. cit.*, 294, pl. 49.

<sup>129</sup> Petit-Thouars, *Voyage autour du Monde*, II, 115.



## AESTHETIC LIFE

### DECORATIVE ART

In California the artistic impulse is displayed almost exclusively in basketry, painting and carving being entirely absent except for occasional occurrences in restricted areas. Work in feathers is typical of the state, bead-work practically unknown.

As before stated, no trace, almost no recollection, of feather-work remains among the Salinan Indians, yet the practice of making featherwork is so universal in California that it could hardly have been absent here. Dresses also were probably adorned with shell pendants and other such decorations as are commonly used in the state.

Plastic art reaches its greatest development, as far as California is concerned, in the neighboring region along the Santa Barbara Channel, and may have exerted some influence on the Salinan area. Since, however, the only example of carving from the region, if we except the well-made pestles and mortars, is the carved pestle head already noted (pl. 27, fig. 2), the Salinans may be classed with the other non-carving people of the state. A rude attempt at decoration is seen on the arrow straighteners (pl. 27, fig. 3), consisting of striations and cross-hatching.

The practice of tattooing was, as has already been stated, denied by one of the surviving natives, but the knowledge of the informant may be questioned on this point. Painting was much used, both on the body and elsewhere. The pipe of the shaman differed from those used by plebeians by being painted. Paint was probably applied to other objects, such as hunting bows, but information on these points is lacking.

Pictographs are not typical of Californian culture and very few of them are known. North of Monterey they are practically unknown, while to the south a few scattered examples exist. In the southeastern part of the state, in the arid desert regions which are un-Californian in every respect except politically, the typical Shoshonean pecked petroglyphs occur. In the mission

area, the coast region in the neighborhood of Monterey and to the south, a few typical Californian pictographs are found. These are always painted in several different materials, probably the same colors as those used for body-painting. Taylor<sup>130</sup> speaks of several in the vicinity of Monterey and one fifty miles southeast of San Miguel.<sup>131</sup> A famous "piedra pintada" and several other well-known pictographs exist in the Chumashan region. In the Salinan area but one collection of pictographs is known, a cave known as "la cueva pintada" near the top of the hills forming the eastern wall of the valley of the San Antonio River and about five miles above San Antonio Mission (pls. 29, fig. 2; 30). The cave is large and easily entered and affords a perfect shelter from storms. The greatest height is about ten feet, width thirty, and depth fifteen to twenty. The rock appears to be a sandstone; the floor is free from dirt and shows a polish as if by much use. The roof is much blackened by smoke, said to be the result of the use of the cave by sheep herders, and most of the pictographs are partly or entirely obliterated by the soot. Yet some of the pictures are evidently painted over the soot, showing the use of the cave in aboriginal times. They are said to have been much clearer when first observed, some having still the appearance of very recent production, while others seem to be of considerable age.

The walls of the cave are well covered with paintings in different colors and designs. Most of them are merely outlined in a red ochre or paint. A yellowish-white material like a clay, and a black, probably of charcoal or soot, are evident. Some of the pictographs are entirely filled in with color, while others are made of lines and dots, resembling the Shoshonean pecked petroglyphs of the plateau area, the resemblance in some cases extending also to the design and figure. A characteristic feature is the utilization of natural features in the rock, such as depressions, as parts of the painting. Thus a round or oval cavity is in several cases encircled by a painted line and used as a head, arms and body being added. This fact may be advanced

<sup>130</sup> A. S. Taylor, *op. cit.*, April 5 and 20, 1860.

<sup>131</sup> Probably the same as the "piedra pintada" and sometimes known as "corral rock."

as evidence that the drawings are the result of impulse and imagination, and had no other *raison d'être*. They may have been made as a pastime by Indians taking shelter in the cave, but the fact that other caves show evidences of occupation, such as mortar holes in the bedrock, but do not contain pictographs, while this "cueva pintada" shows no evidences of permanent occupation, and the additional facts of the great paucity of pictographs in the country together with their abundance in a few isolated places, point to a ceremonial explanation. Ceremonial paintings are made by boys and girls at the puberty ceremonies among the natives of the southern missions,<sup>132</sup> and as some puberty rites are known to have been held by the Salinans, the probable explanation for these pictographs in the region south of Monterey is that they were made in some esoteric ceremony, probably that of puberty. No explanation for them is offered by the living Indians.

The figures themselves are in many cases truly pictographic, the human figure, turtle, and sun being among those recognized, while others are unidentifiable, and some must be either devoid of meaning or else ideographic. Some of the paintings somewhat resemble specimens of Shoshonean work, but the figures most common among the latter, deer, antelope, and other animals and hunting scenes, are conspicuous by their absence in this Salinan group. Some specimen figures from the cave are given on plate 37. They are taken from rough sketches by the writer.

Art in California reaches its greatest development in basketry. To such an extent are all the other arts neglected in its favor that the California Indian, generally considered a low type of mankind and lacking in many other phases of culture and art, is undoubtedly the world's best basket maker.

It was repeatedly claimed by the sole surviving Salinan basket maker that the aboriginal baskets of her people were undecorated, and that she had evolved and developed her own basket patterns. Every Californian Indian people of whom we have any knowledge decorated their baskets, and there is ample evidence that all of the stocks surrounding the Salinan used

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<sup>132</sup> T. T. Waterman, *op. cit.*, 293; Sparkman, *op. cit.*, 225; Constance G. DuBois, *The Religion of the Luiseño Indians*, present series, VIII, 96, 1908.

decorative designs in their basketry. The Salinan designs themselves, as shown on the basketry collected, show individuality, though bearing some resemblance to both Yokuts and Miwok work. It is not impossible that Salinan basketry may have been plain, nor that all designs may have been forgotten and the present ones evolved from individual fancy under Yokuts influence, but either supposition is very improbable and cannot be considered on such slight grounds as the unverified statement of one individual.

Decorative figures on grass-coil basketry are done entirely in black, those on rod-foundation basketry in various dyed colors. With the few specimens at hand, little can be said with regard to the designs. They occur in vertical-zigzag, horizontal, diagonal, and individual arrangement. An odd number of groups—three or five—seems to be preferred. Some resemblances with the designs of other stocks may be noticed, but the individuality of the others is evident.<sup>133</sup>

Modern baskets are decorated with beads, ribbon, and yarn. Whether these are degenerate survivals of feathers and abalone shell pendants is problematical. Ribbon is entwined through the mesh of twined tule baskets. Yarn is caught between the stitches of coiled work. Beads are threaded on the stitches of coiled weave. They may be sewn in rows, draped in festoons, sewn over a continuous surface to make a filled-in design, or arranged in any other way that the fancy of the maker may devise.

#### MUSIC

Probably in reply to a specific question, information regarding music is given from most of the missions of Alta California in the "Mission Record." From San Gabriel to San Antonio flutes, whistles, and rattles are mentioned as being in use at most of the missions. To the south of San Gabriel the sole mention of music is to the effect that the Diegueño used no musical instrument except a "timbrel" (sonajilta). Of the Costanoans to the north, the use of rattles at San Carlos is the only mention. Fortunately, the report from San Antonio is particularly full

<sup>133</sup> As all the basket designs known to the writer are shown in the basket plates, no drawings of the designs have been made.

and complete. A transcription of the report as translated by Dr. Kroeber reads:<sup>134</sup> "From their native condition they still preserve a flute which is played like the dulce. It is entirely open from top to bottom, and is five palms in length. Others are not more than about three palms. It produces eight tones perfectly. They play various tunes, nearly all in one measure, most of them merry. These flutes have eleven [*sic*] stops; some more and some less. They have another musical instrument, which consists of a wooden bow to which a string of sinew is bound, producing a note. They use no other instruments."

In general this description accords well with our knowledge of Californian musical instruments, but in detail it cannot be accepted as accurate. The flutes described here were probably made under the more technical musical influence of the friars, as they ran a perfect octave. The aborigines did not understand the principle of the pipe and made their flutes with three or four stops at irregular intervals, producing a scale impure to modern musical feeling. Two musical wind instruments are remembered by the natives, both of them made of elder wood. One, probably the typical ubiquitous flute, is said to have had six stops, while the other had four and was blown into at one end. The latter description would seem to apply to some instrument like a flageolet. This instrument is not known in the typical California region, being used only by the Mohave and other peoples of the southeastern corner of the state. The Salinan instrument may be an indigenous product, peculiar to the stock, or the result of European influence. Nothing could be learned concerning the musical bow, except that the mouth supplied the resonance chamber.

While from a narrow point of view the padre was no doubt right in declaring that the natives of San Antonio had no musical instruments but the musical bow and flute, yet under the broader ethnological interpretation of the term music he was incorrect, in that he ignored the monotonous instruments such as the whistle, and the instruments of percussion, the rattle, rasp, and drum. The latter instrument is not reported from the Salinan region and may have been unknown to the natives.

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<sup>134</sup> A. L. Kroeber, *Mission Record*, 19.

The rasp has never before been reported from California, but was undoubtedly in use by the Salinans. A specimen which good fortune and foresight have preserved (pl. 32, fig. 1) is an instrument of much more delicacy and beauty than the average Shoshonean creation. It is of a coniferous wood, about 50 centimeters in length and less than 2 centimeters in height and breadth, with 67 notches about 5 millimeters apart, showing a remarkably close resemblance to the rasps of the Tarahumare Indians of Northern Mexico, one of which is figured in Lumholtz's "Unknown Mexico."

Several varieties of rattles were in use. The common split-stick rattle made of elder-wood was the most common. The stick was split and wound with fibre twine at one end to prevent it from breaking apart. When in use the thumb was held at the wrapping and the rattle struck sharply on a tree or rock. Rattles were also made from the rattles of a rattlesnake, *te!aut!one'*, as well as from cocoons, *te!oxo'k*. The latter are used solely by shamans throughout the greater part of California, but among the Salinas were used by the singers at a dance. They were made by attaching several cocoons to a stick. Rattles of deer-hoofs were used by neither the Salinan nor the Yokuts groups. Whistles are claimed to have been made from an unidentified variety of soft-cored wood, and whistles of eagle or other bones are not remembered. The bone whistles are most typical of the state.

The "Mission Record" further continues with regard to the San Antonio Salinan: "In singing they raise and lower the voice to seconds, thirds, fourths, fifths, and octaves. They never sing in parts, except that when many sing together some go an octave higher than the rest. Of their songs most are merry, but some are somewhat 'mistes' in parts. In all these songs they do not make any statement (*proposicion*) but only use fluent words, naming birds, places of their country and so on."

These statements agree so well with our knowledge of most California music of which we have any accurate information that they may probably be accepted at their face value. As Dr. Kroeber writes in his note to the above report, songs in California often consist of disjointed words with no evident context,

though many other songs contain complete sentences. In regard to some singing an octave higher, Kroeber believes that women are referred to, but it is doubtful if the friar would have reported a fact so obvious, or would have couched it in such ambiguous terms. More probably the statement is to be taken dogmatically, possibly meaning a falsetto voice.

Nothing could be learned from the surviving natives with regard to singing, nor does any writer treat of the subject, except Taylor when he reports: "They had their feasts and dances in which they sung their songs of love and war, of hunting and of adoration." At least one of the old men of the stock, José Cruz, remembers some of the native songs which were used in myths, dances, and games, but it was unfortunately impossible to obtain a record of any of these.

## SOCIAL LIFE

### PERSONAL RELATIONS

#### *Birth*

"When their women were about to bring forth, they retired to a brush hut, by a spring of water, accompanied by a female friend. When the infant was born, the navel string was cut with a sharp stone, and it was immediately washed in the spring, and in two days the mothers were about their work." Taylor thus describes the conditions of birth among the San Antonio Indians, and little more could be learned from the surviving natives. A few restrictions, now forgotten, had to be observed before the birth of the child, and for a month thereafter the mother stayed in seclusion and the father took care not to become drunk or to commit any other sin or crime.

The above scanty notes are so general that they might be equally applicable to almost any group in California, if not in the greater part of America. The *couvade* in modified form, imposing restrictions on both the father and the mother, and both before and after the birth of the child, exists almost everywhere in the state. Minor details such as the kinds of labor and of food tabu to the respective parents, details of birth, of wash-

ing the infant, of post-natal seclusion, customs with regard to the disposal of the umbilical cord and the after-birth, sweating, and many other details, differentiate group from group, but the general usage and idea is uniform over the entire state. As these details have long since been forgotten by the present Salinan Indians, it can be merely stated that the general purpose and concept were the same as those in effect over the rest of the state and that minor details doubtless existed. A custom of steaming or sweating mother and child similar to that followed in the girls' puberty ceremonies at the southern missions is reported from both the Monterey Costanoan<sup>135</sup> and the San Luis Chumash<sup>136</sup> and therefore probably was in effect in the intervening Salinan region. Taylor gives the further information, "Their women were well treated; many of the mothers had ten children."

Nothing is known concerning the naming of children and, indeed, this custom plays little part in the Californian scheme of life. Taylor copied a few names from the old records of San Antonio Mission. These are: men—Stapocono; women—Motzucal, Tacchel, Chiguiy, Cizacolmen. The meanings of none are evident. Kroeber<sup>137</sup> reports from the Rumsien Costanoan that children were named under redwood trees and the same custom may have obtained among the Salinan.

Concerning the education given to children, Fages reports the following: "The education of the children consists of what the Indian teaches the males—to use the bow and arrow, and he makes them practice their lessons in the field, hunting squirrels, rabbits, mice and other small animals. The Indian woman takes the little girls with her, that they may learn to gather seeds, and may accustom themselves to carrying the basket. In this retinue are generally included some of the worthless creatures which they call 'joyas.'"<sup>138</sup>

<sup>135</sup> A. L. Kroeber, *Mission Record*, 22.

<sup>136</sup> Fages, *op. cit.*

<sup>137</sup> A. L. Kroeber, *Mss.*

<sup>138</sup> *Berdaches or women-men. Cf. p. 174.*



### *Puberty*

Ceremonies attending adolescence are of great importance throughout the state, and are practically universal therein. Ceremonies for the two sexes differ, but of the two, that for the girls is the more uniform, being universally held on the occasion of the first menstrual period, and in large measure merely accentuating the restrictions which obtained at each successive period. The ceremony is featured in the southernmost missions by the often described<sup>139</sup> custom of "roasting" the girls, and everywhere the possession of peculiar supernatural powers by the initiates and their defiling contact are believed in. Throughout the entire south-central region of the state, between the Maidu and the Luiseño, the existence of the practice is not definitely known, and indications point to its absence. Among the Chumash and Costanoan, investigation sufficient to warrant an expression of opinion has not been made. No mention of the custom is found in any of the accounts by early travellers, while details of much less interest are described. Powers<sup>140</sup> makes the significant assertion concerning the Miwok, "They observe no puberty dance, neither does any other tribe south of Chico" (Maidu). No girls' puberty ceremony is mentioned among Kroeber's notes on the Yokuts, though the boys' ceremony is described. The same condition obtains among the Salinan; the boys' ceremony is remembered, while the existence of a corresponding one for the girls was denied by the informants. Neither Taylor nor any other writer mentions the custom as among the Salinan group. These facts seem to point to the conclusion that in this south-central region the puberty ceremony for girls was absent. Between the custom as practiced by the Maidu<sup>141</sup> and by the Diegueño<sup>142</sup> and Luiseño,<sup>143</sup> few resemblances are noted.

The corresponding ceremony for the males is of wider distribution, but of less uniform character. In some form it is

<sup>139</sup> Cf. C. G. DuBois, *op. cit.*, 93; T. T. Waterman, *op. cit.*, 285; P. S. Sparkman, *op. cit.*, 224; A. L. Kroeber, *Cahuilla*, 66; etc.

<sup>140</sup> S. Powers, *op. cit.*, 355.

<sup>141</sup> R. B. Dixon, *op. cit.*, 232.

<sup>142</sup> T. T. Waterman, *op. cit.*, 285.

<sup>143</sup> C. G. DuBois, *op. cit.*, 93; P. S. Sparkman, *op. cit.*, 224.

practiced by almost every stock in the state except those of the northwestern culture area. To some degree it is uniformly an esoteric ceremony and often amounts to an initiation into a secret society. The society reaches its greatest development among the Maidu,<sup>144</sup> where the initiation may be long subsequent to puberty. Powers' above-quoted note may be accepted as authority that no adolescence ceremonies obtained among the Miwok, and the same may probably be true for the Costanoan. The southern type of boys' ceremony centers around the administration of a decoction of toloache<sup>145</sup> to the novitiates. The boys undergo various trials and tests and receive much instruction and the entire ceremony may properly be termed an initiation, though not in the same degree as the Maidu secret society initiation.

The influence of the toloache cult extended to the southern Yokuts and to the Salinan, though probably existing in a weakened form. It was not practiced among the northern Yokuts or Miwok, and among the southern Yokuts tribes was evidently a ceremony, neither a secret initiation nor a puberty rite.<sup>146</sup>

Among the Salinan the practice was a true puberty ceremony. Toloache was administered to the boys so that they might see clearly and be able to detect witchcraft. A dance was held and the boys threw sticks at a ring of wood. The most successful one was given a charm to make him a good hunter and a prosperous man. Nothing more could be learned concerning the practice.

### *Marriage*

From the surviving Salinan natives nothing whatever could be ascertained concerning primitive marriage customs, but fortunately the Spanish missionaries and travellers took an unusual interest in this phase of society. From San Antonio it was reported in the Mission Record:<sup>147</sup> "They were as easily married as unmarried. For the former, nothing more was required than that the suitor should ask the bride from her parents, and at

<sup>144</sup> R. B. Dixon, *op. cit.*, 322.

<sup>145</sup> Jimson-weed, *Datura meteloides*.

<sup>146</sup> A. L. Kroeber, Mss.

<sup>147</sup> A. L. Kroeber, Mission Record, 18.

times it sufficed that she of herself should consent to join herself to the man, though more often verbal communication or agreement (*trato*) preceded. Many of them did not keep their wives. Some, when their wife was pregnant or had given birth, changed their residence without taking leave, and married another. Others were married with two, three, or even more women. It is certain that there are many who have come (to the mission) from the mountains already married, and who could serve as an example to the most religious men."

Little dispute can be found with the above note. Little or no ceremony or restriction accompanies marriage or divorce in California, mutual agreement of all parties being generally sufficient for either joining or separating. Each group had its own customs which, while simple, were strictly adhered to, but of those of the Salinans no record remains. With regard to polygyny, usage seems to vary. Fages says that both the Chumash and the Costanoan were limited to one wife with the exception of the chief or head-man, who might marry as many women as he pleased. Other travellers reported the same fact and it is possible that a like custom obtained among the Salinan, and that the "others" referred to in the above note were these heads of the rancherias.

From both the San Antonio Salinan and the Monterey Costanoan Fages reports a custom of considerable interest. A free translation would read: "It seems to me worth noting the customs which these gentiles follow in their marriages and the mutual pledges which they give for the security of so strict a union as is the case. Whenever a youth and maid appear in company, both marked by the scratches of finger-nails, they are thus known to have contracted matrimony on the preceding night. This alone is considered proof and they are publicly known as man and wife throughout the rancheria. But there is still more; the couple are not believed to be making a proper use of their marital privileges unless these are accompanied by the use of the finger-nails, repeating on such occasions the same cruel and barbarous expressions of love and connubial benevolence. This will seem an incredible thing, and perhaps without

precedent,—but there is no doubt that it is so, and I write it after careful investigation.”

The usual restrictions between children and parents-in-law existed, communication between them being avoided except in cases of greatest necessity.

The women were well treated, according to Taylor.

The institution of berdaches or women-men is one of frequent occurrence among the Californian natives, but has never been satisfactorily explained. Among the coastal stocks south of San Francisco the custom flourished, and the individuals, termed “joyas” by the Spanish, were found at San Antonio. Those of the Santa Barbara Channel “lived like women, associated with them, wore the same dress, adorned themselves with beads, earrings, necklaces, and other feminine ornaments, and enjoyed great consideration among their companions.”<sup>148</sup> In this latter region, the custom seems to have enjoyed its greatest development, there being two or three joyas to every village. To the north of San Luis Obispo, the rule was one to each rancharia.<sup>149</sup> Palou<sup>150</sup> describes the horror felt by the resident padre at San Antonio on discovering one of the class in the vicinity of the mission.

### *Sickness*

Illness, at least when of a serious or prolonged character, is universally regarded, not only in California but over most of the uncivilized world, as having a personal cause, earthly or supernatural. It is caused by the use of magic and must be counteracted by the same means. To this end the services of the shaman are required. Minor disorders or indispositions are, however, often treated without the shaman, either by medicine formulae or by the use of herbs. In the latter case, the natural pharmaceutical properties of the herbs are generally not recognized, but they are believed to possess sympathetic magical powers sufficient in themselves to counteract the magic of the complaint. In some cases the herb or substance used possesses true curative elements, while in others the benefit can only be

<sup>148</sup> Costansó, Narrative, 47 [137].

<sup>149</sup> P. Fages, *op. cit.*

<sup>150</sup> Francisco Palou, Life of Junipero Serra, 1787.

psychological. The use of the magic of the shaman is more properly considered under the religious topic of Shamanism, but the use of herbs and other substances may be treated under sickness.

For a general statement of the cure of disease we are again indebted to Dr. Henshaw. "Bleeding, scarification and the use of herbs and sweat-baths constituted the medicinal practices of the Salinans. They did not dance and sing around the sick as did the Yokuts. Anesmo was aware that the latter method was in use among other tribes." This assertion is partially corroborated by Kroeber's<sup>151</sup> information from the Tachi Yokuts that curative herbs were favored by them and by the northern tribes, while singing and shamanistic practices were preferred in the south.

White willow was considered to be a cure for fever. The method of its administration is not known. Curative herbs were generally chewed by the shaman or some other person and spread on a cut or wound. Red ants were allowed to bite the part of the body affected when in pain. The same insects play a prominent part in the boys' puberty ceremonies of the southernmost missions.<sup>152</sup> They may be considered to possess some magical property, or their use may be due to a widespread belief in the virtue of "fighting fire with fire" shown even among civilized races, as in the belief of some persons in the efficacy of vinegar and salt in the relief of burns, etc.

The narcotic principle of the toloache was used in ceremonies, but it is not certain whether it was utilized as a medicine. Among all of the surrounding peoples, however, it was used as an opiate in event of broken bones and serious diseases, and probably filled the same office among the Salinan. Mescal was used only as a food. Tobacco plays an important part in California ceremonially, religiously, medically, and socially. Tobacco smoking was an important factor in the ceremonies and the religious practices of southern California.<sup>153</sup> When used as a medicine it was eaten or chewed. A native species of *Nicotina* was used, and generally mixed with lime before being eaten,

<sup>151</sup> A. L. Kroeber, Mss.

<sup>152</sup> C. G. DuBois, *op. cit.*, 91.

<sup>153</sup> T. T. Waterman, *op. cit.*, 335; C. G. DuBois, *op. cit.*

throughout much of the southern part of the state.<sup>154</sup> That the same plan was followed among the Salinan is shown by a quotation from Taylor: "They burned the aulone<sup>155</sup> shells for the lime to mix with their tobacco, which they swallowed to make them drunk." At dances the leaves were chewed for the semi-intoxicating effect they produced. As a medicine it might be taken at any time but was preferred on retiring for the night. The leaves were then mashed and steeped in water and the decoction drunk. Nausea and intoxication ensued, followed by a deep sleep and a good appetite in the morning. It was considered particularly good for pains in the stomach, the narcotic principle alleviating the pain. Its use seems to have been very frequent and general and its effect claimed to be very beneficial. Magical properties were assigned to it and it held a place of considerable importance in the estimation of the aborigines.

### *Death*

It has been generally accepted that cremation was typical of the greater part of California, but sufficient cause for this belief is not evident. There are more stocks which practice burial exclusively than those practicing cremation exclusively, and in the other cases the custom varies not only from group to group but even among individuals. Among the stocks where burial alone is used are: those of the southwestern culture area<sup>156</sup>—the Chumash and certain Shoshonean groups; the stocks of the northwestern culture area<sup>157</sup>—the Hupa, Yurok, and Karok; the Wiyot,<sup>158</sup> the Shasta,<sup>159</sup> and the Yuki.<sup>160</sup> The Miwok<sup>161</sup> as a rule preferred cremation, but the mountaineer groups buried; burial

<sup>154</sup> Costanoan, P. Fages, etc.; Yokuts, A. L. Kroeber, *Mss*; Chumash, P. Fages, etc.; Shoshonean, C. G. DuBois, *op. cit.*, 94.

<sup>155</sup> i.e., abalone, *Haliotis*.

<sup>156</sup> A. L. Kroeber, *Types of Indian Culture in California*, present series, II, 99, 1904.

<sup>157</sup> *Ibid.*, 87.

<sup>158</sup> S. Powers, *op. cit.*, 99.

<sup>159</sup> Those who died at a distance from home were occasionally cremated. R. B. Dixon, "The Shasta," *Bull. Am. Mus. Nat. Hist.*, xvii, 465, 1907.

<sup>160</sup> S. Powers, *op. cit.*, 129.

<sup>161</sup> *Ibid.*, 356.

prevailed among the Maidu,<sup>162</sup> some of the Yokuts tribes<sup>163</sup> and the Costanoan.<sup>164</sup> The Yuman and most of the Shoshonean groups burned the dead,<sup>165</sup> but of the typically Californian stocks, the Pomo<sup>166</sup> alone, with possibly their Wintun neighbors, are known to have practiced cremation exclusively. Burial thus seems to have been more common than cremation even in the central Californian area. Cremation, nevertheless, was generally considered the greater honor and given to the few. Thus at Santa Cruz (Costanoan) "they burned the bodies of those killed in war, but interred at sundown those who died from natural causes."<sup>167</sup> The Tachi Yokuts buried those considered of not much consequence, burning the rest.<sup>168</sup>

At San Antonio the most distinguished dead were cremated, while persons of no particular importance were merely buried, thus following the usual plan in this region. At San Miguel all are said to have been buried. The latter may be an error, or it may be due to the influence of the neighboring Chumash.

On the death of a San Antonio native all his possessions, including his house, were at once burnt and the village was abandoned for a short time. If cremated, the ashes were collected and buried. His name was never spoken<sup>169</sup> and all his relatives endeavored to forget him. No ceremony accompanied the burning or the burial and no annual tribal mourning ceremony such as is common among Californian Indian groups is remembered.

Taylor says of the Antoniño: "They burnt their dead with songs and great wailings." The "Mission Record"<sup>170</sup> reads: "There were some few who set out food for the dead."

The dead of the San Miguel group were wrapped in skins

<sup>162</sup> R. B. Dixon, Maidu, 241.

<sup>163</sup> A. L. Kroeber, Mss.

<sup>164</sup> P. Fages, etc.

<sup>165</sup> A. L. Kroeber, *Types of Indian Culture in California*, 100.

<sup>166</sup> S. Powers, *op. cit.*, 152.

<sup>167</sup> A. S. Taylor, *op. cit.*, April 5, 1860.

<sup>168</sup> A. L. Kroeber, Mss.

<sup>169</sup> That the mention of the dead was as serious an offence among the Salinans as with other Californian Indians is well illustrated by the incident that when asked jocularly for a Salinan word of profanity, Pedro Encinales gave *ca'mtel*, and translated it "go to the devil" (*ve al diablo*). Sitjar writes *chavmtel*—"cadaver."

<sup>170</sup> A. L. Kroeber, *Mission Record*, 19.

and a ceremonial burning of personal possessions was held by the rancheria in somewhat the following manner. The bow and arrows of the deceased were placed on a high pole in the village and around this the inhabitants congregated, the relatives on one side and the other inhabitants on the other side. Then the former brought out all the personal property of the deceased and piled it at the root of the pole. As the objects were thrown down it was the privilege of any villager to seize any article he craved and endeavor to escape with it. If he could elude the pursuit of the relatives and make the circuit of the village three [*sic*] times, he was entitled to retain the article. If caught, the object was returned to the pile with the other possessions and burnt. After ten days of mourning the house of the deceased was burnt and another one built and occupied by the family. After a reasonable length of time it was necessary for the male relatives to find a husband for the widow.

The above description, obtained by Dr. Henshaw, seems to imply that the burning ceremony was held at the time of the burial, and this agrees well with the writer's information that the entire possessions of the deceased were immediately burnt. A mourning ceremony held by the entire "tribe" about a year afterwards was also reported. Nothing was burnt at this ceremony. The Tachi Yokuts, whom the Salinans most nearly resemble in point of culture, held a similar ceremony every summer at which no property was burnt. It lasted several days and was given by a man who had lost a near relative. Property was, however, given away to visitors.<sup>171</sup> A mourning ceremony of this type is held over practically all of California and extends even to the Mohave and Paiute. The principal feature of it is always the destruction of property by burning. Generally the property is made for the occasion, which commonly occurs once a year. The privilege of seizing coveted articles is also of widespread occurrence. Most of the other details of the ceremony vary. It has not before been noted as following immediately after the death, and it is not impossible that the information may be faulty on this point.

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<sup>171</sup> A. L. Kroeber, Mss.



The hair was cut as a sign of mourning, following the custom practically universal in the state, but nothing else concerning mourning customs is known at the present time.

#### FAMILY RELATIONS

##### *Terms of Relationship*

The native Salinan terms of relationship have long since been replaced by those of European origin and only a bare recollection of the former remains. Middle-aged Indians are unable to identify any of the terms and their elders generally correlate them with terms of the different Spanish system. A list of terms for each dialect was collected by Dr. Henshaw in 1884 and other lists were secured by the writer, and an effort was made to fit them into a definite system. The terms will, however, be discussed under their respective classifications.

Relatives in the direct line.—Two terms for father and two for mother exist in each dialect. Beyond the obvious fact that one term is commonly used with the possessive pronoun of the first person only, and the other with the second and third persons, nothing could be learned of the distinction between them. The roots of the words are—Antoniño, father *tēle'*, *ek'*, mother *apai''* *ēpx*; Migueliño, father *tāta'*, *pepx*, mother *apā'i*, *e'pex*. A few of the Antoniño declensions are given below. Those in the second and last columns are possible but not in general use

My father	<i>tēle''</i>	( <i>ek'</i> )	My mother	<i>apai''</i>	( <i>ē'pax</i> )
Your father	<i>ʔum'e'k'</i>	( <i>ʔum-tele''</i> )	Your mother	<i>t'me'-epax</i>	( <i>ʔum-apai''</i> )
His father	<i>e'k'-o</i>	( <i>ʔe-tele'-o</i> )	His mother	<i>ē'p' x-o</i>	( <i>apai-o''</i> )

By the San Miguel division no distinction is made for the sex of children, the term *pase'L* being used for both boys and girls. The sexes are distinguished by the San Antonio moiety by the terms "as," son, and "ti'co," daughter. The same distinction is noted in the use of the Antoniño words "stexa," boy, and "stau," girl, as opposed to the Migueliño "sap'xā," child. The term "as," son, may possibly be used exclusively by men, as Henshaw's informant, a man, gave the term "ti'co'" as the woman's word for both son and daughter. There are other traces of the use of terms exclusively by one sex, but the evidence

is not convincing. The words "as" and "pase'L" are etymologically identical, displaying regular dialectic changes. The San Antonio word "as" also means "name" and there is probably a connection between the two.

The terms for the relations of grandparents and grandchildren, while similar in each dialect and readily distinguishable, show such variations in meaning in all of the lists secured that it was necessary to reclassify many of the terms, following the list which is most like the typical Californian system. This gives:

	<i>Father's parents</i>	<i>Mother's parents</i>
San Antonio	xāla"	nēne"
San Miguel	ama"	nene"

The term xāla" was given by all three male informants of either dialect as meaning "grandfather" of either parentage. It was not given by the Migueliño woman whose list is taken as most typical. It is furthermore contradicted by Sitjar's<sup>172</sup> definition of ajaláuô, "abuelo por parte de madre" (maternal grandfather). It may be an exclusively male term for men of either division, and its proper meaning is altogether very doubtful. ama" is a term given by the Migueliño informants only. It undoubtedly means paternal grandparent, and is probably a San Miguel word, though given by Sitjar<sup>173</sup> from San Antonio with its proper meaning "abuelo por parte de padre." The term nēne" or nene" is used by both dialects and sexes equally and probably denotes maternal grandparents, though like the rest, it is contradicted in some of the lists secured. Arroyo de la Cuesta<sup>174</sup> translates the term as "grandfather." Whether there were more terms which have since been lost, or whether the known terms should be differently arranged, the material is insufficient to prove.

The relations of grandchildren show a reciprocity with the grandparents. The probable system for them is:

	<i>Son's children</i>	<i>Daughter's children</i>
San Antonio	ta'iyal	teaiya"
San Miguel	tema'k	tena'iyal

<sup>172</sup> J. G. Shea, *op. cit.*, 9.

<sup>173</sup> *Ibid.*

<sup>174</sup> Arroyo de la Cuesta, *Mss.*

ta'iyAL is generally given as grandson, sometimes as grandchild; tcaiya'', when given at all, is translated granddaughter. tema'k is the plain reciprocal of ama'' and was properly translated as son's child. It was not given by the Migueliño man and may possibly be an exclusively woman's term. tena'iyAL was given by both Migueliño informants, but translated by the man as granddaughter. Great-grandchild is mâce'l according to Henshaw's San Antonio informant, and great-great-grandchild is setilka'i, but these distant relationships are naturally open to considerable doubt.

The collateral relations are fortunately full and probably correct. Distinctions for relative age and sex are made and reciprocal relations observed.

	<i>Elder brother</i>	<i>Elder sister</i>	<i>Younger brother</i>	<i>Younger sister</i>
San Antonio	kāi	pe'	tōs	t'ON
San Miguel	kāiyE''	pepe''	tos	tloN

For the relations of uncle and aunt it would be expected to find the above table doubled for the medium of the father and mother. Appearances seem to indicate that such was the case, though the system may have been irregular and lacking in some of the relations. Here as elsewhere the terms as received from different informants did not agree and are given merely as probable.

	<i>Father's elder brother</i>	<i>Father's elder sister</i>	<i>Father's younger brother</i>	<i>Father's younger sister</i>
San Antonio	—	pas	ta'	—
San Miguel	la'pae	—	ek!a'	apa'e
	<i>Mother's elder brother</i>	<i>Mother's elder sister</i>	<i>Mother's younger brother</i>	<i>Mother's younger sister</i>
San Antonio	sāk	—	—	—
San Miguel	asa'xk	asa'xk	mone''	mone''

The reciprocal nephew and niece relations of these are clear. Here also some arbitrary classification had to be done. Probably no more than four terms in either dialect existed here. There is no trace of more, and they would have been a too unwieldy system.

	<i>Child of elder brother</i>	<i>Child of elder sister</i>	<i>Child of younger brother</i>	<i>Child of younger sister</i>
San Antonio	tāk	—	te'pacek	e'sxa
San Miguel	te'nak	—	—	temasa'xe

The eldest uncle is said to have been termed *sāk* by his nephews among the Antoniño and the children of the eldest brother were known as *tA'*.

Terms for relatives by marriage are:

	<i>Husband</i>	<i>Wife</i>	<i>Son-in-law</i>	<i>Daughter-in-law</i>	<i>Elder brother's wife</i>
San Antonio	la	se	te'lem	tuke'wi	timta'L
San Miguel	laN	seN	te'le'M	te'mai'	—

Irrespective of dialectic differences, there are about thirty-four terms, as many as are found in the most complete systems in America. This would seem to indicate that there has not been much if any loss of terms, though the definitions of the latter have become confused through European influence.

Analyzing the terms by categories, the tendencies typical to California are found to exist.<sup>175</sup> All of the terms recognize the respective generations of the individuals, their relationship by blood or marriage, and whether in the lineal or collateral line. The sex of the relative is considered in about 66 per cent of the cases, the San Antonio natives adhering to this distinction more uniformly than the San Miguel. The sex of the connecting relative is considered in about 50 per cent of the terms, and generally where such a distinction is possible. The sex of the individual appears to be of importance in certain relations, though this is not certain. About 25 per cent of the terms may display this phenomenon. The relative age of the parties concerned in their generation is of more importance than is usual in California, nearly 40 per cent of the words being thus differentiated. The condition of the connecting relative is not considered, but there may be another class, that of grammatical person, as is displayed in the twin words for father and for mother according to whether an affixed pronoun of the first, or of the second or third person, is used.

Of the actual family life, the organization of the family, and such other matters as are properly considered under the topic of family relations, absolutely no data remain.

<sup>175</sup> A. L. Kroeber, "Classificatory Systems of Relationship," *Journ. Roy. Anth. Inst.*, xxxix, 78, 1909.

## SOCIAL RELATIONS

*Government*

The "chief" was selected because of his bravery. The older men of the rancheria would select one of their number and submit his appointment to the other inhabitants of the village. Nothing more is remembered by the present Salinan Indians concerning aboriginal government.

The relative power of the American Indian chief has been a fruitful source of polemic discussion. In California as in Mexico and elsewhere, early observers, both Spanish and English, biased by their European prejudices, found everywhere emperors, kings, and despotic chiefs. The essential democracy of Indian life, and the relation of poverty and democracy as opposed to wealth and plutocracy or autocracy, are both now recognized. Wealth reaches its greatest development on the Pacific coast and particularly in the Alaska-British Columbia area. Here the distinction between classes is well marked. The Santa Barbara Chumash seem to have had a culture in which wealth played a more important part than usual, as should be expected from the greater affluence of the people, and the reports of Costansó, Fages, and other early observers to the effect that chieftainship was hereditary, generally in the male line, and despotic, may be taken as fairly accurate. Over the greater part of California, chieftainship appears to be less autocratic and more an office of advisory character, though the greater stability of population and the greater importance of wealth which permeates the entire coast region causes a less democratic form of society in California than on the plains or in the eastern woodlands. There is generally a chief to each village in California, the office being either elective or normally hereditary, and the chief is ordinarily accorded certain special privileges, though his rule is limited by a council of the older men and by public opinion.

Fages merely reports of Salinan government that the people were governed similarly to the natives of the "Rio Grande de

San Francisco."<sup>176</sup> Concerning the government of these a full and circumstantial account is given. "Besides the chiefs of the rancherias they have in each district another chief who commands four or five settlements, the first named being his subordinates. Each one in his settlements collects the tribute every day [*sic*] which the Indians pay him of their seeds and fruits and game and fish. If anyone commits a theft, the wronged one appeals to the chief and he gathers together an assembly and deliberates with all the Indians concerning the punishment and the atonement which is becoming. If the theft is as usual, something to eat or some useful article, the entire penalty for the theft amounts to the restoration of the stolen object or its equivalent, but if the robbery is of a maiden, the abductor is forced to marry her, the same penalty being enforced in a case of rape, even when unaccompanied by abduction. The subordinate chief is obliged to inform his superior of any news or incident whatever, sending to him any offenders with the charges against them. During the accusation the culprit, man or woman, remains standing with the hair dishevelled and falling over the face. All that the subordinate chief collects from the daily contributions of the villages he submits to the chief commander of the district who, every eight or fifteen days, goes out to visit his district, and the settlements receive him with ceremony. They make him presents of the best and most precious things they have and appoint a few Indians to go in his company as far as the place where he resides."

This account reflects a far greater development of the power of chieftainship than is usual in California and, had it come from any other part of the state, it would, despite the evident carefulness of observation, be discredited. The report in the "Mission Record" from San Luis Obispo,<sup>177</sup> the nearest Chumashan neighbors of the Salinan, shows a similar tendency,

<sup>176</sup> Fages wrote his account before many of the geographical points of California had been finally named, 1775. As he describes the natives in order up the coast from San Diego, and speaks of the "Indians of the plain and Rio Grande de San Francisco and environs" next after those of Monterey, it is most probable that he refers to the western Costanoan, but the river referred to may be the San Joaquin and the natives the Miwok or Yokuts. The description would be very applicable to the latter if we may believe Powers' reports.

<sup>177</sup> A. L. Kroeber, *Mission Record*, 17.

attributing great importance to the chief, even to the extent that the natives are represented as taking up arms to avenge a slight upon his dignity. The probability of the truth of this report is discounted in a note by Kroeber.<sup>178</sup> The Yokuts tribes are said by Powers<sup>179</sup> to have had an organization much similar to this reported by Fages, being in fact, the only stock in the state, so far as is known, to merit the designation of tribe. Here, due possibly to the necessity of opposing the advances of the Shoshonean tribes, the villages were organized on a more or less military basis into tribes, with a tribal chief to whom the "capitans" of the rancherias were responsible, and to whom they made regular reports.

The power and importance of the chief is thus seen to be greater among the San Luis Obispo Chumash, the San Antonio Salinan, and certain of the Costanoan groups than is usual, and the general social organization, particularly among the Salinan, seems to have followed the Yokuts plan of tribal solidarity. Whether or not the Chumashan custom prevailed of allowing the chief the privilege of polygyny among other privileges is not known. Taylor says that the villages were named from the chiefs, but it is probable that it was not so until the Spanish began calling the villages, "rancheria of chief —."

### *Games*

Amusements of various kinds occupied much of the time of the Californian native. The rancherias were permanent; wars were few, and acorns and game plentiful and near at hand. Most of the amusements were games of chance in which gambling was prominent, but games of skill, strength, and endurance were also enjoyed.

The ubiquitous bone game, *peū'*, common to practically all of western America,<sup>180</sup> was very popular and often played by the Salinan. The objects were made of either an eagle's bone or of three shells joined, and one of them was plain, the other with a fibre-string wound around the middle of it. The players

<sup>178</sup> *Ibid.*

<sup>179</sup> S. Powers, *op. cit.*, 370.

<sup>180</sup> Stewart Culin, *Games of the North American Indians*, Ann. Rep. Bur. Am. Ethn., xxiv, 267-327, 1907.

formed two "sides" but the actual playing was limited to two men on either side. One pair of bones only was used, each of the players hiding one bone, while the opposite side endeavored to guess the location of the plain one. Both men on the inactive side guessed at each occasion and paid for their incorrect guesses with counters. Ten or twelve of these counters were used and much betting done by the respective sides. If both players guessed incorrectly two counters were paid to the opposing side; if one guess was correct, they paid one counter. It was said that the sides alternated in hiding the bones, but the general method of changing sides only when both men had been guessed correctly was probably the accepted custom. When a man had a long run of poor luck he resigned his place to another member of his side. Women likewise sometimes took their husbands' places in the game when the latter were unlucky. They also often played the game among themselves. The game was played by the Costanoan<sup>181</sup> in a manner nearly identical to this.

The game was probably attended with as much excitement as is usual elsewhere. Inter-rancheria games and games played with ceremonial significance are not reported, but may have been played. A "head-man," possibly the chief of the village, built a ceremonial fire and kept it going and kept the tally of the counters. Songs were sung by the players and possibly by all the participants and spectators during the progress of the game. Special gambling songs existed for these occasions and are still remembered by some of the older Indians. Unfortunately it was impossible to obtain a record of any of them.

The women had a game, *tecoine'*, played with ten bones which they threw with a basket. This is probably the common women's dice game played with walnut-kernels, acorns, or split and burned sticks, over much of western America.<sup>182</sup> The relative number of obverse and reverse sides showing decides the count. It is the most common gambling game for women.

The games wherein the interest is primarily in the skill, and where gambling is a secondary or negligible element, are not as

<sup>181</sup> A. L. Kroeber, Mss.

<sup>182</sup> S. Culin, *op. cit.*, 144, etc.

<sup>182a</sup> *Ibid.*, 420.

<sup>182b</sup> *Ibid.*, 527.



prominent among the sedentary people of California as among the more active and virile Indians to the east. The hoop-and-pole game<sup>182a</sup> was played at the boys' puberty ceremonies by the novitiates with a semi-ceremonial significance. According to Henshaw, *me'nakwa'kwa* was a game played by two persons who locked their middle fingers and pulled to see which one was the stronger. The ring and pin game<sup>182b</sup> was not remembered by any of the informants nor was the football race, but as both of the latter were very widespread in California they probably were known in early days.

### *Dances*

Practically every occasion of social gathering in California is attended by some variety of dance. Not that the desire for dancing is any less widespread than the human race itself, but the custom appears to be particularly well developed in this section of North America. Dancing supplies much of the shaman's mysterious powers, aids him in employing and in overcoming magic, in thwarting death and in communing with spirits. It often is in itself a power in religion, and it supplies much of the social amusement of the people. Naturally all dances of a religious significance were strictly forbidden by the Spanish missionaries and have largely been forgotten.

Most of the Salinan dances were performed by individuals, the other spectators supplying the music and singing. Individual dances seem to be most common in the southern part of the state. The music was supplied by rattles of split sticks, cocoons, or rattlesnake rattles, and by rasps and whistles. Cocoon rattles are said to have been used solely by singers at a dance. Rattlesnake rattles were used by all participants. The flute and possibly other instruments may have been used at dances.

The dance called *kuksu'i* seems to have been the most popular one in this region and is performed by many of the other Californian peoples, having been observed among the Pomo, Wintun, Maidu, and either the Costanoan or Miwok.<sup>183</sup>

<sup>183</sup> A. L. Kroeber, *The Religion of the Indians of California*, present series, iv, 338, 1907; *Indian Myths of South Central California*, present series, iv, 189, 1907. Also pages 129 and 188, notes 81, 112, 207.

Two dancers impersonate Kuksui and his wife, who are now generally identified with Satan and his consort. The singers sat in a row and sang and clapped their hands, no rattles or other musical instruments being used. In front of the row the two dancers performed, naked except for a breech-clout and painted red, white, and yellow. A headdress of feathers was worn, reaching to the shoulders and with eagle feathers extending from the forehead forward. This was probably the same as the enormous "big-head" headdress worn in the same dance by the Pomo and Maidu.<sup>184</sup>

Various animal dances were performed, the Owl, Deer, Coyote, and Bear dances being known. These were individual dances, the performers imitating the action and the cry of the animal. Each of these dances had its own songs, some of which are still remembered. When it was suggested to the informant, José Cruz, that the purpose of the dances may have been to increase the number of animals, he readily agreed. Dr. Henshaw noted the words used in several of the dances with their meanings.

The Bear dance was performed in August if the prospects of a plentiful crop of acorns were good.

hau'—wa—ya	he'—ne—ye
hau'—wa—ya	he'—ne—ye
	he'—ne—ye
hau'—wa—ya	he'—ne—ye
("There's plenty, we are glad")	
	ta—we'—ye—he'
	ta—we'—ye—he'
("We're chewing acorns")	
	hū'—hū'—hū'

The Owl dance was a favorite with the Migueliños in the month of April.

pa'—na—ta	pa'—na—ta	co'—ko—nai
pa'—na—ta	pa'—na—ta	co'—ko—nai
("Dance, dance, owl")		
tro'—ki—kup'—ic—tun	tro'—ki—kup'—ic—tun	
tro'—ki—kup'—ic—tun	tro'—ki—kup'—ic—tun	
("In the cave,		In the cave")
	hū'—hū'—hū'	
	hū'—hū'—hū'	

<sup>184</sup> A. L. Kroeber, *Religion California Indians*, 337.

Dancing in groups was also enjoyed on occasions. Both men and women participated. The latter evidently did not engage in dances among the Chumash to the south, as Fages particularly noted that it was near the foot of the Santa Lucia Mountains near San Luis that the first dances in which women participated were held, and consequently they named the village "pueblo de las bailarinas."<sup>185</sup> The dance among the Salinans consisted of a row of men and a row of women alternately dancing, and then resting. The men's part was termed *hiwē'i*, the women's part *lolē'i*. Eight or ten singers with rattles supplied the music. Similar dances have been noted among the Pomo, Wintun, Maidu and Miwok<sup>186</sup> and may have been in vogue among other stocks. They are not reported from the Yokuts tribes, the Salinans in this respect showing affiliations with the north-central Californian area. Among the Maidu<sup>187</sup> a dance known as the *he'si* is performed by the men alone and another distinct dance, known as the *lo'li*, is restricted to women. It may be with these that the Salinan dances are related.

One occasion when festivities and dances were indulged in was on the completion of a communal dwelling-house. Then a large sweathouse was also built and all the inhabitants of the neighborhood gathered there for festivities, songs, and dances. The day following the festivities in the sweathouse, the dwelling-house was occupied, but the sweathouse was permanently kept for reunions, dances, and other ceremonies which would be held therein.

### *Trade*

Considerable intercourse existed between the Salinan and the Yokuts natives and commodities were doubtless exchanged. Visits were frequently made by either stock to the country of the other and an "entente cordiale" evidently existed. The Salinans probably manufactured shell beads which could not be obtained by the Yokuts except by trade. What other products were bartered can only be surmised. The extent of trade with

<sup>185</sup> Costansó, *Diary*, 53, notes the same incident, but locates it only a short distance north of Point Concepcion, 34° 33'.

<sup>186</sup> A. L. Kroeber, *Religion California Indians*, 338.

<sup>187</sup> R. B. Dixon, *Maidu*, 288 ff.

the Chumash, Esselen, and Costanoan is not known, but was probably not great. Univalve columella ornaments were probably imported from the Chumash, as well as steatite vessels, wooden dishes, and other articles of peculiarly Chumashan manufacturer. Other objects such as the stone maul (*cf.* p. 140) give indications of trade from even greater distances. The general impression given one, however, is that there was a strict line of demarcation between the Salinan and the Chumash and Costanoan, and that little trade and considerable hostility existed between the several groups.

### *Warfare*

The natives of the Santa Lucia Mountains were eternally at war with each other, said Fages, contrasting them with the inhabitants of the shores of Monterey Bay, who were smaller and more cowardly, and with the natives of the valley of the "San Francisco River," who were the least savage of all. Other observers also note the greater virility and courage of the inhabitants of the coast mountains as opposed to the meekness of the fishing people on the shores.<sup>188</sup> "They give no quarter to strangers," Fages continues, "and those in the neighborhood of Monterey practice the custom of having the parents of the slayer eat the flesh of his victim." This refers to the Costanoan or Esselen. "They are in continual war with their neighbors and before starting out on any warlike expedition both men and women meet for conference in the house of the chief, from whence the men leave for the conflict with their instructions. The war consists in setting fire to some settlement of the opponents, sacking it and bringing back some women, married or single." Taylor says of them: "In war they took scalps from their enemies, to use in their war dance; they also had the singular custom of cutting off the heads and arms of the enemy's braves, so as to inspire them with valor."

The above notes, which compose the entirety of what can be learned concerning Salinan warfare, give a probably correct idea of the method of warfare, but an exaggerated one of its importance. Californian warfare seldom rose to any considerable

<sup>188</sup> Dufot de Mofras, *op. cit.*

consequence and its part in the native scheme of life is insignificant when compared with the all-absorbing role played by war on the plains and in the eastern woods. The Yana<sup>189</sup> and the Mono<sup>190</sup> alone are credited with a warlike nature, and the only serious opposition to the seizure of their lands by the whites was afforded by the Modoc, who are rather an Oregon people. A lack of any feeling of tribal unity in California, except possibly among some of the southeastern stocks, precluded a development of any warlike propensities, and most of the so-called "wars" in the state were hostilities of a few days or weeks' duration between two or more rancherias and, while attended with some cruelty, were generally settled quickly with the shedding of very little blood. Such was probably the state of warfare among the Salinan villages. More or less hostility, open or veiled, probably existed among them continually and raids between rancherias were to be expected at any time, accompanied by torture of any unfortunate prisoners. The Indians who were afterwards gathered into Soledad Mission, the southernmost Costanoan, are said to have been the greatest extra-tribal enemies of the Salinan natives and the most northerly Chumash doubtless also shared Salinan enmity. As mountaineers, the Salinans probably were more warlike than the coast and valley people surrounding them, but proof of this supposition is entirely lacking.

### RELIGIOUS LIFE

The care of the dead and the belief in disembodied spirits of the deceased which prevails not only all through California but throughout practically the entire world is significant of a universal belief in immortality. In addition to these "ghosts" there are also other unembodied spirits of ignoble or lofty conception, and persons and even inanimate objects endowed with superhuman powers. In California both the higher conception of omnipotent gods and the lower belief in powerful fetiches and idols are practically lacking. The belief in the power of the

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<sup>189</sup> S. Powers, *op. cit.*, 275.

<sup>190</sup> *Ibid.*, 397.

shaman or "medicine-man" is as strongly, if not more strongly developed in this region than is usual. The all-pervading influence of religion in primitive life is such that it must enter into the discussion of practically every phase of life, economic, aesthetic, social, or mythological.

#### RELIGIOUS CONCEPTIONS

For data on Salinan religion the principal source must be the writings of early observers, and they, unfortunately, were generally biased by their accustomed point of view, and observed native customs through prejudiced eyes. Taylor reports that, "The Indians of San Antonio believed in a Superior Being; they believed he made the sun, moon, stars, earth, men and other visible things. One of their modes of adoration was, when smoking tobacco (indigenous), they raised their heads to heaven and blew the smoke upwards." This statement by Taylor concerning Salinan deity is open to very great doubt, as the ideas expressed are foreign to any known religious belief of California, if not of North America, unless the "Superior Being" is recognized as a personified mythological animal. Fages, whose observations have the appearance of reliability, displaying intellectual power far above most of the chroniclers of his time, says the following on Salinan religion. "Idolatry is greater and more open here than in the former places,<sup>191</sup> it being well understood that this report includes twelve leagues in the vicinity of the mission of San Antonio. I say that it is greater on account of the difference and plurality of the gods which they adore; these are the sun, the water, acorns, certain kinds of seeds, and, not content with these, they have raised certain old Indians of their village to the rank of gods, in whom they appear to have placed great confidence; offering them adoration with ceremony and various other gifts, they ask them that it may rain, that the sun may shine, that the crops may yield, etc."

The Chumashan Indians for twelve leagues radius from San Luis Obispo, and the Costanoan and Esselen for twenty leagues around Monterey are also said, both by Fages and by other

<sup>191</sup> i.e., than to the south, among the Chumash, Shoshonean, and Yuman.

writers, to have been sun worshippers, who greeted the sun with demonstrations and offerings. This testimony can hardly be ignored, and the offering of presents to the sun, if substantiated, would indicate a true sun worship. But water, acorns, and seeds were probably never worshipped as such, nor can the Salinans be charged with idolatry on that account. Most of the early writers, such as Palou, take a broader view and properly state that idolatry did not exist in the mission region.<sup>102</sup>

A belief in a previous as well as a future life appears to have been part of the Salinan religious creed. Fages' statement to the effect that the Monterey Costanoan believed in transmigration of souls—that the dead went to an island in the ocean and were later born again, would probably be equally applicable to the Salinan. The belief in a western island of the dead is found in all the neighboring region; Dr. Kroeber<sup>103</sup> has found it among the Yokuts, and Dr. Henshaw obtained a short myth proving it to be the belief of the Salinan (*cf.* p. 195).

#### SHAMANISM

The California shaman owes his importance to the peculiar personal, magical relation which he has attained with supernatural beings, objects, and forces. This power is attained in different ways among different groups of natives. The exact method of obtaining this power among the Salinan Indians is not known but probably was the same, or a similar method to that followed in obtaining an amulet or charm. Shamans, *ta'ke*, or "witches," as they are now termed by the natives who still remember them, are said to have been very numerous at the missions and many tales of their powers and deeds are told. Medicine women were unknown. A shaman's stick with powerful magical properties was used by him in his incantations, as well as charms and other material objects. His pipe was similar in size and shape to those used by the other natives, but it was decorated with paint, and doubtless most of his other possessions were differentiated from those of ordinary persons. He possessed no bull-roarer, nor was he the sole possessor of cocoon rattles,

<sup>102</sup> Francisco Palou in Forbes' *History of California*, 194.

<sup>103</sup> A. L. Kroeber, *Mss.*

according to the writer's informants.

The place and office of the shaman was generally misunderstood by the Spanish. The missionaries generally believed him to be in league with the father of all evil for the principal purpose of opposing their teachings, and even the lay mind accredited him with malice. Fages speaks of the medicine man as the god created by the natives themselves. His remarks on the Salinan shamans have already been quoted on page 182.

The office of the shaman centers principally about the cure of disease. With the Salinan natives as elsewhere, the cause of disease, or at least disease of any consequence, is always believed to be personal malice by means of witchery, which can be counteracted by the shaman alone. Thus Palou,<sup>194</sup> speaking of the missions in general, says, "Sickness is always believed to be due to magic." When called to treat a patient, the doctor made a cut, generally on the arm or at the point of pain, with a flint. He sucked at the cut and drew out small sticks or stones or other small objects which were supposed to be the cause of the complaint. In the case of wounds he chewed an herb and spit it on the hurt. Dancing and singing are said to have been also practiced as means of cure, but according to Henshaw's informant, the San Miguel Indians did not dance and sing around the sick, though such was known to be the custom among other stocks. According to information secured by Kroeber<sup>195</sup> from the Tachi Yokuts, it appears that the northern Yokuts preferred the use of herbs and the practice of sucking, while the southern tribes placed more dependence on the dances and songs of the shaman. The Salinan would seem to follow the northern preference, and it is probable that the Chumash preferred the practice of the southern Yokuts and southern missions.

The shaman appears to have been very much feared and no violence was attempted against him even in event of repeated losses of patients.

The customary California belief in special grizzly-bear doctors and in the power of the shaman to control the fall of rain seems to have obtained among the Salinan natives.

<sup>194</sup> Francisco Palou in Forbes' History, 195.

<sup>195</sup> A. L. Kroeber, Mss.



## CHARMS

The belief in the possession of supernatural power by material objects is universal in California, as well as common over the entire world. Charms, amulets, and other helpful objects are possessed by most of the aborigines as well as by the shamans. These are probably the "idols" referred to whenever idolatry is mentioned in California, though the majority of the early writers recognize this distinction and agree with Palou<sup>196</sup> in his statement, "Idolatry is found in none of the missions, only superstitions and vain observances and pretensions to supernatural power."

The most important charm was the stick of the shaman. This is said to have been made of the feathers of eagles, owls, and crows fastened on a stick. This charm was carried by the shaman in dances and used in his conjuries. Other charms possessed by the common people were for protection from bears and other dangers.

Dr. Henshaw collected the following notes on San Miguel charms and amulets:

"To obtain an amulet or charm, a San Miguel Indian goes into the sweathouse and then retires to an unfrequented spot and fasts for four days. During his sleep he dreams of the thing which is to be his amulet, and on awakening, he finds it in his hand. The nature of the object he keeps secret and never shows it to anyone. The value of the amulets lies in the safety which they insure the possessor from harm of all kinds and from disease. When held in the hand and pushed out towards a thunder cloud, the thunder will stop. Moistened with saliva and rubbed over the seat of pain a cure is effected. An amulet will render its possessor invisible when desired, as when a prisoner, and by its aid the captive may walk away unperceived in the midst of his enemies."

## USE OF TOBACCO

Throughout California a semi-magical power is ascribed to tobacco. This is particularly well developed in the southwestern region. Among the coast peoples of the Yuman, Shoshonean,

<sup>196</sup> F. Palou in Forbes' History, 194.

and Chumashan stocks, tobacco is smoked in many ceremonies.<sup>197</sup> It is blown on the body at death, in sickness, and at other important periods, and is blown into the air as a part of many ceremonies. That it was used in this connection by the Salinan is shown by the already-quoted passage from Taylor,<sup>198</sup> and the usage among the Costanoan also is proven by the report from San Carlos in the Mission Record.<sup>199</sup> Its magical power is shown also in its use by deer-hunters to intoxicate the game. Its use in disease is probably due as much to its imputed magical powers as to its narcotic effect, though the former may be again directly due to the latter.

### MYTHOLOGY

The Indian myths of south-central California have been treated under that title by Dr. Kroeber.<sup>200</sup> His material, however, is nearly exclusively from the peoples of the interior of the state, the Miwok and the Yokuts. Six short myths from the Monterey Costanoan are given, but no material was available on the Salinan or Chumash. The mythology of the latter is still entirely unknown and no further contributions have been made to that of the Costanoan. At the time of the appearance of the article mentioned, the sole statement on Salinan mythology was by Taylor that "They had a superstition or tradition of a deluge of water which covered the land in the old times and had their priests who were the sorcerers. One of their superstitions was that the humming-bird (chuparosa) was first brother to the coyote and he was first brother to the eagle." On this evidence Kroeber<sup>201</sup> quite justly deduced that the Salinan ideas of creation were similar to those held by the Monterey Costanoan.

The surpassing importance of cosmogonical myths in California is well proved by their survival from the wreck of aboriginal concept. Closely similar myths of origin are among the

<sup>197</sup> T. T. Waterman, *op. cit.*, 335; C. G. DuBois, *op. cit.*, 99, etc.; P. Fages, *op. cit.*

<sup>198</sup> *Cf.* p. 166.

<sup>199</sup> A. L. Kroeber, *Mission Record*, 22.

<sup>200</sup> A. L. Kroeber, *Indian Myths*, 167-250.

<sup>201</sup> *Ibid.*, 190.

few collected by both Dr. Henshaw and the writer. The former account contains the common incident of the flood and the diving for earth, the peculiarity of which lies in the fact that, together with one of the following shorter myths, it displays evidence of the belief in an antediluvian world. This must, however, incur the suspicion of missionary influence; the conception has not before been reported from the state. The actual creation of the world from earth by several animals stamps the origin myths as of the south-central Californian type. The trinity of creators, however, are not the eagle, coyote, and humming-bird, as at Monterey<sup>202</sup> and as reported by Taylor, but the eagle, coyote, and kingfisher. The humming-bird appears to belong exclusively to the Costanoan and is replaced by other characters among the Salinan, Miwok, and Yokuts. The actual diving, moreover, is done by the kingfisher instead of by the duck, mud-hen, or turtle as among other stocks. The eagle, as is general in the region, is a relatively lofty concept and the coyote is more a subsidiary character, a helper and messenger, rather than a marplot. The major parts of both versions of creations are, however, concerned not so much with the actual creation of the world as with the creation of man and woman, and with their discovery of their sexual relations. This idea is found elsewhere in California mythology, appearing in the creation myths of the Rumsien Costanoan<sup>203</sup> and the Yauelmani Yokuts.<sup>204</sup> The creation of people from bones or sticks and their separation into linguistic stocks and groups is likewise an incident of common occurrence in the region.

The only other myth of any size is of considerable interest as a type not common in this region, but more typical of the north-central and southwestern sections. Animals as usual are the characters, and these, the raven, hawk, crow, and shrike, play important parts in the mythologies of the other groups of the region. The peculiar features are the supernatural characters involved: the Rock, the Wind, the Two-headed Serpent, and the One-footed Cannibal are all foreign to the mythology of the sur-

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<sup>202</sup> *Ibid.*, 191.

<sup>203</sup> *Ibid.*, 199.

<sup>204</sup> *Ibid.*, 231.

rounding peoples. The local, topical character of this myth is also of interest.

In addition to the cosmogonical myths and the story of mythical adventure, two other types are illustrated in the present brief collection. First are short incidents or mythological notes which may be excerpts from forgotten longer myths. These are mainly brief tales of personified animals and show the tendencies native to the south-central region. The animals are in general the same as those found in the mythologies of the surrounding Indians. The bald eagle, condor, vulture, raven, hawk, crow, shrike, woodpecker, kingfisher, coyote, and skunk are all presented. The great preponderance of birds among the mythical characters is noticeable. The humming-bird of Costanoan and the prairie-falcon of Yokuts mythology are absent, and the kingfisher and shrike introduced. The raven was revered because of his services to mankind, and was not associated with the Chungichnish cult of the southern missions.<sup>205</sup> The typical coyote story of the Plateau region is conspicuously absent, but is not necessarily therefore foreign. Secondary to these animal tales are stories of shamans' adventures. While displaying much civilized influence in detail, and therefore termed "Tales of the Missions," they remain essentially native in concept.

The Kuksui dance mentioned on page 177 is an example of a mythological character of notably wide range, for a region whose population was so sedentary and so diverse as that of California. Kuksui is a prominent mythical character among the Pomo, Wintun, Maidu, either the Costanoan or Miwok,<sup>206</sup> and possibly other families of Indians, and dances in his impersonation are held by these groups. Kuksui is claimed to be a clown, but is generally identified to-day with Satan. Unfortunately the evidence is not above suspicion here, for the old Indian who gave the information concerning Kuksui was well versed in the customs of the San Jose Indians (Costanoan), where the Kuksui dance is known to have been a great favorite,<sup>207</sup> and he may have been slightly confused. But as he distinguished

<sup>205</sup> G. Boscana, C. G. DuBois, P. S. Sparkman, T. T. Waterman, etc., *op. cit.*

<sup>206</sup> *Cf.* note 183.

<sup>207</sup> A. L. Kroeber, *Indian Myths*, 189.

other such differences, his information would appear to be correct.

The explanatory tendency which has been adduced in theory as the cause for the development of all mythology is strongly represented in the myths given and is therefore of considerable interest. Thus in the few myths collected, explanations are given for the existence of different languages, death in childbirth, mescal, of the phenomena at sunset, of a rock of a peculiar shape, and for the gray eyes of the raven and the black breast of the woodpecker.

Together with the usual belief in the former existence of animals in human shape, an idea of evolution or rather of transmigration seems to have obtained, though only a vague impression of it could be secured. Some reference to a great fall of stars was made, and a regular development from earth and rocks through birds and animals to men was suggested, and the statement made that the present race of men will again become animals and eventually develop into a race of men of a superior type.

No theft of fire myth, a typical one in California, was obtained. Henshaw was informed that the Eagle obtained fire for the Indians. Mr. Forbes was told by elder natives, long since deceased, that fire was brought to them by a man who came in a "white-winged boat," and that in a natural amphitheatre termed the "Devil's Canyon," facing out on the ocean, the natives used to watch for the return of this benefactor. It was further reported to Mr. Forbes that the Indians who held their ceremonies in this place belonged to the Bear "totem" and that they furnished the renegades of the mission, resisted the padres, and never became entirely converted, while the other "totem," the Deer, became ready converts. The information is too circumstantial to be entirely rejected, and while totems are unknown in California, the information may refer to some possible secret society. This information is reminiscent of the story of Agueda, which is often referred to by the early Spanish missionaries and is thus reported by Palou.<sup>208</sup> Immediately after the founding of San Antonio Mission an old woman named Agueda requested

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<sup>208</sup> Francisco Palou, *Life of Junipero Serra*, 124.

immediate baptism. "Being interrogated as to why she desired baptism, she answered that while young her parents had frequently told her of a man dressed in a habit similar to theirs who had not come to them walking as other men, but flying, and had preached the same truths they were preaching. All assured them it was true—they had heard so from their ancestors and the coming of the missionaries was a general tradition among them." Taylor<sup>209</sup> mentions the same legend at Santa Cruz. Whether there is any connection between the two legends, or any grain of truth in either, is problematical.

#### THE BEGINNING OF THE WORLD

(Collected by Dr. H. W. Henshaw, 1884.)

After the deluge the animals wished to get some earth. First the diving ducks dived into the water but failed to bring up any earth. Then the Eagle put a heavy weight on the back of the Kingfisher and he dived into the water for the earth and succeeded in reaching the bottom.

But the sea was so deep that when he came to the surface, he was dead. Between his claws the Eagle found some earth, and after reviving the Kingfisher he took the dirt and made the world. Then he revived all the other animals who had been drowned in the deluge, the Coyote next after the Kingfisher. When the Coyote found himself alive again, he shouted out for joy and ran around reviving the rest of the animals that he found dead, and then sending them to the Eagle.

From some of the earth brought up by the Kingfisher, Eagle made man, and then made woman from one of man's ribs.<sup>210</sup> Then he sent the newly made couple out into the world, but they did not seem to thrive very well, so at last he sent Coyote to bring them to him again. When they came before him Eagle said, "What have you been doing?" "Merely living" was the reply. "What have you been thinking about?" "O, nothing! Just living!" So Eagle told Coyote to go back with them and consider some way by which they could have more company.

<sup>209</sup> A. S. Taylor, *op. cit.*, April 5, 1860.

<sup>210</sup> Possibly a Biblical influence, but *cf.* T. T. Waterman, *op. cit.*, 339, note 149.

"Well," said Coyote to the man, "you had better make some more men!" "How?" asked the latter. "Why, with the woman," replied Coyote. "That is what she is for!" Then he told them to lie down together. "Well, why don't you commence?" "I don't know how!" replied the man. "Why, lie close together!" But they did not succeed in finding a way. So Coyote went back to Eagle and reported the failure, and was sent back again with further instructions. "The Eagle is very angry," he reported, "and says you must increase." Then he told them the way that Eagle said men were to be made. After several mistakes the couple at last found the proper method, and Coyote ran and reported to Eagle that all was going well.

Coyote was then sent to find more people. "If you can't find anything but bones," said Eagle, "bring them." Many bones were lying around and these the Coyote brought to the Eagle, who made a man out of each. Each of these bone-men had a different language of his own, and that is why we have so many different tribes and languages.

Then Eagle sent Coyote back again to the original couple to inquire about them. "I feel a little heavy," said the woman. Then Coyote told her that she had other people within her, and that under certain circumstances she might die in bringing them forth. That is why women sometimes die in childbirth.

#### THE CREATION OF MEN AND WOMEN

When the world was finished, there were as yet no people, but the Bald Eagle was the chief of the animals. He saw that the world was incomplete and decided to make some human beings. So he took some clay and modelled the figure of a man and laid him on the ground. At first he was very small but grew rapidly until he reached normal size. But as yet he had no life; he was still asleep. Then the Bald Eagle stood and admired his work. "It is impossible," said he, "that he should be left alone; he must have a mate." So he pulled out a feather and laid it beside the sleeping man. Then he left them and went off a short distance, for he knew that a woman was being formed from the feather. But the man was still asleep

and did not know what was happening. When the Bald Eagle decided that the woman was about completed, he returned, awoke the man by flapping his wings over him and flew away.

The man opened his eyes and stared at the woman. "What does this mean?" he asked. "I thought I was alone!" Then the Bald Eagle returned and said with a smile, "I see you have a mate! Have you had intercourse with her?" "No," replied the man, for he and the woman knew nothing about each other. Then the Bald Eagle called to Coyote who happened to be going by and said to him, "Do you see that woman? Try her first!" Coyote was quite willing and complied, but immediately afterwards lay down and died. The Bald Eagle went away and left Coyote dead, but presently returned and revived him. "How did it work?" said the Bald Eagle. "Pretty well, but it nearly kills a man!" replied Coyote. "Will you try it again?" said the Bald Eagle. Coyote agreed, and tried again, and this time survived. Then the Bald Eagle turned to the man and said, "She is all right now; you and she are to live together."

#### THE DESTRUCTION OF THE EVIL MONSTERS

Years ago, when all the animals were men, the country was full of monsters who preyed on the people. Finally the Hawk, realizing the gravity of the situation, persuaded the Raven to help him rid the country of the creatures. First they set out against a great rock named xu'i. This rock had the habit of catching people and killing them by throwing them back over his head where a flock of little birds would feed on the bodies. From their custom of living on fat, these birds had become entirely black, and were called ka'teatsani'l. Furthermore the Crow and Shrike acted as sentinels for the rock.

The Hawk and the Raven came peacefully up to the rock and the Raven, in a spirit of bravado, rubbed his eyes against the rock. They have been gray ever since. Then the allies went a short distance off on a hill. "Now is the time!" said the Hawk. "I am ready," replied the Raven. "But you had better go first!" So the Hawk approached the rock which easily threw him over his head, but the Hawk carried with him a little flute, and when he stood on it, he always alighted gently on the



ground. Then the Hawk beckoned to the Raven and said, "Come along!" The Raven was likewise easily thrown over by the rock, but as he had his little guitar<sup>211</sup> with him, he fell lightly on that without any harm. "Well, we have escaped this time," said the Hawk. "That's so," answered the Raven. "This time I'll take the first shot." And he threw a stone at the rock which left a dent in his head. Then the Hawk took his turn and knocked the rock's head off. Then they chased away all the little black birds. Xu'i with his head missing may still be seen not many miles above the ruins of Mission San Antonio.

Hawk and Raven then went hunting for more monsters, and sought a terrible two-headed snake. When they approached, the snake, *ṭaliyε' ka' ṭapelta*, was sound asleep. "Now is the time! He is asleep!" said the Hawk to the Raven. They made arrows from some reeds growing there and shot at the snake. First the Hawk hit him on one side and then the Raven hit the other. "Let us go before he gets up!" said the Hawk and they flew away. They travelled swiftly in the direction of Morro Rock<sup>212</sup> on the seacoast, but the snake came swiftly after them, breaking down all the trees in his way. "Come on! Don't be afraid!" the Hawk who was in the lead kept calling to the Raven. Now the dust was close behind, but the Hawk said, "When we reach the Morro we'll be safe. The wind will help us there!" At last they reached the Morro, but in spite of the wind's efforts to foil him by breaking off pieces of rock, the snake encircled the rock and began to rise up. "Now's the time! We are going to die! Watch him come!" said the Hawk. "What are we going to do now?" said the Raven. "Don't ask me that but just get ready!" replied the Hawk, as he pulled out a knife and began to hack away at the snake. Then the Raven did the same on the other side of the rock, and the snake began to fall in pieces. When he was entirely dead, they went to destroy more of the man-killing monsters.

"Here's another one, and he has a very powerful weapon," said the Hawk. They went and found the Skunk in his hole, but when he heard the noise he came out and turned his tail to them.

<sup>211</sup> Possibly aboriginally "musical bow."

<sup>212</sup> A well-known landmark on the shores of Esteros Bay; mentioned by most early navigators and travellers, but probably in Chumashan territory.

"Now is the time," whispered the Hawk. "Now be ready," said the Raven. "I'm going to try first," and he threw a stone at the Skunk. The latter turned his tail and fired. Hawk and Raven got their flute and guitar while a crowd of people came up behind. Suddenly the Skunk made a great smoke. "Look out! Get away before the smoke reaches you!" At last they managed to kill the Skunk and went in search of new victims.

"There is one more," said the Hawk, "a dreadful one-footed cannibal." The creature was sound asleep when they arrived at his home. "There he is! I'll try first," said the Raven. "If I don't kill him, you take a turn." The one-legged cannibal woke up and sang a song when he saw them.<sup>213</sup> "Let's shake hands," said he. So the friends went up, seized his hands both together and threw him into a pool of tar.<sup>214</sup> Then they held a consultation as to the best means of disposing of him. Finally they adopted the Hawk's suggestion to fire the tar. They put some fire on the ends of their arrows and hit him on both shoulders at once. "What are you doing, boys?" he cried. "You are treating me as if you weren't my relatives!" Then he started to run, and at every place where the burning tar dropped the mescal began to sprout.

Thus was the land rid of the wicked monsters and enriched by the useful mescal, and the Hawk and the Raven are revered by all the Indians for their good deeds.

#### MYTHOLOGICAL NOTES

(Collected by Dr. Henshaw, 1884.)

Before the deluge, two mussels lived in a lake, and every once in a while they caused the waters to rise until a man was thrown in. Finally the Indians became so reduced in numbers that they refused to throw any more men in. Then the mussels caused the waters of the lake and the ocean to unite and the deluge ensued.

<sup>213</sup> The song was sung here, but it was impossible to get a transcription or record.

<sup>214</sup> Probably asphaltum, which was plentiful at San Luis Obispo.

Tibe'kenni'e lives where the sun sets. All the dead, good or bad, go there.<sup>215</sup> He swam to the west to escape the deluge, and there he will remain until the end of the world, when he will return. He alone knows when the sea will again rise and overwhelm the world once more. At sunset the dead with Tibe'kenni'e toss the sun up in play. That is what causes the rays of the sun to shoot up in undulations. The red sky is caused by great fires which the people there light to play by.

The Eagle was the originator of all things. It was he who gave fire to the Indians.

The Skunk was once a wizard. His weapon was his urine and with that he was able to kill any living being.

The Red-shafted Flicker has black on the breast as a sign of mourning (*sic*). A savage animal was pursuing some Indians and when he found he could give no help, this bird cried out, and the black was put on his breast as a sign.

The Condor, tite, and the Red-headed Vulture, xopne'l, are relatives; they speak to each other and the first cuts and tears open the dead carcass for the weaker one.

Many supernatural beings formerly inhabited the country. Among these were dwarfs who left invisible footprints and aided the medicine men in their conjuries.

#### TALES OF THE MISSIONS

##### *The Rainmaker*

Atswen was an old shaman at Mission San Antonio who claimed to be able to produce rain. Once there was a great drought and the Padre sent for Atswen and put him in the jail, telling him he would keep him there until it rained. Then when the entire population had gathered inside of the Mission, the chief filled four barrels of water at the spring. He gave Atswen a sack and threatened him. Then he let him out and when the people came out of the church it was raining.<sup>216</sup>

##### *The Rival Shamans*

Ramejio and Pasquale were rival shamans, and each claimed to be the stronger. So they agreed to try to bewitch each other.

<sup>215</sup> Page 183.

<sup>216</sup> The shaman as rain-maker. Cf. page 184.

Pasquale lay down while Ramejio sang and danced over him, but Ramejio could not affect him. Then Pasquale sang and danced over Ramejio so that he could not arise. Then he bewitched Ramejio's dog also.

#### *An Aboriginal Faust*

Fruito was an inveterate gambler. One night after he had lost everything but his breech-cloth he felt so angry that he went to the grave-yard to see the Capitan. He knelt at the foot of a cross and soon he heard a noise like a great number of rats. Amid a great light the Capitan of the grave-yard appeared, but turned his back on Fruito and presently disappeared without saying a word. "I wonder why he did not speak to me?" remarked Fruito.

The next night at the same hour, eight o'clock after the curfew had sounded, Fruito went to the grave-yard again and when the Capitan appeared said to him, "I came to speak to you; I want to get instructions from you how to beat this other man gambling." "Come to-morrow night," said the Capitan, "and beside the gate you will find a little bone. If you have that you will always win. And now how are you going to pay me?" "I will pay you with myself," said Fruito. "Very well," replied the Capitan. "When you are through, leave the bone where you found it." Fruito got the bone and hunted for the other man. They spread out a blanket and started playing, and soon Fruito had all his opponent's goods—his clothes and his house.

A month or so later the Capitan of the grave-yard appeared to Fruito while he was sleeping. "Let us go," he said. "All right," said Fruito, "I'm ready to fulfill my agreement." But first he went to see the Padre. "It's too late!" said he. "You must do what you agreed." And Fruito immediately died.

#### *The Powerful Charm*

The brother-in-law of José Cruz was a shaman. One day his father seized his charm and put it in an oak tree. But the charm was so strong that it broke down the tree.

### *The Grizzly Bear Shaman*

A famous shaman was able to turn into a grizzly bear.<sup>217</sup> His nephew came to see him one day and he said to the boy, "Would you like to turn into a grizzly bear?" "Yes," said the boy. "Very well! To-morrow we will go after blackberries." The following day they went and suddenly the boy missed his uncle. He looked around and saw a grizzly bear eating blackberries. "O! That's my uncle!" he said. The next day they went out again near a spring. The uncle gave the boy some tobacco and said to him, "Chew this and swallow the juice." When he had done so the boy fell senseless, and on recovering, saw a large frog. "Catch that frog and eat it," said his uncle, but the boy thought that was too much. He ran away and did not become a grizzly bear.

### *The Shrike*

A long time ago a woman went out to gather some medicine when she spied a grizzly bear. Almost as soon as she saw it, a shrike saw it also and at once attacked it. The grizzly bear put his head between his paws, but the moment he lifted it to see, the little bird pecked both of his eyes out. Then the woman caught the bear and made medicine of its entrails.

Anesmo when out hunting once shot an antelope and a shrike lit on its horns and plucked out its eyes as it ran. This he saw. It is the bravest of all the birds.

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## CONCLUSION

In a region of such great diversity as California, where differences in culture as well as in language characterize the smallest divisions of the many families, it is very difficult to segregate and formulate the characteristics of any stock. Particularly is this true when, as in the case of the Salinan, merely the outlines of the old culture are recollected by the few surviving natives. It has been necessary, therefore, in this paper to

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<sup>217</sup> The grizzly bear shaman. *Ibid.*

present all the data pro and con with regard to the various phases of aboriginal culture, to discuss hypotheses, and to endeavor to reconstruct the main features of this culture by means of probabilities.

The task of reconstructing the life of the Salinan people has been at once increased and rendered of greater interest by their geographical position. Had we been working with a stock such as the southern Wintun, who appear to have constituted the center of the great main Californian culture region,<sup>218</sup> the existence of certain practices and economic features could have been assumed practically without proof. From this geographical point appear to radiate the main features of the central Californian culture area. To the south, on the Santa Barbara Channel, is the center of another culture area, that of the Chumash and certain of their Shoshonean neighbors, a more restricted area and one of less influence than that of the central culture, but still radiating its influence to some extent to the adjacent stocks to the north and east. This culture we know only in outline, but its main features are sufficient to differentiate it from that of the central area. To the immediate north of this area is found the Salinan stock, separating it from the other stocks of the purer central culture to the north.

From Lake Tahoe two lines may be drawn to the great cities of California. One, running slightly south of west to San Francisco would follow with considerable accuracy the division line between the Wintun and Maidu on the north and the Miwok and Costanoan on the south. The other, running slightly east of south to Los Angeles, corresponds roughly with the boundary separating the typical Californian stocks to the west from the culturally extra-Californian Shoshonean people to the east. Three areas of nearly equal size are thus delineated, a northern and a southern typically Californian area and an eastern un-Californian area. The greatest inequality exists between these areas as regards ethnological knowledge. While the Tahoe-San Francisco line divides the central culture area in half, leaving one of the more restricted culture areas on either side, yet it also divides the state accurately into a "terra cognita" and a "terra

<sup>218</sup> A. L. Kroeber, *Types Ind. Cult. Cal.*, 82.

incognita." To the north the ethnology of the Hupa,<sup>219</sup> Shasta,<sup>220</sup> Chimariko,<sup>221</sup> Klamath and Modoc,<sup>222</sup> Maidu,<sup>223</sup> and Pomo<sup>224</sup> is well known, and Powers, Taylor, and other writers have described the majority of other groups in detail. The Tahoe-Los Angeles line marks a similar distinction; to the east the ethnology of the Shoshonean Cahuilla,<sup>225</sup> Luiseño,<sup>226</sup> Chemehuevi, and Paiute,<sup>227</sup> and the Yuman Diegueño<sup>228</sup> and Mohave<sup>229</sup> is known with varying degrees of thoroughness. But in the south-central area, consisting of the Costanoan, Miwok, Esselen, Yokuts, Salinan, Chumash, and some Shoshonean groups, little has been done. A few chapters by Powers, a few articles by Taylor, and miscellaneous observations by Kroeber,<sup>230</sup> Barrett,<sup>231</sup> and others of the present era and by various observers in earlier days, complete the list of ethnological work published on these six stocks. With all of them not only are observations lacking, but the material itself has perished to a great degree, due to the comparative extinction of their members.

Thus the great dearth of information on the Salinan stock is due not only to the loss of data on the stock itself, but also to the existence of the same conditions among all the surrounding stocks, thus preventing detailed comparison and the formulation of hypotheses capable of any defence.

Geographically, the Salinan stock occupies a position between

<sup>219</sup> P. E. Goddard, *op. cit.*

<sup>220</sup> R. B. Dixon, Shasta.

<sup>221</sup> R. B. Dixon, *The Chimariko Indians and Language*, present series, v, 293-384, 1910.

<sup>222</sup> S. A. Barrett, *The Material Culture of the Klamath Lake and Modoc Indians of Northeastern California and Southern Oregon*, present series, v, 239-292, 1910.

<sup>223</sup> R. B. Dixon, *The Northern Maidu*, *op. cit.*

<sup>224</sup> S. A. Barrett, *The Ethno-Geography of the Pomo and Neighboring Indians*, present series, vi, 1-332, 1908. Some as yet unpublished work has been done upon the Pomo.

<sup>225</sup> A. L. Kroeber, Cahuilla.

<sup>226</sup> P. S. Sparkman, *op. cit.*; C. G. DuBois, *op. cit.*

<sup>227</sup> Maj. J. W. Powell and numerous other writers have described the Shoshonean tribes in various articles.

<sup>228</sup> T. T. Waterman, *op. cit.*

<sup>229</sup> A. L. Kroeber, "A Preliminary Sketch of the Mohave," *Am. Anthr.*, n.s., iv, 276-285, 1902.

<sup>230</sup> A. L. Kroeber, *Mss.*

<sup>231</sup> S. A. Barrett, *The Geography and Dialects of the Miwok Indians*, present series, vi, 333-368, 1908.

the stocks of typically central culture to the north and the Chumash of southwestern culture to the south. A culture of a nature intermediate to these would therefore be expected and to some extent exists. Nevertheless, while the Salinan are much nearer the Santa Barbara Channel, the center of the southwestern culture, than to the lower Sacramento, the center of the central culture, they are properly included as a slightly variant part of the latter rather than of the former.<sup>232</sup> The southwestern culture appears to have been a local development due to peculiarly favorable conditions, as the Chumash north of Point Concepcion are known to have been inferior in culture to those of the Channel, and the northernmost Chumash, those of San Luis Obispo, were probably as variant from the main body in culture as they are in language.<sup>233</sup> Thus while both the southern Yokuts and the San Miguel Salinan were influenced to some extent by the contiguous Chumash culture, they still remain integral parts of the central cultural area, and display considerable reciprocal influence and ethnological agreement, the Salinan finding their closest cultural affinities in the Tachi Yokuts.

The Salinan betray the principal characteristics of a Californian people of the central area: a dependence primarily on vegetable food, of which acorns form the principal staple, a great stability of population, the absence of a gentile organization, and a weak development of the arts, of war, and of ritualism. Some tendencies, however, may be noted which incline to differentiate the Salinan from the surrounding groups.

Many cultural similarities are noted between the coastal stocks, the Chumash, Salinan, and Costanoan. This might be regarded as an influence from the southwestern culture-area, spread by means of water-transportation, but is probably better considered as delineating a cultural sub-area or intermediate area. Be that as it may, there are certain tendencies which are best exemplified by the Chumash and shared to a greater and less extent by the Salinan and the Costanoan, and which appear to be missing among the Yokuts. These agreements are evident

<sup>232</sup> Cf. A. L. Kroeber, *Types Ind. Cult. Cal.*, 102.

<sup>233</sup> A. L. Kroeber, *The Chumash and Costanoan Languages*, present series, ix, 237-271, 1910.



more on the non-material than on the material side. Thus a probable slightly higher development of work in stone, the use of asphaltum on basket-mortars, a possible greater use of twined weave in basketry, the use of communal houses, and other minor agreements might be suggested as being typical of this coastal sub-area. On the non-material side, the Salinan and Chumash agree in their numerical systems, both being quaternary, a type which is found elsewhere in the state only among one Yuki group.<sup>284</sup> Other such agreements are, the greater importance of wealth and of chieftanship, the use of toloache at puberty and of sweating at birth, and the ceremonial smoking of tobacco. In these respects the Salinan, and to a lesser degree the Costanoan, appear to resemble the Chumash rather than the Yokuts.

With the typically central culture the Salinan and the Yokuts show an approximately equal degree of agreement and divergence. Here also, the agreement seems to be greater along the coast, less among the valley stocks. Thus the Salinan possess the *kuksui* and *loli* dances of the Pomo-Wintun-Maidu which are unknown among the Yokuts; they agree more closely with the Costanoan in their mythology, and their games; and seem to have possessed the large dance-sweat-house of the north-central region. In most of the other phases of culture the Salinan and the Yokuts agree rather closely, both being more variant from the typically central culture than the Miwok-Costanoan stocks to the north. Particularly do they seem to have possessed a similar tribal organization, if we may believe Fages and Powers, and among both war was probably of more importance than is usual in California.

In one feature, however, the Salinan stock seems to present unique characteristics. This feature is the language, which is considerably different from the majority of Californian languages. Its tendencies are shared to some degree, but less typically by the Chumash, but it will probably be found that the Salinan tongue stands alone as the exponent of the southwestern Californian type of language.<sup>285</sup>

<sup>284</sup> R. B. Dixon and A. L. Kroeber, *Num. Syst. Lang. Cal., op. cit.*

<sup>285</sup> R. B. Dixon and A. L. Kroeber, "The Native Languages of California," *Am. Anth.*, n.s., v, 1-26, 1903.

## APPENDIX

## PHYSICAL ANTHROPOLOGY

Some descriptions of Salinan Indians are found in the writings of early observers which, when compared with personal observations and measurements, point towards certain conclusions.

Physically, the Salinan natives seem to have been of medium stature and heavily built. Taylor says, "Some of the Indians I saw in 1856 were short and stout," but at another time he states, "The Antoniños, as the Spaniards afterwards called them, were tall and well made." Padre Ascension remarked of the Indians in some tule balsas who met Vizcaino off the Salinan coast,<sup>236</sup> "They are taller, better made and more robust than any they had yet seen." Fages reports of them, "These Indians are very well-formed and the women very good-looking, some of a color somewhat ruddy. All have pretty hair—a people with a good disposition, affable and friendly, giving as much as they have to the Spanish." The various descriptions extant of California Indians are notable for their disagreement,<sup>237</sup> varying from "repulsive-looking wretches"<sup>238</sup> and "perfectly hideous"<sup>239</sup> to "handsome, well-proportioned, cheerful and interesting"<sup>240</sup> and "a fine-looking race."<sup>241</sup> These differences are too great to be referred entirely to opinion, and on the whole it seems that the diversity of California is not limited to language and to culture but extends as well to somatology. Fages notes many different types between San Francisco and San Diego, and limits the extent of each type in leagues. The general agreement seems to be as already stated, that the coastal fishing tribes lacked the independence of, and were generally inferior to, the hunting

<sup>236</sup> A. S. Taylor in *California Farmer*, June 26, 1861.

<sup>237</sup> H. H. Baneroff, *op. cit.*, 364.

<sup>238</sup> Borthwick, *Three Years in California*, 128. (Maidu.)

<sup>239</sup> Kneeland, *Wonders of the Yosemite*. (Miwok.)

<sup>240</sup> Morrell, *A Narrative of Four Voyages, etc.* (Costanoan.)

<sup>241</sup> Von Schmidt, *Ind. Aff. Rep.*, 1856. (Mono.)

groups inland.<sup>242</sup> Particularly is the degradation of the Costanoan of Monterey and San Francisco noted.<sup>243</sup> The Chumash are described as well-built and as particularly intelligent.<sup>244</sup> The Salinan, on the whole, appear to have been of a physical type superior to their neighbors, with the possible exception of the Yokuts. This would naturally be expected of the inhabitants of a mountainous country, and is corroborated by the appearance of the surviving natives. Those observed are somewhat shorter than the average European, but would fall in Deniker's<sup>245</sup> "above-the-average" class. They are generally inclined to be stout, and with a rather deep-brown complexion, generally good-looking, if not handsome, pleasant, good-natured, and quite intelligent.

The question of beard has been discussed by Bancroft, who has quoted from many of his sources.<sup>246</sup> Whether the actual possession of beard, or merely the method of wearing or dispensing with it varied, is still a mooted one. Concerning the Salinans, however, it may be dogmatically stated that they possessed full and thick beards. The present natives possess hirsute adornments equal to those of most Europeans, as is well shown in the photographs on plates 22 and 23. These might be ascribed to a possible European admixture were it not for the denial of any such blood by the natives themselves and for early notice of the same fact. Fages says: "Both sexes have fine hair." Taylor in particular remarks on the hairy development several times. "Color light brown, with good heads of hair and many of them very thickly bearded. In the old times, before becoming Christians, they pulled out their beards." Again, after stating that in nine years' observation among California Indians, he saw not more than twelve with mustaches, he continues: "Some of the Indians I saw in 1856 were short and stout, with big heads and the hair coming low down over the forehead and with thick beards and mustaches." In another place he particularly remarks that a San Antonio Indian he saw in 1856 had as heavy

<sup>242</sup> P. Fages, *op. cit.*; De Mofras, *op. cit.*; etc.

<sup>243</sup> Many writers quoted in Bancroft, *op. cit.*, 365.

<sup>244</sup> Costansó, *op. cit.*, 45 [135]; Fages, *op. cit.*, etc.

<sup>245</sup> J. Deniker, *The Races of Man*, 30, 580.

<sup>246</sup> H. H. Bancroft, *op. cit.*, 367.

a beard and mustache as any white man, but the usual brown iris.

One of the few surviving natives noticed by the writer, a San Miguel Indian (pl. 23, fig. 1) had a pronounced goitre. Point and Mount Buchon near San Luis Obispo are named from a famous goitre possessed by the chief of the rancheria who greeted Portolá's expedition there.<sup>247</sup> The oft-noted pathological relation between mountainous countries and goitre may obtain here.

The following measurements and notes were taken on Pedro Encinales (pl. 22), a typical middle-aged Salinan Indian man.

Height	167 cm.	Length of head	18.9 cm.
Reach	180 cm.	Width of head	15.9 cm.
Height to right shoulder	140 cm.	Cephalic index	84.1
Height to left shoulder	140 cm.		
Sitting height	87 cm.	Height of face	12.3 cm.
Length of right forearm	48 cm.	Width of face	14.7 cm.
Length of left forearm	48 cm.	Facial index	119.5
Width of shoulders	46 cm.		
		Length of nose	52 mm.
Weight (estimated)	160 lbs.	Width of nose	45 mm.
Color (Hrdličl's scale):		Nasal index	86.5
Face	30		
Arm	26		

#### PSYCHOLOGICAL TESTS

The psychology of primitive people should be a very fruitful and interesting field of investigation, but as yet, due probably as much to the pressure of more important work as to the difficulties involved, this field, though open to both psychology and anthropology, is practically untouched. It was with the hope that future years will see an accumulation of material sufficient for fruitful comparison, that Pedro Encinales, a full-blooded Salinan Indian of perhaps fifty years of age, was induced to perform certain experiments in the psychological laboratory. The results compared with the average results for normal subjects of European blood are here appended, but must be accepted with the realization that the subject had spent his entire life in a civilized environment. He was rather disturbed by the novelty of the experience, but probably no more so than would be expected in the case of any uneducated person.

<sup>247</sup> Crespi, Fages, Costansó, etc.

1. With both right and left hand an average strength of grip of 34.5 kilograms was registered. Exact comparative data are not readily available here, and familiarity with the use of the instrument is of considerable importance. The results are, however, considerably lower than are usually registered for civilized white people.

2. The subject tapped 100 times with a point on a flat surface in 14.4 seconds for the right hand and 16.6 for the left. This is an average of 6.94 taps per second for the right hand. The normal is about 7.5 per second for Americans.

3. No color blindness was detected.

4. Memory. (a) Two geometrical figures were noted and after an interval correctly chosen from among a group of others. (b) Four of the figures given in Seashore's "Elementary Experiments in Psychology" were printed on cards and shown to the subject, who then endeavored to pick out the ones selected, from among the whole number on the page. None were correctly chosen, but in every case but one the proper figure was designated in a reversed position. The subject obviously did not realize that position was a differentiating factor.

5. In endeavoring to reproduce a straight line of 10 centimeters in length, the subject drew one 9.1 cm. with his right hand, 9.4 with the left. This is above the normal average of .5 cm. error.

6. A set of Hering's colors were arranged in spectrum order; the subject picked no. 1, purple, as the preferred color, no. 10, scarlet, as second choice, no. 9, orange, as the least pleasing. With the colors in mixed arrangement he chose no. 2, dark blue, secondly no. 6, yellow-green, and rejected no. 8, yellow. There is, of course, no standard of reference here, but the preference for blue and purple is generally considered a cultured rather than a primitive characteristic.

7. The results of the experiment as to tactile perception were very good. In the "two-point threshold" test, tried on the back of the hand, correct answers were given to practically every test down to and including a threshold of 2 mm. Out of twenty-eight tests at 5, 3, and 2 mm., five mistakes were made. This is probably somewhat better than the normal sensory perception.

8. Ten tests for rapidity of reaction to auditory and ten to visual stimuli were made on the Sanford vernier chronoscope. The average time of reaction to the auditory stimulus was found to be .22 sec. With the elimination of two abnormally long reactions of .35, probably caused by some external attraction, the average of the other eight decreased to .186. This is considerably above the normal average personal equation of .10 to .13 sec. To the visual stimuli the average time was .195, and the elimination of two abnormally long reactions of .35, probably caused time of from .15 to .20 sec. The subject would seem therefore to be more sensitive to visual than to auditory stimuli, whereas the opposite seems to be the normal condition among educated persons.

9. Cards containing respectively nine and eleven short parallel lines arranged vertically were shown to the subject and correctly counted by him quickly and without touching them with his fingers or other object.

## SAN MIGUEL FOOD MATERIALS

kāp'	Acorn	tɛxɑ'i'	Bear
ɛxau'wɑt'	Live oak	tā'muL	Mountain-lion
t'io'i	Oak	moi'	Mountain-sheep
paxɑ'kiL	Oak	lowe'ɛɑt!	Antelope
p'a'pix	Post oak	ɛlk!ā'	Coyote
p'ā't	White oak	cowe'	Skunk
ɛmo'	Oak	ɛkono'i	Horned owl
nɑ'siL	Acorn mush	ɛkō'tɑɛ	Owl
k!one'	Acorn bread	spɑko'	Ground owl
ʃoelɑ'm	Tobacco	ts!ɛ'tenek!	Owl
mōno'i	Toloache	spɛk'	Red-tailed hawk
mɑtɑ'i'	Milkweed	ɛkā	Hawk
pɛsɛxɛ't'	Willow	snɑi	Eagle
k!ā'ɛiL	Sunflower seeds	xopne'L	Red-headed vulture
tetau'pkul	Elderberries	te'tɛ!	California condor
ɛɛā!ɑ'k	Christmas berries	tɑ!wɑ'x	Crane
p'a'siL	Chia	kɑ!ɑ'k	White goose
toipe'N	Gooseberries	tikmo'	Band-tailed pigeon
ɛlpo'ne	Blackberries	ʃɑxwe''N	Turtle-dove
k!eso'i'	Prickly-pear cactus	smɑtɛ'xɑN	Quail
ɑt!ō's	Wild oats	k!ɑiyɑ'k'	Mountain quail
k!ɑs	Grass	swi'yo	Unidentified bird
peL	Grass	ɛlpɑ't!	Duck
t'o	Pine-nuts	tete'k'ɛnel	Eggs
k'e	Pine-nuts	ʃɑwe'	Turtle
ts!etɑ'kiL	Chuck-berries	smeko'i	Rattlesnake
pɛɛɑ''	Buckeyes	ts!ɑike''	Snake
ōpe	Wild grapes	senk!o'L	Snake
tetɑ'i	Soap-root (small)	xɑpɑilɛ''	Lizard
ɛk!ɑ!ɛ'	Soap-root (large)	toiyɛ!ɛ''	Mountain lizard
kotɛɛ'L	Camass	wākā't!	Frog
k!onɑ'kɑs	Camass	t!ikolɛ'	Toad
t'ɛmɑ's	Unidentified plant	ɛwākek!ɑ''	Horned lizard
tɑmɑ	Mescal	ɛwɑN	Trout
spok!ɑt	Clover	p'u'lɛxoi	Sucker
ɛpokumt!ɑ	Clover	ʃ'eteyɑ'u	Salmon
smō'kumɛL	Clover	ɛɑt!	Bull-head
ʃɑɑp'	Deer	septɑ'l	Unidentified fish
māp!	Rabbit	ɛmɑiyɛ'k!	Blue abalone
kol'	Jack-rabbit	k!ɛlt'u'	Red abalone
ɛɑmku'm	Ground-squirrel	nɑiyi'k!	Clam
ʃolɔ'ɛ	Tree-squirrel	sk!ɛN	Unidentified shell-fish
mɑts!ɛ'ko'	Chipmunk	tɑitɛ!ā'tɑk	Crab
mɑ'kɛL	Rat	powā't'	Sea-weed
sk!ɑlmo'k!	Mouse	lemɛ''M	Yellowjackets



EXPLANATION OF PLATE 21

Fig. 1.—Mission of San Antonio de Padua before restoration.

Fig. 2.—Mission of San Miguel.



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Fig. 1



Fig. 2

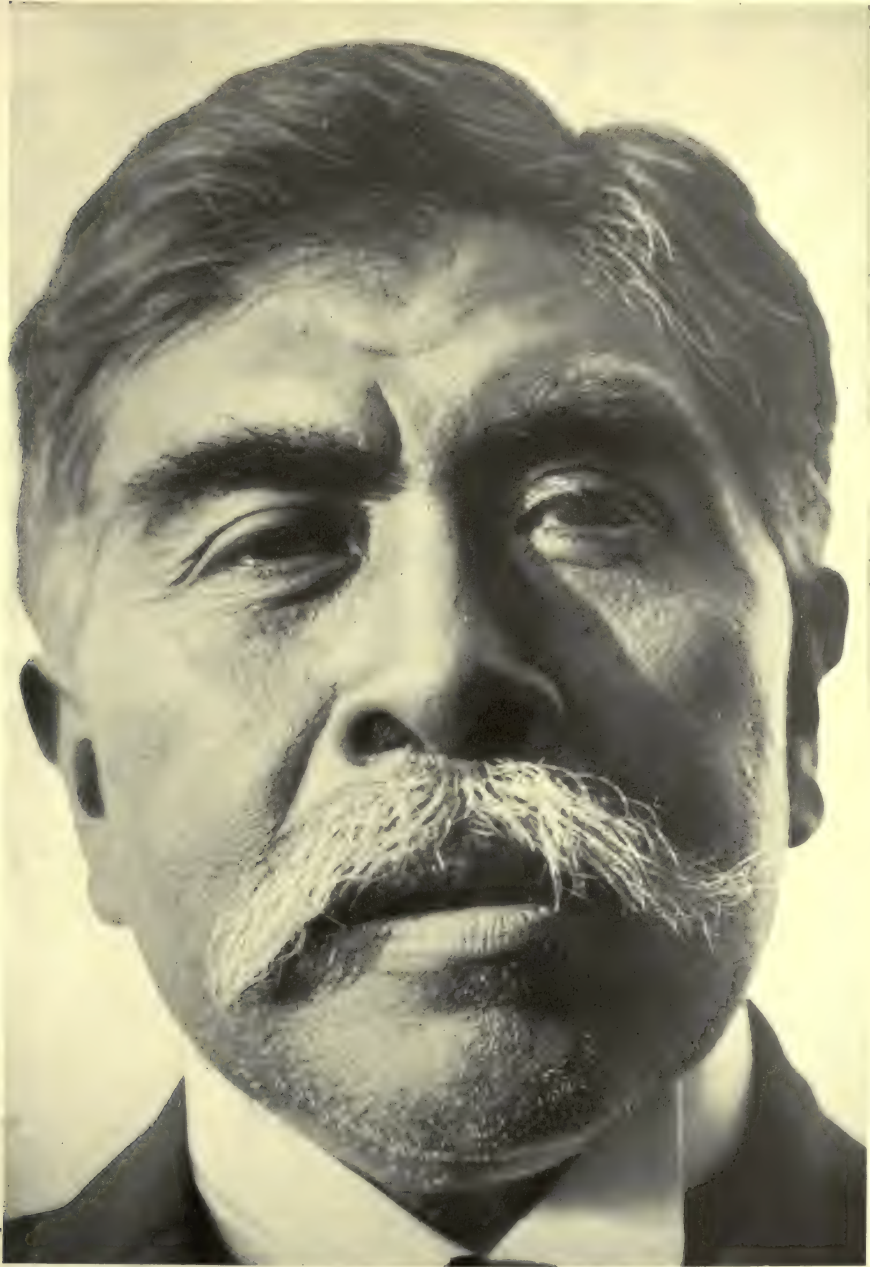
THE SALINAN MISSIONS.





EXPLANATION OF PLATE 22

Pedro Encinales. San Antonio Salinan man.



SALINAN MAN.





EXPLANATION OF PLATE 23

Fig. 1.—Flujensio Santana. San Miguel Salinan.

Fig. 2.—Josie Encinales. San Antonio Salinan.





Fig. 1

SALINAN INDIANS.



Fig. 2





EXPLANATION OF PLATE 24

Household of Pedro Encinales.

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[MASON] PLATE 24



SALINAN INDIANS.





EXPLANATION OF PLATE 25

Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Mortars and metate found in Salinan territory.

Fig. 2.—Archaeological objects found in Salinan territory.

Specimen 1.—Pottery bowl from Mission San Antonio. Width,  
22 cm.

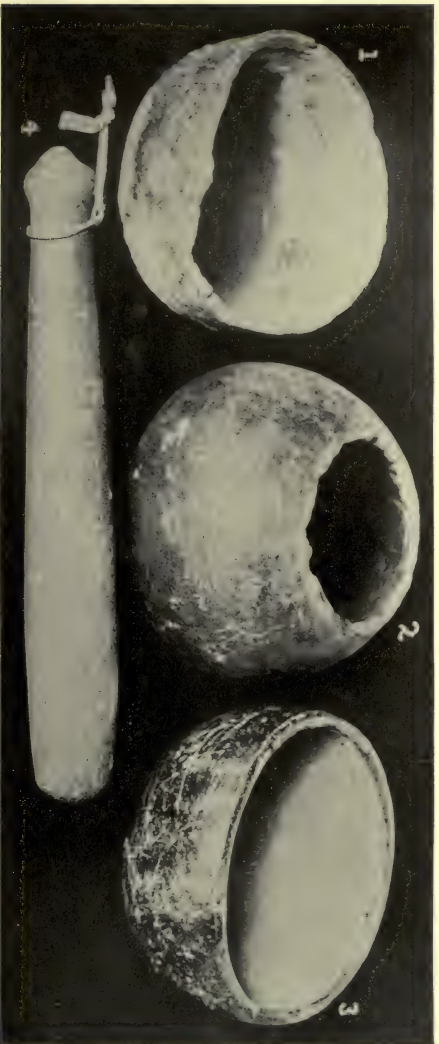
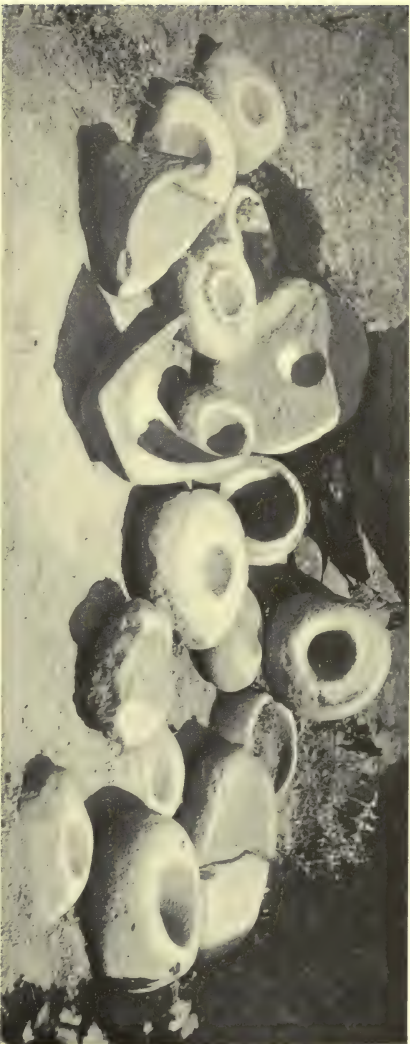
Specimen 2.—Steatite pot. Height, 16.5 cm.

Specimen 3.—Steatite bowl from Mission San Antonio. Width,  
25 cm.

Specimen 4.—Stone pestle with carved handle and buckskin  
thong. Length, 46 cm.



3)  
912



STONE IMPLEMENTS.





EXPLANATION OF PLATE 26

Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Small mortars found in Salinan territory. Objects are about .22 natural size.

Fig. 2.—Pestles and mullers found in Salinan territory. Objects are about .17 natural size.

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Fig. 1



Fig. 2

STONE IMPLEMENTS.





#### EXPLANATION OF PLATE 27

Archaeological objects found in Salinan territory. Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Digging stick weight, width 6.7 cm., and small mortars, width 6 and 7 cm.

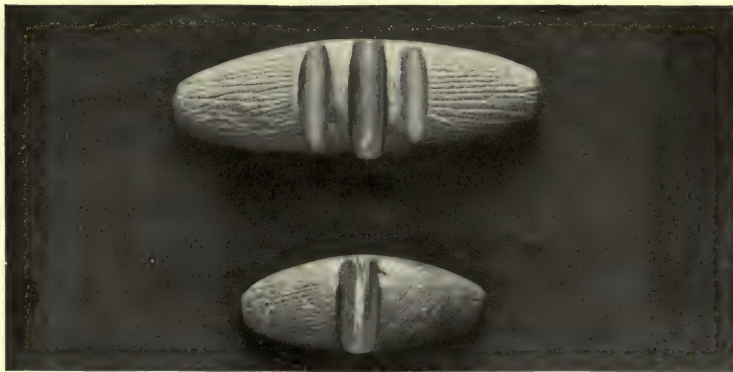
Fig. 2.—Pestle end carved to represent a head, .85 natural size.

Fig. 3.—Arrow straighteners, length 15.8 and 9.7 cm.

Fig. 4.—Small pestle, length 12.5 cm., and flint blades, length 14.4 and 14.6 cm.



270<sup>a</sup>



STONE IMPLEMENTS.





**EXPLANATION OF PLATE 28**

Photographed by courtesy of the Dutton Museum, Jolon, California.

Arrowheads found in Salinan territory. The objects are shown at about  
.35 natural size.



ARROWHEADS.





EXPLANATION OF PLATE 29

Fig. 1.—Bedrock mortar holes near Santa Lucia Peak. Relative size may be ascertained by comparison with pencil.

Fig. 2.—Pictographs from the "Painted Cave" near San Antonio Mission. See also plates 30 and 37.



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Fig. 1



Fig. 2

MORTARS AND PICTOGRAPHS.





EXPLANATION OF PLATE 30

Pictographs in the "Painted Cave" near San Antonio Mission.  
See also plates 29 and 37.

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[MASON] PLATE 30



PICTOGRAPHS.





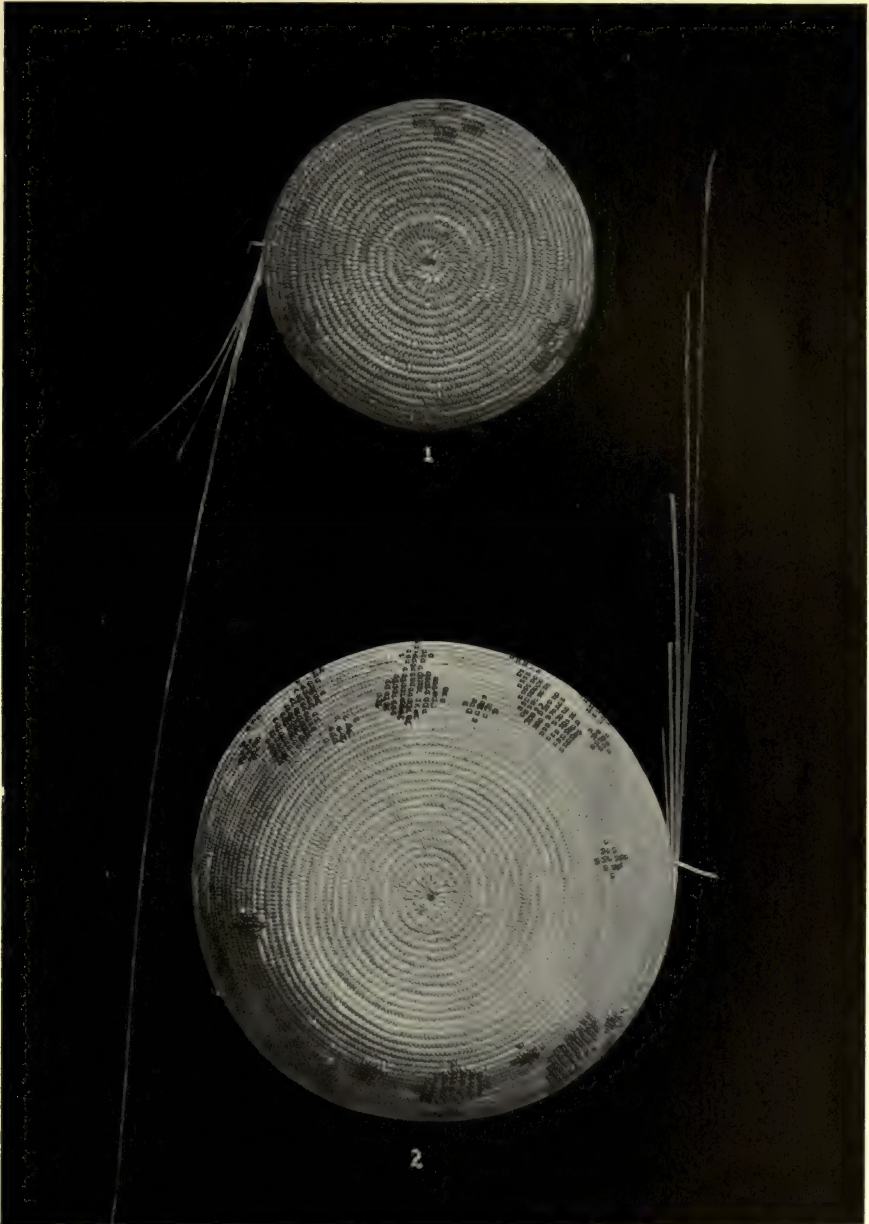
EXPLANATION OF PLATE 31

Fig. 1.—Unfinished basket with grass-foundation coil. Museum number 1-14991. Width, 13 cm.

Fig. 2.—Unfinished basket with simultaneous double coil of grass foundation, and bead-work decoration. Museum number 1-14992. Width, 19.4 cm.



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- COILED BASKETS.





#### EXPLANATION OF PLATE 32

Fig. 1.—Musical rasp. Length, 50 cm. By courtesy of the Dutton Museum, Jolon, California.

Fig. 2.—Grass-foundation coil basket. Museum number 1-14993. Height, 9.8 cm.

Fig. 3.—Grass-foundation coil basket. Museum number 1-14994. Height, 10.5 cm.

Fig. 4.—Unfinished rod-foundation coil basket. Museum number 1-14990. Width, 12.7 cm.

Fig. 5.—Bottom of rod-foundation coil basket. Museum number 1-14989. Width, 7.6 cm.

Fig. 6.—Rod-foundation coil basket. Height, 9.6 cm. By courtesy of the Dutton Museum, Jolon, California.

41  
37  
38



Fig. 1



Fig. 4

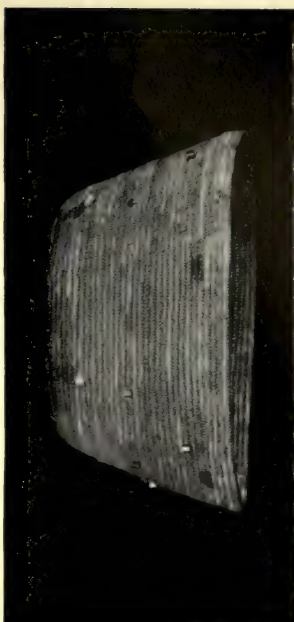


Fig. 2

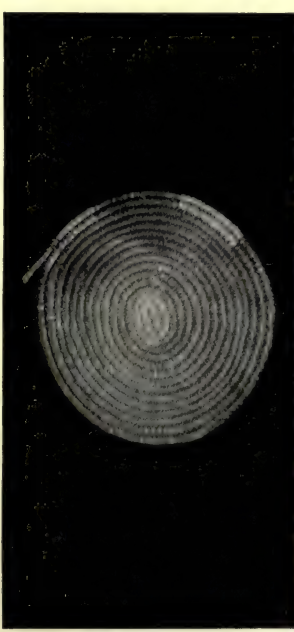


Fig. 5

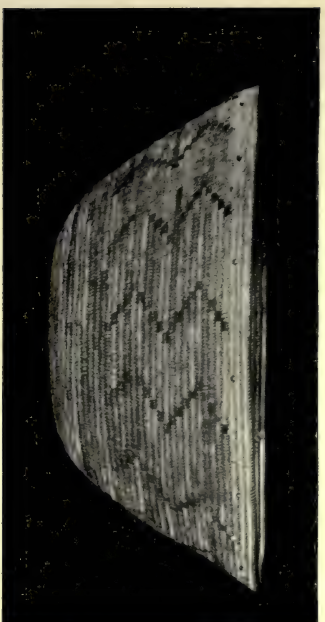


Fig. 3

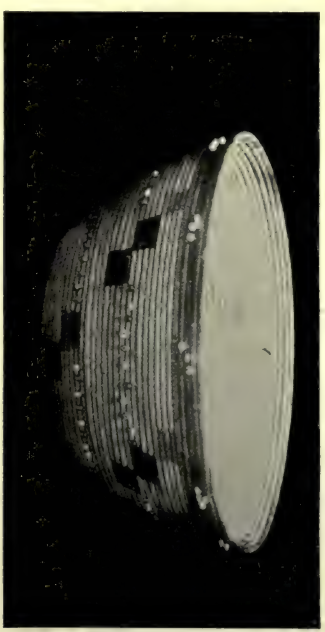


Fig. 6

RASP AND COLLED BASKETS.



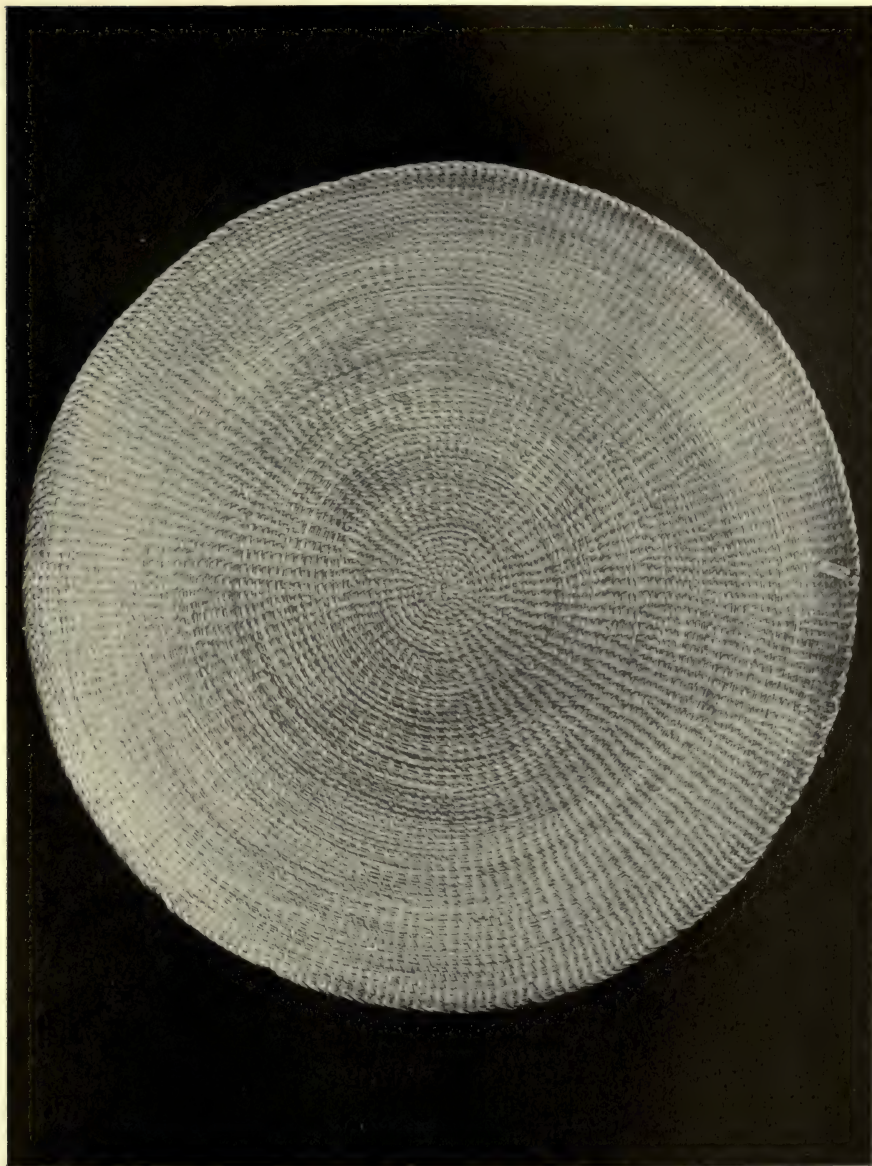


EXPLANATION OF PLATE 33

Large coil tray made by Costanoan Indian woman at San Antonio.  
Museum number 1-14987. Diameter, 45.6 cm.



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BASKETRY TRAY.





EXPLANATION OF PLATE 34

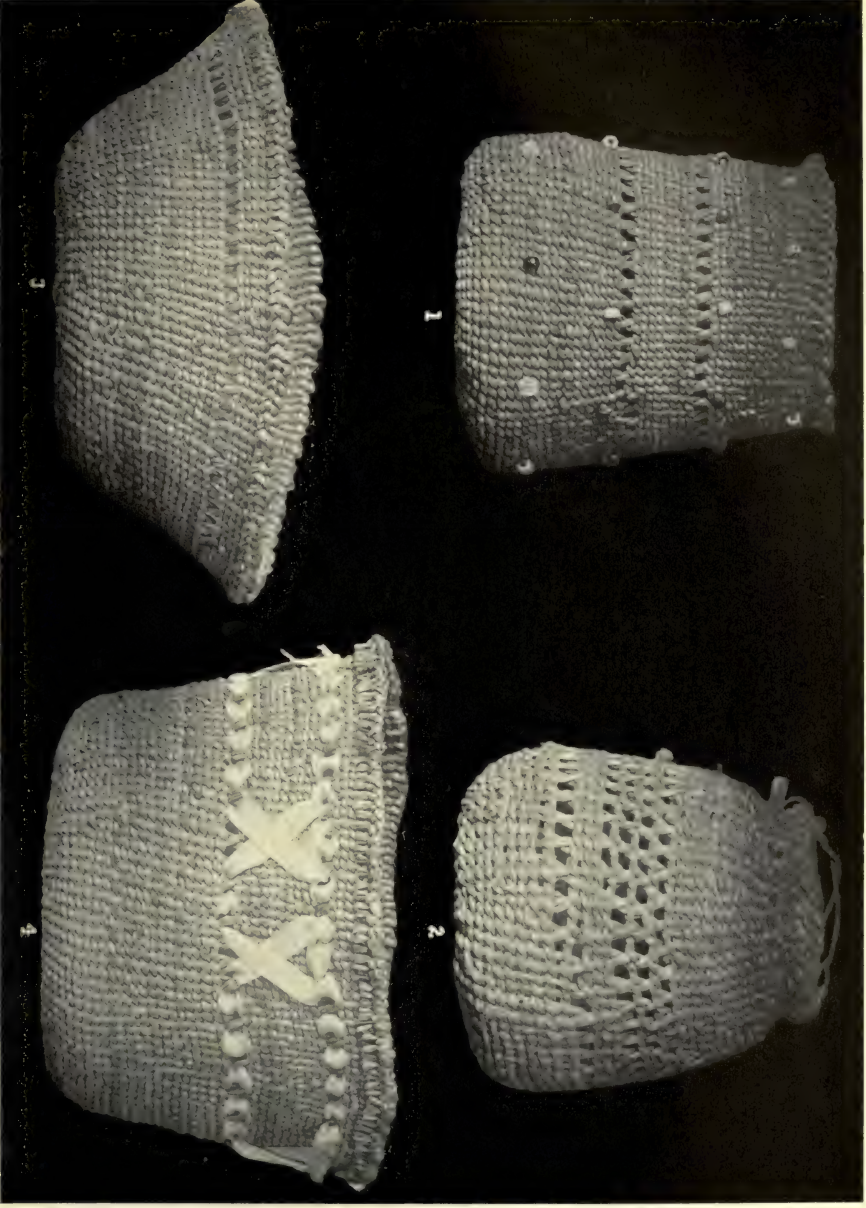
Fig. 1.—Basket of twined tule. Museum number 1-14999. Height, 15.1 cm.

Fig. 2.—Basket of twined tule. Museum number 1-14997. Height, 14.4 cm.

Fig. 3.—Basket of twined tule. Museum number 1-14996. Diameter, 21.6 cm.

Fig. 4.—Basket of twined tule. Museum number 1-14995. Diameter, 21.2 cm.

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MODERN TWINED BASKETS.





EXPLANATION OF PLATE 35

Fig. 1.—Unfinished basket of twined tule with wavy border-line. Museum number 1-15000<sup>a</sup>. Diameter, 13 cm.

Fig. 2.—Base of unfinished basket of twined tule. Museum number 1-15000<sup>b</sup>. Diameter of woven portion, 18.1 cm.



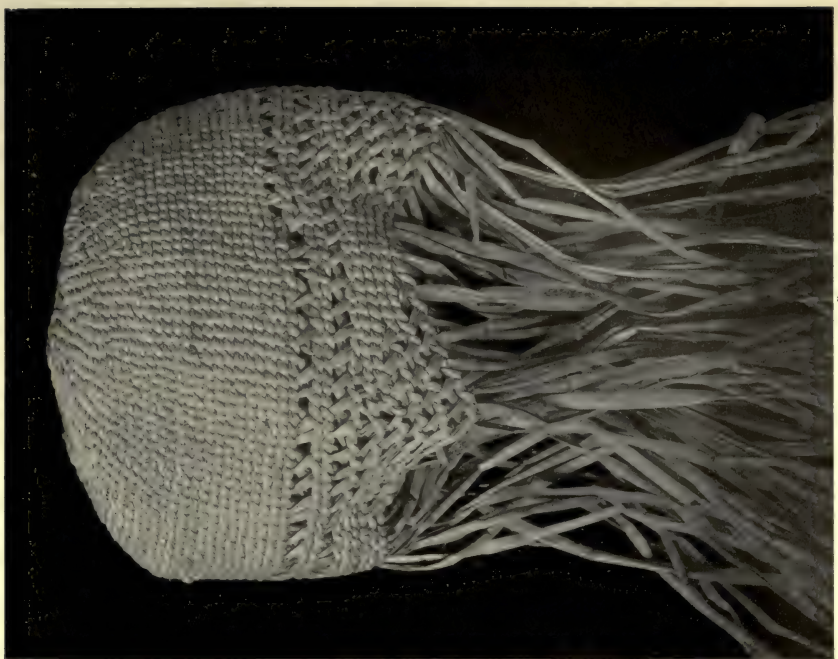


Fig. 1

TWINED BASKETRY.



Fig. 2





EXPLANATION OF PLATE 36

Fig. 1.—Twined tule basket. Museum number 1-14998. Height, 21.4 cm.

Fig. 2.—Costanoan twined winnowing-tray. Museum number 1-14988. Length, 34 cm.

P 1  
66  
57  
24

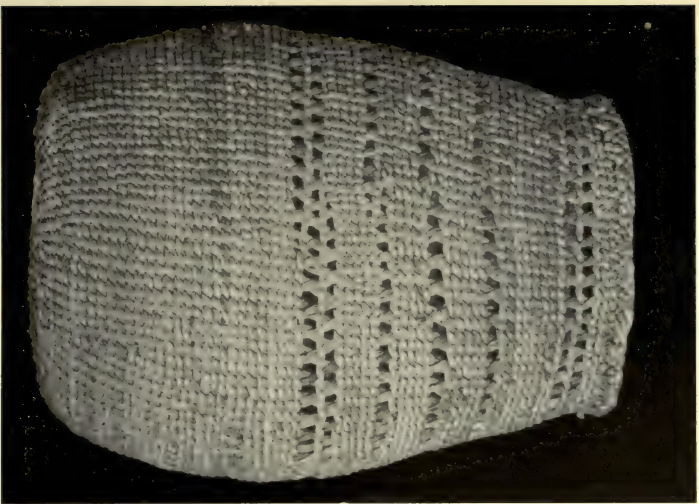


Fig. 1

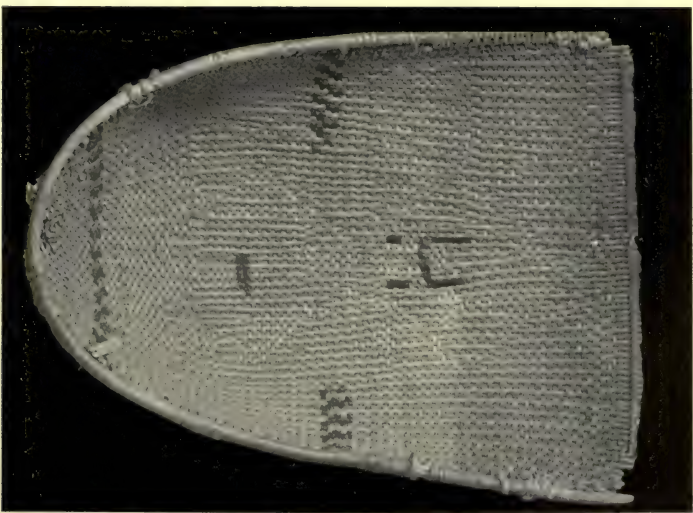


Fig. 2

SALINAN BASKET AND COSTANOAN TRAY.





EXPLANATION OF PLATE 37

Drawings from the "Painted Cave" near San Antonio  
See also plates 29 and 30.



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JAM.

PICTOGRAPHS.



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August 30, 1913

PAPAGO VERB STEMS

BY  
JUAN DOLORES

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EXPLANATORY NOTE

The list of Papago verbs constituting this essay was compiled by Mr. Dolores to facilitate the analysis of a number of texts recorded by him, and to serve as a basis for future grammatical study. As the Papago and Pima languages are practically identical, the list may also be of value in the further elucidation of the Pima texts published by the late Dr. Frank Russell,<sup>1</sup> as well as in comparative studies in the Uto-Aztekan group of languages.

The system of orthography was worked out by the undersigned after phonetic investigation of the language. For the spellings used in each word, Mr. Dolores is however responsible. The following notes may make the orthography sufficiently clear for grammatical purposes.

<sup>1</sup> Ann. Rep. Bur. Am. Ethn., xxvi, 3-389, 1908.

The vowels are a, i, o, u, and ü, the latter the back-tongue, non-rounded vowel found in many Shoshonean languages. C is similar to English sh, *tc* to ch. V is bilabial. Ṭ is a more alveolar or palatal sound than t, which is distinctly dental. N before i and ü is a different sound from n before a, o, u, being nearly equivalent to *ny*, that is, palatalized. This difference is invariable when the sound is initial. It did not seem necessary, therefore, to employ distinct symbols. Subsequently a number of instances of medial unpalatalized n before ü were found. In these words n has therefore been indicated by italic *n*. Several instances of palatal n before a, o, u have been written *ny*.

Several consonants seem to depend on the adjacent vowels. Thus, at least initially, s occurs only before i and ü, c only before a, o, u; t before a and o, *tc* before i, ü, u. V and w are hard to distinguish. Mr. Dolores has written v before a and i, w before o, u, ü, which seems correct to the writer. The spelling *wua* might, however, be regarded as representing *wa* with heavily labialized w. Ṭ has been found, initially, only before a and u.

All Papago sounds, vowels and consonants alike, have two pronunciations; one sonant and with weak breath, the other surd<sup>2</sup> and strongly aspirated. The former has been indicated by ordinary small roman letters, the latter, for convenience in typewriting, by small capitals. The rules governing when the same sound is respectively sonant or surd cannot be examined here; the main determining factor, however, is position in the word, surd aspirated sounds being normally found at the end of words. S and c alone seem to be invariably surd: they have therefore been represented throughout by small capital letters.<sup>3</sup> Mr. Dolores also writes l as always surd, even when intervocalic. This may be because of a normally stronger breath pressure than in English; the sound is certainly sonant for at least the greater part of its duration in some positions.

<sup>2</sup> Vowels here designated as surd may in reality be whispered. At any rate they show no trace of laryngeal vibrations in ordinary mechanically made tracings.

<sup>3</sup> Consistency would have required capital H instead of small h; but this has not been done. Surd v of course is bilabial f; and w is much like English wh. Stops and the affricative *tc* are sonant only during the explosion when initial, entirely surd when final or followed by surd vowels.

In the vowels there is a third class of sounds: sonant and aspirated, represented by following *h*. It is thus necessary to distinguish between sonant unaspirated *a*, sonant aspirated *ah*, and surd aspirated *ʌ*.

It seems likely that something similar may apply also to consonants. In *kah*, to look for, and *kah*, to hear, there is undoubtedly a difference in the initial sounds. Both are sonant during the explosion, but the second contains a stronger breath. Compare similarly *kih*, to become fat, and *kih*, house; *teiyah*, to arrive, and *teiyah*, to settle down; *teuh*, to do or to rain, *teuh*, to stop burning. In each case the initial consonant of the second word is more strongly aspirated, though the difference is not indicated in the orthography used. A similar aspiration probably explains the spelling *kahvai* (with surd *v* and sonant *a*), where *kahvaih* (the whole last syllable sonant) or *kahvai* (the last syllable entirely surd) might be expected, and Mr. Dolores' *ūLUKI*, *ūLIHNI*, *OLIHC*, where *L* perhaps stands for *lh* related to *l* and *L* as *ah* is to *a* and *ʌ*.

Accent is very weak in Papago, and apparently of no grammatical significance; it has therefore not been written.

A. L. KROEBER.

#### I. SIMPLE VERB STEMS<sup>4</sup>

A thorough distinction is made in the Papago verb between completed and continued action, or as it might be called, accomplishment and progression. The obvious translations in English are by the infinitive and present participle respectively. Most verb stems, as here given in their shortest form, denote completed action, and their "participle," or form signifying continuing action, is made by the addition of one of a number of suffixes. Other verbs add no such suffix: in them, incomplete action can be expressed only by using the form denoting repeated action, namely, the reduplicated stem. These two classes have not been separated or distinguished in the list.

<sup>4</sup> The alphabetic order is the same as in English. *T* and *te* follow *t*, *ü* follows *u*. No distinction of order is made between small and capital letters, nor between aspirated and unaspirated vowels: *a* and *ah* come in the same place and *am* precedes *ahp*. The glottal stop is also not taken account of in alphabetizing.

A third class of verbs denotes only incomplete or continued action. These stems cannot express completion or accomplishment. Consequently their translation by the English infinitive would be misleading, and they have all been rendered by the present participle. They have been further distinguished by an asterisk. Thus sa'ahsim, to laugh at, but \*ahc, laughing at, or to be in a condition of laughing at. In the same way there is an absolute difference in meaning between huh, to eat, and \*ko'ah, eating, or to be eating. \*cavant is "looking for horses"; the idea being that when one goes to look for the horses he is continually looking until he finds them. \*cahw is "rattling the gourd" in accompaniment of a certain class of songs. When a song is commenced, there being only one verse, the song with the same words is repeated many times over. The rattle starts with the song and never stops until an entirely new song is to be introduced. The gourd continues to rattle even while the singers pause to catch their breath preparatory to singing the song over again. The rattling keeps the same time, and makes the connection from one repetition to the next. It is clear as soon as the full meaning of this word is understood that the idea of continuation is implied; and the same idea prevails in all the verbs of this class.

\*hapahtkū and \*nahpaktū have been included in this "participial" class because being from adjectives they have no complete action or "infinitive" form. \*kūhc, \*nawo't, \*skū'it have also been starred and translated as participles because, while they possess forms denoting completed action, these are longer than the "participial" forms given.

ah	point, tell
*ahc	laughing at
ai	reach, overtake, pass
ammoh	talk loud
ammihrcu	know, guess right
a'pūtcu	accuse
cāca'ki	mix
*cācahni	groaning
caī	drive (cattle, horses, etc.)
*ca'i	hanging (like clothes on line, on brush)
cāhku	hold in the palm

cam	make a rustling and scratching noise
ca'pü	splash
*cavant	looking for (usually horses)
ca'vai	buy
*cahwü	rattling the gourd
coh	sew
cohcah	cry
cohni	hit with the hand
conytcı	cut by striking
cöpi	stop
hah	roast grain in the basket
hah	melt, thaw
ha'ahsah	stop, quit
hai	crack, destroy
*hapahtkü	lying flat (hapaht, flat)
hāpi	copulate in ano
hasuhteu'ih	blunder
ha'ts	sprinkle
haht'c	paste, stick on
haüwuah	bech
hih	cut hair, cut grass, etc.
hih	go, walk, move
hiahc	bury
hihbin	yell, bark
hihku	turn from flower into fruit (cactus fruit)
hiovihtcı	soak by burying
hihpücu	sprinkle with the mouth
hıtoh	cook by boiling
hırpah	braid
*hıvi'kü	depending on
*hihwü	rubbing
hoah	look for by stirring
hohhah	load in a carrying basket
ho'pinnoh	wrap
hötümmuh	hurry some one
huh	eat
huh	be gone (liquid)
huh	grease
hūkah	become warm
hūlihka't	show evidence of bearing mesquite-beans
hūpü	pull out
huhṭ	go down
hu'ui	chase
hüh	laugh
hühli	hang clothes for drying, to dry fruit
hūmahpai	pile, assemble, gather
hūoh	bloom
hūhpih	become cold, cool (no more pain)
hūum	be cold

hüva'KI	smell
hüva'TCI	become cool
ih	drink
ih	call a person's attention by naming his relationship to oneself
iahpu't	catch flour as it falls off the grindstone
iah'to'KI	tell a lie
iawuah	spill
ihhammuh	delay, disturb
ihü	gather cactus fruit
i'ihhoh	cough
iKI	shake a plant to make the fruit fall off
INnam	hunger for meat
iohLI	fry
i'ovih	become sweet
ihPI	retract the foreskin
*ipüh	breathing
ihT	put grain, or anything composed of many separate bodies, into a plate or basket
ihvi	make fire with a drill
kah	look for
kah	hear
kai	cook meat on coals
kaihc	catch and hold between the legs
*kairCI	saying
*kakütah	selling, wanting to sell
kam	put in the mouth
kantahT	scatter
kahPÜ	pop
kahvAI	quarrel
kawuLihkai	separate, change
kahyo'PI	cross
kih	get fat, gain flesh
kiah	couple
ki'ihc	bite and hold with the teeth
kikihwü	tremble
kihku'TCI	whistle, whistling
koh	hug, hold against the breast
*ko'A	eating
kohcohTKÜ	be loose
*köhhim	limping
koi	sleep (sing.), die (pl.)
koi	bleed
kohkoh	sick (pl.)
köhkÜ	dig; sleep (pl.)
kohpo'TKÜ	be heaped, raised
kohPÜ	explode
ko'to'KI	yell in victory
kohwü	rattle like tin cans



kuh	close, shut
*kuh	singing (a bird), neighing (a horse)
ku'A	get wood
kūhc	burn and stick to the cooking vessel
kūca't	chase game for killing
kuhca'tkū	be dry and stiff
kuhcuhli	make jelly or jam
kuhha'ki	cook meat on the end of a stick
ku'ihno'ki	annex
kuhkūtpah	heat the body for curing rheumatism
kūr	put wood in the fire, for carrying the fire away
kuṭuh	bother, disturb
kuyihcaḥṭ	whine
kuyint	count (Spanish)
kuyihtci	call an animal or a bird by imitating its voice
kūh	stand (man, animals)
*kūhc	scratching the body
kūr	bite, sting
kūr	fall
kūkuhs	feed
kūkū	whip, earn, win
kū'kūrtci	beautify, make good
kūhli	shell corn, pick berries
kū'ū'tah	reach full growth
kūhvai	cool and form a scum, like greasy food
kūvihc	lay against, lay on top
kūyihc	step on
mah	give
mah	cook yucca in the ground
mai	learn, know
ma'ihc	cover
ma'ihhih	hit by throwing
maim	get sick by eating too much fat meat
ma'kaḥṭ	break through
*makūhwū	swinging the arm
mammūṭoh	experience the act of giving birth to a child
mānnihkoh	be stiff jointed
māhsih	become light
mahtoh	untangle
moh	gather seeds
mōt	load on the head (mo'o, head)
muh	shoot (with bow and arrow)
muh	die
muhli	break by bending
mu'uhkar	sharpen
mūh	run (sing.)
mūah	kill
mūr	burn something, blaze

mükoh	be gone far (distance or time) (mükü, far)
nāhc	fold
naɪ	make fire
nahkoh	endure, raise
nam	meet
*nannawühkü	sparkling
nannühkihtci	tease a hungry person with food
*nahpahtkü	lying or sitting in a dead-like position
nāhtoh	make, finish
navai	make wine
*nawo't	make a friend, making a friend
noh	bend
nūah	beg
nūi	see
nūi	sing
nūhni	fly up, fly away (pl.)
nūoh	speak, talk
*nyūku't	keeping, taking care of
oh	gather cactus fruit, harvest corn
oa	erase
ohckoh	skin a sore place
oi	follow
ōlahɪ	coil, shorten, take up
olihc	hook
ōhmi	break (pl.)
o'oh	drop (liquid)
o'ohhah	write, paint
ōteü'ühwü	find the thing lost
pah	swallow
pa'ihhah	inclose (pl. obj.)
pa'ivihɪci	get ahead
pakaht	get mad, get angry
pāmmu't	ask for help
pānnim	creep, crawl
pih	give cooked food
piah	take cooked food off the fire
pihhah	wind
pihhinoh	put things in the skirt or apron
pipi	defecate
pihstci	sneeze
pūi	take (sing. obj.)
pūpū't	make a pattering noise
sih	suck
sihc	pin, touch with the end
sipū	drizzle, to drop in drops
sihpū	break open of itself (a sore)
sihskɪ	sift
si'tci	rattle (rattlesnake or bell)

skihh <sup>5</sup>	fear
skuyihrci <sup>5</sup>	yell in defiance of the opponent
*skü'rt <sup>5</sup>	scolding, being angry at
söhhoi	love, like, agree
so'i'kü'ühli	pity
stahmoh <sup>5</sup>	abhor, dislike
süvahhu	sweat (Spanish)
*tah	sitting
tah	fly, jump (sing)
tah	wrestle
tai	borrow, ask for
tahmar	have a toothache from eating sour fruit
tamühteuah	cause to pain again
tāpiuh	smoothe
tāhpü	split
tāt	touch, feel
tātah	arrive (pl.)
tahtahni	thunder nearby
taht	spread
*tahtcuah	wanting, needing, desiring
toA	be alive, be well, get well
toahhih	thunder far away
toha	put away, put down (pl.), pour water
to'i	bet (pl. obj.)
to'ipiah	rescue, save
tohkah	play the woman's ball game
tōmmi't	bear fruit out of the regular season
ton	shine
tonnom	be thirsty
tō'pü	twist
tohskoh	swell
tōt	cohabit
to'ts	excite, frighten
toht	groan, snore
teihküpü	work
teihrcuh	liek, using the fingers
teihpiah	move the whole family
*teihtevih	playing
teiyah	arrive (sing.)
teiyah	make a home, to settle down
teuh	stop burning of itself
teuh	put the baby on the back
teuh	do, make, prepare
teuh	rain
teuammah	cook by burying in the ground

<sup>5</sup> Stems do not begin with two consonants. s- commences many adjectives. These four verbs all denote states of mind. They are therefore evidently adjectives.

teu'ammuh	punch with a stick or with the fingers
teui	grind
teui	put out the fire
teu'ihTCI	ask a question
teum	try
teühPI	sink
*teühTCI	standing (pl., inanimate objects)
teuyihC	make a lunch
teuyihC	catch and drag under
teuyihC	wink
teüh	see, find
teüh	put away
teüh	taste
teühC	go up, climb, ride
teür	say
teühkah	put on the shoes
teühkah	be there (at a certain time, in a certain place)
teü'kiah	fight
teü'kitoh	think, remember
teühköpih	undermine
teühKÜcahT	mark, make a line
teümmal	make bread, tortilla
teümmoh	stop by obstruction, go all over
teümmu'T	make a fire to heat cooking rocks
teü'TCI	smoke tobacco
teühTCI	name, call
teüvaim	drag
uhhu'KI	notch the end of an arrow
ur	take (pl. obj.)
ukitCI	shake
uLihNI	hold out something for somebody
ülu'KI	throw the baby up and down
ür	plant
*üpi'T	being afraid, fearing
ü'PÜ	stop crying
ühs	steal
üta'KI	find
*üü'ki'T	having, owning
vah	go in
vah	make tough, irrigate
vai	call
vahMI	rise from lying
va'nnyoh	pull
vahPCCu'T	get blisters, become blistered
vih	stay, be left
viah	leave something purposely
vinnyuh	lick with the tongue
vi'TCI	twist, make a hair rope
wohi	burn the hair

wor	lay, put down
wōh'poi	take away from by force
wōhpū	run (pl.)
wōhpū	pull out the hair
wohsuh	brush, sweep
wuh	tie
wūhc	come out, rise from sitting
wuhha	awaken
wuhsoh	blow with the mouth
wuyihTCI	race a long distance using a wooden ball
wūhhorCI	certify, to make true
wūnna't	put with

## II. VERBS DERIVED FROM NOUNS

### A. WITHOUT CHANGE

Many nouns are also used as verbs, the idea of "have" being then understood. Thus, ha'ah, a jar, or, to have a jar. Such verbs are here given.

Other nouns which will be listed separately later, are made into verbs, with the meaning "to have," by the addition of the suffix '-kah. But the nouns in the following list cannot add the suffix '-kah; and those which are given as adding the suffix '-kah, cannot be used as verbs without it.

Coyi'kah and ünni'kah contain this suffix, but being themselves nouns, their verbal forms are here included.

<i>Noun or Verb</i>	<i>Meaning as Verb</i>
a'ahn	to have feathers
aLIta'kü	to have a child (a man)
āmmoh	to have some one to work for
aht	to have an anus or bottom
ahtohLI	to make atole, to have atole (Spanish)
cāLihvi	to have trousers
cavihkuht	to have a rattle
con	to have a starting point or trunk
connikiwuhLI	to have a wooden ball
co'piaht	to have a doll
coyi'kah	to have a pet
ha'ah	to have a jar
hahcü'tah	to have a woven basket
ha'koh	to have a cushion for the head
hahpoht	to have an arrow
hi'i	to have urine
hiwo'kü	to have a sore (the skin broken open)

<i>Noun or Verb</i>	<i>Meaning as Verb</i>
hiwühcan	to have a groin (a woman)
hiwüh-teuh	to have a groin (a man)
hoah	to have a sewed basket
hoahsa'ah	to have a plate
honna'kü	to have a wife
huhhulikah	to have menses
hūTCI	to have toe or finger nails
hükü	to have a co-wife (a woman)
ivi'tahkuhṭ	to have a fire drill
kaitckah	to have seeds for planting
kaLICAHNI	to have trousers (Spanish)
kaht	to have a bow
kih	to have a home or a house
kohc	to have a nest
kohtohNI	to have a shirt (Spanish)
kukü	to have an end
kun	to have a husband
kuhsüwoh	to have a neck
kūteah	to have semen
liaht	to have a raw-hide rope (Spanish)
mahkoṭakü	to have something with which to couple
mannaṭa'kü	to have something to hobble with
maht	to have a child (a woman)
mah'tcuht	to have a grinding stone
mayin	to have a mat
mo'oh	to have a head
nahkü	to have an ear
nonnah	to have eggs
ovih	to have an opponent
ovi'TCI	to have an awl
oyit	to have a farm
pohcohLI	to have pohcohLI (corn and beans cooked together)
sihpuhṭ	to have a sitting part
sihsüvaṭa'kü	to have spit
sihtohLI	to have syrup
tahtkü	to have root or roots
taht	to have a foot
tohnü	to have a knee
teihNI	to have a mouth
teḥohkuhṭ	to have a cane
teühpah	to have a mortar
teḥpitükuhṭ	to have a pestle
teḥ'TCKI	to have a dream
uhc	to have a flint arrow point
ur	to have wind on the bowels
u'umhaṭa'kü	to be feathered (speaking of the arrows)
uhsakah	to have the stick with which girls play the double ball.

<i>Noun or Verb</i>	<i>Meaning as Verb</i>
u'uh	to have war arrows
üLita'kü	to have bark or skin
ünni'kah	to own or to have (ünni'kah = property)
vahcah	to have a woven trinket basket
vahCOMI	to have a sewed storage basket
vähKUS	to have a mat or anything used as a mat
vā'oh	to have a pair of wooden tongs for gathering cactus fruit
vipü'toh	to have testicles
vitü'kuht	to have a pestle for grinding
wōhkü	to have a stomach
wo'kücah	to have a quiver
wONNAHMI	to have a hat
wōht	to have the foreshaft of an arrow
wuakah	to have a wuakah song

#### B. BY SUFFIX -'kah, TO HAVE OR CLAIM

<i>Nouns</i>	<i>Verbs</i>
a'ahn, feathers	a'annü'kah, to have feathers
ah'ki, river-bed (without water)	ah'ki'kah, to claim a river-bed
alih, baby	ali'kah, to have a child
āhnü, desert-willow	annü'kah, to claim the desert-willow
ca'i, brush	ca'i'hak, to claim brush
cāht, wild potatoes	cāṭü'kah, to have wild potatoes
cū'kü, mocking-bird	cū'kah, to have a pet mocking-bird
cūta'ki, water	cūta'kah, to have water
hāhcahni, giant cactus	hahcanni'kah, to claim giant cactus
haivahni, cows	haivanni'kah, to have cows
hāhli, squash, pumpkin	hāli'kah, to have squash, pumpkin
ha't, a kind of plant used as food	ha'tü'kah, to have ha't
ho'ki, deer skin stripped from the body	ho'kah, to have deer skin (buck-skin)
ho'tai, stone	ho'tai'kah, to have a charm stone (medicine man)
hovi'tci, Spanish bayonet	hovi'tei'kah, to have the fruit of Spanish bayonet
hūahvi, deer	hūavi'kah, to claim deer
huni, corn	hunni'kah, to have corn
hūmma'tckam, people	hūmma'tckammü'kah, to claim people as one's own
hūht, red face paint	hūhtü'kah, to have red paint for the face
ihhu'kü, devil's claw ( <i>Martyria</i> )	ihhu'kah, to have devil's claw
ihkohvi, a plant used as food	ihkovi'kah, to have ihkohvi
ihkuhli, a plant used as medicine	ihkuli'kah, to have ihkuhli
ipahi, leaf-cactus	ipai'kah, to have the fruit of ipahi

ihsüvi'KI, a kind of cactus	ihsüvi'kah, to claim ihsüvi'KI
iva'KI, greens or weeds	iva'kah, to have greens
kaitci, seeds	kaitci'kah, to have planting seeds
	kaitei'kah, to have cactus seeds
kalivahc, a kind of peas (Spanish)	kalivahcü'kah, to have kalivahc
kaviyuh, horse (Spanish)	kaviyu'kah, to have a horse
ki'KI, tallow	ki'kah, to have tallow
kihsöh'KI, a kind of cactus	kihsöh'ki'kah, to have the fruit of kihsöh'KI
kohlai, corral (Spanish)	kohlai'kah, to have a corral
kuhi, mesquite-tree	kuyi'kah, to claim mesquite-trees
külöh, old man	küli'kah, to have an old man (a woman speaking of her husband)
kühpi, watermelon	küpi'kah, to have watermelons
lantëuh'KI, lentil (Spanish)	lantëuh'ki'kah, to have lentils
liahlI, money (Spanish)	liali'kah, to have money
mahca't, moon, month	mahca'tü'kah, to have a moon (a woman speaking of her sickness)
mähkai, one who cures sickness without medicine	mähkai'kah, to have a doctor
manteüh'KI, lard (Spanish)	manteüh'ki'kah, to have lard
mühni, beans	munni'kah, to have beans
nähka'kü, a kind of cactus	nähka'kah, to have the fruit of nähka'kü
nahwü, any kind of leaf-cactus	nawü'kah, to claim the nahwü
ohkohkoI, wild pigeon	ohkohkoI'kah, to have a pet wild-pigeon
ohks, old woman	ohksü'kah, to have an old woman (a man speaking of his wife)
ölah, gold (Spanish)	ölahak, to have gold
on, salt	onnü'kah, to have salt
o'o'tam, a person	o'o'tammü'kah, to claim people
o'ohṭ, sand	o'o'ṭü'kah, to have sand (a woman speak- ing of sand used in making pottery)
ohpohnü, a kind of weed used as food	ohponnü'kah, to have greens
ö'pü, cruel and warlike people	ö'pü'kah, to have enemies
pan, coyote	pannü'kah, to claim coyote
pahvi, a kind of bean	pavi'kah, to have pahvi
pilihkani, wheat	pilihkanni'kah, to have wheat
pit, mud, clay for pottery	pitü'kah, to have clay for pottery
sulitci, a baby boy	sulitei'kah, to have a baby boy
tahc, sun, day, time	tahcü'kah, to have a date
taI, fire	taI'kah, to have fire (matches)
tahküwui, tree yucca	tahküwuyi'kah, to claim tree yucca
tahtai, sinew	tahtai'kah, to have sinew
tätai, road-runner	tätayi'kah, to claim the road-runner
to'a'kü, mountain	to'a'kah, to claim a mountain
tohhawühs, a kind of brush	tohhawühsü'kah, to have chewing gum made from the pitch of tohhawühs
töloh, bull (Spanish)	tölo'kah, to have a bull



tōnnūh'kū, hill	tōnnūh'kū'kah, to claim a hill
teūhhu'kū, meat	teūhhu'kah, to have meat
teuhNI, dried cactus fruit	teuNNikah, to have dried cactus fruit
teūta'KI, burning coals, charcoal	teūta'kah, to have coals
teūhwū, jackrabbit	teūwū'kah, to have jack-rabbits (killed)
teūhho, a cave	teūhho'kah, to have a cave
teū'KŪ, mesquite-bean flour	teū'kah, to have mesquite-bean flour
teūMI, a kind of cactus	teūmmi'kah, to claim teūMI
teūolihmū, a kind of cactus	teūolihmū'kah, to have the fruit of teūolihmū
teūotCI, man, male	teūotei'kah, to have a man
teūva'KI, clouds	teūva'kah, to have clouds (imitations of clouds)
teūwūhʔ, dirt, earth, world	teūwū'ʔū'kah, to claim some place as one's own
teūhyah, girl	teūhya'kah, to have a girl (a young woman)
uhca'PI, pitch	uhca'pi'kah, to have pitch
uhhimmahLI, a kind of bug, one of four Papago totems	uhhimmali'kah, to claim uhhimmahLI elanship
ūmmu'kū, a kind of yucca	ūmmu'kah, to have the leaves of ūmmu'kū
uhsākah, the chief's stick, also a crooked stick used by girls in playing the double ball game (uhs, tree in general)	uhsākah, to have an uhsākah
uhtkoh, stalk of the soap-weed	uhtko'kah, to have uhtkoh for making arrows
uhtkoteūTCI, soap-weed	uhtkoteūtei'kah, to have soap-weed
u'ʔūhva'kū, tule	u'ʔūhva'kah, to have tule used in making baskets
u'uhhi'kū, birds	u'uhhi'kah, to have a bird or birds
uhvi, woman	uvi'kah, to have a sister who has passed the age of girlhood and is known as uhvi and not teūhyah
ūlita'kū, skin	ūlita'kah, to have skin of some animal
ūnni'kah, property	ūnni'kah, to have
vahcai, grass, hay	vahcai'kah, to have grass or hay
va'kū, hole	va'kah, to have a hole (animals)
vāhpū'kū, cane, or ribs of cactus	vāhpū'kū'kah, to have cane or ribs of cactus
vahyah, well	vahya'kah, to have a well
viahpo'o'kū'ūhLI, a young man	viahpo'o'kū'ūli'kah, to have a young man
vihho'kū, mesquite beans	vihho'kah, to have mesquite beans
vīpahmū, milk-weed (chewing gum)	vīpammū'kah, to have chewing gum
vihwū, tobacco	viwū'kah, to have tobacco
wō'kū, road, trail	wō'kah, to have a road or trail
wo'o, pond	wo'o'kah, to have a pond
wūlūh, burro (Spanish)	wūlu'kah, to have a donkey
wū'KI, red paint used on pottery	wū'kah, to have red paint

The changes made in the noun stem by the addition of this suffix *-kah* are regular. As sonancy predominates in the beginning of words, and surdness at the end, *ō'pū* naturally becomes *ō'pū'kah*. Aspiration is related to surdness. Therefore *tōloh* makes *tōlo'kah*, and *pahvi* *pavi'kah*. Nouns ending in *τ, ʔ, ʌ, ɱ, s, or c*, add *ü* before *-kah*. No exception to any of these rules are to be found.

Most of the nouns ending in *'ki* or *'kü* lose this ending before *-kah*: *cūta'ki'kah* becomes *cūta'kah*. But there are a few nouns ending in the same syllable, which retain it before *'kah*. These are *ah'ki*, *kihsoh'ki*, *lantcüh'ki*, *mantcüh'ki*, *tōn'üh'kü*, and *vāhpü'kü*.

#### C. BY SUFFIX *-t*, TO MAKE

It will be seen from this list that *-t* can be suffixed to all names of things that are made. But when a noun is changed to a verb with the suffix *-t*, it is not understood whether work has been done, is being done, or will be done, so that all nouns changed to verbs with this suffix mean either make, making, or made, and can be fully understood only when used in a sentence. Thus:

N	toh	hūmmah	kīht
I	will	a	house-make
	hūmma'	aNT	kīht
	a	I-have	house-made
	a'ninih	kīht	
	I-am	house-making	

When *-t* becomes the ending of words having the suffix *-tcu*, *-t* always changes these words to a "participle" expressing continued action.

<i>Nouns</i>	<i>Verbs</i>
ālih, baby	āli't, to become a father
āmmoh, the boss, master	āmmoht, to find some one to work for
aht, the beginning of a basket or a jar	ah't, to make the beginning of a basket or jar
ahtohcah, the skin or cloth that is worn by men around the waist	ahtohcaht, to make the ahtohcah
ahtohli, atole (Spanish)	ahtohliht, making atole

## Nouns

ca'ali'kih, a forked stick used to brace the carrying basket and make it stand  
 cāhkihMÜ, a rope or a strap that goes around the nose of a horse  
 cālihi, trousers  
 con, the starting point, trunk  
 connikiwuhli, a wooden ball  
 co'piaht, doll  
 coyikah, pet  
 cūlinnah, a stick straightened to be made into an arrow  
 ha'ah, an olla  
 hahcūṭah, woven basket  
 ha'koh, a cushion for the head  
 hahpoht, arrow  
 ha'uh, gourd drinking cup  
 hinñüvahli, a mat not woven nor sewed, made of grass  
 hoah, sewed basket  
 hoahsa'ah, plate  
 ho'ki, the skin, after it is taken off an animal (buck skin)  
 ho'ommah, the best shooting arrow; a horse most used  
 hon, body  
 hōñni'kü, wife  
 huhhulikah, sickness of a woman  
 hū'kü, relationship of two women who are married to one man  
 inna'ki, ancient skirt  
 ihpuht, over-skirt (modern)  
 kalkiah, sandal string  
 kaihtckah, seeds for planting  
 kalihcañni, drawers (Spanish)  
 kāht, bow  
 kih, house  
 ki'aṭa'kü, handle  
 kihcoh, cheese (Spanish)  
 kihhoh, carrying basket  
 kihhüh, brother-in-law, sister-in-law  
 kihki, plow, or a sharp stick to dig with  
 kiteü'kü, door ("house-opening")  
 kiwuhṭ, belt  
 kohc, nest

## Verbs

ca'ali'kiht, to make a ca'ali'kih  
 cāhkimühT, to make a cāhkihMÜ  
 caliviht, to make trousers  
 conT, started or commenced  
 connikiwuliht, to make a wooden ball  
 co'piahtT, to make a doll  
 coyikaht, to make a pet  
 cūlinnaht, to make a cūlinnah  
 ha'ahT, to make an olla  
 hahcūṭaht, to make a basket  
 ha'koht, to make a cushion  
 hahpoh'T, to make an arrow  
 ha'uhT, to make a gourd drinking cup  
 hinñüvaliht, to make a grass mat  
 hoahT, to make a basket  
 hoahsa'ahT, to make a plate  
 ho'kit, to make buck skin  
 ho'ommaht, to make a good arrow; a good gentle work horse  
 honT, to make the body  
 hōñT, to marry (a man)  
 huhhulikahT, to get the huhhulikah  
 hū'küt, to get a hū'kü  
 inna'kit, to make an ancient skirt  
 ihpuhtT, to make an over-skirt  
 kalkiaht, to make a sandal string  
 kaihtckaht, to prepare seeds for planting  
 kalihcanniht, to make drawers  
 kāh'T, to make a bow  
 kiht, to make a house  
 ki'aṭa'küt, to make a handle  
 kihcoht, to make cheese  
 kihhoht, to make a kihhoh  
 kihhühT, to get a kihhüh  
 kihkit, to make a plow or a digging stick  
 kiteü'küt, to make a door  
 kiwuhṭT, to make a belt  
 kohcT, to make a nest

<i>Nouns</i>	<i>Verbs</i>
kohtohNI, shirt	kohtonniHT, to make a shirt
ku'kiah, corn with the husks pulled up and hung up for planting seeds; erectio penis	ku'kiahT, to make ku'kiah
kūkūtah, a hanging shelf made of sticks tied together	kūkūtaHT, to make a kūkūtah
kulahNI, medicine (Spanish)	kulanNiHT, to make medicine
kūps, smoke or dust	kūpST, to make smoke or dust
LOmmiaṭa'KŪ, a saddle made of two bundles of grass tied together (Spanish)	LOmmiaṭa'KŪT, to make a grass saddle
māhkar, one who cures without medicine	māhkaHT, to teach one the secrets of curing without medicine
mahkoṭa'KŪ, a rope or a strap to tie two things together	mahkoṭakŪT, to make a mahkoṭakŪ
MANnaṭa'KŪ, a rope or a strap used to hobble a horse	MANnaṭa'KŪT, to make a MANnaṭa'KŪ
maḥṭ, child of a woman	maḥṭT, to give birth to a child
mahteuhṭ, a grinding stone	mahteuhṭT, to make a mahteuhṭ
mayIN, a woven mat	mayINT, to make a mat
miHT'piaH, a cinch used as a stirrup	miHT'piaHT, to make a miHT'piaH
mo'o, head	mo'oHT, to make the head
nawo'rcI, friend	nawo'T, to make a friend
nonhah, egg	nonhaHT, to lay an egg (also applied to human beings)
olah, women's double ball	olahT, to make the olah
ōvih, opponent	ōviHT, to make an opponent
ovi'rcI, awl	ovi'T, to make an awl
ōyir, farm, garden	oyi'T, to make a farm or garden
pahcoh, breast	pahcohT, to make the breast
pahhi, tail	pahhiT, to make the tail
pit, mud, clay for pottery	pi'T, to get clay in condition for pottery making
sihtohLI, syrup	sihtohLiHT, making syrup
sīwo'tah, tassel of down feathers tied on the head	sīwo'taHT, to make a feather tassel
talivihNŪ, twister for making rope	talivINT, to make a talivihNŪ
tahtKŪ, root	tahtKŪT, to become rooted
teuakiah, a net for carrying things on a horse	teuakiaHT, to make a teuakiah
teūṭa'KI, burning coals or charcoal	teūṭa'KIT, to make burning coals or charcoal
teūhho, a cave	teūhhOT, to make a cave
teū'KŪ, mesquite-bean flour	teū'KŪT, to make mesquite-bean flour
teū'kū'tah, race track	teū'kū'taHT, to make a race track
teūoTcI, a man, male	teūoTcIT, to make a man; to castrate a horse
teūpah, a mortar	teūpaHT, to make a mortar

## Nouns

teüh'toh, a rock to hold the cooking jar above the fire  
 teühtonnüatakü, the center pole of a house  
 teüva'ki, clouds  
 u'kücah, a wall put up for a wind-break  
 u'uh, a war arrow  
 u'umhaṭa'kü, the feathers on an arrow  
 ünnikah, property  
 üht'pah, a mat of grass used as a door for the house  
 vähkus, whatever is used to sit or lie on (skin, blanket)  
 vä'oh, wooden tongs for gathering cactus fruit  
 vahteihhoh, a big wooden dish (Spanish)  
 vawünnata'kü, a pole which holds up the roof  
 vahyah, a well  
 vitü'kuht, a pestle for grinding  
 wōhca'kü, pocket (Spanish)  
 wō'kü, a road  
 wo'kücah, a quiver  
 wonnahmi, a hat  
 wo'o, a pond  
 wōht, foreshaft of an arrow  
 wuliwü'kah, a target (a little bundle called a bird or rabbit made of grass, tied with bark)

## Verbs

teüh'tohṭ, to make a teüh'toh  
 teühtonnüataküṭ, to make a center pole  
 teüva'kiṭ, to make clouds (imitations of clouds)  
 u'kücaht, to make a wind-break  
 u'uhṭ, to make a war arrow  
 u'umhaṭa'küṭ, to make u'umhaṭa'kü  
 ünnikahṭ, to use as one's own, to wear  
 üht'pahṭ, to make an üht'pah  
 vähkust, to make a vähkus  
 vä'ohṭ, to make tongs  
 vahteihhohṭ, to make a vahteihhoh  
 vawünnata'küṭ, to make a vawünnata'kü  
 vahyahṭ, to make a well  
 vitü'kuhtṭ, to make a pestle  
 wohca'küṭ, to make a pocket  
 wō'küṭ, to make a road  
 wo'kücaht, to make a quiver  
 wonnahmiṭ, to make a hat  
 wo'ohṭ, to make a pond  
 wōh't, to make a foreshaft  
 wuliwü'kahṭ, to make a target

## D. BY SUFFIX -TCU, TO MAKE FOR

ali, a baby	alITCU, to act like a child, to make a child
aht, the beginning of a basket	ahtTCU, to make the beginning of a basket; to make an anus
ahtohli, atole (Spanish)	ahtohliTCU, to make atole for some one
calihvi, a pair of trousers	calihviTCU, to make a pair of trousers for somebody
cavihuht, a rattle	cavihuhtTCU, to make a rattle for somebody
con, trunk; the starting point	conTCU, to begin
connikiwuhli, a wooden ball used in long distance race	connikiwuhliTCU, to make a wooden ball for somebody
co'piaht, a doll	co'piahtTCU, to make a doll for somebody
ha'ah, an olla	ha'ahtTCU, to make an olla for some one

<i>Nouns</i>	<i>Verbs</i>
hahcūtah, a woven basket	hahcūtahtcu, to make a woven basket for some one
hahkimahṭ, niece, nephew	hahkimmahṭtcu, to make a niece or nephew for some one
ha'koh, a cushion for the head on which to carry baskets or jars	ha'kohṭcu, to make a cushion for some one
hahpoht, arrow	hahpohtcu, to make an arrow for some one
hoah, a sewed basket	hoahṭcu, to make a sewed basket for some one
hoahsa'ah, a plate	hoahsa'ahṭcu, to make a plate for some one
hon, body	hōntcu, to make a marriage for some one (a man)
hū'kū, relation between two women who are married to the same man	hūkūṭcu, to make a hū'kū for some one
ivitahkuṭ, fire drill	ivitahkuṭtcu, to make a fire drill for some one
ka'ammahṭ, grandchild of a woman	ka'ammahṭtcu, to make a grandchild for some one
kairckah, seeds for planting	kairckahṭcu, to make planting seeds for some one
kalihcani, a pair of drawers	kalihcantcu, to make drawers for some one
kāht, bow	kāhtcu, to make a bow for some one
kih, house	kihtcu, to make a house for some one
kihüh, brother-in-law, sister-in-law	kihühṭcu, to make a brother-in-law or sister-in-law for some one
kohc, nest	kohṭcu, to make a nest for some one
kohtohni, shirt	kohtontcu, to make a shirt for some one
ku'kiah, an ear of corn, with the husks pulled up and left on the cob, and hung up to be used only for planting seeds	ku'kiahtcu, to make ku'kiah for some one
kuhṽ, husband	kuntcu, to make a marriage for some one (woman)
kups, smoke	kupstcu, to make smoke, to turn into smoke
liāht, a rawhide rope (Spanish)	liāhtcu, to make a rawhide rope for some one
māhkaī, one who cures without medicine	māhkaīhtcu, to make a medicine man of somebody
mahkoṭa'kū, a rope or strap used to tie things together	mahkoṭa'kūṭcu, to make a coupler for some one
mannāṭa'kū, a rope or strap used to hobble a horse	mannāṭa'kūṭcu, to make a hobble for some one
maṭ, child of a woman	maṭtcu, to help as a midwife
mahteuhṭ, a grinding stone	mahteuhṭtcu, to make a grinding stone for somebody
mayin, a woven mat	mayintcu, to make a mat for some one

*Nouns*

mo'o, head  
 nonhah, egg  
 òvih, an opponent  
 pohcohli, hominy  
 sihtohli, syrup  
 teuṭa'ki, burning coals, or charcoal  
 teü'kü, mesquite-bean flour  
 teü'küṭah, a race track  
 teühpah, a mortar  
 ühc, flint arrow-point; the stinger of insects  
 uhsäkah, a stick used by women in their game of the double ball  
 u'uh, war arrow  
 ünnikah, property  
 vahcah, a woven trinket basket with a cover  
 vahcohmi, a sewed storage basket  
 vahkoh, a small olla, a gourd used to carry water in, a canteen.  
 vāhkus, a mat, skin, blanket, or anything that spreads, used to sit or to lie on  
 va'oh, a pair of wooden tongs  
 vitü'kuṭ, a pestle for grinding  
 wohca'kü, a pocket (Spanish)  
 wo'kücah, a quiver  
 wonnahmi, a hat  
 wohsümmaṭ, grandchild of a man  
 woḥt, the foreshaft of an arrow

*Verbs*

mo'oḥtcu, to make a head for something  
 nonnahṭcu, to impregnate  
 òvihṭcu, to make an opponent for somebody  
 pohcohliṭcu, to cook hominy for somebody  
 sihtohliṭcu, to make syrup for somebody  
 teuṭa'kiṭcu, to make coals or charcoal of something  
 teü'küṭcu, to make mesquite-bean flour for somebody  
 teü'küṭahṭcu, to make a race track for somebody  
 teühpahṭcu, to make a mortar for somebody  
 ühcṭcu, to make a flint arrow-point for some one  
 uhsäkaḥṭcu, to make an uhsäkah for some one  
 u'uḥṭcu, to make war arrows for some one  
 ünnikahṭcu, to make something the property of some one  
 vahcaḥṭcu, to make a trinket basket for some one  
 vahcohmiṭcu, to make a storage basket for some one  
 vahkohṭcu, to make a small olla for some one  
 vāhkusṭcu, to make a mat for some one  
 va'oḥṭcu, to make a pair of tongs for some one  
 vitü'kuṭṭcu, to make a grinding pestle for some one  
 wohca'küṭcu, to make a pocket for something  
 wo'kücaḥṭcu, to make a quiver for something  
 wonnahmiṭcu, to make a hat for somebody  
 wohsümmaḥṭcu, to make a grandchild for somebody (a man)  
 woḥṭcu, to make the foreshaft of an arrow

## E. BY SUFFIX -wuah, TO LET FALL

*Nouns*

aḥt, anus  
 hūrci, finger-nails, toe-nails

*Verbs*

aḥtūwah, to hit with the buttocks  
 hūrciwuah, to hit with the toe, to stumble

*Nouns*

kām, cheek  
 koA, forehead  
 kũteah, semen  
 mo'o, head  
 mũhs, vagina  
 nahkü, ear  
 oh, back  
 sĩhc, elbow  
 sihsũvařakũ, saliva  
 řahkü, nose  
 tařt, foot  
 teihni, mouth  
 um, thigh  
 vihha, penis  
 wõhkũ, stomach  
 wul, eye

*Verbs*

kammũwuah, to hit with the cheek  
 koawuah, to hit with the forehead  
 kũteiwuah, to emit seed  
 mo'owuah, to hit with the head  
 mũhsũwuah, to hit with the mũhs  
 nahküwuah, to hit with the ear  
 õwuah, to hit with the back  
 sihcũwuah, to hit with the elbow  
 sihsũwuah, to spit  
 tahküwuah, to hit with the nose  
 ta'řũwuah, to put the foot in something  
 teinniwwuah, to hit with the mouth  
 ummũwuah, to hit with the thigh  
 vihhawuah, to hit with the vihha  
 wohküwuah, to hit with the stomach  
 wuhhiwwuah, to hit with the eye

## F. BY SUFFIX -KI, TO SHAKE

*Nouns*

a'an, wings  
 aht, anus  
 hon, body  
 mo'o, head, hair  
 pahhi, tail  
 tařt, foot

*Verbs*

annũ'ki, to flap the wings  
 ahta'ki, to shake the buttocks  
 honnũ'ki, to shake the body  
 mo'o'ki, to shake the head  
 pahhi'ki, to switch the tail  
 tařa'ki, to shake the foot

## G. BY SUFFIX -AM, -İM, TO GO TO GET

*Nouns*

hi'i, urine  
 hõnni'kü, wife  
 hũni, corn  
 ihhu'kü, devil's claw (*Marty-  
 nia*)  
 ihu, cactus fruit after it is  
 gathered in the basket  
 ku'a'ki, wood  
 nũ'i, song  
 on, salt  
 piřt, manure  
 pi't, mud  
 tayih'kah, the sprouts of the  
 vāhs plant used in making  
 baskets after being heated  
 (tar, fire)  
 va'i'ki, water after it is put in  
 the jar  
 wuakah, girls' adolescence cere-  
 mony

*Verbs*

hi'am, to go to urinate  
 hõnnim, to go to get married (a man)  
 hũnyam, to go after corn  
 ihhu'kam, to go after the ihhu'kü  
 iyam, to go after cactus fruit  
 ku'a'kam, to go after wood  
 nũ'im, to go to sing  
 onnam, to go after salt  
 piřtam, to go to defecate  
 pi'tam, to go after pottery clay  
 tayih'kam, to go after the vāhs  
 va'ikam, to go after water  
 wuakam, to go to the singing and danc-  
 ing



## H. BY SUFFIX -PI, TO TAKE OFF

The following words are in common use; but, figuratively speaking, -PI can be suffixed to all nouns: that is, to the names of those things which are firmly attached to something else. The name of the thing taken off, with the suffix -PI, indicates that that which was taken off, did not come off willingly, nor easily, but was taken off by force. For example: *honnihPI*, (his) wife taken away. The girl who loves her husband will not willingly leave him, but sometimes the girl is taken away from her husband by her parents. Hence the expression, *honnihPI. mülihPI*, took off the running powers of a man, or of a horse; exhausted, made tired, so that the animal, or man, cannot run any more.

<i>Nouns</i>	<i>Verbs</i>
ho'i, thorn	ho'ihPI, to take off thorns (gathering cactus fruit)
kaitCI, seeds	kaihPI, to take off seeds
kī'KI, tallow	ki'ihPI, to take off tallow
kohMI, back, shell, outside bone	komPI, to take off the back or the shell of insects
mo'ohTKÜ, the scalp	mo'ohTPI, to scalp
nāhkÜ, ear	nāhkÜPI, to take off a part of the ear (ear marks on cattle)
on, salt	onmüPI, to take off salt
o'ohT, sand	o'ohTPI, to take off sand (cleaning seeds)
teu'i, flour	teu'ihPI, to take off flour that is stuck to clothes, etc.
teüwühT, dirt, earth, world	teüwühTPI, to take off dirt (cleaning clothes)
ülita'kü, skin, bark	ülihPI, to take off the bark
üṭah, the inside part of fruit	üṭahPI, to take off the inside part of the fruit
vihho'kü, mesquite-beans	vihho'küPI, to take off mesquite-beans from the tree
vīhpū'toh, the testicles	vīhpū'tohPI, to castrate
wohpoh, the hair on the skin	wohpohPI, to take off the wohpoh

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NOTES ON THE CHILULA INDIANS OF  
NORTHWESTERN CALIFORNIA

BY  
PLINY EARLE GODDARD

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INTRODUCTION

While this fragmentary account of the Chilula probably could be considerably extended and improved if circumstances permitted additional visits to the neighborhood, anything like a complete account would be impossible. Although it is only sixty-five years since they first came in contact with white people, they have ceased to exist as a separate people. In 1906 the northern villages were represented by a family consisting of an aged man, Tom Hill, a son, Dan Hill, and a daughter, Mary Willis, who, while born in Chilula territory, had lived since 1888 in Hoopa Valley. Besides these there were living in Hoopa Valley several Indians whose parents were Chilula but who were themselves born and reared among the Hupa. South of the Bald Hills there were still living a very aged woman (pl. 40, fig. 1) and her husband, Molasses. The latter was a native of Mad River.

Near Bair's was Doctor Tom's family, which included numerous half-breed grandchildren. But the adults of both families had lived for many years at Hoopa before resettling on Redwood Creek.

The information presented here was obtained from Tom Hill and his son and from the wife of Molasses. From these informants were also obtained a number of important texts of myths, tales, and ceremonies.

If a full account of the Chilula were possible, its chief interest would probably be the deviations from the Hupa type of culture, due to environmental differences, and certain transitional features. The Athapascans of upper Redwood Creek and Mad River had a culture dissimilar from the Hupa in many points. It appears that in a few particulars the Chilula shared the culture of the south rather than that of the Trinity and Klamath rivers. Mainly, however, they seem to have been one with the Hupa in language, culture, and political feeling. For this reason it was at first thought unnecessary to devote much time to the study of the Chilula. Since circumstances will probably prevent a further attempt to reconstruct their life, it seems best to publish these notes, of which those on the location of the villages are considered of chief importance.

#### HABITAT

The Chilula<sup>1</sup> formerly occupied a number of villages along the lower portion of Redwood Creek, Humboldt County, California. This stream, which is just too small to be classed as a river, flows nearly straight in a northwesterly direction to within a short distance of its mouth, where it turns westward to the ocean. It is separated from the valley of the Trinity River on the east by a ridge nearly 4,000 feet high, and from Mad River and the coastal plain on the west by ridges from 2,000 to 3,000 feet high.

The valley wall on the west side of the creek is heavily wooded. The forest for the lower third, the portion occupied by

<sup>1</sup> This name, said by Kroeber to be from the Yurok name for the Bald Hills, *tsula*, was applied by Stephen Powers without proper discrimination both to the Athapasean people treated in this paper and to their Yurok-speaking enemies living at the mouth of Redwood Creek.

the Chilula, consists largely of redwood, among which many tan oaks stand. The rather steep slope of the eastern side is broken in many places by the valleys of the numerous small tributaries which are separated from each other by short transverse ridges. The higher portions of these ridges and much of the main ridge are devoid of timber and for this reason are called Bald Hills. The Chilula are locally known as Bald Hill Indians. South of these hills the stream is bordered by a series of flats, on which a number of the more important Chilula villages were situated.

#### NEIGHBORS

The northern neighbors of the Chilula are the Yurok, who occupy the valley of Klamath River and formerly claimed the land several miles back from the river for the purpose of hunting and gathering wild vegetable products. At the mouth of Redwood Creek and along the coast are also Yurok-speaking people known to the Chilula and Hupa as Teswan and their country as Teswanta. To the east along the Trinity are the Hupa, and to the south on the upper portion of Redwood Creek and on Mad River are the Whilkut, both being Athapascan in speech. With the Wiyot of Humboldt Bay the Chilula seem to have had little intercourse.

With the Hupa the Chilula are very intimately connected. There is only a slight difference in dialect. Intermarriage seems to have been frequent for a long time past. The Chilula were welcomed at the Hupa ceremonies from which the Whilkut were excluded. The Yurok of Klamath River were also generally considered friends. The Teswan of the coast, however, were the traditional enemies of the Chilula and the heavily wooded region separating their villages was a place of danger. Toward the Whilkut the Chilula seem to have entertained a feeling of distrust and condescension.

#### HISTORY

The first mention of the Chilula is by George Gibbs, who passed directly through their territory in 1851. His company surprised a party of them on the ridge west of Redwood Creek, where they were probably camped to gather acorns. The men

fled from this camp, leaving the women and children behind. They also left their permanent villages on Redwood Creek on the approach of the party and betrayed their presence only by their signal smokes. Gibbs says of them: "These Bald Hill Indians, as they are called, have a very bad reputation among the packers, and several lives, as well as much property, have been lost through their means. They appear to lead a more roving life than those of the Klamath and Trinity rivers; with the latter of whom they seem, however, to be connected."<sup>2</sup> Gibbs gives Tehō-lo-lah as their Yurok name and mentions the names in the same language of five of their villages.

From the accounts given by the Indians themselves and by the early white settlers it appears that soon after the mines of the Klamath and Salmon rivers were opened in 1850 many travelers with packtrains carrying supplies began passing through the territory of the Chilula, which was crossed by the trails both from Trinidad and Humboldt Bay. Trouble soon arose from the suspicion with which each race viewed the other and the Indians began waylaying the travelers and robbing the packtrains. The white men in turn shot the Indians at sight.

Although there were regular troops at Fort Humboldt on Humboldt Bay and at Camp Gaston in Hoopa Valley, the settlers organized a company of volunteers for which recognition was obtained from the state. This company entered on a campaign of extermination and deportation, a step which the officers of the regular forces refused to take. After operating on Mad River and the upper portion of Redwood Creek, they camped on a flat about a mile north of Thomas Bair's ranch house. Mr. Albers, a settler living a few miles down the creek, was induced to call a council of the Chilula at his house. He did this with some misgivings and only after being assured that the council was for the purpose of establishing peace. He sent out a Hupa Indian who was working for him at the time to call in the Chilula, many of whom, trusting to the word of Albers, assembled. The troops were thrown around them and they were taken as prisoners to Humboldt Bay.

<sup>2</sup> Henry Schoolcraft, *Information respecting the History, Conditions, and Prospects of the Indian Tribes of the United States* (Philadelphia, 1854), Part III, 134.

After some delay, the captives were put on board a vessel and taken to Fort Bragg on the Mendocino County coast, where they were placed on a reservation. There they were indifferently cared for and insufficiently guarded. Although these Indians were 150 miles from their homes, from which they were separated by mountainous country absolutely unknown to them and inhabited by strange tribes whose customary reception of unknown people was hostile, they set out bravely toward the north, traveling by the sun and stars. All went well until they crossed the main Eel River near Fort Seward. There the Lassik Indians attacked them, killing all but one or two. Word of this massacre was brought to Redwood Creek, where there were a number of the Chilula who had not been captured with the others. These gathered a war band in which several Hupa and Whilkut joined. The war dance was held on a mountain west of Pilot Creek. There were seventy men, armed mostly with bows and arrows; a few had muskets. When they reached the villages near the mouth of Dobbins Creek, where their people had been killed, they found them nearly deserted. The few old people discovered there were killed and the war party turned back. While camped near the site of Blocksburg they saw smoke to the east near the base of Lassik Peaks. Scouts sent out reported a large summer camp. This was surrounded about daybreak and the people killed without mercy, neither women or children being spared. Some of the Lassik took refuge under a log, where they were killed and remained unburied for many years. The avengers are said to have made three trips to the Lassik country before they were content.

After this the Bald Hills were avoided by all travellers and the packtrains were sent in by other routes. Mr. Albers, having returned to his farm against the advice of his friends, was killed while plowing. After some years of hostility the agent at Hoopa sought peace. The Chilula agreed on the condition that the Hupa Indian who had summoned them to the council at Albers' house be given them. He was one of the few Hupa who were able to speak English readily and was very friendly with the white people. Notwithstanding this he was sent with a message to Arcata and was killed from ambush by a party of

Chilula who were in waiting, as they assert, according to an arrangement with the agent at Hoopa.

With the exception of one family, the remaining Chilula removed to Hoopa Valley, where several Chilula who had Hupa connections had been living previously. A number of the families living at the northern end of Hoopa Valley are of Chilula origin.<sup>3</sup>

#### CULTURE

The culture of the Chilula does not seem to have differed much from that of the Hupa except in those particulars which were the direct result of environmental differences. The Hupa villages were located on the Trinity River, which for much of the year could be crossed only in canoes. Travel and transportation were largely by water. Redwood Creek is too small a stream to require canoes for crossing or to accommodate them for general travel.

The Hupa took vast numbers of salmon by means of weirs reaching entirely across the stream. Since these weirs required great labor to construct, they were looked upon as community property where any Hupa might come to fish subject to certain conditions. The weirs employed in Redwood Creek were small and insignificant in comparison. They were employed for catching lamprey eels and trout, rather than salmon. The salmon were generally taken in the small branches of Redwood Creek by spears, or at the base of certain natural waterfalls, called *nōle*,<sup>4</sup> by means of nets.

The Chilula are reputed to have surpassed the Hupa as hunters and this may have been the case. The heavy redwood forests to the west were frequented by herds of elk and the half open and half timbered ridges to the east were especially favorable for deer.

<sup>3</sup> Among these is McCan, from whom material published in Hupa Texts, in volume one of this series, was obtained.

<sup>4</sup> The Indian words in this paper have the open vowels unmarked and the closed ones with a macron. Of the consonants, *k* is always glottally affected, *t* is glottally affected, *t* is strongly aspirated, *x* is a surd palatal spirant, *ñ* is in the palatal position, *l* is a surd lateral spirant, and *L* is the same glottally affected.



The permanent houses of the Chilula appear to have been of the same sort as those occupied by the Hupa. During the summer months the Hupa were accustomed to sleep in brush shelters near the villages. The Chilula seem to have regularly left their villages in the summer and fall and to have lived in regular and definitely located camps on the higher portion of the ridges. These camps were near some spring or cold stream and in the neighborhood of some special vegetable food for the gathering of which the camp was maintained. In summer various bulbs and the seeds of grasses were sought. In the fall camps were made for gathering acorns. The latter were especially abundant on the western ridge where the tan oaks grow among the redwoods. For these camps houses of the shape of the winter house, the regular Hupa and Yurok type, were built. No pits were dug, however, and they were enclosed with bark instead of split lumber. This is the material which was used for the permanent houses by the Athapascan people to the south on Mad River.

Sweathouses of the Hupa-Yurok type seem to have been a part of each village and in them the men slept. In addition to these, however, mention is made, in regard to two of the villages, of large circular dance houses. These are common to the south. The sweathouse seems not to have been used south of the Chilula except in one village on upper Redwood Creek.

In the matter of industrial and decorative art no differences are mentioned by either the Hupa or the Chilula. That there were slight differences is probable. These would be, in part, due to different materials available and minor differences in occupation and, in part, to transitions toward the related peoples of the south.

The social and political organization seems to have been of the same sort as that prevailing at Hupa. Each village had a leader who held his position because of his personal character and wealth. Some of these village chiefs because of their personal force of character and bravery had influence and were recognized in other villages. On the whole there appears to have been a surprising lack of political coherence between the various villages. It is difficult to determine what constituted the larger units. That the Chilula were politically distinct from the Hupa

is far from certain. Those who went to the Hupa at the beginning of trouble with white people were received by the Hupa as if they were compatriots, but this may have been due to existing relationship through intermarriages. The division between the Whilkut of upper Redwood and the Chilula is made rather in accordance with the attitude of the Hupa than from any definitely expressed feeling on the part of the Chilula.

In religious practices there were probably greater differences between the Chilula and the Hupa. The religious ceremonies of the Hupa and the Yurok have many local characteristics. They are held at definite places and usually to meet local needs. The Chilula are said to have held White Deerskin dances before the memory of any one now living, but such a dance must have been different from the Hupa ceremony, which was essentially a series of celebrations progressing down the river. In recent years the Chilula seem to have participated in the Hupa ceremonies as guests.

The general myths and the medicine formulas show no noticeable differences from those of the Hupa. Not even are there the different localizations one might expect. The Hupa myths and tales deal with Yurok and Chilula territory almost as frequently as with the Trinity region. The Chilula accounts are equally impartial.

#### VILLAGES

In order to locate the sites of the former villages, Dan Hill, a member of the last family to leave the region, was taken to the Bald Hills. All the sites north of the old Albers place were visited with one exception. The names given below are those secured on that occasion, many of which were afterwards verified by others who were consulted. The names and locations of the southern villages were obtained in 1906 and 1907 from independent sources while passing up and down the stream. Beginning at the north the villages were:

A. Xōwūnnakūt. The site of this village could not be located with certainty.<sup>5</sup> It was probably situated about a mile east of

<sup>5</sup> Center of Section 6, Township 9 North, Range 2 East, Humboldt Base and Meridian.

Redwood Creek on a small flat south of a ridge along which the Trinidad trail used to run. A small creek a short distance south, entering Redwood Creek from the east, would have furnished excellent salmon fishing. A depression resembling those characteristic of sweathouses was seen. Tom Hill's oldest brother used to live at this village, which was deserted many years ago, probably because of its nearness to the trail. This and the following sites are shown on the map in plate 38.

B. Nōlediñ. This former large village remained occupied until 1888, when the Hill family left it and moved to Hoopa Valley. The site is at the foot of a long glade which slopes toward the creek from which it is nearly half a mile distant.<sup>6</sup> A spring north of the village site furnished water. In the edge of the timber, which approaches the village site within a few yards on the north, are two large redwood trees, hollow, with large openings toward the south. In these living trees families used to spend the winter. During our visit in 1906 a rainy afternoon was spent in one of them in which a fire was maintained, the smoke escaping through the high opening in the side.

The village derived its name and perhaps its existence from a nōle, or waterfall, a short distance up the stream. The creek bed was formerly choked with huge boulders, causing a fall, which was jumped by the salmon with difficulty. The fishing for both salmon and lamprey eels, carried on with nets below the fall, was excellent. Since the village has been abandoned several of these boulders have been displaced so that a fall of only three feet remains.

C. Lōteimme. A former village about a mile upstream from the last and seventy-five yards east of Redwood Creek stood in an opening of about an acre.<sup>7</sup> Obscure housepit-like depressions were seen on the north side of the glade near a stream which furnished drinking-water. A weir for lamprey eels used to be built in Redwood Creek nearby.

D. Kiñkyōlai. A large and important former village situated on the eastern end of a ridge above Jonathan Lyons' ranch house and about a mile east of it.<sup>8</sup> There is timber nearby on

<sup>6</sup> Southeast corner of Section 9, Township 9 North, Range 2 East.

<sup>7</sup> Northwest quarter of Section 22, Township 9 North, Range 2 East.

<sup>8</sup> Near the middle of south side of Section 24, Township 9 North, Range 2 East.

the northern slope of the ridge. In the edge of the timber is a spring which furnished the village with water. Besides the sweathouse site, seventeen house pits were counted. This village was the home of the Socktish family, many of whom are now living with the Hupa. The head of the family at the coming of white people was a man of influence and a noted warrior. His name was Kiltel, "crazy." His wife was a Hupa woman and perhaps for that reason the family moved to Hoopa Valley. (See pl. 39, fig. 1.)

E. Kinyûkkyômûña. This site was not visited. It is said to be on the north side of Coyote Creek below a large rock.<sup>9</sup> There are said to be house pits there. Tom Hill said this was the village where the people who lived at Kiñkyôlai spent the colder months of the winter. It is unlikely that two permanent villages were maintained by the same families. Perhaps the site of Kiñkyôlai is the more recent and was formerly only a summer camping place.

F. Yisinniñ<sup>c</sup>aikût. The site of a former village a half mile east of Redwood Creek and about five hundred feet higher than the creek.<sup>10</sup> It is south of the main ridge south of Coyote Creek, at the western edge of a glade near a dry gulch. One pit was found. Tom Hill's father is said to have lived at this village, which was also said to have been unoccupied at the coming of white people.

G. Tsinsilladiñ. A former village not far from Redwood Creek on a small flat where the ground shows signs of having slid.<sup>11</sup> Little Henry's family are said to have lived at this village.

H. Tōndinnûndiñ. A village site on the sloping hillside about seven hundred yards east of Redwood Creek and four hundred yards north of North Fork Creek.<sup>12</sup> Seven house pits were found here. The guide, Dan Hill, did not know of these pits,

<sup>9</sup> Southeast corner of Section 26, Township 9 North, Range 2 East.

<sup>10</sup> Near the southeast corner of Section 1, Township 8 North, Range 3 East.

<sup>11</sup> Southeast quarter Section 18, Township 8 North, Range 3 East.

<sup>12</sup> Southwest corner of Section 20, Township 8 North, Range 3 East.

but located a village of this name considerably nearer Redwood Creek. The Albers place, probably the first settlement in this region, is just south of this village, on a flat between Redwood Creek and North Fork Creek.

I. *Yīnûkanōmittsedīñ*. A former large and important village, often mentioned in myths and tales by both the Hupa and the Chilula.<sup>13</sup> Pits were found on a flat near the creek about one-eighth of a mile southwest of the Hower ranch buildings. Other pits were said to have been obliterated near the middle of this flat.

J. *Xōntelme*. A former village situated on large flat on the east side of the Redwood Creek.<sup>14</sup> The village is said to have stood where the farm buildings formerly belonging to Beaver are located. On account of long cultivation of this flat no pits were seen.

K. *Lōtceke*. A village which stood midway a flat on the east side of Redwood Creek near the stream. House pits were seen on the west side of the wagon road.

L. *Litteūwinnauwdiñ*. The site of a former village situated on a long flat on the west side of the creek.<sup>15</sup> It is surrounded by timber, but receives the sun from the south. Little Henry was living on the east side of the creek at the time, and said it was the home of his father.

M. *Kailūwta'diñ*. Said to have been a large village on a small flat about one-quarter of a mile south of the last mentioned village.<sup>16</sup> There were three or four indications of house pits. A round dance-house, probably of the upper Redwood and Mad River type, was said by Molasses's wife to have been in this village.

N. *KailūwtceñeLdiñ*. A former village which stood at the northern end of a long flat.<sup>17</sup> Two plain house pits, one of them containing stone implements, were seen.

<sup>13</sup> Near southeast corner of Section 31, Township 8 North, Range 3 East.

<sup>14</sup> Southern part of Section 5, Township 7 North, Range 3 East.

<sup>15</sup> Northeast corner of Section 17, Township 7 North, Range 3 East.

<sup>16</sup> Middle of east side of Section 17, Township 7 North, Range 3 East.

<sup>17</sup> Northwest corner of Section 21, Township 7 North, Range 3 East.

O. Sikkiñtewũmitta'diñ. A village at present occupied.<sup>18</sup> It was the home at the time of our visit of Tom, a famous blind medicine-man.

P. Kinnaxõnta'diñ, "Yurok house place." An important former village on a flat bordering Redwood Creek on the east, about one-fourth of a mile north of Tom Bair's ranch house.<sup>19</sup> Four shallow house pits were found. A fight with the volunteer soldiers occurred at this village, in which one Indian was killed.

— Dasũntcakũt. This was given as the name of a village on a slight elevation at the southern border of the same flat. It appears to have been a part of the village of Kinnaxõnta'diñ distinguished by a separate name, as is customary in this region.

Q. Misme. A former village situated near the creek on the east side.<sup>20</sup> Many Indians were killed here by the white people. For that reason perhaps this village was not mentioned by some of the informants.

R. Kaxũsta'diñ. A former village of importance on a flat of about two acres, near the creek level on the east side.<sup>21</sup> Four house pits were found on the north side of the flat and four others in a row about midway of the flat. Two other pits, one of them near the creek, were probably sweathouses. The flat is called "Sweathouse Flat" by white people. This village is considered by the Hupa the last of the villages of the Xõilkũtyĩdexoi, or Chilula. It was the last toward the south from which Indians were allowed to witness the Hupa dances. The Chilula also seem to accept this as their boundary.

#### SUMMER CAMPS

The Chilula seem to have visited certain localities annually and to have established temporary camps there. Not many of these summer camps were visited and the number given below is probably far from complete.

<sup>18</sup> Northwest quarter of Section 21, Township 7 North, Range 3 East.

<sup>19</sup> Southeast corner of Section 21, Township 7 North, Range 3 East.

<sup>20</sup> Northeast quarter of Section 4, Township 6 North, Range 3 East.

<sup>21</sup> Center Section 3, Township 6 North, Range 3 East.

1. Tesaikût. A camp ground frequented in the fall of the year for gathering tan oak acorns and hunting deer by the Indians living at Nölediñ and Kiñkyölai. It is on the northeast slope of the ridge west of Tuby Creek.<sup>22</sup>

2. KitdiLwissakût. A camp used in the fall for gathering acorns and hunting. Situated near the corner of the Hoopa reservation on a glade sloping toward the south near a spring.<sup>23</sup>

3. Yitsinneakûtteñ. West of Nölediñ, about half way up the ridge west of Redwood Creek. The Indians from Nölediñ used to camp there to gather the acorns of the tan oak, which are plentiful among the redwood trees.

4. Lōtsxōtdawillindiñ. A summer camp about a mile and a half east of Nölediñ and a half mile west of the crest of the ridge.<sup>24</sup> A hollow redwood tree used to be used as a camping place.

5. Teitdeelyediñ. A glade on a ridge running toward the east near a branch of Roach Creek, a tributary of the Klamath. This camp was pointed out from a distance and its exact location is therefore uncertain.<sup>25</sup> The Indians used to go there from Nölediñ in the summer to gather seeds and in the fall for acorns.

6. Senalmatsdiñ. A summer camp for gathering seeds. A glade on the south side of the main ridge east of Kiñkyölai.<sup>26</sup>

7. Nūwilsölmīye. A summer camping ground near a cold spring at the head of one of the branches of Coyote Creek.<sup>27</sup> The Indians used to come here from Nölediñ.

8. Miñkûtdekeyimanteñ. A summer camp among the redwood trees across the creek from Albers' place, opposite the mouth of North Fork Creek.<sup>28</sup>

9. Kitteūamedīñ. A summer camp on the west side of the main ridge, about two hundred feet below the junction with it

<sup>22</sup> Probably in the northern part of Section 16, Township 9 North, Range 3 East.

<sup>23</sup> Section 22, Township 9 North, Range 3 East.

<sup>24</sup> Probably in the western part of Section 10, Township 9 North, Range 2 East.

<sup>25</sup> Probably in the northwest quarter of Section 31, Township 10 North, Range 3 East.

<sup>26</sup> Probably in the southeast quarter of Section 24, Township 9 North, Range 2 East.

<sup>27</sup> Northwest corner of Section 32, Township 9 North, Range 3 East.

<sup>28</sup> In the northwest corner of Section 30, Township 8 North, Range 3 East.

of the east and west ridge north of North Fork Creek.<sup>29</sup> There is a spring by a Douglas spruce which stands by itself.

10. *Tewñixaladiñ*. On the western side of the main ridge near its crest.<sup>30</sup> There is a spring in a small flat.

#### LOCAL POINTS OF INTEREST

During the trip through the Chilula territory a number of matters of interest were related in regard to particular localities.

On the crest of the ridge east of Lyons' place, near the regular crossing of the trail to the mouth of Pine Creek, a battlefield was pointed out. An arrowpoint was picked up and they were said to be plentiful thereabout. Peace was made here many years ago between the Chilula and the Indians of upper Redwood Creek. The two parties camped about a mile apart for two days.<sup>31</sup> During this time two men from each party acted as messengers, carrying back and forth notched sticks by means of which the number of strings of dentalia which should be paid in settlement were agreed upon. It was mentioned that some fighting occurred during this time. This seems to have been usual in this region during peace making.

A rocky point on the top of the ridge about a mile northeast of Lyons' house was used as a dancing-place for those who were training to become shamans.<sup>32</sup> Stones were arranged to include a space about four by six feet. Within this a fire was built, around which the candidates danced (pl. 39, fig. 2). Similar dancing places were used by the Hupa for this purpose.

On the crest of the main ridge are three associated objects of mythical and ceremonial interest. There is a depression about twenty feet wide and sixty feet long, evidently a pond in wet weather, as its name, *miñkkûtminnaxōwalđiñ*, indicates. The girls during their adolescence ceremonies used to run around this depression contra-clock wise. A stone on the north side marks

<sup>29</sup> Near southwest corner of Section 15, Township 8 North, Range 3 East.

<sup>30</sup> Middle of the southern part of Section 23, Township 8 North, Range 3 East.

<sup>31</sup> These camps were probably in Section 29, Township 9 North, Range 3 East.

<sup>32</sup> Middle of east side of Section 19, Township 9 North, Range 3 East.



the starting place. If the girl was able to run around once without taking a breath she would be a good basket-maker.

About two hundred yards north is a boulder six feet by four, and about two feet high. It is split into two parts and has a depression near the top. This stone is called Yimantūwiñyai xōtse, Yimantūwiñyai's stone. The culture hero is said to have hidden behind this stone when in passing he observed some maidens digging bulbs on the ridge south. The depression is the mark of Yimantūwiñyai's hand and the crack is an opening which allowed the passage of his member to the distant girls, who were soon surprised to find themselves pregnant. Yimantūwiñyai said that young girls who did not wish children had better keep away from this stone in the future, but that a woman who desired children should sit on it and fondle it. A similar stone near the forks of the Trinity is believed to cure barrenness.

On the south crest of a higher part of the main ridge are a row of stones making a fairly straight line about one hundred and ten yards long. The direction is roughly east and west. The individual stones are about two feet high and eight or nine inches in thickness and width. They appear to be of purely natural origin, being of the thickness of the outcropping strata. Yimantūwiñyai is said to have placed them here to attract the attention of the maidens mentioned above. They were babies at first, or so they appeared to the maidens to be. Yimantūwiñyai said those who cared for him should set up any of the stones which might fall and that the person who gave them this care would become wealthy in consequence. Similar revered stones are found near Tsewenaldiñ village in Hoopa Valley.<sup>33</sup>

On the headwaters of Coyote Creek, not far from a cold spring and a favorite summer camping ground, is a stone called Coyote's cradle. Coyote hollowed this stone out to receive his child, and said that if any one put his child in this depression for only a short time the child would grow fast.

On the crest of the ridge, west of the wagon road, the lower part of a redwood tree rests in the crotch of a large redwood (pl. 41, fig. 1). This is said to be the cane of Yimantūwiñyai,

<sup>33</sup> It was related that a white man had taken some of these stones for a chimney, but that he died before the house was completed.

who left it here as he was passing. Since redwood decays very slowly, the tree may have been in this position for a century, ample time for the myth to originate.

A celebrated Douglas spruce stands on the south side of the ridge which approaches Redwood Creek from the east, on the south side of Coyote Creek. It is known as *neskin ilxûn niltewin*, "Douglas spruce sweet it smells." The tree is about six feet through and is unusually fragrant. The Chilula and Hupa used its branches to smoke their bodies. It gave good luck for salmon, deer, and wealth. There were the remains of a fire at the base of the tree where some passing Indian had smoked himself, although none live within ten miles of the tree. Some twigs carried to Hoopa Valley were eagerly received by an Indian who immediately recognized their source.

A resting place called *mûkkaikildildûnyisxûndiñ*, "June berries stand there," is on the ridge south of the Orcutt farm buildings. It is a customary resting place, but no offerings are made there. No penalty is said to be attached if one passes without resting, although this is said not often to have happened.

Some miles south there is a tree which no one was expected to pass without stopping to shoot an arrow into it. It is said that *Yimantûwiñyai*, coming along here, met some men to whom he proposed that they have some fun. When the men did not understand what was meant, *Yimantûwiñyai* shot an arrow into the tree, using it as a mark.

Another resting place, *kiñwandirdiñ*, "going through the timber place," is on an eminence just south of a low gap in the main ridge. There were formerly two piles of brush at this place representing the accumulated offerings of those passing by. As one put down a piece of brush he addressed the genius of the place, calling him *mannōnakīyauw*, "give him half," and asked for luck in whatever present need he stood. It was also customary to shoot arrows at this place to see to what distance they could be sent. It is said that *Yimantûwiñyai* when passing found some people here, with whom he engaged in a shooting match to see who could shoot the farthest toward an open glade to the north. He was also the first to put down an offering of brush.

On the east side of Redwood Creek about two miles above Nōlediñ the ruin of a fortification was examined. It was quite hidden in the redwood timber which borders the glade south of Lōteimme. A house had been built of large redwood logs put together horizontally in the form of a square, like a log cabin. There were four logs still in place one above the other. The bottom logs, which were the larger, were about one and a half feet in diameter. Loop holes were made between the logs. Dan Hill said the roof, supported by a post in the center, was of split redwood planks. The door in the middle of the western wall was of tan oak planks four inches thick. The floor was about three feet below the surface of the ground outside. A small log-house formerly stood south of the blockhouse and a house had stood near the creek. Among others, Tom Hill lived here for some time in anticipation of an attack by white people. The fortification, which was made during the trouble with white people, was never used. It is probable that this structure was copied from similar ones built by the white people of the region, for the Indians of northwestern California seem not to have used fortifications of any kind.

In 1907 Molasses and his wife were visited and several days were spent in obtaining texts. At the time of our arrival Molasses was away hunting, but he returned during the day. He brought in a large deer with the head still on, the horns being in velvet. The eyes of the deer had been dug out and a withe of Douglas spruce was firmly twisted around its muzzle (pl. 40, fig. 2). The interpreter, O'Haniel Bailey, explained that the withe was to keep the dead deer from smelling. The Hupa customarily puncture the eyes of a deer as soon as possible after its death. The head is usually removed before the deer is brought home, but in this case the head was to be prepared for sale.

## EXPLANATION OF PLATE 38

### CHILULA VILLAGES

- A. Xōwūnnakūt.
- B. Nōlediñ, "waterfall place."
- C. Lōteimme, "small glade in."
- D. Kiñkyōlai, "big timber point."
- E. Kiñyūkkymōña, "big timber near."
- F. Yisinniñ<sup>a</sup>aikūt, "down hill ridge runs on."
- G. Tsinsilladiñ, "bones lie place."
- H. Tōndinūndiñ, "water facing place."
- I. Yinūkanōmittsediñ, "south door place."
- J. Xōntelme, "flat in."
- K. Lōteeke.
- L. Litteūwinnauwdiñ, "dust flies place."
- M. Kailūwta' diñ, "willows among place."
- N. KailūwteeñeLdiñ, "willows project place."
- O. Sikkīñtewūñmitta' diñ.
- P. Kinnaxōnta' diñ, "Yurok village place."
- Q. Misme, "slide in."
- R. Kaxūsta' diñ, "Philadelphus among place."

### TEMPORARY CAMPS

- 1. Tesaikut, "projects to water."
- 2. Kitdilwissakūt, "fire drill on."
- 3. Yitsinneakūtteciñ, "down hill on."
- 4. Lōtsxōtdawillindiñ, "prairie water flows down place."
- 5. Teitdeelyediñ, "dancing place."
- 6. Senalmatsdiñ, "stone round place."
- 7. Nūwilsōlmiye, "ground in billows under."
- 8. Miñkūtdekeyimanteiñ, "lake opposite side."
- 9. Kitteūnamediñ, "its ear swimming place."
- 10. Tewūñxaladiñ, "dung stands up place."



MAP OF CHILULA TERRITORY





EXPLANATION OF PLATE 39

Fig. 1.—Looking north toward Kiñkyölai village. On the left, village site. In center, dancing place.

Fig. 2.—Dancing place for shaman candidates.





Fig. 1



Fig. 2

IN THE LAND OF THE CHILULA





EXPLANATION OF PLATE 40

Fig. 1.—Mrs. Molasses, Chilula woman.

Fig. 2.—Deer's head, treated ceremonially to avoid ill luck in future hunting.



Fig. 1



Fig. 2

CHILULA LIFE





EXPLANATION OF PLATE 41

Fig. 1.—“Yimantūwīñyai’s cane.”

Fig. 2.—Boulder with a depression believed to be the imprint of Yimantūwīñyai’s hand.





Fig. 1



Fig. 2

SCENES OF CHILULA MYTHOLOGY



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## CHILULA TEXTS

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## TRANSLATIONS

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## INTRODUCTION

The texts presented here are the results of an attempt to rescue the folk literature of a disappearing group of Indians.

The first part consists of texts secured from the Hill family, who were the last to leave the Bald Hills and join their kindred in Hupa Valley.<sup>1</sup> Tom Hill, the father, knew many medicine formulas, but, as he claimed, few myths. It is known, however, that the myths and tales of the Hupa were shared by the Chilula of Bald Hills. For the general student the differences between the Hupa and the Chilula of that region are too small and few to be important.

The texts forming the second portion of the paper were obtained from a very aged woman, a native of Redwood Creek, south of Bald Hills, the wife of Molasses.<sup>1a</sup> Her age made the securing of these texts very difficult. She spoke the dialect of middle and upper Redwood Creek. The larger number of the surviving natives of that region were with the Hupa when young and use the Hupa pronunciation. This informant used *k'* where Hupa has *x*, agreeing in this respect with the Athapascans in the region immediately south. She also used *a* for *e* in many words, but this is considered a personal peculiarity. It was impossible to record a complete text directly from her lips. The interpreter, O'Haniel Bailey, a Whilkut, supplied many phrases and sentences. These are Hupa in their phonetics.

To one familiar with the region these myths and tales give it an ancient and supernatural atmosphere. As one passes a particular spot he is reminded that here such a monster used to live, or that these rocks are still the abode of hostile spirits to placate whom certain medicine formulas are used. It is feared that to the stranger this impression can not be conveyed.

## SOUND VALUES OF CHARACTERS USED

- a as in father.
- ai as in aisle.
- e as in net.
- ē as in they, but lacking the vanish.
- ei as in ey in they.
- i as in pin.
- ī as in pique.
- o open o, nearly as in on.

<sup>1</sup> Page 265.

<sup>1a</sup> Her portrait is shown in plate 40 of this volume.

ō as in note.

oi as in boil.

ū as in rule.

û as in but.

y as in yes.

w as in will.

w an unvoiced w occurring frequently at the end of syllables.

hw the preceding in the initial position.

l as in let.

L an unvoiced sound made with the tip of the tongue against the teeth, the breath being allowed to escape rather freely between the sides of the tongue and the back teeth.

L made in the position of the preceding sound, but accompanied by glottal closure. It also begins with a complete contact revealed in a t which closes all weak syllables preceding it.

m as in English.

n usually as in English, but sometimes short, due to a glottal stop following.

ñ as ng in sing.

h somewhat stronger than in English.

' the preceding after vowels.

x a palatal voiceless spirant like ch in German nach.

s as in sit.

e as sh in shall, occurs only after t.

d formed in the dental position; sonant after the release of the tongue.

When it is preceded by a weak vowel a t is heard.

t in the position of d, surd and strongly aspirated, much as in tell.

ť in the position of d, surd, unaspirated and accompanied by glottal closure.

k a surd stop having the contact on the posterior third of the hard palate, when it precedes a front vowel or y; before a back vowel the contact is on the soft palate. It is accompanied by glottal closure giving the sound considerable harshness.

k' a strongly aspirated surd palatal stop. It is found only in the second part of the paper, being used where the Hupa use x.

g has the positions of k as given above. In sonancy it resembles d.

q similar to g, but more noticeably velar.

đj a sonant affricative consisting of the zh sound in English azure preceded by a complete contact.

te an affricative, an sh sound preceded by a complete contact. It is accompanied by a glottal closure in most instances. When the texts were recorded te without glottal closure was not differentiated in writing.

° glottal closure. It occurs in many words where it was not noted.

It is present, probably, in all cases where two vowels are written without a separating consonant.

NOTE.—In the texts each Indian word is translated by an English word or phrase which has been set off from those preceding and following by wide spacing. It is only by accident that the English translation occasionally stands under the Indian word of which it is a translation.

## TEXTS

## PART I

*Obtained from Tom Hill and his son, Dan Hill*

## I. THE WAR WITH THE LASSIK INDIANS

- man<sup>e</sup> tes yai yī nūk ye ū yī nūk xō yīL kūt yī nūk  
 War party went south, way south. Redwood creek south
- kyū wiñ ya in yan na diL ne en hai a' tiñ tes yai hai yaL 2  
 Indians used to live those all went. And
- yō yī nūk kil lūn xō yī nūk na diL ne en kyū wiñ ya in yan  
 way south Killānxō south used to live Indians,
- yī sin teiñ teōñ xō kit teū we Lūk kūw xō ī yī nūk na diL ne en 4  
 lower side Iaqui butte south used to live
- kyū wiñ ya in yan a' tiñ tes yai nō wil lin diñ yī nūk  
 Indians all went. Head of creek south
- hai ya a' tiñ tein niñ yai kyū win tse hai ya 6  
 there all came. They danced. There
- xōs tūn dim min Lūñ sil len siL tiñ xa ūn Lūn teōL tūk  
 sixty there were, bows that many one counted.
- hai ya xa teit kyū win tse La ai xō kyū win tse nes 8  
 Then they danced. One place they danced. Long,
- nis sa tein nū win tik na xō kin nūs na as deL  
 far they made a line. Two places in front they danced.
- hai ya xa djit ūñ kit te its xōte tsiL tiñ miL hai ya xa djit ūñ 10  
 Then they shot, bows with. Then
- yī man dil mit siL tin ne miL kit te its hai ya ha djit  
 white man his guns with they shot. Then
- sa win den na' din me e man<sup>e</sup> gaL na' diñ yis xan 12  
 they traveled. Two in war party was going, two days,
- na' xūL e diñ xoi dū wil lū tai ke<sup>e</sup> Lan mit tsiñ win tan  
 two nights. They began to fight. Taike<sup>e</sup> many their bones lay,
- kyū win ya in yan  
 Indians. 14

- hai yaL kûT man<sup>e</sup> na tes dī yai yī na teiñ  
Then now war party started back from the south.
- 2 xwe nal teL weL a ya de ne dik gyun ûñ tiñ xō il lū  
They spent the night. They said, "Here very used to be  
kyū wiñ ya in yan hai ya hit djit ûñ na te se deL na tse yō  
Indians." Then we went again ahead. That
- 4 e teiñ xō ûL sa nai dil miL dūk kan xa na se deL  
place so far when we had gone ridge we went up.  
xō Lō kōte me hai yī me ûñ gya le nauw teit dil wauw  
XōLōkōtēme in it it was they were living. They were talking.
- 6 me la Lō xō sin me la xō niñ ya lūw hī aL nai yī nūk  
Some of them were laughing. Some of them were crying(?). Then  
back south
- da an nai dī au de na yī na tein man<sup>e</sup> na wit daL hī aL  
we ran. There from the south again war party came along. Then
- 8 kûT xō nat teit tes yai hī aL xoi dū wil lū xōte siL tiñ  
now around them it went. Then they began to fight. Bows  
miL kiL tee xa in ye sa a kit tee xa in ye hai ya hit djit  
with they were fighting. Long time they fought. Then
- 10 yī man dil mit siL tin ne miL kyū wim mūt bau bau  
white man his gun with they shot. "Bau, bau,  
bau dū wen ne hai ya ha djit kûT tsin teL deL nis tan  
bau" it sounded. Then they fled. Log
- 12 sit tan nil lin nūk ka hai yī me ū nō nin deL xō lan  
was lying along a gulch that under they were sitting.  
xūL e dūñ xoi dū wil lū ded kiL tee xa nauw yī tsin  
Morning they began fighting this time they were fighting, west
- 14 nū win a miL kil la dūs tee xō teiñ ye teū wil lai hai ya ha djit  
when it was. Bark to them they carried in. Then  
tee xō wiñ an din dai dō ya xōs le  
they killed all. Missiles become none.
- 16 lū wūn de we nūñ kī ye lū wūñ de we nūñ xō LiL  
One was shot. Again one was shot, his brother  
hiL de ya wen nan sa na wit dit den xōt dan yai miL  
with. They were shot. We started back. When it was going down
- 18 xa aL sa kiL tea xan ye  
that long they fought.



II. PANTHER AND GRIZZLY BEAR<sup>2</sup>

mit kyō tsis dai xōL Liñ hiL na xō xō Liñ hi aL  
 Panther lived his younger brothers with two his brothers. Then  
 kyū win nai da teit te in nauw hi aL a ya xōL teit de ne 2  
 he hunting he used to go. Then he told them,  
 yī tsin dō xa sin nauw lax kyū win nai dau win te hi aL  
 "West do not go up." Just he always hunted. Then  
 a ya tcōn des ne xō ed de hit ûn nō hōL tein ne ke yī tsin 4  
 they thought, "Why does he always tell us? Come, west  
 xa sēL hi aL yī tsin xa is deL ya teñ en ye ū yī tsiñ  
 let us go up." Then west they went up. They looked. Way west  
 kin nōñ a diñ kyū wiñ xoi yan sis ten ei niL kūt da na iL tan nei 6  
 timber at its end old man was lying. On each other (his legs) were  
 lying.  
 xwa êt xō nōñ ai diñ ya nañ ai hi aL a ya de ne yō  
 His wife at his end was sitting. Then they said, "There  
 kyū wiñ xoi yan ke xe nō lan in tsit hi aL hai kyū wiñ xoi yan 8  
 old man come help us pound." Then that old man  
 a dū wen ne xoid da a dōn ne ke xe nō lan in tsit xa  
 said, "What did you say?" "Come help us pound." "Yes."  
 na na wil kyōs mit dje sa an te na win teūw yī sin teiñ yei 10  
 He took down grizzly bear blanket. He put it on. From the west  
 da na xō dū wiñ an xōn ta ya na xōñ an nō na ya nin tse  
 they ran back. House they ran in. They shut the door.  
 sa a ya na wes eL hi aL kūt wil daL tsū e xaix hwa 12  
 Long time they sat there. Then now they heard him coming.  
 "Boys, for me  
 nō tō' tse dō na ya tē tse hi aL kes yai min tsit da kai  
 open the door." They did not open it. Then he climbed up. The  
 smoke-hole  
 ye wiñ yan xwa ya eal kit kiL la xūn kyū win yan<sup>e</sup> 14  
 he went in. To him they gave food. Venison he ate.  
 tein neL ya nē hi aL kī ye xwa ya eal kit tein neL ya nē  
 He ate it up. Then again to him they gave food. He ate it up.  
 hi aL kyū win yan<sup>e</sup> a tin tein neL yan dū wan hai ne en 16  
 Then he ate. All he ate up. Hides that were  
 tein neL yan dī hwe e dō nañ a hi aL a de ne xa nauw daL  
 he ate up. Something was not left. Then he said, "Well,  
 I will go back."

<sup>2</sup> Told by Dan Hill.

- hī aL xwa na ya tē tse dō me wīL kyō dō tce na in dī yai  
Then for him they opened the door. It was not large enough. He  
did not go out,
- 2 xō mit mīL min tsit da kai tee na in dī yai hī aL  
his belly because. Through the smoke-hole he went out. Then  
ye ne kin tew<sup>e</sup>en xōn ta me na de wū men hī aL na ya ūs xa  
he defecated. In the house it was full. Then they carried it out.
- 4 min dai teiñ a tiñ tee na ya niñ xan hai meûk  
Outside all they carried it out that inside.  
na in dī yai kin niñ en na xai kin niñ en a ya xōL teit de ne  
He came back. He brought game. Two he brought. He spoke to  
them,
- 6 yī tsin dō xa sin nauw nō hōL deu<sup>w</sup> ne xō nin na neL mūt  
"West do not go, I always tell you." His face he slapped,  
min dite ne en mit tewan tūL tan xō nin tee niL tik hī aL la  
wildeat. Fox his face he pinched out. Then one
- 8 xūL Le kis tōk hī aL xūL Le dūñ teit tes yai tewō la  
night he flaked arrowheads. Then morning he started. Five  
teit tel ten tsit dūk a na we nai ya des min teûk qal lit sis ten  
he carried quivers full. As he walked along lying
- 10 xō wūn tein niñ yai xō kūt da na dū wīL a na' diñ xō kūt  
to him he came. At him he shot. Twice at him  
da na dū wīL a hī aL a de ne a lō teit de ne dai dañ<sup>e</sup>  
he shot. Then he said, "Alo," he said. "What
- 12 a dil la kûts de dū wīL lai hī aL hai tsūm mes lōn a de ne  
snaps you put in the fire?" Then the woman spoke,  
dil la kûts hūn na nit de wū nal gyañ hī aL nin na as lat  
"Snaps is it, he shot you it is." Then he jumped up.
- 14 te na na wīL kyōs mit dje sa an te na win teūw hī aL  
Blanket he took down, grizzly bear blanket. He put it on. Then  
na xō nes yōt xō mūk ka da na dū wīL al yū diñ hit lai  
he ran after him. At him he shot along. Finally one
- 16 nō in dī yan<sup>e</sup> hī aL hai tsūm mes lōn a de ne mūk kets ta'  
was left. Then that woman said, "Among his nails."  
hī aL hai ya mūk kūt da na dū wīL a ya wū mas sis sel wen  
Then there at him he shot. He rolled over. He killed him.
- 18 hai ya nōn dik  
Here the end.

## III. LOVE MEDICINE—YIMANTUWINYAI

mûk ka na dū wûl a diñ yī dat mit tū wût teit da na na da ai  
 Mûkkanadūwûladiñ above hill stands up

teit teL tewen yī man tiñ wiñ yai hai ya miL tein nūw 2  
 he became Yimantūwiñyai. Then he heard

dik gyûñ yī nûk a yī dūk teL tewen keL san nûñ dō yī neL en  
 here southeast has become a girl. She does not look at

xoi is dai na se ya te teōn des ne hai yaL xûL e dūñ kût 4  
 man. "I will go," he thought. Then in the morning indeed

teit tes yai Lō xō xa te we il ded mûk kai yī da teiñ sai kit diñ  
 he went. Herb he was looking along for this on it from the  
 north. Behold

Lō xal a xō lûñ mit tûn teit dū wim mite a dil la me 6  
 herb had sprung up. Its leaves he took. His hand in

wiñ kai hai ya xa djit hai mûk kût de xa win tan tewō la diñ  
 he rolled it. Then the its root he took out. Five times

a dil la meûk na teL mas hai ya xa djit kē yī nûk a yī dūk 8  
 his hand in it he rolled it. Then southeast

xa is ya yei sai kit diñ ûñ gya ya wiñ a yei teōn xōn nē il en nei  
 he climbed up. Behold he saw she was sitting. She looked at him.

yū diñ hit xō wûn tein niñ yai hī aL xō na ta' deûk 10  
 Finally to her he came. Then her eyes this way

a na teL kyō hei teit den ne nin de hwe dū win tse  
 got so large. "Hei," she thought. "You here me in front of.

a dō mil din xō sin hweik kût nal tsit hī aL kûn na tes dī ya te 12  
 Lonesomeness on me falls." Then "Now, I start back,"

teit de ne xa hwin na naiL tik te ta nan wit ya yei ta nan  
 he said. "Well, wait, I will go with you." She went in the water.

sa a dīn hit xa na wit yai xeL xa wiñ xan hai yaL kûn 14  
 After a long time she came up. Load she brought up. Then indeed

na tes deL mûk ka na dū wûl a diñ yī dat nan deL ei  
 they started back. Mûkkanadūwûladiñ above they came back.

hai yûk a xō lûñ a' dī ya teL kyū win ya in yan nan deL te hai 16  
 "This way it is it will be. Indians will come. This

hwin nes te diñ na xai neūw hai yûk a yī diL win seL te  
 my body he will say. This way it will be hard."

hai yōw hwe hwa ne 18  
 This way only.

*The Prayer:*

- mûk ka na dũ wûl a diñ yī dat na tes sil dit tewen nit Lō we  
 Mûkkanadũwûladiñ above you became, your herb
- 2 hwũ wa kīL tewit hei yûn teit de ne kût dõñ kûn na  
 me loan. "Yes," he said. "Well, all right,  
 hwiñ nis te xõ nis sin xõ lûñ a xõt dī yau e a dũ wen ne  
 my body you know. It has happened you say.
- 4 kût dõñ nũ wa me niL tewit te kûn na hwiñ is te  
 Well, to you I will loan it. All right my body  
 xõn nin sin xõ lûñ hwe en dõñ a de ne dõ Lan hwiñ nis te  
 you know. I it is say not many my body
- 6 ye xõ nē te kût dõñ a diL kit te hei ûñ teit de ne kûn  
 wiL know. Well, take it with you." "Yes," he said. "Now,  
 na tes dī ya te kût a dũw kit  
 I will go back. Now, I will take it."

## IV. LOVE MEDICINE—YIDETUWINYAI

- 8 yī de tũ wiñ yai tee xõL tewē diñ<sup>3</sup> teit teL tewen  
 Yidetũwiñyai Teexõltewediñ came into being.  
 yī dũk tõ nõñ a diñ teõ xõn nũw xõ hwe na wai teit teL tewen  
 End of eastern water he heard of him. His name went about.  
 He came into being
- 10 kī xũn nai kûn teũ wil tewil yī dũk a tõ nõñ a diñ hī aL  
 Kixũnnai young man at end of eastern water. Then  
 xõ wũn tein niñ ya yei hī aL xoi kil lai kī nañ ya  
 to him he came. Then stick game they played.
- 12 a tiñ ka ûn te xõ wũn na niñ an hai yaL na tes dī yai  
 Everything from him he won. Then he started back.  
 tse nũn siñ diñ<sup>4</sup> na in dī yai kī xũn nai kûn teũ wil tewil  
 Tsenũnsiñdiñ he came. Kixũnnai young man
- 14 te teit teL tewiñ xõ lan xõ teũñ xa wiñ yai dũn dañ kit tis se xõ  
 he found had grown in the water. To him he came out. "Who smartest  
 a in te yī sin teiñ na' teL tewen kī xũn nai keL san hī aL  
 is?" West two had come into being, kixũnnai maidens. Then
- 16 teit tes ya yei kī xũn nai kûn teũ wil tewil sa a din hit djit  
 he started, Kixũnnai young man. After some time

<sup>3</sup> The large Yurok village on the north side of Klamath river below Martin's ferry.

<sup>4</sup> The Karok village at the mouth of the Salmon river.

na tes dī yai sai kit diñ de nai sin teiñ na wit dal dau  
 he went back. Really here from the west he went back. "No,"  
 teit de ne dō mit lūn na te dit tse xōn la ai xō xōñ na wit dal 2  
 she said, "we will not open the door." He, really, he went  
 along back.

sai kit diñ xon tceñ a hai aL xa xon ta xōL teit de ne dau  
 Behold their heads were sticking out. Then "Well, house,"  
 they said to him. "No,"

teit de ne kûn nauw dal te na teil yeūw nōñ a diñ na nes dai 4  
 he said. "Now I will go back." Resting place its end he sat again.

na teñ iñ hit sai kit diñ tsū mes lon xō kai yei de xō na teñ en  
 When he looked back really women were behind him. This way  
 he looked,

xō nat ye ū kaL sa wil auw hwil na' dī au le nal diñ 6  
 around himself. Way distant were scattered along, dentalia.  
 Lenaldiñ

na wit dal ei hī aL ai ya xōL teit de ne teit da hwûñ  
 he passed. Then they said to him, "This is the first time

dō me dū win tewiñ hit hai yō na wit dal hai ye he kûn 8  
 you did not like it." That one went on. Nevertheless indeed

na wit dal tee xōl tewe diñ na in dī yai ei na xō xōL niñ ya yei  
 he went back. Teexōltewediñ he came back. Two with him came,

tee xōl tewe diñ hai tsū mes lon dō tein dil ne en 10  
 to Teexōltewediñ the women never used to go out.

hai yō' hwō hwa ne  
 This way only.

#### V. LOVE MEDICINE—YIMANTUWINYAI'S ILLEGITIMATE SON

yī de nin san nōñ a diñ teit tel tewen yī man tū wiñ yai 12  
 Northern end of the world he became Yimantūwiñyai

xō tin tail tewen xō tewō hiL hai ûñ a de ne xōn ta'  
 his illegitimate son his grandmother with. Then he said, "Houses

na se ya te dai dai hai Lō hai te we tewe nē dūñ 14  
 I will go. Where the herb the I became time

hwō nōñ ai diñ tel tewen hwit teiñ teil lūw hī aL  
 by me it grew, to me bring it." Then

a xōL teit de ne yō na kis xūñ hī aL kût teit tes yai kût 16  
 she said to him, "Yonder it stands." Then now he started.  
 Then now

- a del kit hai Lō mûk ka na dūl wūl a diñ<sup>5</sup> tein niñ yai yei  
he carried with himself that herb. Mukkanadūlwūladiñ he came.
- 2 hī aL na tin neōx tee wil lin kai ye teū wiñ yai yū wit diñ hit  
Then Hupa river mouth he entered. After a time  
Le nal diñ<sup>6</sup> tein niñ yai yei hī aL tūn tewin ta diñ<sup>7</sup> yī dūk  
Lenaldiñ he came. Then tūntewintadiñ up
- 4 me is yai mûk kōx yī da teiñ tee niñ ya yei me is diL diñ  
he climbed. Mâkkōx below he came out. Meisdirdiñ  
xōt teū win ya yei teūk qal de yī nûk mûk kai  
he came down. He walked. This south (road) on it.
- 6 teit tin diL e kai<sup>8</sup> yī nûk xa is ya yei da tein nes dai hī aL  
Teittindilekai south he went up. He sat. Then  
teit tes yai lel diñ<sup>9</sup> yī da tein teūk qal lei sai kit diñ  
he went. Leldiñ from the north he walked. Behold,
- 8 xō nin diñ lit na dū wiñ a  
in front of him smoke stood up.  
tai kyūw me<sup>e</sup> xōL wil lil teū sit ten hai de xōL wil lit  
Sweathouse in one was sweating himself. Lies in the water,  
that one smoked himself.
- 10 tee niñ ya ûñ gya xō ed dai de xōt La klūw yī tsin  
He came out. He saw his hair here his hips join down  
xōt dañ eL hī aL xō teiñ tee xan neūw xō teiñ a xōL teit de ne  
it hung. Then to him he talked. To him he said
- 12 xa xōn ta' ye nai iL hī aL kūt ye na win deL ûn te xō lūñ  
"Well, house we will go in." Then now they went in. It was  
nes dai tsūm mes Lon xōn ta meūk hī aL kyū win yan<sup>e</sup>  
sat women house inside. Then old man
- 14 a xōL teit de ne xa tai kyūw ye eL hī aL kūt tai kyūw  
said to him, "Well, sweathouse let us go in." Then indeed  
sweathouse  
ye teū win deL hai yaL xōL xō teū wil lik dō lūñ  
they went in. Then he told him, "Not much
- 16 wūñ nik kyūn na we he ne hwe<sup>e</sup> ûñ tsūm mes Lōn hī aL  
you must think about it. Mine women." Then

<sup>5</sup> Refers to the continued beating of the surf at the mouth of the Klamath.

<sup>6</sup> The junction of the Klamath and Trinity rivers.

<sup>7</sup> A place on Bald hill over which the old foot trail led.

<sup>8</sup> A resting place on Sugar-bowl mountain.

<sup>9</sup> The junction of the main Trinity and the South Fork.

a de ne hwa ûñ a tin diñ hwin naL til tewen tsûm mes Lôn de  
he said, "For me every place in my presence they became,  
women. This

xô wil dûñ na' hwiL niñ yai hai na xai yañ eL ye tiñ hit 2  
several days ago two with me came those two sitting there  
the entrance.

yī nûk a yi man yī tsiñ hai ya ûñ na' hai yûñ tel tewen  
The other side southwest there, two those became,

hai yûñ xa yañ eL de dañ iūw nūw yī dûk a tō din nûn diñ 4  
those sitting there. Now I hear facing the eastern water

na' xût tein nañ na tel tewen hai yûñ na se ya te nūw tsin  
two I hear have become again. Those I will go to, I thought.

ded ke nin nûn ya de dai yis xûñ min sū wil diñ hai yī miL 6  
These now you you go. This standing exit of sweathouse  
with that

hai yûñ hwe miL na iūw hwa dau xōL teit de ne il la  
those I with it I always go." "No," he said to him. "Hands(?)

hwa ne he ne sē ya te 8  
only I will go."

hī aL kût tes yai yī dûk a tō din nûn tein nin ya yei  
Then indeed he went. Facing the eastern water he came.

ya wiñ eL ûñ gya ya kyū wit Lôn a ya xōL teit de ne xa 10  
They sat there. He saw they made baskets. They spoke to him, "Well,

xōn ta xōn ta ye teū wiñ yai tse da dil lūw xûn xai  
house." House he went in. "Stones put on the fire." "Xunnai,

tōn dit tewit hī aL kût tee in deL la aiūw te na xōn an 12  
get water." Then indeed they went out. Really they ran in the  
water.

tee niñ ya hit ye ū yī de' ûñ gya na ya wit me le hī aL  
When he came out way north he saw they were swimming. Then

kī ta aūw hw—teit hei teōn des ne hī aL tewō la diñ 14  
he sang. "hw—teit, well," he thought. Then five times

na tel mas  
he rolled.

hī aL kûn na tes dī ya yei lel diñ na in dī ya yei hī aL 16  
Then indeed he started back. Leldiñ he came back. Then

tais tse mûx xa teit tes yai tein nim meL hī aL xōL tel lit  
sweathouse wood for it he went. He brought it back. Then  
he smoked himself.

- hī aL xōL nōn lit tai kyūw min dai da ya na wes a  
Then he finished smoking himself. Sweathouse outside he sat
- 2 hī aL teit te eñ hit ye ū yī da teiñ ūñ gya ye na nin  
Then when he looked way from the east he saw there two persons
- mūk kūt da nan kis ūt xō yan deL hai ya ha djit xūL e dūñ  
on it blanket spread. They were coming down. Then morning
- 4 hīt djit na tes deL de yī de nin san nōñ a diñ na in deL ei  
then they started back. This northern end of the world they came.
- na' xōL niñ ya yei  
Two with him they came.

## VI. LOVE MEDICINE—THE MT. SHASTA WOMEN

- 6 yī nūk a nin san nōñ a diñ teit tel tewen kī xūn nai  
The southern end of the world became Kixūnnai
- kūn teū wil tewil teit tel tewen nē dūñ xōn nōñ ai diñ  
young man. When he became by him
- 8 tel tewen hai xō Lō we tō din ne hai ya miL  
became the his herb at the spring. Then
- kyū wiñ ya in yan dō teiL tsis xōw teit te eñ min nē djō miL  
people he did not see. In vain he looked. After a time
- 10 a teōn des ne ke xa nē te te hai aL xūL e dūñ teit tes yai  
he thought, "Well, I will look for them." Then in the morning  
he went.
- de de de nōw kūt na teiL yeūw nañ a diñ tein niñ yai  
This sky resting place where it is he came.
- 12 hai ya mūk ka da tewū wiñ en hai aL nin san meūk  
There he shot. Then world inside
- teit teñ en sai kit diñ ūñ gya nin san Lūk gai<sup>10</sup> mik kin ne diñ  
he looked. Behold it was mountain white its base
- 14 xōn ta diñ ye kyū wes a nē a teōn des ne hai ya xō lan  
village (his vision) reached. He thought "There it is
- tel tewen hai aL teit tes yai hai ya tein niñ ya yei  
become." Then he went. There he came,
- 16 nin san Lūk gai mik kin ne diñ xa xōn ta xōL teit de ne  
Mount Shasta its base. "Well, house," they said to him.
- xōn ta ye teū wiñ yai hai yaL a de ne La xō se es tsit diñ  
House he went in. There he said, "Just little while

<sup>10</sup> Mt. Shasta, which is a triangle of white seen in clear weather from the higher mountains in the Trinity river region.



na hwai na tes dī ya te teit de ne hei ya de ne ne ū dil dik te  
I go about. I will go back," he said. "Yes," they said.  
"By you we will go?"

a de ne tsûm mes lon 2  
said women.

hai al kûn na tes dī yai hī al na' xōl tes ya  
Then indeed he started back. Then two with him went.  
yī nûk a nin san nōñ a diñ na in dī ya yei na' xōl niñ ya yei 4  
Southern end of the word he came. Two with him came.

hai ya xwe yal weL hai yaL a ye de ne hai yō tsûm mes lon  
There they spent the night. Then they said, those women,  
niñ ai nin sen kī xûn nai ûñ dō til tewen nin sin ûñ 6  
"You think Kixûnnai it is have not become, you think?"

hei ûñ teit de ne dō dōñ ōw tsit hei ûñ ya xōl teit de ne  
"Yes," he said, "it is not I know." "Yes," they said to him.

dik gyûñ yī de yī dûk tel tewen kī xûn nai hai min nōñ ai diñ 8  
"Here northeast became Kixûnnai. The by him

na' tel tewen tsûm mes lon dō ye neL en kyū wiñ ya in yan  
two became women. They do not see people.

dō tee in dil hai ya teiñ te se ya te mit diL wa 10  
They never go out." "There I will go in turn."

hai ya teiñ teit tes yai xûL e dûñ a de il kit xō Lō we  
There he went in the morning. He took with him, his herb.

hai ya tein niñ ya yei yī de yī dûk hai tsûm mes lon 12  
There he came, northeast the women

tel tewen diñ xa xōn ta xōl teit de ne xōn ta ye teū wiñ yai  
became place. "Well, house," he said to him. House he went in.

hai al a de ne lax se sit diñ na hwai hai yaL kûn 14  
Then he said, "Just little while I stay." Then "Now

na tes dī ya te hai al a de ne ne ū dil tik te xa teit de ne  
I go back." Then they said, "By you we will go." "Well,"  
he said.

hai al kût na tes dī yai na' xōl tes yai 16  
Then indeed he went back. Two with him went.

yī nûk a nin san nōñ a diñ na in dī ya yei na' xōl nin ya yei  
Southern end of the world he came. Two with him came.

hai al a teōn des ne kyū wiñ ya in yan na nan deL te 18  
Then he thought, "Indians will come.

xauw dī ya te La xō gya xa dī ya te hai yūk yī dīL win sel te  
I will do this. Just so it will be. Thus it will be hard,

2 hai de hwit Lō we  
this my medicine."

kūt hai yōw a hwa ne  
Just this way only.

VII. DEER MEDICINE—PANTHER AND WILDCAT

4 kōte mit ta' diñ<sup>11</sup> teit tel tewen min niñ miL Le dil lū<sup>12</sup>  
Kōtemitta' diñ he became, panther

xō kil le hiL hai yaL ūñ min niñ miL Le dil lū La xō  
his younger brother with. Then panther just

6 kyū wūn nai da win te min dite<sup>13</sup> eñ La xō na yiL qōt win te  
always hunted. Wildcat it was just always set snares.

Lax na in dī yai min dite hai xō we tce a xōL dū we ne  
Once he came back, wildcat. The his sister-in-law spoke to him,

8 me tsai tse kil kil hwil la tse dū win tea hai wūñ teit tes yai  
"I feel tired dressing hides; my fingers ache." Because of that  
he went away.

min niñ miL Le dil lū na in dī ya hit dō sit da hai xō kil  
Panther when he came back was not there the his younger brother.

10 xō tsañ a xōL dū we ne dau teit de ne a xōL de ne dōñ  
"It must be you have been saying something to him." "No," she  
said "I said, only

man hwil la tse dū win tewa xōLēde ne  
because my fingers ache," I told him.

12 hai aL teū xō tel xai se nim me tein niñ ya yei  
Then he began tracking him. Senimme he came.

miñ kin ne mit teiñ sai kit diñ tee xūn neūw tse xōn ta'  
Back of the house behold he heard talking, house

14 me teiñ hai aL xa dim min kin diñ xwel weL xūL de dūñ  
in it. Then right back of the house he spent the night.  
In the morning,

ūñ gya tce niñ yai na' niL kūt da na sa an (?) is dits  
he saw he came out. Two on each other lying ropes.

16 se niñ mō kōs tūk xō wūñ tein niñ yai hwe en na me iūw git  
Seniñmūkkōstūk to him he came. "I I am afraid of them.

<sup>11</sup> kōte is a small shrub or tree.

<sup>12</sup> "His face with he kills."

<sup>13</sup> This is the name in general use among California Athapascans other than the Hupa who call him kim miL na tūl teū wūl, "that he walks with round."

- dō xō lūñ xōx kil weûk ûn te teiñ te siñ yai hwe en nañ  
Is it not strange to this you came? I
- me iūw git de nin san hī aL teit tes deL de din nōw kai 2  
I am afraid this mountain." Then they went. This sky
- yī dūk xa is deL ei hai kin nūñ Lūk gai hai ya xō  
up they went up. The deer lick white there
- tein nin deL ei kiñ dō xō len Lō mûnte hai yī miL 4  
they came. Trees were not. Bunch grass with that
- yai kit te its se da ya wil lai hī aL kût tes deL  
a fence they placed. And then it snowed.
- wûn nō na nin deL yī tsin nū wiñ a miL xa is deL ei 6  
They were sitting for it. West when it was they came up.
- kil la xûn Lūk gai xe en deL ei hī aL ta na kin nes yōt  
Deer white went in. Then they drove them out of water.
- na xai kis loi<sup>e</sup> hai ya xa djit nī yûñ kyū wil aL hai ya xa djit 8  
Two were caught. Then they dressed them. Then
- kin nal mats<sup>14</sup> me nō na nin deL hī aL kit ta aūw hai ya xa djit  
with the carriers they went in. Then they sang. Then
- aL da na ya wil mas se nin mûk kōs tûk hai ya nō nin diL Lat 10  
with themselves they rolled it down. Seniñmûkkōstûk there  
they stopped running.
- hai ya xa djit djō kin ne yai kiñ ūw na in di ya yei se nim me  
There, "Come, carry it." He came back. Senimme
- na' kin niñ en na xai kil la xûn Lūk gai 12  
two he carried, two deer white.
- kût hai yûk a hwa ne  
Now, this way only.
- min dite ût en sis len<sup>e</sup> 14  
Wildeat married became.

## VIII. DEER MEDICINE—THE NASLINDIN YOUNG MAN

- nas lin diñ<sup>15</sup> mit ta' kī xûn nai kûn teū tewil teit teL tewen  
Naslindiñ behind Kixûnnai young man became.
- hai ûñ hai ded nin san le ne teū wil tewil hai yûñ kil la xûn 16  
Then this mountain they grew together. That one deer

<sup>14</sup> Deer were usually cut up where they were killed and the meat brought to the village in a carrying basket or frame made on the spot of hazel withe.

<sup>15</sup> A place or perhaps a village near Orleans Bar on the Klamath river.

- wún na wai dō xō kyū wún na neL en hai nin nis san  
he hunted. He did not sleep. He watched the mountain.
- 2 xūL ei miL tee in na hwiit na neL en yit da wit diñ  
Midnight when he went out he looked. Higher  
e il lū we xō lūñ min nē djō xō miL xō kyū wiñ an hai  
it had become. After a time he slept the
- 4 dō xō kyū wún ne en kin na is la le xō lūñ tsūm mes Lon  
he did not used to sleep. He dreamed. Women  
min na is laL xō lūñ hai ye he xūL e dūn tee niñ yai  
he dreamed about. Nevertheless in the morning he went out.
- 6 dō na xō le nē hai leñ ya wil tewiL ne en hai ye he kūt  
It was gone, the grew up with him used to be. Nevertheless indeed  
tee niñ ya xūL e dūn kiL la xūn mit teiñ tee niñ yai de de  
he went out. In the morning deer toward he went out. This
- 8 de nōw kai yī dūk xa is yai hai aL dō wil san kiL la xūn  
sky up he climbed. Then was not seen deer.  
yī dūk a tō nōñ a diñ xō wiñ kya lē tsū  
Eastern water he heard deer snort.
- 10 a teōn des ne hai yōw ō xō lūñ a' dī ya tel kyū wiñ ya in yan  
He thought, "That way it is it will be that way. Indians  
na nan deL te na in dī yai a teon des ne mit Lō we  
will come." He came back. He thought, "Its medicine
- 12 na seL tewin te hai yaL na is tewen hai yaL yōt  
I will make." Then he made it. Then there  
na neL iñ hit sai kit diñ ūñ gya ya nal dīt teiñ xō lūñ hai yaL  
when he looked behold it appeared it had grown up again. Then
- 14 xūL e dūñ tee nin yai de de de nōw kūt xa is ya yai  
morning he went out. This sky he went up.  
ūn te xō lūñ kiL la xūn na te ta a min niñ hai yōw xō lūñ  
It was deer pointed (toward him) its face. "This way it is,
- 16 a dī ya tel kyū wiñ ya in yan na nan deL te xōw deñk  
it will be. Indians will come. In vain this way  
a tī yau he hai hwiit Lō we a dīt teiñ nō nil la de kiL la xūn  
he does this my herb to himself if he has deer
- 18 sis seL win te hai hwin is te diñ na xai neūw  
he will kill this my body he says."  
hai yōw xō hwa ne  
This way only.

## IX. DEER MEDICINE—YOUNG MAN BECOMES A SHRUB

- ded nin san nei djit    kī nūn nai    kūn wil tewil    teit tel tewen  
This middle world    Kixūnnai    young man    became.
- La xō    kīL LA xūn    wūn na wa win te    dō xō kyū wūn 2  
Just    deer    he always hunted.    He did not sleep.
- min nē djō xō miL    xō kyū wiñ ūn xō lan    sai kit diñ ūñ gya  
After a time    he did sleep.    Behold
- kin nas la le xō lañ    tsūn mes Lon    min na is lal    hai ye he 4  
he dreamed,    women    he dreamed about.    Nevertheless
- xūL e dūñ    kīL LA xūn    mūx xa    tee niñ yai    dī de    xūn na  
in the morning    deer    for them    he went out.    This
- teōL sūñ<sup>16</sup>    kīL LA xūñ    yū diñ hit    teit te teit    dō teil sūñ ōx 6  
he sees    deer.    Finally    he became tired    not seeing
- kīL LA xūñ  
deer.
- hai yūñ    a teon des ne    Lō he    nauw dil le    tūn miL lū we<sup>17</sup> 8  
That one    he thought,    "Herb    I will become.    TūnmīLLūwe
- na is dil le    tai kyūw    min dai    da na kyū win xa  
he became.    Sweathouse    outside    it stood.
- sai kit diñ ūñ gya    xō wūn    nūn dūk ke    kīL LA xūn    yō 10  
Behold    to him    they came, deer.    It
- xot dū wil xūts    hē    teōn des ne    kyū wiñ ya in yan    ma  
they ate.    "Hē,"    he thought, "Indians    for them
- nauw dī yau    La xō    kūt    de ōx    a xō la te    kīL LA xūñ    ded 12  
I did it.    Just    now    this way    it will be, deer.    This
- hwin is te diñ    na xai neūw    La xō gya    de ōx    a xō la te  
my body    he repeats    just    this way    it will be."

## X. DEER MEDICINE—RAVEN

- yī nūk a nin san nōñ a diñ    na tel dit tewen    ga tewūñ 14  
Southern end of the world    he became    raven.
- kīL LA xūn    xōw    wūn na ai ya    dō teil sis    yū diñ hit  
Deer    in vain    he hunted.    He did not see any.    Finally
- a teōn des ne    mik kya    te sē ya te    hai    yī man    dit tse 16  
he thought, "From here    I am going."    This    across    pointing

<sup>16</sup> xūn na evidently carries a negative meaning such as "no longer."<sup>17</sup> *Ceanothus velutinus*.

- nō nin tan me dil kūt xūL e dūñ teit tes yai me dil  
he placed canoe. Then in the morning he went. Canoe
- 2 ye teū wiñ yai ta nē djit yī de<sup>e</sup> hai aL me dil min niñ kūt  
he went in. Middle of the water north, then canoe its bow  
Lō xal tewen dō nīs sa xōL wil lal miL na teñ en  
herb grew up. Not far with him when it floated he looked.
- 4 yī dūk ken teiñ ūn te xa in ya kiL La xūñ hai aL yī sin teiñ  
On the east side it was coming up. deer. Then west side  
na teñ en ūn te xa iñ ya kiL La xūñ mùk ka na dū wūl a din  
he looked. It was coming up deer. Mùkkanadūwūladiñ
- 6 xōL tce in lat dei  
with him it floated out.  
na tō nōñ a diñ nai yī nūk nauw dī ya te teōn des ne hai  
"Again water end, again south I will go," he thought, "the
- 8 sūw da ne en diñ na in dī ya yei yī nūk nin san nōñ a diñ  
I used to live place." He came back, south world's end.  
wil weL miL lax niñ xō dū win ne tsū hai yūñ hai  
In the night just on the ground(?), he heard something make a  
noise. That one the
- 10 kiL ña xūñ kī ta yan<sup>e</sup> xa win yōs hai me dil min niñ kūt  
deer were eating. He pulled it up that boat its bow.  
a dim min kin diñ nō kin niñ qōt hai ya mit teiñ a' ya dī yau  
Behind his house he set it up. There toward it they did it.
- 12 kūt de teiL san hai yōw xō lūn teL teōn des ne hai de  
Then he saw (deer). "This way it will be," he thought. "This  
hweiL Lō we a de iL kit de hai yūñ tūn nai kit dil  
my herb if he takes with himself." This one poplar (?).

## XI. DEER MEDICINE—BLACK WOLF

- 14 teit teL tewen nin san dim mente teim me<sup>18</sup> kiL na dil  
He became ninsan dimmenteteimme wolf  
xūL ne wan La xō tsūm mes lōn min na lal win te hai yūñ  
black. Just women he always dreamed about. That one
- 16 a xōL teit de ne yī dūk a tō nōñ a diñ min lūn a lū wūn<sup>19</sup>  
he told, "Eastern water end ten brothers  
teit teL tewen kit tes seōx a ya ūn te xō hwe na ya wai  
have become. Smart they are. Their names have traveled.

<sup>18</sup> "Mountain sharp," a ridge east of Pine creek.<sup>19</sup> The Hupa say LiL Liñ.

hai yûñ a teõn des na na sê ya te hai aL teit tes yai  
That one thought "I will go." Then he went.

yī dûk a tō nōñ a diñ tein niñ ya yei min Lûn xō kin niñ en 2  
Eastern water end he came. Ten places he was carrying.

min Lûn ke de ʼai xō ye wiñ xa na tes dī yai xûL e dûñ  
Ten deer heads under were. He started back in the morning.

deõk aL kō wits xwa xeL ya is tewen na in dī ya yei 4  
This way so little for him load they made. He came back

nin san dim min teim me hai yaL dûn Lûn hwō diñ  
ninsan dimminteimme. Then several times

xwe nal weL miL a xōL teit de ne kī xûn nai ne en xō deL weL 6  
when he had spent nights he said to him, "Kixûnnai are dead."

a teõn des ne ka hwan ne siñ xa a' dī ya te teõn des ne  
He thought, "Well, I knew that it will be so," he thought.

ke nau hwa a de iL kit hai hwit Lō we tein niñ ya yei 8  
"Well, I will go. I will take with myself the my herb." He came

hai ya yī dûk a tō nōñ a diñ xōn min na na wil lin hai aL  
there eastern water end. Fire around they were scattered. Then

a ya xōL teit de ne na sōL diL hai aL hai kī ma ū xwa ya 10  
he said to them, "Get up." Then the medicine for them

win tsit ya xō win lū xa tee nō diL ne kiL la xûn mit teiñ  
he pounded. He rubbed it on them. "Well, you better go out  
deer toward."

kiL la xûn na yaL sūn ya seL wen hai ya man ūn nō xōw lau 12  
Deer they found again. They killed them. "That for I did it,

kyū wiñ ya in yan na nan deL te man hai yō xō diL win seL te  
Indians will come for. This way it will be hard

hai dō hwin nis te nai xai neūw na in dī ya yei nin san 14  
the one not my body says." He came back ninsan

dim men teim me<sup>ε</sup>  
dimminteimme<sup>ε</sup>.

kūt hai yō xō hwa ne  
Now this way only.

16

## XII. MONEY MEDICINE—THE SCABBY BOY

teit teL tewen ke set teit diñ lō ge tse hwa ne min Lûn  
He became kesetteitdiñ scabs only. Ten

xō liñ la xōL tis tee hai yûñ hai xōL tis tee ke wūw 18  
his brothers, one his younger sister. That one the his sister  
without their knowledge

- xwa ke iL kit ke wūw hai xō Liñ xwa ya tsil lai hai ye he de xō  
she fed him without their knowledge the her brothers. They did  
not like him. Nevertheless this way
- 2 tee in nauw la xūL e kit te xauw la xūL hai kit te xauw  
he used to go out. Just at night he used to fish with a net. One  
night the one he fished
- a de ne yō wē yō wē teit de ne hai kit te xauw  
said, yōwē, yōwē, he said the one he fished.
- 4 yū din ne miL a teōn des ne te sē ya te hai yaL kyū win dits  
Finally he thought, "I will go." Then he twisted  
hai kyū win tewōk hai yaL a de ne xūL e dūñ te sē ya te  
that string. Then he said, "In the morning I will go.
- 6 hōit teiñ ye na teōn diL ne hai yaL kūt ye na win deL a' tiñ  
To me let them come in." Then indeed they came in. All  
La a is dits miL xoi kin ne kūt dōñ nōw kya te sē ya te hei  
one string (of money) he gave them. "Now it is from you I will  
go." "Hei,"
- 8 teōn des ne hai yō xōt dañ a ūn te xōw hai yaL kūt  
they thought, "he is smart(?)." Then indeed  
teit tes yai hai ya xō kya teiñ dik gyūn de yī dūk  
he went. There from them here this east
- 10 teit tes yai de hai ya na wai ye  
he went. Now there he is.

XIII. MONEY MEDICINE—KINNAXONTADIN ILLEGITIMATE  
MAN

- kin na xōn ta diñ teit teL tewen tin tail tewen hai yūn  
Kinnaxōnta'diñ he became illegitimate. That one
- 12 a teōn des ne kūt dauw la xō hai ya dai hōw nai yō 'a'e  
thought, "I guess just there something he gets  
hai mil la me kit ta au de xō yī tsin mil la  
the his hand in he sings. This way west his hands
- 14 ya wiL eL hai aL de xō yī dūk hai ya hit djit mil la  
point. Then this way east. Then his hand  
me na des dūk gōt kūt hai yōw xō lūñ a' di ya teL  
in they wiggle. Now, this way it is it will be.
- 16 xōw tin tail tewen teL tewin te hai ye he dī hōw  
Even illegitimate will become. Nevertheless something  
nai wiñ a te teit de ne hai de hōiñ kit ta a' de  
he will possess," he said "this song if he sings."



## XIV. GOOD LUCK MEDICINE—YIDUKATOME YOUNG MAN

- yī dūk a tō nōñ a diñ            teit tel tewen            kī xūn nai  
 Eastern water end    he became    Kixúnnai
- kūn teū wil tewil            teit te wes tewen ne dūñ            xō nōñ ai diñ    2  
 young man.    When he became    by him
- tel tewen    hai    xō Lō we    dik gyūñ    yī nūk kai yī man yī tsin  
 became    the    his herb.    Here    southwest on the other side
- na'    tel tewen    tsūm mes Lon    hai ya teiñ    na ī ya    4  
 two    became    women.    There    he used to go.
- na ne it dau hwit miL    a dū wa nūn de e tewit    hai    xō Lō we  
 When he used to come home    he used to wash himself    the    his herb
- miL    hai ye he    kiL La xūn    a ūl lū    na' dī yau    kūn na    6  
 with.    Nevertheless    deer    he killed.    Money    also
- xa ūl lū  
 did the same.
- hai yōx    xō lūn tel    teō ōn ne    hai ded    hwit Lō we    8  
 "This way    it will be,"    he thinks.    "This    my herb
- a dit teiñ    nō nil la de    xōw    xa a tī ya te    hai de    hwit Lō we  
 to himself    if he takes    even    it will do that    this    my medicine."
- hai yūk a hwa ne  
 This way    only.

## PART II

*Obtained from wife of Molasses*

## XV. THE COMING OF INDIANS

- dik gyũñ yī de<sup>e</sup> nin nis san nōñ a diñ na tel dit tewen  
Here north world end he came into being
- 2 yī man ne kyū wiñ xoi yan<sup>20</sup> hai ya miL ũñ min nē djō xō miL  
Yimannekyūwiñxoiyan. Then after a time
- a teōn des ne da xō ed dūk kyauw kyū wiñ ya in yan na diL te  
he thought, "How people will they become?"
- 4 hai yaL ũñ tsū mes lōn na wai ye hai ya miL ũñ mit tein  
Then woman was walking. Then toward her
- teit tes yai miL ne se tin te teōn des ne hai yaL kūt  
he started. "With her I will lie," he thought. Then indeed
- 6 miL tein nes ten hai yaL teit tes yai ta nan me dū win tewen  
with her he lay. Then he started on. Water he wanted.
- wūn nō in dūk kait te sil len hai ya miL ũñ teūk qal lit  
For it he was nearly falling down. Then as he walked
- 8 sai it diñ ũñ gya nil lin se hai ya miL ye- tse dī ya ka  
behold it was he heard a creek. Then "ye— I am glad. Well,
- tauw dīn nūn te nil lin lax ye teū win k' ũts se k' ũn  
I will drink." Creek just he fell in. Water stood there.
- 10 teit te tōt teit te tōt teit te tōt nis tan xō sa wūw xauw hwil  
He drank. He drank. He drank. Log his mouth floated in.
- hai yaL ya wiñ k' ũts teit teit de xōw wil weL ei  
Then he fell over. He thought he was dead. It was morning
- 12 dō tee nal tewin xō  
he was not yet restored.
- min nē djō xō miL ga teũñ dū win ne se hai yaL ũñ  
After a time raven he heard make a noise. Then
- 14 a teōn des ne is dō hwik kyan min nōi yīL dik hai ya miL ũñ  
he thought, "I wish my belly he would pick open." Then
- <sup>20</sup> "The other side old man," used by the Hupa as a name for Yimantūwiñyai.

- hai mûk ka min noi yil dik hai yaL ûñ phû dū we ne  
that one on it picked it open. Then "Phû" sounded
- ta nan kī ye xa a na nū wes te nañ xa 2  
water. Again it was as before. Water lay there.
- hai ya miL ûñ in na na is dûk ke teit tes yai yī nûk  
Then he got up again. He started south.
- hai yaL ûñ a teōn des ne is dō dûñ hwe e xō we ke xe 4  
Then he thought, "I wish somebody would be(?)."
- kiñ ye kût na da ai hai ya miL ûñ ye iūw hwa hai ya miL ûñ  
A hollow tree stood there. Then "I will go in." Then
- xō teiñ a le nûl dit tewen hai ya mit ûñ a teō in ne is dō 6  
in front of him it grew together. Then he kept thinking, "I wish
- dai hwe e ai la hai ded kiñ ye kût hai mûk ka ûñ gya  
somebody would do something." This hollow tree that  
on it he heard
- na neL waL hai yō kût teiñ a le nûl dit tewen ne en 8  
he was pounding. That in front of him it had grown together.
- dik gyûñ yī na tein yī da tein miL wūw hwal auw ten  
"Here south east from I came I am.
- hwin nal ûn dī yau al lûn xō a we nel hai ya miL ûñ 10  
In my knowledge you did it. Very many places it has happened." Then
- tee na in dī ya  
he came out again.
- hai ya miL ûñ teit tes yai yī nûk teit tes yai yī 12  
Then he started on. South he started. There
- teûk qa le hai ya miL ûñ ûñ gya me dil na dûk kait de  
was walking. Then he perceived canoe was floating about.
- tsū meL lon na nin yañ ai hai ya miL xauw dī ya te 14  
Women two sat up. Then "I will do that,"
- teōn des ne hai ya miL ûñ te teū wil lū me dil mī ye  
he thought. Then he dived in the water. Canoe close to
- xa wil lū hai yaL me dil le me ye teū win yai xōL ya nes tete 16  
he came up. Then canoe in it he went in. He lay with them.
- hai ya miL ûñ kût teûk qal teit tes yai yī nûk  
Then indeed he walked. He started south.
- teit ten iñ hit yō yī nûk na dil le xō is dai xōL tis tee 18  
When he looked way south were walking man his sister.
- hai yaL ûñ ta wiñ yai hai yō xō Le wa ta wil waL  
Then he waded in. These his pubic hairs he threw in the water.

- hai yaL xō kai ye ye wil lat lai xō ta na is de xūts lai  
Then her thighs they floated in. Just she staggered out again. One
- 2 yis xa nei nik kya' xō dū win teat hai yaL ûñ a xōL teit de ne  
day very much she was sick. Then she said to him,  
xōL xō lik te tau tsañ a in te teit dē ne hai ya miL ûñ  
"Tell him. Medicine man may be he is," she said. Then
- 4 teō xō niL ten hai ya miL ûñ kūt xōL teū wit di yen  
he brought him. Then indeed he doctored her.  
hai yaL ûñ a dē ne hwe eñ kyū wiñ in yan del se diñ  
Then he said, "I people where they sit
- 6 dō ke dūw ai hai ya miL ûñ a' tin tee niñ yai hai  
I do not doctor." Then all went out. The  
kiñ keL sai ke na win fan da xō ed dik kyauw a xō la xōL  
sapsucker stuck on(doorpost). How he did to her. With her
- 8 tein nes ten ya na win tan xō Le wa hai ya miL na xō xūL nai  
he lay. He took out his pubic hairs. Then he restored her.  
xe ye ge ciL ye ge ciL dū wē ne miL na na is tañ hit  
"xeyegecil yegecil," he sang. With it he took them up.
- 10 hai ya miL ûñ teit tes yai yī nūk djē na da na wai ye  
Then he started south. Above was walking on (trees).  
xō ye tein niñ yai ye na nūn dac nit teiñ xūn neuw yeuw  
Under her he came. "ye, come down. To you I will talk."
- 12 xo ed di nañ a hwiL lau te lit a hwiL de ne hai ya miL ûñ  
"What you will do to me, do you say to me?" Then  
na na wit yai hai ya miL ûñ xō tein ye teū win lat  
she came down. Then to her he ran.
- 14 hai ya miL ûñ de kūt dōñ a nūw hwin niñ is dō  
Then "This it is I will do. I want  
kyū wiñ ya in yan na nan del nūw siñ hit auw ten  
people should become, because I think I do it."
- 16 hai ya miL ûñ mik kya in na na is dūk ke win te teit tes yai  
Then from her he got up again. He started on.  
sai kit diñ ûñ gya kyū wiñ ya in yan ta kin na wai ye  
He was surprised to see people three walking.
- 18 kūt dōñ nō naL niñ ai nū win sen is dō kyū wiñ ya in yan  
"Indeed in our knowledge you think I wish people  
na nan del nū win sen hai ya miL ûñ yūL kyō we diñ  
would become you think. Then everywhere

- deúk a' dī ya te kyū wiñ ya in yan na nan deL te niñ  
 this way it will happen. People will become. You
- hai ma ûn dī yau ûl kyō we diñ nin nis san xūs tûñ 2  
 the first you did it. Everywhere earth around
- na nan deL te kyū wiñ ya in yan tsū mes lon hiL  
 they will become. Indians women with
- liL na wit diL te niñ man a nûn dī yau hit ma il ne sin tiñ hit 4  
 they will live, you first because you did it. First because  
 you lay with them,"
- xōL teit dē ne a' tin diñ tsū meL lōn dō wa te siñ ya hit  
 he said. "All places woman not by you went.
- hai yaL ûñ hwe dōñ ma ai ne sin hai ya xat dōñ 6  
 Then I indeed first I thought, then indeed
- kyū wiñ ya in yan na nan deL te ne siñ kyū wiñ ya in yan  
 Indians will become I thought. Indians
- wit yûñ il miL xō hwa win neL te hai ya miL ûñ na la 8  
 grow old when they will die. Then others
- wil tewil na tū wil dit tewin il te hai yûk miL nin nis san  
 will become. One after the other they will become. This way  
 with world
- sa ûn te hai yûk ke miL kyū wiñ ya in yan na diL te 10  
 will be. This way with Indians will live.
- hwe kût ne siñ hit kyū wiñ ya in yan ma na na ya te  
 I indeed I thought it. People for he will come down."
- hai ya miL ûñ min ne djō xō miL a teōn des ne te se ya te 12  
 Then after a time he thought, "I will go."
- hai ya miL ûñ min ne djō xō miL a ya xōL teit dē ne yō  
 Then after a time they said to him, "Those
- nin mit dje ē din ne ya xōL teit dē ne hai ya miL ûñ a dē ne 14  
 your children," they said. Then he said,
- hwe dōñ hwim mit dje ē din ne dō nūw sin kût dōñ  
 "Mine it is my children I do not think." "Truly
- nin mit dje ē din ne xow dōñ dō hūn na ne hwe ai ne siñ 16  
 your children I think." "Yes, mine I think,
- dō hūn na hwim mit dje ē din e  
 yes my children."
- hai ya miL ûñ kyū wiñ ya in yan mit ta' diñ teit tes yai 18  
 Then people among he started.

- kût hai hwe a teōn des ne na seL tewin dō xūn na  
 "Indeed the I," he thought, "I will make them again truly."
- 2 hai yaL ûñ hai teit tes yai kût ka ū hwaL te hai yaL ûñ  
 Then he started on. "Well, I will go. Then  
 hwe ai ne siñ kyū wiñ ya in yan na na deL te dō xō liñ  
 I think, People will become. It will not be
- 4 Lûn xō ûn LiL ne dō xō liñ Lit dit Lan dō xō liñ  
 they will quarrel. It will not be they will hate each other. It will not be  
 Le de ai Lit tit lōs hwe hai ai ne sen dō xō liñ na hwaL la diñ  
 they will drag one another about, I that, I think. It will not be  
 I have done (?)
- 6 a na ten hwe miL dō xō liñ Lûn hwaL ai i diL en  
 they will do again. Me after it will not be they will quarrel  
 Lai teL tewen  
 brothers."
- 8 hai ya miL ûñ kût teit tes yai teûk qal dōñ  
 Then indeed he started. He walked along. "Indeed,  
 hai dai dit diñ nō nē ya te hai ya miL ûñ da nauw di ya te  
 the some place I will go to. Then I will turn back."
- 10 hai ded a teōn des ne kût dōñ wûñ xwe kyûñ nañ yai  
 This he thought. Indeed he considered it.  
 kyū wiñ ya in yan na nan deL te hwe hai ai ne sen  
 "People will become. I that I think.
- 12 kyū wiñ ya in yan na nan deL te a win neL te yī nûk  
 People will become it will be south  
 nin ne san min nē djit wûL kûs tein ne wan hai yaL dōñ  
 world middle a little one side." Then indeed
- 14 a teōn des ne xan Lûn din hwin nō da ne yī hai te sē ya diñ  
 he thought, "How many my return the place I came  
 miL hai ya miL wūw hwaL te dik gyûñ yī nûk a nin nis san  
 from. Then I will go. Here south world
- 16 nōñ a tein nē ya te hai ya de da nauw di ya te teōn des ne  
 end I will come. From there I will turn back," he thought.  
 teûk qal teûk qal teûk qal na nin na wai ye ûñ gya  
 He walked, he walked, he walked. Two were traveling he saw.
- 18 hai yaL ûñ a teōn des ne kē xō wûñ ya nūw hwa teōn des ne  
 Then he thought, "Well, to them I will go," he thought.  
 teañ a tein teis yē na hai ya miL ûñ a xōL teit dē ne  
 At one side they stood. Then he said to him,

- dai de hwũñ mit teiñ wiñ yal na tin dauw dai de  
 "Why toward it do you go? Go back. Why
- mit teiñ wiñ yal nin dō Lan tein ûn te dō nin yauw hwũñ 2  
 toward it do you go? Your bad deeds you did. You must not come.
- da dō Lûn ûn te a Lûn kit dū wûn hwō lik na tin ya ne ha  
 Many things very many they tell me. Go back."
- dau kût dōñ wūw hwal yō yī nûk kûn dũñ sē liñ 4  
 "No. Indeed I will go. Way south near I am.
- hai nē ya tel de mik kya na diñ yis kan de wūw hwalx  
 There I am about to come. This from it two days I will come back.
- kût nē ya te hai ya miL ûñ kût a de kût na tes dī ya te 6  
 Indeed I will come back. Then indeed of myself I will start back.
- kûn nē ya te  
 Soon I will get there."
- yī nûk teit tes yai yī nûk teûk qal na nin kin na dī da ye 8  
 South he started. South he walked. Two were gathering something.
- hai ya miL ûñ xō wũñ nūw hwa kût tein k'ûn nūw yeuw  
 Then "To them I will go. To them I will talk."
- hai ya miL ûñ hai ya xō teiñ teûk qal xō wũñ 10  
 Then there to them he walked. To them
- tein niñ ya dai de mit teiñ wiñ yal nit dōñ Lûn wûn  
 he came. "Why toward it do you walk? Your bad deeds
- nū wa ya xō lik hai ya miL ûñ kût dōñ yī nûk ke wūw hwal 12  
 they tell." Then, "Indeed south I walk.
- dō nō' djin wūw hwa hai yō nē ya tel diñ  
 Not your concern I walk the I am about to come place."
- hai ya miL ûñ teit tes yai yī nûk teûk qal ye ō 14  
 Then he started south walking. Far
- ũñ gya Lū wûn nin teis yiñ hai yal ûñ a xōL teit dē ne  
 he saw one alone standing. Then he said to him,
- hai wiñ yal diñ kauw Lûn sis da kût dōñ hai ye he 16  
 "The you are going place many live." "Well, nevertheless
- wūw hwal hai ya miL ûñ teûk qal tak xōn ta sa an  
 I will go." Then he walked. Three houses stood.
- kût tein niñ yai hai ya miL ûñ lai xûn na sis da ne 18  
 Indeed he came there. Then many truly lived there.
- hai ya miL ûñ a xōL teit dē na dai dūk kyũñ miL wiñ yal  
 Then he said to him, "From where did you come?"

- dō xō liñ kiL we ak ûn dī ya ke nauw a nū win siñ ûñ  
It will not be unusual things you will do, you came did you think?"
- 2 hai ya miL ûñ yin nûk a nin nis san nōñ a diñ  
Then south world end  
tein niñ yai hwe La xō nauw hwa ne siñ hai ya miL ûñ  
he came. "I without cause I travel," I thought. Then
- 4 a xōL teit dē ne nal weL te yis xûn de na te sin dī ya te  
he said to him, "Spend the night. Tomorrow you will start back.  
yō hweL tis tee niL teit tes ya te hai ya miL ûñ yis k'ûn  
That my sister with you will go." Then next day
- 6 na tes dī ya kût xōL tis tee kût xō wal ten k'a at  
he started indeed. His sister indeed he took. His wife  
sil len hai ya miL ûñ na tes dī yai kyū wiñ ya in yan  
she was. Then he started back. "People
- 8 na na dil sel tewen nū hwōnk auw la na tes del  
become I made. Well I did." They went back.  
xe na yal wil wit dil kût yī nûk nē ya ye teit dū win nel  
They spent the night. They went along. "Indeed south I came,"  
he kept telling them.
- 10 hai yûk xe na yal wil ta' teō xō wil lik il hai ya miL ûñ  
This way where they spent the nights he told them along. Then  
na wit dil a kût min nē djō xō miL ûñ gya kyū wiñ ya in yan  
they went along. After a time he saw people
- 12 xût Le dûñ wûn na dil le na tewai ye de xō ed ded iñ  
in the morning going out for it they were burying. "What  
ai nū wiñ sin da xō hwō ai it dī yau miL nauw dal te  
you think, some way when it has happened I will go along,
- 14 nū win sen  
you think?"  
na tes dī yai da na wit dal a kût yī de na wit dal lit  
He went back. He was going back, north. When he was going  
along
- 16 ye win nai kit dil ye Lan na wai ye hai ya miL ûñ  
they were traveling, many were traveling. Then  
na wit dal a kût yī de hai sis da teiñ na wit dal a kût  
he went along north the toward where he stayed he was going along.
- 18 sa a na sin ya kût hei ûñ teit dē ne kûn diñ a na na hwai  
"It is a long time you are coming back." "Yes," he said.  
"Close I come back."



hai ya miL ûñ na wit dal na wit dal hit na nin sis ye nē  
 Then he went along. As he went along two were standing.  
 ka xō liete nan daL nō wûn kit tein ya sil len hai ya miL ûñ 2  
 "Well, quickly, go back. About you they are worried." Then  
 na wit dal na wit daL hai sis da diñ teit tewe tse xō wûñ  
 he went along. He came the he lived place he heard them  
 crying. For him  
 ya tewe kyū wil tē ya teōn des ne na in dī ya hit xō nis te 4  
 they were crying. "He is dead," they thought. When he came  
 back their bodies  
 ya xō nūw nō nauw nin ya ye hai yaL ûñ na wil dal hai  
 were glad. He came back with a wife. Then he went back. The  
 kyū wiñ ya in yan na nan deL ûL kyō we diñ 6  
 Indians had become everywhere.

## XVI. THE TWO-HEADED MONSTER

yō yī nûk kit tûn na da a diñ<sup>21</sup> sis dai hai ya miL  
 Way south Kittûnnadaadiñ he lived. Then  
 diñ kin a na a lū wûn na tel dit tewen hai ya miL la ût 8  
 four people brothers came to be. Then one  
 dō ī kyū wil le xō an lûñ na tel dit tewen hai ûn  
 old woman, that many came to be. Then  
 min ne djō xō miL a teōn des ne yō yī de<sup>e</sup> na hwa xō tein 10  
 after a time he thought, "Here north I will go." Right  
 na tse na wai xō kyûñ xō len hai teit tes yai na tse  
 first born, sensible he went first.  
 hai ya miL teûk qal xōn tel me<sup>22</sup> dik gyûñ hai teit tes yai 12  
 Then he went Xōntelme here, he went.  
 hai ya miL xō la diñ<sup>23</sup> yī de Lō dai kyō xûl la tein niñ yai  
 Then Xōladiñ north Lōdaikyōxûlladiñ he came.  
 teûk qal yī de ye teū wiñ yai xō mit kyan diñ<sup>24</sup> yī de 14  
 He walked, north he went in. Xōmitkyandiñ north

<sup>21</sup> "Maple stands place," where Thomas Bair's dwelling now stands. Evidently an old village site.

<sup>22</sup> A former village near Beaver's buildings.

<sup>23</sup> A prairie beyond Beaver's where the schoolhouse used to stand.

<sup>24</sup> A place south of Hower's place.

- tee niñ yai hai ya miL hai ya yī de sa ōl kûts diñ<sup>25</sup>  
 he came out. Then there north Saōlkûtsdiñ
- 2 yī tsin tee niñ yai hai ya miL hai ya xōn ta sa an ne en diñ  
 west he came out. Then there house used to stand place
- tee niñ yai hai ya teūk qal a kût hai ya miL hai ya  
 he came out. There he walked along. Then there
- 4 nil lin tee na niñ yai miL xō ed dik kyau ai dū wen tse  
 creek when he came out something he heard make noise,  
 yī man yī dūk hai ya miL yī de teit tes yai kim mel le  
 across up the hill. Then north he went. Leaves and branches
- 6 tes deL sil len  
 were falling.  
 hai ya miL a teōn des ne kil we ak ai dū wē ne hai ya miL  
 Then he thought what kind made the noise. Then
- 8 yī da tein ûñ gya nak' xō kōs na da ai hai xō lan  
 from above it was Two-necks-stand-up. That it was  
 na xōn nes yōt de yū wit diñ hit xō yete tein yai  
 chased him about. After a time his breath went out.
- 10 da xō ī hwa a xō la te sil len yū wit diñ hit kût xō yete  
 He was about to die. After a time then his breath  
 tein yai dai xoi hwō a xō lau teō k'ō saL wen hai ya miL  
 went out. He died. He killed him. Then
- 12 yī man a yī dūk teō k'ō tes wen hai ya miL teō k'ō nin en e  
 across up he carried him. Then he brought him  
 hai yō sis da diñ mûk ka na xa nal da a da min e hai  
 that place he stayed. On it there was growing moss, the
- 14 xon ta hai ya miL kyū win ya in yan teit tan ai yan te  
 house. Those people they eat they were  
 teit deL se  
 they lived there.
- 16 hai ûn dō na in di yai hai ya miL xō tee kit tein ya sil len  
 That one he did not come back. Then they were worried.  
 yis k' ûñ hit lū wūn teit tes yai xō tee et tein sil len  
 The next day another one went. They were worried,
- 18 yō yī nûk a teiñ kit fūn na da a diñ hai ya miL teit tes yai  
 here south Kitfūnadaadiñ. Then he went.

<sup>25</sup> "Stones fell place," hill south of Hower's.

- hai ya miL yis k'an kī ye hai ya miL a teōn des ne  
 Then it was day again. Then he thought.
- xō tee e tein sil len kōs da tee k'ō lin diñ<sup>26</sup> xōs tate tañ a diñ 2  
 He was worried. Kosda Teekōwindiñ Xōstatetañadiñ
- hai yī na teiñ teūk qal hai ya miL teūk qal hai ya miL  
 the from the south he walked. Then he walked. Then
- kai lūw ta' diñ yī na teiñ tce niñ yai hai ya miL hai 4  
 Kailūwta'diñ from the south he came out. Then the
- teit tes yai yō yī na teiñ Lō teē ke<sup>27</sup> hai ya yī na teiñ  
 he went. Here from the south Lōteēke there from the south
- teūk qal hai ya miL mik kya yī na teiñ teit tes yai 6  
 he walked. Then from there from the south he went. Then
- hai ded teūk qal tse de mente<sup>28</sup> yī na teiñ teūk qal ded  
 this place he walked, Tsedemente from the south he walked. This
- ta is diL diñ yī de teūk qal hai ya miL hai xōn tel me 8  
 crossing north he walked. Then Xōntelme
- yī de teūk qal hai kai lūw san diñ yī dūk xa is yai  
 north he walked. Then Kailūwsandiñ up he went.
- hai ya miL yī de xōt da wiñ yai nil lin na nin yai 10  
 Then north he went down. Creek he crossed.
- hai ya miL yī de teit tes yai kūt Lō dai kyō xō la diñ  
 Then north he went. Indeed Lōdaikyōxōladiñ
- tce niñ yai kin nas tan mī ye yī de ye teū win yai hai ya miL 12  
 he came out. Kinnastanmiye north he came in. Then
- hai nil lin na niñ yai hai ya miL mik kya yī de  
 the creek he crossed. Then from it north
- teit tes yai kūt hai yaL ūñ xō mit kyan diñ tce niñ yai 14  
 he went. Then Xōmitkyandiñ he came out.
- hai ya miL hai ya sa ōl kūs diñ yī tsin k'ō teū wiñ yai  
 Then there Seōlkūsdiñ west he went down.
- hai ya miL hai ya xōn ta sa an diñ yī de tce niñ yai 16  
 Then here house stands place north he came out.
- hai ya miL hai da xō ed dik kya ai dū wē ne tse hai ya  
 Then the something he heard make a noise, there

<sup>26</sup> A big slide north of the village of Kinnaxōnta'diñ.

<sup>27</sup> A former village on the east side of Redwood creek.

<sup>28</sup> The home of the informant. After passing this point yī na teiñ gives place to yī de in the narrative.

- yī de tee niñ yai miL hai ya miL kūt Lū wūn dō teō xōs le  
north when he came out. Then indeed another one was not.
- 2 ye teō xōñ en yī man a yī dūk kūt hai teit tū wen na hwil  
He carried him in across up the hill. It was that one he went along  
hai kin ne a de ne tee il lū kit te it tee ai ī de ne  
the trees made a noise it was like it blows it made a noise
- 4 teit te in nauw miL teō k'ō seL wen kūt na nin teō k'ō seL wen  
when he went. He killed him. Then two he killed.  
hai ya miL hai ya il wūn xō dje it tein ya lū il wa  
Then there about it they were worried about it.
- 6 hai ya miL kī ye Lū wūn xō dje kit teiñ sil len xō lin ne  
Then again one he worried, his brothers  
mūk' k'a hai ya miL Lū wūn kī ye dō na in di yai  
about. Then one again did not come back.
- 8 hai ya miL kī ye teit tes yai yīs k' ūñ hit hai ya miL di  
Then again he went next day. Then this  
yī na tein teūk qal kūt ta kūn dō teō k'ōs le hai ya miL  
from the south he walked along. Three were not. Then
- 10 yō Lū wūn nō in di yan na mik klū wit diñ deūk  
this one was left last born. This way  
a nū wes te nō in di yan hai ya miL des k' ūñ xōn ta  
he was was left. Then "Today houses
- 12 na sē ya te hwit teū teit dē ne hai ya miL hwik kyai  
I will go, my grandmother," he said. Then "My grandchild,  
da xō ed hwē ye a de ne miL tee ya hwin neL yan hai ya miL  
why you talk that way? They eat me all up," then
- 14 xōL teit de ne na is le na is le miL miL xō wil loi tee nil la  
she said to him. She felt for something. When she felt his belt  
she took out.  
deūk al tel tee nil la hai ya miL kūt de de miL a dil loi  
This wide she took out. Then indeed this he tied himself.
- 16 hai ya miL kūt xe ne sin hwe yete tee niñ ūñ  
Then "Indeed you think, my breath is leaving,  
nū win sen miL deūk a teil la  
when you think this way do."
- 18 hai ya miL hai yō la xō kūt teit tes yai na mūk klū  
Then that one just indeed went, the youngest.  
ta kūn dō xōs le kyū wil te de yī de teūk qal ta is diL diñ  
Three were not, died. This north he walked. Crossing

- teûk qal hai ya miL xôn teL me teûk qal hai ya miL yō  
he walked. Then Xōntelme he walked. Then this
- kai lūw teit tañ a diñ yī de me is yai hai ya miL yī de 2  
Kailūwtañadiñ north he came up. Then north
- teit tes yai nil lin ye teū wiñ yai hai ya miL hai nil lin  
he went. Creek he came in. Then the creek
- ye teū wiñ yai yī de yī man tee niñ yai hai ya miL 4  
he went in. North across he came out. Then
- Lō dai kyō xō la diñ hai ya tee niñ yai hai ya miL  
Lōdakyōxōladiñ there he came out. Then
- kin nas tan me ū yī de ye teū wiñ yai hai ya miL yī tsin 6  
Kinnastānmīye north he went in. Then west
- nil lin tee na niñ yai hai ya miL yī de teit tes yai  
creek he came out. Then north he went.
- xō mit kyan diñ yī de tee niñ yai hai ya miL yī de 8  
Xōmitkyandiñ north he came out. Then north
- teûk qal sa ōl kûts de yī tsin xōn ta teō kût de hai ya  
he walked. Saōlkûts this west house pits there
- tee niñ yai hai ya yī de teûk qal nil lin tse nil lin 10  
he came out. There north he walked. Small creek flows
- mik kya xōn ta teō kût de mik kya yī de da xō ed dik kya  
from it, house pits from it north something
- ai yī den tse 12  
he heard make a noise.
- yī man a yī da teiñ da xa le tañ a diñ<sup>29</sup> mit tei yī da teiñ  
Across from above Daxaletañadiñ towards
- kauw kyō iL tū wa teit tes meL sil len hai teit te nauw 14  
redwoods back and forth (?) moved. The he came
- ai kit dū we ne hai ya tee niñ yai Lō ka yī de ye tee niñ yai  
made the noise. There he came out, glade north he came in.
- hai ya miL ûñ gya nak' k'ō kōs tas ai de yī sin tein xō teiñ 16  
Then there was Nak'k'ōkōstasaide from the west toward him
- k'a dū win se na xō nas yōt hai ya miL kût xō yete  
he heard make a noise. He chased him around. Then indeed his breath
- tee niñ ûn te sil len kût teō k'ō seL win te sil len na xōn nas yōt 18  
was about to go out. Then he was about to kill him. He chased him about.
- hai yaL deûk a xō lau miL xō wil loi miL iL wa  
Then this way he did his belt with it. Each way

<sup>29</sup> "Salmon berries point."

- ya wit miL a k'ût hai ya miL ye teō k'ō seL wen hai ya miL  
he fell. Then he killed him. Then
- 2 teiL ai ye dō tea lūw hai ya hit teit xō teiñ tee nil lai  
he kept it. He did not take it out. Then to her he took it.  
de de miL hōō kyai til lūw xōL teit dū we ne hai ya miL  
"This with my grandchild you carry it," she told him. Then
- 4 teit tes yai kût yī man a yī dūk teit tes yai hai yō  
he went. Across up the hill he went. This one  
a fiñ hai yō na mûk klū a fiñ hai ya miL yī dūk a  
did it, this one last born did it. Then up the hill
- 6 kût teit tes yai teûk qal a kût yō yī dūk  
indeed he went. He walked. Here up  
na xō wil de k'al a kût hai ya miL yī dūk xa is yai  
he tracked him. Then up he climbed.
- 8 kauw kyō da xōn tel kût yī nûk en teiñ xō Lûk kōte a xa ai diñ  
Kauwkyōdaxōntelkût south side head of gulch  
xōn ta sa ûñ xōn ta mûk kût me me xa nal da  
house stood. House on it ferns were growing.
- 10 hai ya miL hai ya teûk qal ye teū wiñ yai ya kyū wiñ ai  
Then there he walked. He went in. She sat  
k'ōn ta me es dī yañ kī la k'ûte yañ a hai ya miL  
house in old woman. Boy sat. Then
- 12 hai yō kī la xûte a dū we ne teō k'ō win sen in sil len  
that boy said, "Something must have made a noise."  
hai ya miL kût da sit tûñ kī k'ak wil tewen hai miL  
Then indeed was lying net made that with
- 14 ya tan kyū win ya in yan Lûk gai xōt da wiñ a  
they eat people. White down hill lay,  
kyū wiñ ya in yan mit tsin ne ûn te hai ya miL yō  
people their bones it was. Then that
- 16 yai win tan a miL xō tseûk kai<sup>30</sup> deûk a teil lau iL wûn  
when he took it up his belt this way he did. Each way  
yat miL hai yō dō kyū wil le mit diL wa yai win tan  
it fell. That old woman in turn took up
- 18 kī kak deûk a teil lau miL xō wil loi miL kyū wiñ ya in yan  
net. This way he did his belt with it. "People

<sup>30</sup> Several meanings were given for tseûk, string used in tying the hair, carrying strap used by men, belt.

dō xa a teiL e ûn te xōte na dil le te kût teō k'ō wiñ an  
will not do this way. Good they will live." Indeed he killed them.

hai ya miL xōn ta mī ye kōñ nō na niñ en te lit 2  
Then house under it fire he put. It burned.

kyū wiñ ya in yan dō teit tan na hwûn te xōte tein na dil hwûn te  
"People they will not be allowed to eat. Good they will live."

na tes dī yai kût na yī nûk na wit dal xō tewō 4  
He went back indeed south again he went along. His grandmother

sis da diñ na in dī yai hai ya miL hwit tewō nauw dī ya  
where she lived he came back. Then "My grandmother I came back."

hwik kyai tse dī ya na in dī ya k'ō we wûn teit de ne 6  
"My grandchild I am glad you came back." "I killed them," he said.

hai ya miL hai tseûk wa na teiL lai xō tewō hai ya miL  
Then this belt he gave her, his grandmother, "Then

hwîn nis te na ya hwe wē nūw xō kyai nō yan dī yan 8  
my body is glad." Her grandchild is left.

nū hwōn na deL se  
Well they lived.

hai ya nōn dik 10  
Here the end.

#### XVII. PANTHER AND GRIZZLY BEAR

yō yī da kiñ kyō lai sis dai min ne miL le dil lū  
Way north Kiñkyōlai he lived, Panther.

hai ya nak xwe k'ek' nak min dite mite tewan tûl tan 12  
There two boys, two wildeat, fox.

hai ya hit djit ûñ xût Le dûñ kin ne miL miL teit te in nauw  
Then in the morning deer-mask with he used to go.

hai ya miL ûñ hai yō xwe k'ek' aL teit dē ne dō yī dûk a 14  
Then that one boys he told "Not up

xa sin dil<sup>31</sup> hai ya miL k'a a de ne hai ya miL k'a a nū win te  
go." Then he said that. Then he always did that.

kit se its miL teit te in nauw hai ya miL k'a a tein ne win te 16  
Deer-mask with he used to go. Then he always told them that.

hai ya miL kin ne wūw kin ne il tûs La xō ne xō wit tse  
Then he used to bring in deer. He used to cut it up. Just it became full.

xôt tsē dū wan ne miL kin nil tats hai ya miL kût 18  
It was full, hides with, dry meat. Then indeed

<sup>31</sup> The singular subjective prefix is frequently used in the dual when the stem by its form indicates more than one.

- k'a at dū win te hai ya hit djit ûñ tein nū win te yī dûk  
 he always did that. Then he always said that, "Up
- 2 dō xa sin diL  
 do not go."
- hai ya miL min ne djō xō miL a yōn des ne hai yō  
 Then after a time they thought, those
- 4 xwek' k'ek' dai de nō wûn a nō hōL tein ne yī dûk a  
 boys, "Why us does he always tell, 'Up
- dō xa sin diL hai ya miL min ne djō xō miL kût a yōn des ne  
 do not go.' " Then after a time indeed they thought,
- 6 dai de nō wûn a nō hōL tein ne yī dûk a dō xa sin diL  
 "Why us does he always tell, 'Up do not go,'
- nō hōL tein dai de wûn  
 he always tells us, why?"
- 8 hai ya miL min ne djō xō miL ya kit tes daL hai ya miL  
 Then after a time they went. Then
- hai yō mit dje sa an sit da diñ ya nin deL tein yûñ teō wes lal  
 those grizzly where he lived they came up. "Eat," they said  
 in a joke (?).
- 10 hai ya miL ai we na teit dū win lat win te k'on ta ya teū win lat  
 Then really he ran there. House he ran in.
- tein nel yan yō dū wan ne en tein nal yan hai ya miL  
 He ate up. Those hides used to be he ate up. Then
- 12 na wit dal da xō ed dik kyan ûn te xō k'ōn tau ne en te le  
 he came back. "What is the matter?" His house used to be  
 on the flat
- ka nan wil lau tein nal yan hai ya miL teit tes yai teūk qal  
 was lying. He ate up. Then he went. He walked.
- 14 Lin<sup>82</sup> na da a k'ōñ<sup>e</sup> hai ya miL k'ōn niñ ye teū wil kan  
 Smoke stood up, fire. Then his face, he put in
- k'ōn ta me teiñ hai ya miL sai kit diñ ûñ gya yō k'ōn  
 house inside. Then he was surprised to see that one fire
- 16 me ū na is tiñ k'a at yai kyū wiñ a hai ya miL de k'ō wûn  
 beside he was lying. His wife sat up. Then this (ridge) at him
- nō niL kait hai de wē nûn yī dik kyō wûn hai ya miL  
 he shot. This he hit. He was asleep. Then
- 18 a kit dū we ne a lō dai de nûn dil kûts da dil lūw hai ya miL  
 he said, "ilō, What snaps you put in the fire?" Then

<sup>82</sup> For Lit, t assimilated to following n.



- dil a kûts a da dil lû La tein a nin te wûn dô  
 "Snapping you put in only you are is it?"
- dō don da win nal dū wen ne hai tsū mes Lōn 2  
 You were shot," said the woman.
- hai ya miL aL kyō we diñ da we nūñ dau hai ya miL hai  
 Then every place he shot him. No. Then the
- tsū mes Lōn a kit dū we ne xō ka ke xwō siñ kyûn te 4  
 woman spoke. "His body in vain you shoot.
- dō dō tea xō lûñ dik gyûñ xō kyûñ sa an sa ûñ hai ya miL  
 It does not hurt him. Here his vitals lie." Then
- yit da we nūñ dik gyûñ teit teit hai mik kyō we ne en 6  
 he shot him here. He died the grizzly used to be.
- hai ya miL ai we kût teit teit de  
 Then indeed really he died.
- hûn na na tes dī ya hai ya miL ûn tī kī xōn ta diñ 8  
 Now, he went back. Then it was his house
- na tein dī yei hai ya miL na tes dī ya kût a de xōn tau xōte  
 he came. Then he came back. His house good
- a na teil lau hai yō xwe k'ek' k'ōn kût de ya wim meL 10  
 he made again. Those boys fire indeed he threw in.
- hai yûk xa a dō ne nō hōL de ne ûñ yī dūk k'a sō diL ne  
 "This way you do, I told you was it? 'Up you should go,'
- nō hōL de ne ûn a hai ya miL teai a in tewū we hai ya miL 12  
 I told you was it?" Then they cried. Then
- yī tsin ne wiñ a miL ya na diL ya kauw hwa hai ya miL  
 west when it was, "Come in, nephews." Then
- ya na win deL ē hai xwe k'ek' kût ka na iL kit 14  
 They came in again, the boys. Then he fed them.
- ē --- na ya kyū wiñ yûñ ka na iL kit hai ya miL kût  
 ē --- they ate. He fed them. Then indeed
- teit des ya kyū wûn nai da La xō win te 16  
 he went. He hunted, always it was.
- hai ya miL a xōL teit de ne hai yō teō k'ō seL wen  
 Then he told him, that one he killed him,
- dō xō liñ k'a a' tīñ La xō min daik naL auw te 18  
 "Do not do it again. Just outside you will live.
- dō xō liñ k'a a ten  
 Do not do that again."

- hai ya hit djit ûñ kût na na is yai hai ya miL kī ye  
Then indeed he went around. Then again
- 2 k'a na it yai k'ō k'ōn tau neūk k'a a na nū wes te hai ya miL  
he used to go for them. His house inside looked as it used to. Then  
kût na na is ya xōte hai yō mite dje e diñ  
indeed he went around again. Good those children
- 4 mal yak a na teil lau xote na de el se  
he took care of. Well they lived.

## XVIII. SKUNK'S THEFT

- xût Le dûñ kin na da te in nauw kōl dje hwhite hwō  
In the morning for it she went, skunk. "My grandmother,
- 6 ðim miñ hwa nai iL tewe hai ya miL se nit tel tewil sa an  
sharp for me make it again." Then stone flat lay  
mûk kût hai se nit telte hai ya miL a de ne k'ût a ke sit  
on it the stone flat. Then she said, "K'ût a ke sit,
- 8 k'ût a ke sit k'ût a ke sit teit de ne na iL tōñ hit hai ya miL  
k'ût a ke sit, k'ût a ke sit," she sang. He danced. Then  
k'ûn nai kil la xûts aL tewōn naL tōn<sup>e</sup> xō ye la an nauw  
"Kunna, boy nice looking is dancing." Near him they all came.
- 10 hai ya miL hai yō kût xō tewō xōn nō<sup>e</sup> tee it set ma' nin yū  
Then that one indeed his anus emitted flatus. "Ma—" To the  
ground  
teit te iL auw hai ya miL a' tin tein nel yī mit taL ta  
they put their heads. Then all he ate up, biggest ones.
- 12 hai ya miL deūk ûñ hit djit hai xō tewō mit teiñ kō e Lan  
Then this way then the his grandmother toward (small ones)  
teit te it teite hai ya miL hai yō tee na til tewen kai tim miL  
he took in his hands. Then those recovered, pack-baskets
- 14 mū hwa ne ya na ai wūw  
only they carried.  
hai ya nōn dik  
Here the end.

## XIX. THE ESCAPE OF THE CAPTURED GIRL

- 16 nin nis san min nei djit sis dai keL san nin hai ya miL  
World middle she lived a girl. Then  
a' tin yī tsin xō kya teit tes yai lū wūn nin teū win da  
all west from her went. Alone she stayed.

kyū win ya in yan dō ta' xō len hai ya miL tee e dai tūñ ka  
 People were not around. Then she stayed. Fall

xūn na gal kya da an ne tewū wa kil lūw min ne djō xō miL 2  
 began to walk. She picked acorns. She cracked them. After a time

wiñ sa a kyū wiñ ya in yan dō xōt da nat yai  
 time passed. People did not come back.

hai ya miL kūt xūn na k'a ūn nū yī tin ne 4  
 Then indeed it was she did the same. Doorway

mit tein ne hwan ya a hai ya miL min ne djō xō miL  
 toward she sat. Then after a time

kyū win ya in yan sil len sil lin tse tein nel git dit sik xō sa 6  
 person was there. She heard him there. She was afraid.  
 Acorn her mouth

wiñ a dō tee na niñ an hai ya miL ūñ gya kai tim miL  
 was in she did not take out. Then she saw basket

a din nin diñ teū wil lel ye teū wiñ yai xō man tein teiñ 8  
 before his face he held. He came in. In front of the fire

ye teū wiñ ya hai ya miL k'ōn niñ me yōl hwin nal tewin  
 he came in. Then his head he had made black.

hai ya miL dō hwa nū wil get te he hai ya miL kūt sa a 10  
 Then "Do not be afraid." Then "Now long time

nū wūn hwik kyūñ nañ ya hwin nal kūt a nin te hai ya miL  
 about you I have been thinking. In my knowledge indeed  
 you were." Then

xai iL kit sa xauw tee nel git te he hai ya miL a xōl teit de ne 12  
 she gave him food, acorn soup. She was afraid. Then he told her,

wit wat iL tewē ta sē deL te  
 "Acorn flour make. We will go."

hai ya miL kūt is k'ūñ hit kūt na tes daL hai ya miL 14  
 Then indeed next day indeed they went back. Then

na wit dal k'el weL xō lūn ta' hai ya miL xūt Le dūñ  
 he went back where he had camped. Then morning

in na is deL win te teit tes deL teū wit dil le hai ya miL 16  
 they got up. They started. They went along. Then

yī tsin ne wiñ a miL teū wit dil k'el weL xō lūn ta  
 west when it was they went along. Where he had camped

k'e na al wil hai ya k'ai yal weL hai ya miL ai we xūt Le dūñ 18  
 they camped. There they camped. Then in the morning

- teit tes deL kût min lûn diñ mit tein dū win sen hai ya miL  
they went. "It was ten times to it you think? Then
- 2 de La yis k'ûn nē deL ta hai ya miL xût Le dûñ kī ye  
this one day we will get there." Then in the morning again  
teit tes daL hai ya miL yī nûk ûñ gya yī tsin ne wiñ a miL  
they went. Then south she saw west when it was
- 4 kiñ ye kût hai ya min dai na nes da nin sa xōL teit dē ne  
hollow tree. There outside he sat. "You sit," he told her.  
ye teū win deL hit nik kya ō kiñ ye kût Lai ai xō lûn yō wit ta  
When they went in large hollow tree. Indeed it was all around
- 6 sel ne hwan sil kait Lan hai ya miL miñ kût sūk k'an  
obsidians lay, many. Then a pond of water stood  
kiñ ye kût min nûk ke teiñ sūk k'an hai ya miL dōñ  
hollow tree its south side it stood. Then it was
- 8 tein nel git xō tein ne hwan an te hai tsū meL Lōñ in te  
she was afraid little like it was that woman it was.  
kin nil tats xō lan kin nal mats xō lan Lan nō niñ an xō lûñ  
Dried meat was. Bundles were. Many lay there.
- 10 hai ya miL a xōL teit dē ne dō ma nū wil gīl ta kiñ yūñ  
Then he said to her, "Do not feel afraid, eat."  
hai ya miL dūn lûñ hwō diñ k'e ya nal weL hai ya miL hai  
Then several times night passed there. Then the
- 12 xō is dai a dē ne is dō ke nai ī kē yūñ hai ya miL yō  
man said, "I wish fresh meat I might eat." Then way  
yī nûk ne hwan na kis le sai kit diñ ûñ gya na wete  
south like he felt. Behold small bag
- 14 tee niñ tūñ hai ya miL teit tes yai yei na xō dil en  
he took out. Then he went. She watched him  
dai hwûn lûn na wa ne ka win yai ei kim me xō nōñ ai diñ  
where he would go. He went in in timber. By its edge
- 16 teit tes yai teō xōt dit teL en teō xō neL in il hai de deûk  
she went. She watched him. She watched him along. This this way  
aL kyō Lōk sa ûñ de dit diñ mik kyō kōt tse naL auw  
so large glade was. It was elk were there.
- 18 hai ya miL hai yō na wete xō tce ka at tan hai tsū meL Lōn  
Then that bag under his arm he held. The woman  
teō k'ō neL in ke wūw a teōn des ne da xō hwe ka a' tin ne  
watched him, without his knowledge. She thought, "What will he do?"

hai mûk kai nû hwôn diñ tein ya yei hai ya miL na wete  
The on it good place he came out. Then bag

deûk a teil lau ke yan kûts sai 2  
this way he did. It fell down.

hai ya miL na tes di yai tsû mes Lôn kût ye na wit yai  
Then she went back. woman. Indeed she went in again.

hai ya miL a dē ne nin kyūw ûL ke nai kē yûn te hai ya miL 4  
Then he said, "I will butcher it. Fresh meat I will eat." Then

kût tes yai ye na wete k'ōn naL nōn na in tan hai ya miL  
indeed he went. Bag before her he put down. Then

yō na wete ya win tûn win te hai tsû mes Lôn teit tes tan 6  
that bag she took up that woman. She carried it

xō ka nin kiL ûl le hai ya miL deûk a xō lau hai ya miL  
after him. He was butchering. Then this way she did to him. Then

na tes di yai na tes tan ye na win ten nō na nin tan na wete 8  
she went back. She carried it back. She carried it in. She put it  
down, bag.

sa a diñ hit teit na wit dal hai ya miL ye na wit yai hai ya miL  
After a while he came back. Then he came in again. Then

hwe da ai dū win teat hai ya miL yī tsin ne wiñ a miL 10  
"My head aches." Then west when it was

dai xō hwō tein ne hwan a na at yau nai yī tein a na' di yau  
nearly crazy he was. Worse he became.

hai ya miL a xōL teit de ne ded miñ kût me ta hwil lōs na 12  
Then he said to her, "This lake in drag me.

yō na wete ta naL kōw ne hwik kai hai ya miL teit teit  
That bag throw in after me." Then he died.

hai ya miL kût k'a xō lau 14  
Then indeed she did that.

hai ya miL xût Le dūñ sel ne hwan tak xwōte te tak  
Then in the morning obsidians three, good blankets three,

tō ne hwan nak' kai tim miL me na dū wil eL hai ya xa djit 16  
black obsidian two carrying basket in she put. Then

na tes di yai na wit da le hai k'e na wil diñ k'e nal waL  
she went back. She went along. The they camped place  
she camped.

xût Le dūñ in na nas dūk ke na tes di yai na wit dal a kût 18  
In the morning she got up. She went back. She walked along.

- hai ya miL hai ûn Lûn dûû k'e nal waL diñ k'an Lûn diñ  
Then the as many times they camped so many times
- 2 k'a nal waL hai ya miL na wit dal a kût sis da tciñ ûñ gya  
she camped. Then she went along. Near where she lived she heard  
da xõ ed dik gya ai kin se hai sis da ne en diñ xõ na kût tõ  
something she heard make a noise. The place she used to live  
their tears
- 4 ya na wil lin se hai ya miL hai yõ kai tim miL nõ na niñ en miL  
she heard fall. Then that basket when she put down  
a dẽ ne dûn da xõ ka õ' tewû ka ka hwõ wûn a tewû  
she said, "Whom for you cry?" Too soon for me you cry."
- 6 hai ya miL ye na wit yai Le nûn dī ya xõ lan de de  
Then she went in. They had all come back. Here  
xõ ya te meL hai ya miL ye na wit yai a dũ wûn hwõ wil lik  
she had cut off. Then she went in. About herself she told
- 8 hai tẽ k'õ teL ten  
that he took away.  
hai ya nõn dik  
There is end.

## XX. BEWITCHING OF THE OLD WOMAN OF SELGAIKALINDIN

- 10 sel gai k'a lin diñ a Lan te hai ya miL yī tsin sa win den  
Selgaik'alindiñ they lived. Then west they went.  
hai ya miL hai ded hwe ai kin nũ wes te win da hai ya miL  
Then this me she was like stayed. Then
- 12 min ne djõ xõ miL Lũ wûn nin sis dai kel san nin  
after a time alone she lived, girl  
yī man tciñ tciñ hai ya miL min ne djõ xõ miL kût win sa a  
on the other side. Then after a time indeed time passed
- 14 yī tsin sa win den hai ya miL kût Le niñ dī yai yī sin tciñ  
west they went. Then indeed they all came back from the west.  
hai ya miL dõ kyũ wit yan des k'an hai ya miL yõ  
Then she did not eat that day. Then way
- 16 yī da tciñ teũk qal xõ kyũ wiñ yai hai ya miL tin ne  
from the north she walked. She came down the hill. Then "Road  
wes tẽ ye kit dil lõs kit dũ wẽ nel hai ya miL xõtc yī tsin  
large something dragged in," she kept saying. Then good west

ne wiñ a diñ      tañ ka hit      hai ya miL      des k'an nē      de de  
 it was,      fall time.      Then      "It is night,      this  
 xōL nūw te      ne sen      dō weL den      dū we ne      hai ya miL      ka<sup>e</sup> 2  
 I will stay with      I think.      I am lonesome,"      she said.      Then      "Well  
 ye heñ yauw      hai yō      a' tin      xō nin      nai kis le      nit tewen  
 come in."      That one      all      her face      she motioned.      Evil  
 de nai kai      hai ya miL      deūk      a' tin      a a nū      deūk      a kai lūw 4  
 she had.      Then      this way      all      she did.      This way      she did.  
 xō ed de a lūñ      a hwiL en he      dō wūn tein ne tūw he      hai ya miL  
 "Why      you do that to me?      Why      do you not lie down?"      Then  
 ded dit de      hai yō      nit tewen      niñ ye      kit diñ k'añ      yū wit diñ hit 6  
 it was      that      not good      in the ground      she buried.      Finally  
 la a kel      tein neL yan<sup>33</sup>      hai ya miL      yai ke e a it da  
 one full      she cracked.      Then      she sat.  
 ya xōn neL en<sup>34</sup>      hai ta'      aL teit dē ne      xō de na      a lūñ xō 8  
 She watched her.      Those      she told,      "What      all the time  
 a hwiL en      hai ya miL      yū wit diñ hit      kī ye      la kel      tein neL yan  
 you do to me?"      Then      after a while      again      one full      she shelled.  
 xō lūk gai      me dū wiñ a      hai ya miL      xōte      win djen 10  
 Dawn      loomed up.      Then      quite      it was light.  
     hai ya miL      tee nan dauw      xōL teit de ne      tee na niL wal  
     Then,      "Go out,"      she told her.      She threw her out.  
 i la ûñ      kyū wim min xe      hai ya miL      hai yō      kis tin diñ      mī ye 12  
 "Well,      you were going to sleep."      Then      that      bed      under  
 sūk k'an      k'ai tsa      iL tein      yū wūn nal mit      hai ya miL  
 there were      baskets      toward each other      placed.      Then  
 hai yō      xa na wiñ xūn win te      miL      ya na iL seL      in tewit ne 14  
 that      she took up.      With it      she hit her.      "Die.  
 nin nis te      me      a na o ne te      e e dū wē ne      kai tsa      aL tewin  
 Your body      in      let it go,"      she said.      "Basket      stinks.  
 hwū wūñ      o' kast      dū wē ne      na tes dī ya yei 16  
 My(?) break,"      she said.      She started home.  
     lai yis k'an      miL      a teōn des ne      na hwa      hai ya miL      is tan  
     One      day      after      she thought,      "I will go."      Then      logs  
 sil lai      ûñ gya      is tan      mī ye      siL tiñ      tewit xō lan      hai yō 18  
 lay,      she saw      log      under      she lay.      She was dead.      That

<sup>33</sup> Literally, she ate.

<sup>34</sup> The interpreter said that while the form of the verb is plural, only one subject and one object were concerned.

- dō i kyū wil le ne en min nis te me a na' dī ya xō lan  
old woman used to be her body in it went
- 2 min nit tewen ne hai ya miL yō kiL kit de mūk ka na is ken  
her evil thing. Then that rotten wood on her it fell,  
is tan nin ne en hai ya miL teit tes yai  
log used to be. Then she went.
- 4 hai ya miL a teōn des ne yī dūk xa sūw hwa teōn des ne  
Then she thought, "Up I will go," she thought.  
La xō na xō miL xō sin kit taL tsit xō sin dī hwō xō sin  
Just they were working. They were soaking acorns. Something it was.
- 6 hai ya niL ye teū wiñ yai k'ōn ta lōk yī sin teiñ le nūn dī yai  
Then she went in house. Fish from the west they came back,  
yai kin te wen hai ya miL kai ya tel kit lōk hai ya miL  
they carried. Then they fed her fish. Then
- 8 a ya xōL teit de ne hai yūk dō nō wūn nin nauw ūñ hai ya miL  
they said to her, "This way did she come to you? Then  
wiL dūñ na ne deL e miL tein ya yei hai ya miL hwa ūn na  
yesterday when we came back she went out." Then "Never
- 10 hwū wūñ na wa win te hai ya miL na tes dī yai kūt  
to me she came." Then she went back. Then  
kit tes win dō ōw sis hai ya miL na in dī yai  
she carried her load. "I did not see her." Then she came home.

## XXI. BEWITCHING OF THE LITTCUWHWINNAUWDIN GIRL

- 12 ded yī man teiñ lit teūw hwin nauw diñ hai yūñ  
This the other side Litteūwhwinnauidiñ that one  
xōL tis tee La na nin ne kyū win ya in yan hai ya miL  
their sister one two men. Then
- 14 min ne djō xō miL yī sin teiñ kyū wiñ ya in yan hai ya miL  
after a time from the west men. Then  
a de ne hwite teiñ nai kyū wūL dū weL ne hai ya miL tiñ  
he said, "To me bring across." Then very much
- 16 xō dje yai iL we xōL tis tee hei ūñ nai kyū we dū weL  
they liked her, their sister. "Yes, we will carry across,"  
ya teōn des ne mit dai do na k'auw  
they thought. "Outside do not put it down."
- 18 hai ya miL kūt na kit tes wen hai ya miL kim meūk  
Then indeed they started carrying. Then in timber



- a yī tsin      na kyū wit wel lē      hai ya miL      se ye kyō kait  
west      they were carrying along.      Then      Seyekyōkait
- xō teū win deL      hai ya      ta ya win nan<sup>e</sup>      hai ya miL      me is deL      2  
they went down.      There      they drank.      Then      they went up
- xō ye      yī dūk      hai ya miL      kūt      na teil yeūw diñ.      k'a is daL  
up      the hill.      Then      indeed      resting-place      they came up.
- hai ya miL      teū wit dil      nis sa      teū wit dil a kūt      hai ya miL      4  
Then      they went along.      Long way      they went.      Then
- kin sin Lōk      tee nin deL      hai ya miL      teit tes deL      kūt      nil lin  
KinsinLōk      they came out.      Then      they went.      Creek
- na nū wit dil      hai ya miL      kūt      na kyū wit weL      hai ya miL      kūt      6  
they went across.      Then      indeed      they carried along.      Then      indeed
- teit te daL      yī tsin      ne nū wiñ a      ta kūt      nō nin deL  
they went.      West      it was      by the ocean      they sat down.
- tō tein din nūn diñ      nō nin deL      hai ya miL      yō      xō teiñ      8  
Tōteindinnūndiñ      they sat down.      Then      that one      to him
- na kyū wit wel      xō min dai      nō nin deL  
they carried      by his door      they sat.
- hai ya miL      kūt      dōñ      ye ya xō la      ya a diL      na dū wil tewūñ      10  
Then,      "Indeed      call them in."      "Come in."      They ate.
- nō din nil tewan miL      hai ya miL      es dī an      k'a<sup>e</sup>      tai kyūw  
After they finished eating      then      old man,      "Well,      sweathouse."
- hai ya miL      tai kyūw      ya teū win daL      hai ya miL      kūt      12  
Then      sweathouse      they went in.      Then      indeed
- iL tein ne wan      ya nes tete      hai ya miL      hai yō      es dī an  
close to each other      they lay down.      Then      that      old man
- in na na it ka      hai ya miL      yī da teiñ      tee nai kin niñ en      14  
got up.      Then      from the east      he took it out.
- nō' kyū win ūñ ūñ      hai ya miL      dū ya k' ūn nūw      min ne djō xō miL  
"Are you asleep?"      Then      they did not speak.      After a time
- sa a      a xōl teit de ne miL      wūn xoi kyūñ      ya xōs le      kūt      dōñ      16  
long time      when he had said to them      they knew      indeed
- xwot a na teil la te tē le he      yū wit diñ hit      xō Lūk gai miL  
he was about to do it.      Finally      when dawn
- dik gyūñ      ya wiñ ya      mik kyūñ      na an yai      nō teis qōt te      18  
here      it come up      it was thinking of      he was going to stick them.
- hai ya miL      hai xō k'ai ya      hai yō      sis tin ne en diñ      nō ya niL sū  
Then      the      his boy      that one      where he used to lie      they moved.

- hai ya miL na kis le mis sa meûk kyû win lû hai ya miL xa  
Then he felt. His mouth inside he rubbed it. Then
- 2 xô Lûk gai tes ya miL mis sô wôL kin ne diñ xô ed dik gya  
dawn when it went his throat its base something  
dû we ne mis sa meûk kyû win lû xûL ne hwan  
made a noise. His mouth in he rubbed black
- 4 mis sô wôL kin ne diñ a dû we ne hai ya miL na kis le hai ya  
his throat base made the noise. Then he felt. There  
hai yûñ kit dû we ne  
those made the noise.
- 6 hai ya miL hai yô xô kyûñ xô len a dû we ne dô xô lûñ  
Then that wise one spoke. "Not it is  
nû hwôñ a hwôn de ne hai ya hwil dû we ne hwit teiñ  
good you thought of me. That you told me, "To me
- 8 nai kyû win dû weL ne ha ya miL dan<sup>e</sup> de xô<sup>e</sup> k'el ya is tewen  
bring a load.' ' Then already this time load they made.  
se kût min nê djit ta din dil k'el ya is tewen la' tsû mes Lon  
Mortar in middle surfish load they made sea weed. "Woman,
- 10 nû wûn neL tiñ sel ne hwan dô a de ne he ne hai yaL ûñ  
I will give you obsidian. Do not tell about it." "Then  
da xô ed dik kyan dô me dûw din tsû meL Lôn  
some kind I do not want woman."
- 12 hai ya miL k'a<sup>e</sup> na wê dil na tes deL na wit dil hai yô  
Then "Well, let us go back." They started back. They went  
along, those.  
kin sin Lok hai ya tee na nin deL hai ya miL yî sin teiñ  
KinsinLök there they came out again. Then from the west
- 14 ye na win deL hai ya miL yî man a yî da teiñ a den tse  
they came in again. Then on the other side east they heard say,  
nô La diñ lûñ xô kyû wiñ a hai ya miL na wit dil a kût  
"After you they died." Then they went along.
- 16 yî tsin ne wiñ a hai ya miL dik gyûñ na nes dit tete te  
West it was. Then here they were about to camp.  
tô ye kyô ka dûk ka de dit de xô<sup>t</sup> ya xô kya teûk qal  
Tôyekyôkadûkka it was in vain after them he walked.
- 18 hai ya miL a teôn des ne hê hwil tis tee dit tsik min dai  
Then he thought, "hê—, my sister acorns outside  
nô ô kauw ya teôn des ne  
will leave," they thought.

hai ya miL ûñ gya a kit dū wen tse yō na dū wit nel  
 Then it was they heard something make a noise. That one  
 he was making a noise along.

hai ya miL a xōL teit de ne xōL liñ tin mī ye teiñ nin sa ne 2  
 Then he told his brother, "Trail under sit."

hai ya miL lū wûn mùk kût teiñ tein nes da tee lis tee miL  
 Then one upper side he sat knife with.

nis tan siL ten wûn nin din dil hai ya miL hai mùk k'a 4  
 Log lay there they climb over. Then the after them

de diñ nis tan da na wil tōn xō dje diñ nō il tōñ mī ye teiñ  
 this place log he jumped on. In front of him he jumped  
 lower side

hai ded sis dai mite teiñ ya wil tōñ dik gyûñ na neL kis 6  
 this one sat. Then to him he jumped up. Here he stabbed him.

hai ya hai yō sis dai me ye teiñ xō dje diñ nōL tōñ  
 There that one sat below in front of him he jumped.

hai ya miL tee xōL kit na xōn teL kis ya ya xōs kit 8  
 Then he caught him. He stabbed him repeatedly. They cut him up.

hai ya miL na tes deL ye ō yī sin teiñ na wit dil tes wan  
 Then they went back. Here from the west they went  
 back. Teswan

mō xon tau we diñ hai na tes deL na wit dal sats mit tō diñ 10  
 their village they came back. They went along back. Satsmittōdiñ

na wit dil hai ya miL dōñ ka hai issel tein ne wan na wit dal hai ya  
 they went back. Then it was still rather warm they went along  
 there.

hai ya miL kai ist mit tō diñ na win deL hai ya miL yī man 12  
 Then Kaiistmittōdin they came down. Then the other side

me na is deL teim me tau wit kût k'a na is deL hai ya miL  
 they went up again. Teimmetauwitkût they came up again. Then

na wit dil ye ō yī da teiñ na wit dil xō ed dik gyûñ ai kin se 14  
 they went back. Way from the hill they went back. Something  
 they heard

teit del se ne en teiñ la xō kût xō da in na dim meL xwōte  
 where they used to live. Just they fell down so

xō win seL hai ya miL hai ya yī da teiñ tea na in deL mùk k'a 16  
 it was warm. Then there down they came out. After

hai xōL tis tee ne en wûn na diL teis qōt xō lan hai ya miL  
 the their sister used to be they came for had been poisoned. Then



- dō me nūw git min ne djō xō miL kūt diñ kin kas yai  
I am not afraid." After a time it was four men came up.
- hai ya miL a xōL teit de ne kūt hwin nes te dō ma nil git ûñ 2  
Then he said, "My body are you afraid of?"
- kūt dōñ a hwō la na dō ma nūw git kūt a dit teiñ  
"Well, let it happen to me. I am not afraid." "Well, on you
- ye na wē la ta kūt hai ya xa djit a ya it ti yau hai ya hat djit 4  
I will bring them." Then they did it. Then
- a dit ta' diñ Le ya dū wil lū hai ya miL kūt a dit teiñ  
at his home they killed them. Then indeed to him
- ye ya xō lai kūt kit tûñ na da ai deūk ûn te dūn lūn hwō 6  
they brought them. Then maple it stands this way it was  
several ways
- tewū wa Lūk kūw hai ya miL kūt yī nūk en teiñ tai kyūw  
forked. Then indeed on the south side sweathouse
- sa an kūt ma dūw tewiñ kūt xōn ya il lit hai mūk' k'a 8  
stood. "Then I want they burn it," those after them
- ka sit ta deL hai hit djit xa sit ta daL tewō la na k'as yai  
they came. Then they came over. Five men came up.
- kūt xō wūñ kûts ta nan deL te hai ya miL kūt 10  
Now, it was cold weather. It was about to snow. Then indeed
- dūn lūn hwō diñ xwal weL kūt min ne djō xō miL hai yō  
several times they camped. After a time those
- tsū mes Lon del se xōn ta me yō xois dai tai kyūw me 12  
women stayed in house. Those men in sweathouse.
- hai ya miL sai kit diñ ûñ gya mit da na sa an a din nin diñ  
Then behold a bundle of brush before his face
- teū wil leL hai ya miL ûñ gya na lū wūñ kyū wiñ ya in yan 14  
holding. Then it was another man
- ya win daL hai ya miL sai kit diñ tsū mes lōn tea ûñ lat  
came in. Then behold woman ran out.
- xō lik tes yai tai kyūw teiñ tai kyūw mit da niñ yai 16  
To tell she went to sweathouse. Sweathouse its mouth she came.
- ne ha dū wil la xa xō list tea nō' diL hai ya miL hai yō  
"They are attacking us. Come, hurry, come out." Then those
- na nin teit del se tai kyūw me hai ya miL xō ye xōñ 18  
two were staying in sweathouse. Then under it fire
- nō ya niñ en ya miL tai kyūw ne en xōn ye ya wil lit  
they put. With them sweathouse used to be to the ground they burned.

- hai ya miL ta kûn ma ya din niL tewit tō teiñ hai eñ  
Then three men (?) they pushed along toward the water. Those  
it was
- 2 ya xō kûn nai hai ya miL hai ya kût te nōñ xō ta an  
lived. Then there indeed they ran in the water.
- hai ya miL kim meûk La nō xō na is deL hai ya miL de dit ta  
Then in timber they traveled. Then here
- 4 xa tel a kim meûk na dil le miL yū wit diñ hit  
grew up ferns in timber while they lived. After a time
- kyū wiñ ya in yan na in deL hai ya ha djit xōte na da wil se  
men they came back. Then well they lived.
- 6 hai ya nōn dik  
Here the end.

## XXIII. REJUVENATION DISCONTINUED

- dik gyûñ yī de nin nis san nōñ a diñ tel tewen nin nis san  
Here north world's end he became, World
- 8 ma na na wiñ yai hai ya miL teit tes yai kût hai ded  
for-he-came-down. Then he went indeed this.
- hai ya miL hai ded wûn xoi kyûñ nañ ya ded yī da tein  
Then this he thought about. This from the north
- 10 teûk qal yū wit diñ hit nin san nē djit yī da teiñ sis len  
he walked. After a time middle world from the north he was.
- hai ya miL teûk qal a kût hai ya miL ded a kût ded mit teiñ  
Then he walked along. Then this, this toward
- 12 dit tse sis len hai ya miL hai ded a kût nin nis san na da a  
pointing he was. Then this mountain stood up
- mit teiñ teis len hai ya miL kût tein niñ yai hai ya miL  
by it he was. Then indeed he came there. Then
- 14 iL man na na da a teis tewen Lai na da a ne en  
on both side stick up he made it. One used to stand up.
- hai ya miL kyū wiñ ya in yan xōte na dil te miL  
Then "People well will live with it.
- 16 nū hwoñk tin dil ta hai ded nin nis san a kût wil tewil  
Well they will travel." This mountain on it young
- na wil lel te ne en de yī dûk nin nis san na da ai kût  
used to become again. This east mountain stands up on it
- 18 xa sū win na hwiL te hwek a nū wit tel a miL hai ya miL  
when they go up like me they are old. Then

hai yûk wil tewil a nat wil lal ta hai ya miL kût hai yûk  
 this way young they will become. Then indeed this way  
 a win naL ta hai teūw k'ai na wit lal ta hai ya miL hai 2  
 it will be those young they will become. Then the  
 mûk' k'a na wit lal hai ya miL kût hwek wūw dī yūñ il ta  
 on it they did. Then indeed like me I am old  
 dō ī kyū wil le k'a sū win hwil te hai ded nin nis san a kût 4  
 old woman will go up this mountain on.  
 hai ya miL kût hai yûk a win nal hai ya miL yū diñ hit la  
 Then indeed this way it was. Then after a time one  
 man<sup>e</sup> tin nauw hai yûk a win neL ta hai ya miL hai yō en 6  
 company went. This way they did. Then this one  
 yī nûk en dō hai hwe hwa ne hai ded nin nis san  
 south one it was, "This my only, this place  
 a win neL ta teūw k'ai na dil leL ta hai ded ke sin dil nes 8  
 will be." Young will become this on travel all  
 dō teū wes yō  
 he did not like.

## XXIV. THE FLOOD

dik nin nis san na da ai nûn siñ kya ō na wa ne en 10  
 Here mountain stands, butte large used to go about.  
 hai ya miL ta nan tes yai hai ya miL ûl kyō we diñ ta nan  
 Then water came. Then so much space water  
 hai ded nin nis san a' tin diñ ta nan kit ta yōw hai ya miL 12  
 this world every place water flowed. Then  
 hai ded a hwûñ nin nis san kaL sa noi kin niñ yōw hai ya miL  
 this only mountain so much the water reached. Then  
 a' tin ka ûn te man e mī hai ya miL hai yō kût hai ta nan 14  
 all kinds swam there. Then that indeed the water  
 tes ya ne en na xō wil sai hai ya miL ai we kût nū hwoñ ka  
 used to come dried up again. Then behold indeed good  
 na na sis daL kût hai yō na xō wil sai kût ha yûn la xō kût 16  
 they lived this dried up again on it. That one just  
 da neñ dōñ hai hai eñ nin sin kya ō' ke k' ûn nai na nas daL  
 that is the one this butte large Kixûnnai lived.  
 hai ya miL kût hai ya nōn dik 18  
 Then indeed there end.

- nin nis san      ma na na wiñ ya      a teõn des ne      dai hwõ  
 World      for-it-he-came-down      thought,      "Some way
- 2 ye k'ē neūw hwit      a dū wē ne      hai miL      kit te yōw      hai  
 they are talking."      He said,      "This with      wash      the
- kyū wiñ ya in yan      la xō nū hwon      na nas deL te      hai mûk ka  
 people      just      good      they will be again."      The      after that
- 4 k'a a' di yau      nū hwõñ  
 he made it this way      good.

## XXV. MINK'S GAMBLING MEDICINE

- de de      xō il kût      tee wil lin diñ      na tel dit tewen  
 This      Xõilkût      its mouth      he came into being,
- 6 te ū na lū hwın      hai ya miL      min ne djō xō miL      a teõn des ne  
 mink.      Then      after a time      he thought,
- de de      mûk kai      yī nûk      ta se ya te      hai ya miL      k'õ wûn  
 "This      on      south      I will go."      Then      to him
- 8 na ne il lūw<sup>35</sup>      deûk      a na nū wes te      hai ya miL      a teõn des ne  
 it always comes.      This way      he looked.      Then      he thought,
- ded mûk ka      yī nûk      te se ya te      xût Le dûñ      k'e da ai it Lõ i  
 "This      on south      I will go."      In the morning      head tied on
- 10 a de kût      da teū wil lai      hai ya miL      teit tes yai      teûk qal      yō  
 on his head      he put.      Then      he started,      he walked along.      Way
- yī da teiñ      teûk qal      de de      mûk ka      teûk qal      xō na kût tō  
 from the north      he walked.      This      on it      he walked.      His tears
- 12 na dū wim miL      a dū wûn      teū wite tewel      hai ya miL      ded  
 were dropping.      About himself      he was crying.      Then      this
- teûk qal a kût      yō      yī nûk a teiñ      teûk qal a kût      hai ya miL  
 he was walking.      Way      toward the south      he was walking.      Then
- 14 nis kin tee in diL diñ      klūw<sup>36</sup>      hai ya miL      nes kin      me dik gyûñ  
 Niskinteeindildiñ,      alder (?).      Then      "D. spruce      in more
- ne se tin ta      hai ya miL      nes kin      min nē djit      kañ a      sis kyas  
 I will lie down."      Then      Douglas spruce      half way up      limb      broke.
- 16 hai ya miL      hē<sup>37</sup>      a nūw te      iūw hwal      teõn des ne      hai ya miL  
 Then      "hē      I am thus      I travel,"      he thought.      Then

<sup>35</sup> Mink always lost at play.<sup>36</sup> Probably Lūw.<sup>37</sup> An exclamatory particle.



a di ye de kit diñ an hai ya miL kit ta au -- dū wē ne  
under himself he put it in the fire. Then he sang, — it sounded.

yīs ka nei a di yī dē kit dauw 2  
Until day under himself he put in the fire.

hai ya miL teit tes yai xūt Le dūñ hai ya miL yō yī nūk  
Then he started, in the morning. Then way south

teūk qal kin na k'ōn ta' diñ k'ōn ta sil lai hai ya miL hai yō 4  
he walked. Kinnak'ōnta'diñ houses stood. Then that one

yī nūk a xō lūw k'ōn ta' sa an me tee niñ ya yei hai ya miL  
south furthest house stands in it he came out. Then

lai ūw xa xō lau xō wūñ teit teL kait dei hai ya miL 6  
really he clapped his hands, to him he motioned. Then

a xōL teit de ne hwe kil liñ yī da teiñ xō lūñ hai ya miL  
he said to him "Me you are like(?) from the north it is." Then

dē dik kyūñ(?) hwū wūñ na niñ ūL hai ya miL 8  
"What from me you will win?" Then

a xōL teit de ne hai de a xōw dōñ hai sek hai wūñ  
he said to him, "This may be this hair-wrapper, this for it

kin na sit dil la ta 10  
we will play."

hai ya miL kūt nō nin daL il tein din nūñ kin nan ya  
Then indeed they sat down, each other facing. They played.

deūk a teil la xōL teit dū we ne teit teL kait k'ō wūñ 12  
"This way he did(?)," he told him. He pointed. From him

na tes tañ hai ya miL kī ye a na teil lau min lūñ diñ deūk  
he took it. Then again he did it. Ten times this way

a na teil lau miL xō wūñ teit teL kait te ū na lū hwin a ten 14  
when he did it from him he pointed. Mink did it.

la xō lūñ a teit ya te yū wit diñ hit diñ xe neūk diñ  
All the time it was he did it. After a time behind himself

na nū wil lūw hwil hai ya miL hai yō la xō lan na nil la te 16  
it was piling up. Then that one, "All the time it is you win."

hai yō xōt sek ai mit ta' na nū wil lūw hwil hai ya miL  
That one his hair-wrapper with it he piled them. Then

hai yūk k'a a win nal na nū wil lūw hwil hai ya miL na diñ 18  
this way it kept happening. He kept accumulating. Then twice

k'el waL kin na wauw ta ka diñ yis k'an kin na wauw  
he spent the night, playing. Three times day they played.

- na nū wil lūw hwil diñ ket din hwel weL te hai ya miL kī ye  
He kept winning. "Four times I will spend the night." Then again
- 2 k'a nal weL hai ya miL na tes dī ya te diñ ket diñ k'al weL miL  
he spent the night. Then "I will go back." Four times  
when he had spent he night
- na tes dī yai de de mūk kai yī de na tes dī yai hai ya miL  
he started back. This on north he went back. Then
- 4 dī hwō man yai kiñ eñ hai ya miL yī de na wit dal a kût  
something large he was carrying. Then north he was going along.
- hai sis da diñ kûn na wit dal na in dī ya kût  
The he stayed place indeed he came back. He got back.

## XXVI. EAGLE'S WAR MEDICINE

- 6 ded mūk' k'a yī da tciñ teit tes ya te tis mil hai ya miL  
This along it from the north he will go, eagle. Then
- a ya xōL teit de ne kyū wiñ ya in yan dō mit tis tin nauw  
they told him "People not beyond it go."
- 8 hai ya miL a tcōn des ne kût hai ye he te sē ya te deūk ûn te  
Then he thought, "Now, anyway I will go." This way he did,  
kim mau teis tewen kit tûn nit tel dil mai hai ya miL kût  
medicine he made its leaves broad gray. Then indeed
- 10 teit tes yai hai ya miL kût dōñ nauw hwa Lax hai ya miL  
he went. Then, "Now, indeed, I will go, just." Then
- teit tes yai ded mūk' k'ai yī da tciñ hai ya miL teit tes yai  
he started this along from the north. Then he went
- 12 ûñ yō yī da tciñ xon nis te yan na del se diñ mit tis  
way from the north enemies where they lived beyond that
- teūk qal hai ya miL a tcōn des ne kyū wiñ ya in yan  
he walked. Then he thought, "Indians
- 14 na nan deL te hwīn nis te ya k'ōn des ne te hai ded hwīn nis te  
will come to be. My formula they will know. This my formula
- nai din nūw hai hwīn nis te nai xōn des ne deūk ai wil leL te  
they will hear. This my formula they will know. This way  
it will be
- 16 kim na ū hai ya miL teit tes yai ded yī da tciñ teūk qal a kût  
medicine." Then he went. This from the north he was walking along.
- ye ō yī da tciñ teuk qal teit tū win nauw hwil  
Way from the north he walked. He was going along.

- hai ya miL kût ded min nē djit sis le ne kût kûn dũntc  
 Then indeed this middle he came to be. Indeed quite close  
 sis lin hai ya miL hai teit tes yai teûk qal a kût hai ya miL 2  
 he came. Then the he went. He walked along. Then  
 xwôte a man nũ hwon tis mil teit tes yai hai ya miL ded  
 very good eagle went. Then this  
 teûk qal yō yī nũk teûk qal a kût yan tein tañ a diñ hai ya 4  
 he walked. Way south he was walking. Yanteintañadiñ there  
 teûk qal miL teō hwōn tewit te teōn des ne hai ya miL hai  
 when he walked, "He will come after me," he thought. Then the  
 ûñ gya mit tis teit tes ya hai ya miL a teōn des ne kût xō lûn 6  
 he saw beyond it he went. Then he thought, "Indeed it is  
 hwik kim ma ū lan nũ hwoñ a xō lan hai ya miL kût mit tis  
 my medicine much good it is." Then indeed beyond it  
 teûk qal kût xō lan hai ded hwik kī ma ū nũ hwoñ hwin nis te 8  
 he walked. "This my medicine good my formula  
 nai din nũw te la xō gya miL tũ win na hwil te hai de  
 he will know without harm with it he will go by, this."  
 hai ya miL hai mit tis kût yī nũk teûk qal la xō gya 10  
 Then this beyond it indeed south he walked. "Without harm  
 hai ded hwit Lō we miL tũ win na hwil te mī nũ wil gil lil te  
 this my herb with he will go by if he is afraid."  
 hai ya miL mik kya yī nũk teûk qal hai yûk a win nel a kût 12  
 Then from it south he walked. This way he was doing.  
 kas ta' xō ī yī nũk teûk qal yī nũk a teit tes yai teil kûn diñ  
 Kasta' south from he walked. South he went. Teilkûndiñ  
 teûk qal hai teit tes ya yī nũk a teûk qal hai ya miL 14  
 he walked. Then he went, south he walked. Then  
 tse kyō k'a tin nit teûk qal hai ya miL il tis tee mī yī nũk  
 Tsekyōk'atinnit he walked. Then Ittisteemī south  
 k'a is yai yī nũk a teit tes yai yī nũk a teûk qal in tel kai mī 16  
 he went up. South he went. South he walked. Interkaimī  
 hai ya teûk qal hai ya teit tes yai yī nũk a teit tes yai  
 there he walked. There he went. South he went.  
 teim ma nañ a kût hai ya teûk qal yī nũk a teûk qal lei 18  
 Teimmanañakût there he walked. South he was walking along.  
 diL tewag na da a diñ yī nũk a teûk qal lei hai ya miL  
 Diltewag-nadaadiñ south he walked. Then

- ta nañ a kût hai ya yī nûk teûk qal lei hai ya miL yī nûk  
Tenañakût there south he walked. Then south
- 2 teûk qal lei hwa na mi hai ya yī nûk teûk qal lei yī nûk a  
he walked. Hwanami there south he walked. South
- teit tes yai nō wil lin diñ yī nûk a teûk qal hai ya miL  
he went. Nōwillindiñ south he walked. Then
- 4 yī nûk nûn sin kût k'a is ya yei  
south on the hill he went up.
- tis miL a na it yau  
Eagle did it.

## XXVII. WAR MEDICINE OF THE SEKYOXATINNI YOUTH

- 6 se kyō xa tin nit me yī nûk xōL tis tee haL nō na nin deL  
Rock-large-road-goes-up south his sister with they lived.
- hai ya miL ka da xō lûk gai te nauw miL ded tseûk deûk  
Then soon dawn when it would go this hair-wrapper so
- 8 aL tik teit teL dō miL teit teL dō a dit sit miL na al loi xō liñ  
thick she cut, she cut it her crown with she tied it.  
Her brother
- aL teit de ne hai ya miL hai ded xōn din deûk a a lū  
spoke to. Then this ashes this way she did.
- 10 teai ke it tewa hai yûn ded ya nauw diñ na dil k'a de el lū  
She threw them out. This one this goes up place they came.  
They came to fight.
- hai din dai xō ta ta' deûk a na al lū miL sai yō din dai  
Then flint in his blanket this way when he did "sai"  
that flint
- 12 de ne nin tewin na kût dī hwō dō xō nō kûs hai yûñ hai yûk  
said. Bad something does not enter him. That one this way
- a xō lau xō lin xō tseûk a hai ya xōn din hai yûñ k'a a nū  
she does. Her brother his hair-wrapper there ashes that one  
always does that.
- 14 kyū wiñ ya in yan yī de win na hwit ma tee il tewe hai de  
People when they are shot for them she makes it. This
- xōn din de de na na tit lū xō kya ai ta na na tit lū kī ma ū  
ashes here she rubs across. His upper arm she makes a mark  
across. Medicine
- 16 tee il tewe it tewō la diñ me ū teit de ne hai ya hit djit ūñ  
when she makes five times "meū" she says. And then

hai ye xō nis te diñ tee ke e neūw hai yō tsū mes Lōn  
 this her formula she repeats that woman.

tsē kyō xa tin me nō na in deL 2  
 Rock-large-trail-goes-up they lived.

## XXVIII. PURIFICATION OF THE BEREAVED

## FOR MEN

dik gyūñ yī de yī dūk na tel dit tewen lū wūn nin  
 Here north east he came into existence alone.

kyū wiñ ya in yan mē mit tō<sup>e</sup> a de xūs tañ diñ nō na niñ xan 4  
 Dentalia its water close by himself he put.

hai ya miL a' tin ka ūn te tse kai mī ye de dū wil la te tewō la  
 Then every kind Ceanothus intergerimus(?) under him  
 he will put in the fire, five

tce il loi min ne djō xō miL kyū wiñ ya in yan xō hwō a' dī ya 6  
 bundles. After a time a person died.

hai ya miL ūñ wūñ na is deL xōtce a teil lau hai ya miL  
 Then he fixed him. Well he did. Then

me niL ke hai ya miL kiL mūk kai kyō miL na xō wil me 8  
 he finished. Then ginseng (?) with it he bathed him.

hai ya miL ūñ hai kyū wit tel mit tō nañ xa hai ya miL ūñ  
 Then the deer its water stood there. Then

kyū wit tel lūk gai aL sa nō it tō te na de el ya 10  
 deer white so deep the water came. They stand in the water.

hai ya miL ūñ kit te yauw teis tewen kyū wit lel dil mai  
 Then they travel he caused. Deer roan

kit te yauw teis tewen Lō mūnte mit ta' kit tī yauw 12  
 they travel he caused. Lōmūnte among they travel

teis tewen Lax xō na lat ne hwan Lō mūnte mit tū wa  
 he caused. Just like floating around Lōmūnte among.

hai ya miL ūñ hai ya min nē djit kyū wit lel lūk gai 14  
 Then there after a time deer white

ki tī yauw teis tewen hai ya mūk ka kyū wit lel ka dil tewag  
 they travel he caused. There after them deer brown

kī tī yauw teis tewen hai ya mūk ka hai ya miL ūñ hai yō 16  
 they travel he caused there after them. Then that

na' dī yau mit ta nan me na diL wil tewen hai ya miL ūñ  
 dentalia its water they swam in (?). Then

- kit teiñ nō a tūw miL deûk a kit dē ne miL  
open he made it when this way he made a noise when
- 2 nin nis san a meûk mū xûn neūw hwē Le na it dauw hwē  
earth in its noise encircled.
- hai ya miL ûñ hai yûk xe miL xa wil lel kyū wiñ yan  
Then this way he always does. Indian
- 4 miL na wil dit tel kī xûn nai ta' teiñ hai ya miL ûñ kût hai yō  
with he brings along to Kixûnnata'diñ. Then indeed that
- kyū wiñ ya in yan mē hai a teil lau hai ya miL ûñ tewō la diñ  
belongs to Indians that he did. Then five times
- 6 yis kan e miL tewō la sis loi kin niñ dī ketc mûx xa dje k'ō len  
when it was day five bundles yerba buena mûkkadjekōlen
- xō ka na deL waL xō ye de dū wiñ an mûk ka na deL waL  
on him he poured. Under him he put on the fire. On him he poured.
- 8 hai ya miL ûñ nū hwōn na na is ya kī xûn nai ta' diñ  
Then well he travels. Kixûnnaita'diñ
- na xōL dit ten hai ya miL ûñ hai yō kût kyū wiñ yain yan mē  
he brought him back. "Then that indeed belongs to Indians
- 10 ded xan Lûñ nil la me nō na an xan Lûn nañ aL ta  
this so much your hand in it I put. So much you will have.
- La xō kya hai yûk ûn dī ya te xōL teit de ne dī hwō  
Any way this way you will do," he said to him. "Something
- 12 dô xō lin nū win na da a ten kyū wiñ ya in yan ta' diñ  
it is not go by you it is." Indian world
- na xōL dit ten  
he brought him back.

## FOR WOMEN

- 14 dik gyûñ yī nûk a yī dûk kyū wil sai il win te  
Here southeast it is always dry.
- kit dai ye La xō nal a win te hai ya miL ûñ hai xō saik  
Flowers many are always floating. Then the abalone
- 16 kit tō nō na niñ k'an hai kin nes tan nai kyū win xa  
its water he puts there. The tan oak stands there.
- hai ye dik gyûñ yī de yī da teiñ keL san nin wûn nō na  
This here from the northeast girls come to it
- 18 el le ne e lū kī xûn na mik kin nes tan nai kyū wiñ xa  
it always is. Kixûnnai their tan oak stands there.

- dik gyûñ yī na teiñ yī da teiñ xa a nū kel san nin  
Here from the southeast they do the same, girls.
- hai ya miL ûñ hai yûk ke miL a dū win te hai mûk kûs tan diñ 2  
Then this way they always do. This beside it
- La tein din nan mit tō nō na nin xan mit tō hai mit tō  
(a sea shell) its water he placed, its water. "The its water
- nûk ka na deL waL xōL teit de ne hai yō xō saik ke mit to 4  
on you I put," he said. "That abalone its water
- nûk ka na deL waL xōL teit de ne hai ya miL ûñ hai yō  
on you I put," he said. Then "That
- ma xa tein min ne xō len mit tō nûk ka na deL waL 6  
maxateinminnexōlen its water on you I put,"
- xōL teit de ne hai ya miL ûñ hai yō xō ka na de eL wal a miL  
he said. Then that on her when he had put
- hai(?) deûk a a lū xōt sit da kyū wiñ ya in yan ta' diñ 8  
this way he did the crown of her head. "Indian world
- na ne deL xōL teit dē ne teit te it lū xe nek ke hai yûñ  
we come back," he said. He rubs it on her back. This
- tsū meL lōn ma teiL tewe 10  
woman for he makes.

## PRAYERS

- a de ke ma xa nauw dī ya  
"My tracks after I come back."
- dik gyûñ yī nûk a yī dūk nûn sin mū win na 12  
"Here southeast butte around it
- kit tes sō wil tewen hai ya miL miL na neL kōw nin  
a mark made there with I am going, ground."
- kût hwik ka nō win djē ye hwīn nis te diñ 14  
"Now, away from me you want to go. My body
- nō nik kya na dit dauw hwe ne  
do not think about."





## TRANSLATIONS

## PART I

*Obtained from Tom Hill and his son Dan Hill*

I. THE WAR WITH THE LASSIK INDIANS<sup>88</sup>

A war party went far south. All the Indians who used to live on upper Redwood creek went with the party. All the people who used to live below Iaqui butte and at the big bend of Mad river went also. They met on the ridge south of the head of Redwood creek and held the war dance. There were sixty men who had weapons. The dance line was so long that in two places a man stood in front of the line and danced. They shot with bows and arrows and with white man's guns. The party was two days and two nights on the way. They came to the village of Taike, at the mouth of Dobbin creek, and fought with the Indians living there. Many bodies were left lying there.

They turned back and camped for the night. Some of them said there used to be very many Indians living in that neighborhood. Then we went ahead as scouts. When we had gone so far (about a mile) we came to a ridge, which we followed until we came to XōLōkōteme, where they were camping. They were talking. Some of them were laughing and some were crying. Then we ran back south. The war party was coming from the south.

They surrounded the enemy and began shooting at them with bows and arrows. After they had fought for some time they began to shoot with white man's guns. "Bau, bau, bau," they sounded. Then they fled. They got under a log which was lying on the side of a gulch. They began to fight in the morning and were still fighting when the sun was here in the west. They

<sup>88</sup> This is the expedition which avenged the deaths of the Chilula who were returning from Mendocino County. (See pp. 268-291 above.)

carried pieces of bark in front of themselves and went into the gulch to them and killed them all. Their missles were all gone. Two men, brothers, were wounded. They fought until the sun was setting. We started back.

## II. PANTHER AND GRIZZLY BEAR

Panther lived there with his two brothers. He used to spend all his time hunting, but before he set out each time he used to say to his brothers, "You must not go to the top of the ridge west." One day when he had cautioned them and left to hunt, the boys said to each other, "Why does he always tell us that? Come, let us go up on the ridge west." When they were on the ridge they looked and way at the end of the timber they saw an old man lying with his legs crossed. His wife sat by him. They shouted, "Old man over there, come, help us pound." Then the old man said, "What did you say?" "Come, help us pound." "Well," he said, and took down the grizzly bear skin blanket that he wore and put it on. The two boys ran back, went into the house and slid to the door. When they had sat there some time they heard him coming. "Boys, open the door for me," he called to them. When they did not open it, he climbed on the roof and came down the smokehole. They gave him some venison and he began eating it. He finished it and they gave him another helping. He ate that and then all the meat in the house. Finally he ate the untanned hides. When he had finished everything he said, "Well, I will go home." The boys opened the door for him, but his belly was so full he could not go through. He went out the smokehole. The house was nearly filled with the filth he left behind him. The boys began carrying it outside with baskets.

When the oldest brother came home he was carrying two deer which he had killed. "I always tell you not to go to the ridge west," he said to them. He slapped the face of wildcat and pinched out the face of fox.

He spent a night flaking arrowpoints. In the morning he started, carrying five quivers full of arrows. He came where the old man was lying and shot him twice. "Alo," the old man

cried, "what did you put in the fire that snaps so?" "It is the fire snapping, is it? He is shooting at you," the old woman said. Then the old man jumped up and took down the grizzly bear blanket and put it on. The young man kept shooting back at him as he ran after him. Finally he had only one arrow left. The old woman then called to him, "Between his toes." He shot him there and he rolled over. He killed him.

### III. LOVE MEDICINE—YIMANTUWINYAI

Yimantūwiñyai came into being on the hill above Mûkkana-dūwûladiñ. He heard about a girl who had come to be here at the southeast. She did not look at men. "I will go," he thought. In the morning he started. He was looking for a plant as he went along toward the north. A plant had sprung up. He took its leaves and rubbed them in his hands. He took out the root, too, and rolled it in his hands five times. Then he climbed up to the southeast. He looked and saw her sitting there. She looked at him. Finally he came to her. Her eyes were large with crying. "Well," she thought, "you in front of me. Lonesomeness has fallen on me." "Now I am going back," he said. "Well, wait for me. I will go with you," she said. She went into the water and after some time came out with a load. Then they started back. They came back to the hill above Mûkkana-dūwûladiñ.

"This is the way it will be. Indians will come. He will say my formula. This way it will be hard."

This way only.

### THE PRAYER

"You who came into being above Mûkkana-dūwûladiñ, loan me your herb." "Yes," he said. "Well, all right, you know my body (formula). You say it has happened. Well, I will loan it to you. All right, you know my formula. I say not many will know my formula. Well, take it with you." "Yes," he said. "Now I will go back. Now I will take it."

IV. LOVE MEDICINE—YIDETUWINYAI<sup>39</sup>

Yidetūwiñyai came into being at Teexöltewediñ. He heard the name of a Kixûnnai young man talked about who had come into existence at the eastern end of the ocean. When he came there they began to play the stick game and continued playing until Yidetūwiñyai had won all the property the other one had.

On his return when he came to the mouth of Salmon river a Kixûnnai young man who had come into existence under the water came out to him and challenged him to see who would be successful with two Kixûnnai maidens. The Kixûnnai tried first, but after a time started back in despair. The girl said no to him and refused to open the door.

But Yidetūwiñyai walked straight past. Then their heads really came out the door and they said, "Well, come in." "No," he said, "I am going back." He sat down at the end of the resting place. When he looked back the women were really coming behind him. As he looked around himself he saw that dentalia were scattered for a long distance. He went on past the mouth of the Trinity river. The women said to him, "This is the first time you have not desired women." He went on paying no attention to them and came back to Teexoltewediñ. The two women who formerly had never come out of their house when men were about came with him to Teexoltewediñ.

V. LOVE MEDICINE—YIMANTUWINYAI'S ILLEGITIMATE SON<sup>40</sup>

Yimantūwiñyai's illegitimate son was at the northern end of the world where he lived with his grandmother. "I will go visiting," he said one time. "Where is that herb which grew by me where I came into being? Bring it to me." "There it stands, yonder," she said to him. He started away carrying it with him. He came to Mûkkanadūwûladiñ and entered the Hupa (Klamath) river. He came to Weitspee and climbed Bald hill. He came down at Meisdildiñ and went south on this trail to

<sup>39</sup> No herb or other object is used with this formula except the song which Yidetūwiñyai sang as he came down the river. It has no words.

<sup>40</sup> An illegitimate person among the Hupa could only marry one of very low rank. The formulas usually take extreme cases to illustrate their power.

Teittindilekai (Sugar-bowl mountain), where he sat down to rest. Then he went on from the north to Leldiñ.

He was astonished to see smoke standing up before him. Some one was smoking himself in the sweathouse. It was the one who lies in the water who was smoking himself. When he came out his hair reached to his hips. He spoke to the traveler and asked him to come into the house. When they went in women were sitting inside. Then the old man said to him, "Let us go into the sweathouse."

When they were in the sweathouse he talked to him. "Do not let yourself think much about them. They are my women. They come into being for me in my presence in every place. The two sitting in the entrance of the house came here with me several days ago. They came into being on the other side of the ocean southwest. Now I hear two have come into being in the land that faces the eastern ocean. I had thought to go there for them, but you better go. I always go with the plant that is standing at the exit of the sweathouse." "No," replied his guest, "I will go empty-handed."

He started away and when he came where the land faces the eastern ocean he saw two women sitting making baskets. "Well, come into the house," they said to him. He went in. "Put the cooking stones on the fire. Get some water," one of them said. They went out and ran into the water. When the man went out he saw them swimming along way to the north. "Well," he said, and rolled over on the ground five times. He started back. When he came to Leldiñ he brought sweathouse wood and smoked himself. When he finished smoking himself he sat outside the sweathouse. When he looked up he saw two persons coming from the east with blankets spread over their loads. They came there. The next morning they started back. They came to the northern end of the world. There were two women with him.

#### VI. LOVE MEDICINE—THE MT. SHASTA WOMEN

A Kixûnnai young man came into being at the southern end of the world. At the same time an herb came up by him. He did not see any people. After a time he thought, "Well, I will

look for them." He started out in the morning and went up in the sky. When he came to the resting place he shot as is the custom. Then he looked inside of the world. There to the base of Mt. Shasta his vision extended. "There it is they have become," he thought. When he came to the base of Mt. Shasta they said to him, "Well, come in." He went in the house and said, "I am going to stay only a short time. I am going back." "Yes," said the women, "we will go with you." He started back and the two women went with him. They came to the southern end of the world. They spent the night there. Then those women said to him, "You think there are no Kixûnnai who have come into being?" "Well," he replied, "I do not know of any." "Yes," they told him, "here to the northeast is a Kixûnnai. With him two women came into being. They do not see people. They never go out." "I will go there too," he said. In the morning he started. He carried his herb with himself. When he came to the place in the northeast where the women had come into being, they said to him, "Well, come in." "I will stay just a little while," he said, "and then I will go back." "We will go with you," they replied. Then he went back and they two went with him. They came to the southern end of the world.

"I do this for Indians who will come," he thought. "It will be just this way. This way my formula will be hard."

Just this way only.

#### VII. DEER MEDICINE—PANTHER AND WILDCAT

Panther lived with his younger brother Wildcat at Kōtē-mitta'diñ.<sup>41</sup> Panther always went hunting, but Wildcat always set snares. His sister-in-law used to say to him, "I am tired of dressing hides, my fingers ache." Because she complained Wildcat went away. When Panther came home his younger brother was not there. "You must have been saying something to him," he said to his wife. "No," she said, "I only said my fingers ached."

<sup>41</sup> Said to be an old name for Tselûndiñ. (See map in volume 1 of this series.)

Panther tracked him to Senimme.<sup>42</sup> When he came up behind the house he heard talking inside. He spent the night right there behind the house. In the morning he saw his brother come out with two ropes on top of each other. He went up to him at Seninmûkköstûk and said, "I am afraid. Is it not queer you came here? I am afraid of this mountain."<sup>43</sup> They went up to the sky and came where the deer-lick is that is white. There were no trees there, so they made a fence with bunch grass. Then it snowed. They sat there watching until the sun was in the west, when white deer went in. They drove them out of the water and two were snared. They dressed them and placed the meat in carriers made of withes. They got into these carriers themselves and rolled down. When they came to Seninmûkköstûk they stopped. "Well, carry them," he said. Wildcat came back to Senimme carrying two white deer.

Now this way only.

#### VIII. DEER MEDICINE—THE NASLINDIN YOUNG MAN

A young Kixûnnai man came into being back of Naslindiñ. The mountain grew along with him. When he looked out at midnight the mountain had grown up higher. He used to hunt deer. He did not sleep. After a time that one who did not use to sleep slept. He dreamed about women. Notwithstanding he went out in the morning. The mountain which grew up with him was not there. Nevertheless he went out for deer. He climbed up into the sky. There were no deer to be seen. He heard deer snort by the eastern water. "This way it will be," he thought. "Indians will become." He came back. "I will make its medicine." Then he made it. When he looked, it (the mountain) had grown up again. In the morning he went out again and went up to the sky. A deer was standing with its face toward him. "This way it is," he thought. "Indians will come. Even if he does this way, he will kill deer if he has my herb and says my formula."

This way only.

<sup>42</sup> Burnt Ranch mountain, about thirty miles up the Trinity river from Hupa.

<sup>43</sup> Probably because it was the home of a tan or deer god. (This series, I, 302.)

## IX. DEER MEDICINE—YOUNG MAN BECOMES A SHRUB

A Kixûnnai young man came into being in this middle world. He did nothing but hunt deer. He did not sleep. After a time he did sleep and dreamed about women.<sup>44</sup> Notwithstanding his dream he went out the next morning to hunt. He did not see deer. He finally got tired looking for deer in vain. "I will turn into a plant," he said to himself. He became tûnmil-lûwe (a ceanothus). It stood beside the sweathouse. Then the deer came to him and ate it.

"Well," he thought, "I did it for Indians. It will be just this way in regard to deer. It will be this way when one repeats my formula."

## X. DEER MEDICINE—RAVEN

Raven came to be at the southern end of the world. He hunted for deer in vain. He did not see any. Finally he thought he would go away. He pointed his canoe across the ocean. In the morning he started. When he was half way a plant grew up on the bow of his canoe. When he had floated a little way he looked up. A deer was coming up on the east side. When he looked to the west a deer was coming up there also. He floated out at Mûkkanadûwûladiñ. "I will go again to the water's end at the south where I used to live," he thought.<sup>45</sup> He came there to the end of the southern water. In the night he heard something outside. The deer were eating that plant. He took it up from the bow of his canoe and set it out back of his house. They came there for it. Then he saw deer.

"This way it will be," he thought, "if one takes my herb with him."

## XI. DEER MEDICINE—BLACK WOLF

Black wolf came into being at Hundred-acre prairie.<sup>46</sup> He always dreamed about women. Some one told him, "At the end

<sup>44</sup> Such dreams unfit the hunter, and all who eat with him, for hunting deer, and should a deer be killed after such a dream the hunter's soul is believed to be taken captive by the deer gods.

<sup>45</sup> He came down the Trinity and Klamath rivers to the ocean and then went back along the shore of the ocean to his home, where it was believed the Trinity river had its origin in the supposed water of the south.

<sup>46</sup> On the east side of Pine creek.



of the eastern water ten brothers have become. They are very smart and their names have traveled." "I will go there," he thought. Then he started and came to the eastern end of the world. In ten places there was a man carrying a deer-mask on his head. He started back in the morning. They made a load so small for him. He came back to Hundred-acre prairie. When he had stayed several nights some one said to him, "Those Kixûnnai are dead." "Well, I knew that would happen," he thought to himself. "I will go. I will take my herb along with me." He came to the eastern ocean's end. They were all lying dead around the fire.<sup>47</sup> "Get up," he told them. Then he pounded medicine for them and rubbed it on them. "Well, you better go out for deer." They found deer again and killed them. "I did that for Indians who will come. This way it will be hard for the one who does not say my formula." He came back to Hundred-acre prairie.

#### XII. MONEY MEDICINE—THE SCABBY BOY

He came into being at Kesetteitdiñ (mouth of Mad river). He was all covered with scabs. He had ten brothers and a small sister. This sister fed him without the knowledge of her brothers, who hated the scabby one. Nevertheless he used to go out at night and fish with a dipnet. One night he was fishing and saying "yōwe, yōwe." Finally he thought he would go away. He twisted some string. Then he said, "In the morning I will go. Let them come in to me." When they came in, he gave each of them a string of dentalia. "Now, I am going away from you." "Well," they thought, "he is smart." Then he went away to the east, where he is now.<sup>48</sup>

#### XIII. MONEY MEDICINE—KINNAXONTADIN ILLEGITIMATE MAN

An illegitimate person came into being at Kinnaxōnta'diñ.<sup>49</sup> He thought, "With something in his hands he sings. He points

<sup>47</sup> They died because a man who had such dreams had eaten with them or of meat they had killed. (Cf. present series, I, 323.)

<sup>48</sup> For a similar hero and family group see present series, I, 212.

<sup>49</sup> For the location of this village see the map and page 276 of this volume.

his hands toward the west. Then he points his hands toward the east. The dentalia wiggle in his hand. Now, this way it will be. Even an illegitimate person will possess something if he sings this song," he said.

#### XIV. GOOD LUCK MEDICINE—YIDUKATOME YOUNG MAN

A young Kixûnnai man came into being at the eastern water's end. When he came into being his herb sprang up by him. Here on the other side of the ocean to the southwest two women<sup>50</sup> came into being. He used to go there. When he came home he used to wash himself with his herb. Notwithstanding what he did he used to kill deer and get money.

"If one takes my herb with him my medicine will do even that for him."

This way only.

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<sup>50</sup> These the narrator explained were women who were perpetually menstruating. Such women are mentioned in medicine formulas because they represent the sources of extreme ill luck.

## PART II

*Obtained from wife of Molasses*

## XVI. THE COMING OF INDIANS

Yimankyūwiñxoiyan came into being at the northern end of the world. He began thinking about people and how they might be brought into existence. He saw a woman walking along. "I will lie with her," he said to himself, and started toward her. He came to her and did as he had intended. When he had resumed his journey he was very thirsty. He was so thirsty he was nearly falling from weakness. As he walked along he heard flowing water. "Oh," he said, "now I will drink." He fell right into the pool where the water was standing. He drank and drank and drank. A log floated into his mouth with the water. He fell over on his back and lay there thinking he was dead. He was not revived by the next morning. After a time he heard a raven croaking. "I wish he would peck my belly open," he said to himself. Then the raven did peck his belly open. "Phū" the water sounded as it ran out and stood in a pool as it had before.

Yimankyūwiñxoiyan got up and went on toward the south. "I wish something would appear," he thought, when a hollow tree stood before him. "I will go inside," he said to himself. The tree grew together, closing him in. "I wish somebody would do something," he kept thinking. Then he heard pounding where the tree had grown together. "I came here from the southeast," he heard some one say. "I knew what you were doing. It has happened in many places." When the tree had been opened, he came out again.<sup>51</sup>

He went on walking toward the south. He saw a canoe floating about with two women sitting up in it. "I will do that again," he said, and dived into the water. He came up under the edge of the canoe, climbed in, and lay with both of them.

<sup>51</sup> Present series, I, 130-131.

As he walked on toward the south he saw a man walking with his sister. He waded into the water, plucked out some of his pubic hairs, and threw them into the water. They floated to the woman and entered her. She was staggering as she came out of the water. In the course of a day's time she was very ill. "You better call him," she said to her brother. "He may be a medicine man." The brother brought him and he danced and sang over her. "I do not doctor where people are sitting," he said. The people all went out except sapsucker, who stuck to the doorpost and observed what was done. Yimankyūwiñxoian lay with the girl, recovering his pubic hairs in that manner. As he withdrew them he sang a song.

While he was going on again toward the south he saw a woman walking on the tops of the trees. "Come down, I want to talk to you," he called when he came under her. "What is it that you intend doing to me that you speak so?" she asked. She came down, and Yimankyūwiñxoian ran up to her and said, "This is what I will do. I wish that there should be people in the world."

He left her and started on. He was surprised to see three people walking along. "We knew all about it," they said, "how you wished there might be people in the world. It will be so everywhere. People will come into existence because you first did this. Men and women will live together since you first have lain with women. You have not passed by even one woman on your journey. I have thought that Indians would come into being everywhere. When they grow old and die others will be born to take their places. They will come into being one after the other. This is the way the world will be. This is the way Indians will live. I even thought some one would come into the world for their sakes."

After a time he decided to go on. Then they said to him, "These are your children." "No," he replied, "I do not think they are my children." "I think they are certainly your children." "Well, yes, I believe they are mine," he assented.

He went on going among the people. "I will make more of them. When people are living on the earth I do not think they will quarrel, or hate each other, or fight. They will not do dif-

ferently from the way I have done. Those who grow up together will not quarrel."

He went on again. As he walked along he said to himself, "I will go on until I come to a definite place and then I will stop. When the people are living they will be a little south of the middle of the world. I wonder in how many days I shall return to the place from which I started. I will go on to the southern end of the world and then I will turn back."

Then he walked and walked and walked. He saw two persons traveling. "I will go to meet them," he said to himself. When he came up to them they stood to one side. "Why do you go on toward that place?" they asked him. "Turn back. We have heard of many things about you. You must not go there. Go back." "No," he replied. "I am going on. I am now near the south. I am about to arrive there. In two days I will be returning. When I get there I will turn back of my own accord. I shall soon be there."

He went on walking toward the south. He saw two persons gathering something. He decided to go up to them and talk with them. "Why do you go there?" they asked. "They tell many bad things about you." "It is none of your business that I am going to walk to the south."

As he went on toward the south he saw a man standing alone in the distance. When he came up to him, the stranger said, "Many people are living where you are going." "Well, I shall go there nevertheless." He went on and came where three houses were standing. Many people were living there. "Where did you come from?" they asked. "You need not think you are going to do unseemly things here."

He came to the southern end of the world. "I am traveling with no particular end in view," he assured them. "Spend the night here," one of them replied. "Tomorrow when you go back my sister there will go back with you." The next morning he started home, the woman accompanying him as his wife. As they went back he kept saying, "I made the people. I did well." At the places where they spent the nights as they returned he told them that he had been to the southern end of the world. On their return he saw people going out in the morning to bury

a dead person. "Do you think I will travel on the day a person has been buried?" he asked.

He went home toward the north. He saw many people traveling as he went back. When he was approaching his home those he met said to him, "You are returning after a long absence." "Yes," he replied, "I am nearly home now." He came where two people were standing. "Hurry back," they said to him. "Your people are worried about you." When he came near he heard them crying for him. They thought he was dead. They were glad to see him coming back with his wife. Indians were living everywhere.

#### XVI. THE TWO-HEADED MONSTER<sup>52</sup>

They lived at Kittûnnadaadiñ. Four brothers and an old woman came into existence there. After a time the oldest and wisest of the brothers concluded he would go down the creek. He went along, passing Xõntelme, Xõladiñ, and Lõdaikyõxûlladiñ. He entered the creek bed and came out again at Xõmitkyandiñ. Continuing down stream he came out west of Saõlkûtsdiñ. He walked along where the houses used to stand. When he came to the creek as he walked along he heard something making a noise on the hillside on the other side of the creek. He went on toward the north, but noticed the small branches of the redwood trees were falling. He was wondering what was making the noise. Then a two-headed monster appeared from the hill and began to chase him about. He continued to run until he was nearly out of breath and about to die. Finally his breath was gone and he died. The monster had killed him. Then he carried the body across the creek and up the hill to the house where he lived. The house was so covered with moss no one would notice it. The beings who eat people lived there.

When that brother did not come back they were worried at Kittûnnadaadiñ. Another day passed and they were worried. When another day had passed, another of the brothers set out. He came along from the south, passing Kõsda, Xõstatetañadiñ, Teekõlindiñ, Kailũwta'diñ, and Lõtcẽke. Coming to this place

<sup>52</sup> This monster is known to the Hupa. This series, I, 167.

(Tsedemente), he walked on to the south. He crossed the creek, came to Xōntelme, and went on to Kailūwsadiñ. Crossing the creek again, he came to Lōdaikyōxōladiñ and north of that Kinnastanmīye. Again crossing the creek, he came out at Xōmitkyandiñ and then went west from Seōlkūtsdiñ. When continuing toward the north he came to the place where the village used to be, he heard something making a noise. The monster going along made a noise in the timber like the blowing of the wind. He killed him and carried him across the stream and up the hill. Now another was gone. Two of them had been killed.

Again they were worried. Another of the brothers was worried because those who had gone did not return. When the second one failed to return still another brother set out toward the north. He walked along from the south. Three were gone and there was only one left. He was the youngest and only so large. He said to his grandmother, "Today I am going visiting." "My grandchild, why do you say that? They will eat us all up," she replied. She felt for something. When she found his belt she took it out and he put it on. It was so wide. "When you are about to lose your breath do this way," she told him.

Then the youngest started out. Three were not, they had died. He came here toward the north, crossed the creek, came to Xōntelme, and went on to Kailūwtañadin. Then he went on, came to the creek, crossed it and came out into Lōdaikyōxōladiñ. He continued to Kinnastanmīye, came west to the creek, and reached Xōmitkyandiñ. Then going on toward the north he passed west of Saōlkūts, where the house-pits are. Going north beyond the small creek by the house-pits, he heard something making a noise.

Across the stream up on the hillside above Daxaletañadiñ the redwoods were moving back and forth. It was the coming of the monster that made the noise. When he came out into the glade north, Nak'k'ōkōstasaide was coming from the west making a noise. The monster chased him around until his breath was nearly gone. When he was about to be killed he did this way with his belt. The monster fell apart, dead. The man had not taken (the magic thing) out. He carried it home to his grand-

mother who had said, "Carry it with this (the belt)." Then he went across the stream and followed the track up the hillside to *Kauwkyōdaxōntelkūt*. There on the south side near the head of the gulch a house stood on which ferns were growing. He walked to it and went in. An old woman and a boy were sitting there. "Something must have made a noise," the boy said. There was a net lying there, made for catching people on which these persons lived. The hillside below the house was white with the bones of people. When the boy took up the net the man did this way to him with his belt and he fell in two parts. The old woman in turn took up the net. He did the same way to her and she died. "People shall not do this way. They shall live right. They shall not eat people." He set fire to the house and burned it.

He went back south where his grandmother lived. "I have come back, grandmother," he said. "I am glad you came back, grandchild," she replied. "I killed them," he said, and returned the belt. "My body is glad," she said. Her grandchild was left and they lived well after that.

#### XVII. PANTHER AND GRIZZLY BEAR<sup>53</sup>

Panther lived way north at *Kiñkyōlai* with two boys, *Wilcat* and *Fox*.<sup>54</sup> He used to go out and hunt every morning with a deer's head for a decoy. He used to say to the boys, "Do not go up the hill." He always used to say that and then go hunting. He brought meat and cut it up to dry until the house was full of dry meat and hides. This was what he was always doing. He kept telling the boys not to go up the hill.

"Why does he always say that to us?" the boys said to each other. "Why does he keep telling us not to go up the hill?"

They went up the hill and came where a grizzly bear was living. They trifled with him. He went to the house and ate up its contents. When Panther returned he exclaimed, "What has happened?" The house was flat on the ground and every-

<sup>53</sup> See page 352 above for a more detailed version.

<sup>54</sup> It was explained that *Wilcat* was Panther's younger brother and *Fox* a nephew.



thing had been eaten up. He started off, walking. Seeing smoke ascending, he went to the house and put his head in the doorway. He saw a man lying by the fire and a woman sitting near by. He shot the man in his shoulder as he lay asleep. "Alo," the old man said, "what did you put in the fire that snaps so?" "Snapping in the fire, did you say? Do you not know that you have been shot?" his wife asked.

Panther shot him everywhere. There was no result. Finally the woman said, "It does no good for you to shoot his body. That does not hurt him. His heart is in the sole of his foot." Panther shot him there and killed him. He surely died.

Panther went back to his home and rebuilt his house. He took the boys and pushed them into the fire. "Was that what I told you? Did I tell you to go up the hill?" he said. The boys went outside. When it was evening he called to them, "Come in, nephews." They came in and he fed them. How they ate.

He told grizzly bear, the kind he killed, not to do that again. "You shall just live out of doors."

Panther went about again and killed game as before. Soon the house was as it used to be inside. He took good care of the children. They lived well.

#### XVIII. SKUNK'S THEFT<sup>55</sup>

Skunk went in the morning to get bulbs. "Grandmother, sharpen my digging stick for me," he said. She went to a flat stone that lay near by and sang as she worked. The boy began to dance. "Girls, a handsome boy is dancing." They gathered in a circle near him. He emitted flatus. The spectators all bowed their heads to the ground. Skunk ate the bulbs, scooping up the smaller ones in his hands. When the others recovered, they went home carrying nothing but their empty baskets.

#### XIX. THE ESCAPE OF THE CAPTURED GIRL<sup>56</sup>

A girl lived in the middle of the world. The others who lived there had gone west, leaving this girl alone. There were no other

<sup>55</sup> This tale is commonly told by the Indians living south of the Chilula. A version is given from the Kato, in present series, V, 219.

<sup>56</sup> The Hupa have a similar tale. This series, I, 182.

Indians in the neighborhood. As fall was coming on, the girl busied herself gathering acorns and cracking them. A long time passed before the absent party returned.

Once when she was employed as usual sitting facing the door she heard a person outside. She was so frightened that she did not take out the acorn she had just put in her mouth to crack. She saw he was holding a carrying basket before his face. The man came in, remaining on the opposite side of the fire from her. His face had been blackened. "Do not be afraid of me. I have been thinking about you for some time. I knew about you," he said to her. Although she was afraid of him, she gave him some acorn soup. He bade her make acorn flour for their journey.

The next day they started back. They traveled until they came where he had spent the night on his way. They camped there. The next morning they arose and continued their journey. They traveled until sunset, spending the night where he had previously camped. Thus they traveled. "Did you think it would take ten days?" he said to her, "we shall get there in one more day." The next day they started out again. When the sun was in the west they came to a hollow tree.<sup>57</sup> The man sat down outside and told his companion to be seated. When they went in the girl found it was a large tree with plenty of room inside. Obsidians lay around everywhere. South of the tree was a pond of water. There were many crates of dry meat in the house. "Do not be afraid," the man said. "Eat."

When they had spent several days thus the man said, "I would like to eat some fresh meat." He felt around the south side of the room and took out a package. The woman watched him as he went out and entered the timber. She went along the edge of the timber watching him. In the timber was a small open glade in which a band of elk were feeding. The man was holding the package under his arm. The woman was able to watch him without his seeing her. "What is he up to?" she was saying to herself. When he came to a favorable place he did this way with the package<sup>58</sup> and the elk fell down.

<sup>57</sup> Hollow trees were frequently used as houses (p. 273).

<sup>58</sup> He pointed it at the elk as was shown by a gesture.

The woman went back and went into the tree again. When the man came in he said, "I am going to do the butchering. I will eat fresh meat." He started away. The woman had seen him put the package down. She took it up and followed him with it. She came upon him as he was butchering and did this way to him. She went back, carried the package in, and put it down again. When after a time the man came back again, he complained that his head ached. By night he was nearly crazy. "I am worse," he said, "drag me to the pond and throw my body in. Throw the package in after me." When he died she did as he had asked.

The next morning she selected three red obsidians, three robes, and two black obsidians, put them in her carrying basket, and started home. On her return journey she camped each night where they had camped on the previous journey. It took her just as many days to return as they had taken in coming. As she came near her home, she heard a noise. It was the falling of the tears which she heard. When she had put her carrying basket down she asked what they were crying about. "You are crying for me too soon," she told them. She went in the house and found that after they had returned they had cut their hair off even with their chins. She told them about herself and the man who had taken her away.

## XX. BEWITCHING OF THE OLD WOMAN OF SELGAIKALINDIN

They were living together at Selgaikalindiñ. They went west, leaving an old woman like me (the narrator), who stayed behind. A girl was living alone across the creek on the east side. The people were gone a long time. Finally they came back from the west.

The old woman had not eaten that day, but had walked down the hill. She kept saying to herself, "Something large has been dragged along the trail." It was fall and the sun was low in the west. "I will spend the night with her I think. I am lonesome," she said. "Well, come in," the other said. The woman was all the time making faces, peering under her hand. She did this because she had witch medicine. "Why do you

keep doing that to me? Why don't you go to bed?" She had buried her bad medicine in the ground. After a time she had cracked one basketful of acorns. She still sat there watching her. "Why do you do that to me?" she asked. She finished shelling another basketful. The dawn was looming up. Soon it was fairly light.

"Go out," she told her. She drove her out, saying, "You came here to sleep." Under the bed there were two baskets with their open ends pressed together. She took them out and threw them after her, hitting her. "Die. Let it go into your body. The basket smells badly," she called after her.

The next day the girl said to herself, "I will take a walk." She came to a log under which a person's dead body was lying. It was the body of the old woman into which the evil power had entered. The rotten wood had fallen over the body, covering it up.

"I will go up the hill," the girl said to herself. The people of the village were busy at different occupations. Some of them were soaking acorn meal. She went into the house, where fish which they had brought from the coast was lying. They gave her some of the fish to eat and asked her if she had seen anything of such an old woman. "When we came back yesterday she had gone out," they said. "She did not come to see me," the girl replied. She started home, carrying her load of fish. "I did not see her," the girl said to herself. She came back to her home.

#### XXI. BEWITCHING OF THE LITTCUWHWINNAUWDIN GIRL

Two men and a sister were living across the creek from *Litteūwhwinnauwdiñ*. One time a man came from the west who said, "You better bring acorns across the mountains to me." They loved their sister very much, but they concluded they would carry loads of acorns across to the coast. They warned their sister not to leave acorns outside the house.

They set out toward the west with their loads, going into the forest. They went down to *Seyekyōkait*, where they stopped to drink. Going up the ridge, they came to the resting place. When they had gone a long way they came to *KinsinLōk*. They crossed

the creek and went on until they came to the ocean, where they sat down. They sat by the village of Tōtcindinnūndiñ. When they came to the house of the man who had asked them to bring acorns they sat by his door.

“Call them in,” he said to some one. “Come in,” that one called out. They ate supper. When they had finished eating the old man said, “Well, let us go to the sweathouse.” The men went to the sweathouse and lay down pretty close to each other. The old man got up and took something out from the eastern side. “Are you asleep?” he asked. They did not answer. When he kept asking them they knew what he was about to do. When the dawn was about to appear he was going to kill them by magic. The strangers moved the old man’s sons and lay in their places. The old man felt about and rubbed something as he supposed in the mouths of his visitors. About dawn they heard something making a noise in the sons’ throats. It was the black fluid in their throats that made the noise. Then he felt about and found that it was that which made the noise.

Then the wise one spoke. “You did not have good intentions when you asked that we bring you loads.” They had already made up the loads of surf fish and seaweed given in return with mortars in the middle of them. The old man told this man if he would not tell on him he would give him a woman and red obsidians. The man said he did not want such a woman.

“Well, let us go back,” they said. Then they started back and came out again at KinsinLōk. When they had crossed and were going up the other side they heard that the boys had died after they left. They went along until the sun was in the west and they had come to Tōyekyōkadūkka, where they had intended to camp, when, fearing that their sister might leave acorns outside, they went on.

The old man was walking after them, vainly trying to overtake them. They heard him as he was coming along. One of the brothers told the other to sit below the trail. He himself sat above the trail with a knife in his hand. A log lay there over which one had to climb. When the one following them jumped over the log one of the brothers jumped up in front of him and stabbed him here. Then the one sitting below the trail

jumped up, caught hold of him, and stabbed him repeatedly. They cut him to pieces.

Then they came back from the west to the Teswan village. From there they went on to Satsmittōdiñ. It was rather warm as they passed along. They went on, coming down to Kaiistmittōdiñ, crossed and went up the ridge to Teimmetauwitkût. When they came along the ridge on their way home they heard a noise in the direction of their village. They nearly fell with the heat (?). They found that their sister, on whose account they had hurried back, had been killed by magic poison. She had been killed the night before as she was bringing in acorns. They did not feel so badly, for they had killed the man who caused her death and had cut him to pieces. Those two who had loved their sister very much came back to their home.

#### XXII. FLIGHT OF THE MURDERERS

There were people living at the village of Kittûnnadaadiñ, where there was a sweathouse. Some one came to the village and said to the headman, "Some people are coming to you today from Katewûndiñ, on the Trinity river." "Very well," the headman replied. "I am not afraid. Let them come. Let them come at once." Soon he saw an Indian. "Are you willing that many of us should come to your village?" he asked. "I came first to ask." "I am not afraid. You may come," he replied. "In two days you may expect many of us," he said, and started back.

After a time four men came up the hill. "Are you afraid of me?" one of them asked. "It is all right. I am not afraid," he replied. "You may bring your people to my village." Then it happened that way. There was a fight at the murderer's village. He brought his family to Kittûnnadaadiñ. At that village the sweathouse stood south of a large maple tree which had several spreading branches. There were five people who came. It was winter time, there was snow and it was cold. They spent several nights at the village, the women sleeping in the house and the men in the sweathouse.

Then it happened that a man came there holding a bunch of brush before his face. Another man came in. One of the women ran out to call the men. She came to the entrance of the sweat-house and called out, "Hurry, they are attacking us." There were two men staying at the time in the sweathouse. The enemy put fire to it and burned it to the ground. Three of them escaped to the creek, plunged in, and crossed to the timber on the opposite side. They lived there in the timber until giant ferns grew on their shoulders. Finally they came back and lived happily afterwards.

#### XXIII. REJUVENATION DISCONTINUED

He-who-came-down-for-the-world came into existence here at the northern end of the world. He started traveling. He thought about this. He came walking from the north. He came to the middle of the world. He walked on. He came to that which points toward the sky. He came where the hill stands. He arrived there. He made hills stand on either side. There used to be one that stood up.

"People will live well. They will travel safely." They used to go up this hill and become young again. When a person who is old like me went up this hill toward the east he became young again. It was this way. After a time one company of people went up the hill. It happened to them that they were rejuvenated. Then the one who lives way south said, "This hill will be mine only." He did not like it that those who traveled on it should become young again. He did not like it to be tall.

#### XXIV. THE FLOOD

He used to live by the large butte that stands here. Water came. The water flowed over every part of the world. Then only so much of the hill was not covered by the water. All kinds of animals swam to it. Then the water which came dried up again. The people lived happily again after the ground was dry. Just the Kixûnnai lived on this butte.

Here is the end.

He-who-came-down-for-this-earth thought the people had talked very badly. Because of that the flood came. Thus they will live well. After that he made it good.

#### XXV. MINK'S GAMBLING MEDICINE

Mink came into existence at the mouth of Redwood creek. He said to himself, "I will travel along the creek toward the south." He always lost when he gambled. He was slim like this (gesture). He tied his hair with a band and started from a place north of here, walking along this trail. His tears were falling, he was so sorry for himself. He went along until he came to Neskintceindiñ, where the alders grow. "I will lie down for the night in the Douglas spruce timber," he said to himself. A limb of a tree half way up the trunk broke off and fell. "Oh, how poor I am," he said to himself. He smoked himself with the Douglas spruce boughs and sang a song. He stood in the smoke all night.

When it was morning he walked on toward the south until he came to Kinnakonta'diñ, where the village was. A man who lived in a house standing at the southern end of the village came out. He immediately clapped his hands together as in gambling and made a correct guess. "You are just my match," said the man from the north. "What will you wager?" asked the other. "Oh, this hairband I think," replied the first. "We will play for that."

They took seats facing each other and commenced to play. "Do this (shuffle)," he said to him. He pointed and won. Again he did it. He shuffled ten times and won. It was mink who won. He was winning right along. He piled up his winnings behind himself. Among them lay the hairband. They kept on playing while two and then three nights passed. Mink continued to win. "I will stay a fourth night and then I will go home," he said. When the fourth day had passed he started back, going north along the road. His winnings were so large he could hardly carry the load. He went back toward the north until he came where he lived.



## XXVI. EAGLE'S WAR MEDICINE

Eagle was about to start out from the north to travel along this way. He was told that no one ever passed beyond a certain place. He resolved that he would go there nevertheless. He made medicine in this manner (stuck an herb in his hair). "Well, I am going," he said, and set out from the north along this trail. He came from far north to the place where those lived who were hostile. He walked past saying to himself, "When Indians come into existence they will know about me. They will hear about this formula of mine. Those who know my formula will make medicine this way."

He walked this way starting from the distant north. After a time he was halfway. Then he was close by. Eagle walked along looking very fine. He passed here walking toward the south. When he came to Yantcintañdiñ, he said to himself, "He will come after me."

When he saw that he was getting safely by he said to himself, "This medicine of mine is very good." He went by. "This medicine of mine is good. He who knows it will go by without difficulty."

Then he went by to the south. "With this herb of mine he will pass along. They will be afraid of him." He went from them walking south. He came to Kasta'diñ and from there went on south. He walked by Teilkûndiñ. He went on south to Tsekyōkatinnit. Then he went up the hill to Iltistcemī. Still traveling to the south he came to Intelkaimī. He walked by there and went south to Teimmanañakût. He walked by and went south to Diltewagnadaadiñ. He went on south to Tenākût. He went south to Hwanamī. From there he walked south to Nōwilindiñ. Then continuing to the south he went up the hill.<sup>59</sup>

Eagle did this.

## XXVII. WAR MEDICINE OF THE SEKYOXATINNIT YOUTH

He lived south of Sekyōxatinnit with his sister. When the dawn was about to travel she (the sister) cut a hair-band so wide. She tied it on the hair of the crown of her head. She spoke to

<sup>59</sup> The place names are those of villages and other important places in the Whilkut country along upper Redwood Creek.

her brother. Then she threw ashes out like this. When the enemy came to the entrance to fight the striking flints caused the blanket to shake and make a noise like "sai." Nothing bad entered his body. This way she did to her brother with the hair-band and the ashes.

She made medicine when people were to fight. She rubs ashes on his face making horizontal lines below his eyes and across the upper portion of his arms. Having made the medicine she shouts "meu" five times and repeats the formula. They lived at Sekyōxatinnitme.

#### XXVIII. PURIFICATION OF THE BEREAVED—FOR MEN

He came into existence alone here northeast. He put the water of dentalia close by himself. He burned five bundles of *Ceanothus* brush and stood in the smoke.

After a time a person died. He fixed the body properly. When he had finished he bathed (the mourner) with ginseng.

The deer's water stood there. The white deer stood in the water which came so high on them. He caused them to travel. He caused the roan deer to travel. He made them go where mint was growing. It was as if they were floating in it. After a time he caused white deer to travel there. After them he made the brown deer travel. Then they swam in the water of dentalia. Then he opened (the pond) and when he opened it the noise encircled the earth.

He always does this way, with it he conducts the person to Kixūnnaita'diñ. That which he did belongs to Indians. When it had been day five times he placed five bundles of yerba buena under him on the fire and poured a decoction of mûkkadjek'ōlen<sup>60</sup> over him. He travels well. He brought him back from Kixūnnaita'diñ. I put this much of that which belongs to Indians (tobacco) in your hand. You will have so much. You will do this way in any case. Nothing will go by you," he said to him. He brought him back to the Indian world. After this it was so.

<sup>60</sup> *Leptotaenia Californica.*

## FOR WOMEN

It is always dry here southeast. There are always many flowers there. He puts abalone water there. A tanoak stands there. The girls always come to it from the northeast. They also come from the southwest. He placed the water of a sea-shell by it. "This abalone's water I sprinkle on you. This maxateinminnexölen's water I sprinkle on you," he said to her. When he has put the water this way on the crown of her head he says, "We come back to the Indian world." He rubs it on her back also. He makes it this way for a woman.

## ADDITIONAL INFORMATION

After the dictation of the above given text, the following additional information concerning this purification ceremony was secured, chiefly in reply to questions.

The medicines used are five bundles of *Ceanothus integerrimus*, the roots of ginseng, a vine, probably yerba buena, *Micromeria Chamissonis*, and the roots of *Leptotaenia Californica*. When the medicine is made for women the shells mentioned in the texts are put in the fluid, whole. The bundles of *Ceanothus* are used for fumigation. The medicines are brought in a carrying basket, pounded in a basket-mortar, and boiled in a basket-bowl by means of hard stones called se Littsö, "stones blue." The medicine is prepared in the dwelling house. The ginseng is used on the first day, the others mentioned on the second, third, and fifth day after the death. No ceremony is held on the fourth day. The formula given above is repeated during the preparation of the medicine on each of the days it is made.

The man who digs the grave (and who is the nearest able-bodied male relative) has a fire to the right of the regular house fire as one enters. A board is placed on edge to separate the two fires. The grave-digger is given two meals a day, one at sunrise and another about four in the afternoon. He is allowed to eat dry salmon and surf-fish, but not fresh salmon or eels, or meat in any form. After the evening meal he goes out to the grave carrying or wearing a bundle of Douglas spruce boughs over his head. He builds a small fire by the grave-side and cries, saying,

"I have come for my tracks." The bundle of boughs is used in the house for a pillow. When the ceremony is completed, this bundle of boughs, the board used to fence off the fire, the baskets used in cooking for and in feeding the grave-digger, and the clothing he has worn are carried up to the east and put in a tree. The place where he lay is carefully smoothed out.

A medicine called kimau lûkkau, "medicine fat," probably *Osmorrhiza nuda*, is given internally on the fifth day with fish and eels, when the first regular meal is given the mourners. The bath in the river, used by the Hupa, is not permitted by the Chilula. If there is no deer meat at hand for the meal of the fifth day, deer sinew is used instead. The person who makes the medicine receives the various baskets used in the ceremony, and a string of dentalia, valued at five dollars.

When the grave-digger is ready to break the ground he says: "I make a mark around the butte here southeast. I am going to dig the ground here with that."

The Chilula do not put a basket in the doorway as do the Hupa. They carry the body out through an opening in the side of the house, not through the doorway. The body is taken out head first, the grave-digger taking the feet. The family may eat while the body is in the house and the grave-digger is required to do so. They used to put dentalia in the ears and nose of the deceased.

When the body is about to be buried, it is addressed as follows: "You must go away from me. You must not think about me."

The informant and her husband were showing signs of uneasiness. The interpreter replied to a question that they were afraid. "The sun hears it all and will do something bad." The informant threw away a chip with which she had illustrated the position of the board used, and exclaimed, "Disregard what we have said."

## XXIX. A SUPERNATURAL EXPERIENCE

Four years ago I did not see the world then it happened that I did something. I died. I dreamed that I was here in the southeastern world in a large cloud. A feather ornament was moving this way and singing thus. It was the one who came for me who was doing it.<sup>61</sup> A little while I am holding you. For a short time I will live again." Then I sang it after him. I sing it every night. After a time I got well.

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<sup>61</sup>The person meant is the supernatural leader of the shamans. He is said to be the child known to the Hupa in the myth found on page 187 of volume 1 of this series. Molasses' wife was a medicine woman for troubles caused by the deer gods. As such, she was on her way to the world of the southeast on the sky, not below to the world of the ordinary dead (this series, I, 74). So certain was her husband that she was dead that he went for lumber to make her coffin.



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## ERRATA

- Page 99, line 20. *For* was read were.
- Page 106, line 13. *For* succeed read succeeded.
- Page 114, last line. *For* Yokut read Yokuts.
- Page 126, line 3. *For* but read hut.
- Page 204, line 19. *For* Hrdličl read Hrdlička.









