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ASPECTS OF THE ECONOMIC LIFE OF SOME NOMADIC NHARO BUSHMAN GROUPS

By

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Cape Town Kaapstad

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(With plates 5–19, 6 figures and 2 maps)

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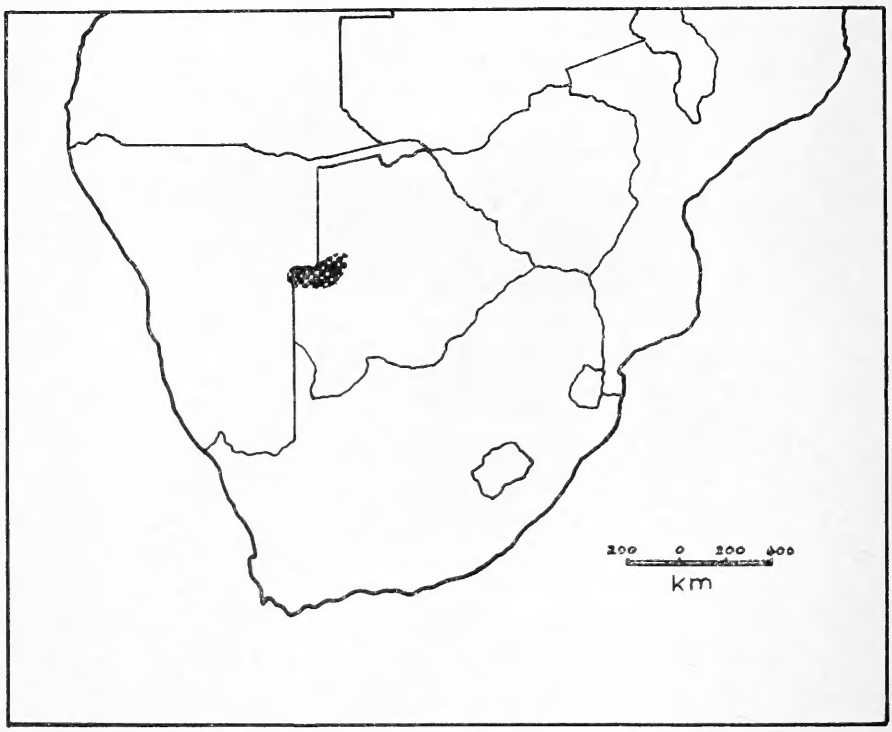
Introduction

The Nharo Bushmen, the subject of this paper, number an estimated 2 500–3 000 and are distributed over an area of more than 38 500 square kilometres (15 000 square miles) (Map 1) stretching from the eastern farms of the Gobabis district (South West Africa) to east of Ghanzi (Botswana) and from north of Dekar southwards to Lone Tree Pan and westwards to Kuli in the south-west (Map 2).

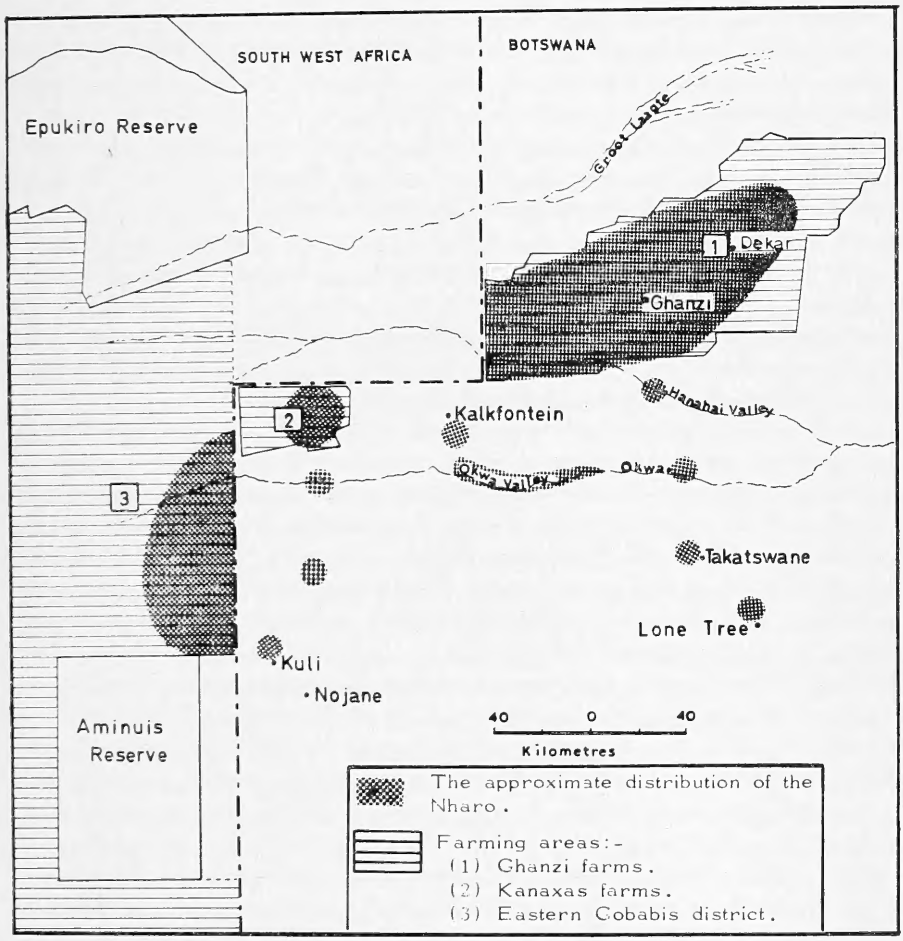


Map 1. Shaded area indicates position of Nharo.

The Nharo are in contact with various other Bushman groups. In the northern and north-western areas, which include the Ghanzi and Kanaxas farms, they are in contact with the ≠au-//ei; in the south-east and south-west at centres like Okwa, Takatswane and Kuli they meet the /kõ; while at Lone Tree, Takatswane, Okwa, Hanahai and on the Ghanzi farms they are also in

contact with the G/wi. On the eastern Ghanzi farms intensive contact occurs with various groups, including G//ana, Tsao, Tsere and others. Contact away from the farms is rather sporadic and usually takes place during spring and early summer when veld groups are forced to the waterholes by a lack of water-bearing plants and other veldkos (plant foods).

On the whole, the Nharo is by Kalahari standards an advancedly acculturated Bushman group. This can largely be attributed to two factors, namely the establishment of farms on or near areas earlier occupied by Nharo, and the Bantu settlements at the permanent waterholes in the area.



Map. 2. Distribution of Nharo in relation to farming areas.

The farms represent the more intensive influence and today there are three farming areas which directly influence the Nharo. These are the Ghanzi block, the Kanaxas block and the farms of the eastern Gobabis district (Map 2). The

pattern of transition resulting from this contact shows three broad categories among the Nharo:

(1) Those living largely permanently on the farms.
(2) Those who live in the veld if conditions permit, who periodically associate with Bantu at the waterholes during times of scarcity.
(3) Those not permanently associated with the Bushmen in either of these categories, who may squat on the farms, visiting relatives and friends and go hunting in the veld seasonally.

There are among the Nharo no full-time hunters and gatherers left. This paper describes the economic life of Nharo living seasonally near Kalkfontein, Hanahai and Kuli in the Ghanzi district of Botswana. Although the material presented here was gathered at all three of these centres, the major source of information was supplied by a community study of a Kalkfontein band.

Due to its customary use in the description of Bushman group structure, the term 'band' has been retained. For purposes of this paper it simply means a group of Nharo living together. 'Bands' are rather fluid units that regularly break up during times of scarcity, with their members (or at least some) regrouping during better seasons. Though usually having a kinship basis, the factor of friendship also plays an important role in bringing people together. Due to intermarriage some Nharo bands even have /kõ members (though Nharo-speaking), while a Nharo family was found included in a G/wi band on the basis of friendship alone. Nharo bands also lack central authorities, and though bands have areas in the veld which they consider to be their hunting territories, boundaries are non-existent, as is territorial defence. /Kõ Bushmen were often found living in areas where the author had found Nharo on previous visits. The Nharo described these /kõ as 'friends' and said that they did not mind their presence in the area, provided that the /kõ hunted towards another side and did not build their village near them. In such cases they often visit each other.

These Bushmen hunt and gather seasonally, coming from the veld during times when water-bearing plant foods are scarce, to live in economic association with Bantu (mainly with Kgalagadi but also with Herero and Tswana) at the waterholes until the next rainy season permits them to return to the veld.

This study has what can be termed a 'technological approach'. In the author's opinion material objects, however, are dead things if not viewed against the background of their function in a specific society. This paper, therefore, is an attempt to present an account of the way in which material possessions are used, and their function in the economic life of these Bushmen.

Two important points should be noted in connection with Nharo technology. Firstly, the lack of specialization must be mentioned. Though some Bushmen are better craftsmen than others, each man or woman is responsible for the manufacture of his or her own household utensils and subsistence equipment. The men, however, manufacture the majority of objects. Secondly, the multi-purpose utilization of material objects should be noted. A skin cloak,

for instance, is not only used as a garment but also as a collecting bag, as a blanket and as a carrier in transporting wood and thatching grass. Due to the same principle, a digging stick is not only used for digging, but also as a club, as a haft for blades used in woodworking, and can even be used as a 'donkey' by children who ride them in their games. As single items of equipment are used for several purposes it cuts down on the quantity of material holdings. The wider the use of items of equipment, the less they have to carry. The practice of borrowing freely and lending among members of a band further contributes to their mobility.

Orthography

The Nharo language has 4 clicks, symbolized as follows: the dental (/), the lateral (//), the alveolar-palatal (*!*) and the alveolar (≠).

In Nharo, gender is denoted by noun-suffixes, being -ba (masculine) and -sa or -sha (feminine) in the singular. In this paper the plural suffix -dzi is also sometimes used.

The symbol (˜) above vowels denotes that they are nasalized, e.g. *hõkxusha* (wooden mortar). A short pause is represented by the symbol (-), as in *g!o-hiba* (springhare-hook), *n//o-/wasa* (small quiver), etc.

Settlements and daily life in the village

THE VILLAGE

The layout of the Nharo village (*//aisha*)* is in accordance with the typical Bushman pattern of grass huts or wind-breaks clustered closely together.

The general choice of a site depends on various factors, the most important being the presence of game and veldkos in the area. In the selected locality the placement of huts depends on such factors as the availability of firewood, thatching grass, shady trees and the presence of ticks.

Huts are usually not built under trees in which a certain tree parasite (Loranthaceae) is found, as it is believed to cause illness.

The village consists of several shelters built by the women, each woman being responsible for the building of a hut for her family. To ease the task of the women, who also might have to collect veldkos at the same time, men sometimes assist in cutting branches and collecting thatching grass. There is no fixed pattern of village layout. Normally, however, kinsmen like brothers live near to each other, while old people, often living alone, build their huts slightly away from the others. The Nharo hut (*n!u-sa*) is usually a crude structure made of branches which are planted in a semicircle with the ends 25–30 cm into the ground. The top ends are woven together and smaller branches added thus forming a dome-shaped framework with a large opening. To strengthen the structure, branches are sometimes bound together with thong, bark strips or pieces of rag. The structure is then thatched with grass. If grass is gathered only

* Also called n!u-dzi; lit.—'huts'.

gradually because of scarcity, the structure is sometimes temporarily covered with sleeping-skins or blankets. When rain or a cold wind comes from a specific direction, the opening of the hut is changed by using material on the down-wind side of the hut to close the opening facing the wind.

The size of the huts varies in accordance with the number of occupants. The average hut-diameter is about 2 m and the height about 1·5 m. Old people living alone have much smaller huts. Huts usually face towards the east, thus enabling the Bushmen to utilize the early morning sun during the winter and to obtain shade in the heat of the midday and afternoon.

Nharo living in a more permanent association with Bantu build more permanent huts having a smaller opening, sometimes with a door. Nomadic groups, on the other hand, sometimes do not build huts at all during their temporary stay near the water, but simply camp under the trees. A few branches are sometimes dragged under the tree and arranged in a rough semicircular structure which is thatched with grass, thus forming a low windbreak without any overhead protection. This type of shelter is not normally made during the rainy season or midwinter with its cold nights, but usually only when the Bushmen know that their stay will not be long enough to justify the building of huts.

Although a hut symbolizes the accommodation of a family or person, it is not necessarily the place where a person spends most of his time. The hut is primarily a sleeping-place and a shelter and not so much a living-place. Most activities are performed under the trees or in front of the hut next to the fire, rather than inside the hut.

The hut is also the storage place for most of the material holdings of its occupants. Digging sticks, bows, quivers and spears are usually tucked into the thatch, while skin bags are hooked on to branches which form the roof of the hut. Water containers like tins and ostrich eggshells, and other domestic equipment such as iron pots, tins, mugs, axes, ash-scrapers, whetstones, mortars and pestles, etc., are placed on the ground against the walls of the hut.

Huts are usually occupied by a man, his wife and their young children. When children reach an age of 8–10 years they leave the hut of their parents to sleep in their own smaller huts, built by their mother near that of their parents. In accordance with the incest prohibition brothers and sisters have separate huts. The younger children live with their parents. It should be mentioned here that among the Nharo, children reaching an age of 8–10 years often go and live with certain relatives for some time. This stay should preferably be with one of the grandparents, if they do not live too far. Otherwise they will stay with their father's elder brother or with their mother's elder sister. In such cases regular visits take place between parents and children.

DAILY ACTIVITIES

The Bushmen rise early and at first light individuals can be seen blowing the embers and building the fires. Gradually others join them and at sunrise

small circles of Bushmen huddle round different fires in the werft (settlement). The men going on hunting and trapping activities usually do not leave the werft before 9–10 a.m., and the first part of the morning is devoted to the planning of the day's activities, eating, talking, and repair and maintenance of equipment. The game is therefore left undisturbed during the early part of the morning, thus heightening the possibility of success in trapping.

The time spent on hunting and gathering per day depends largely on the success of the day's venture. The more successful the men are, in other words, the larger the animal trapped, the later they will return. This is because the larger antelopes (wildebeest, hartebeest, etc.) flee much further when trapped than the smaller animals (steenbok, duiker, springbok, etc.) and the men therefore often only return at sunset. Although men are sometimes forced to sleep in the veld for fear of losing a trap or the caught animal to predatory animals, it is extremely rare. Women on the other hand return later if they are less successful in gathering because they have to walk further. Normally, however, they return in the early afternoon.

Hunting and gathering activities are regularly alternated with periods of economic inactivity. As the periods of rest and activity among the various members of the group do not necessarily coincide, the village is never completely deserted during the day.

The typical daily activities of Bushmen in the village can be described as follows: The early morning is spent socially round the fire with others. Gradually these gatherings start to break up as people busy themselves with tasks of a personal nature. Men may scrape and cure skins, repair metal traps and trap discs, sharpen scrapers or spears, cut digging sticks, repair skin bags and cloaks with an awl and sinew, play musical instruments, roll fibre into a rope to be used for making snares, scratch thorns from the soles of their feet, sleep in the shade or lie talking idly. If tobacco is available, talking and smoking are synonymous, the pipe being passed round the circle, including women and the older children.

Various types of metal pipes are in use. Often found among Bushmen who have been in contact with farm Bushmen is the type made from a length of the standard 1·90 cm ($\frac{3}{4}$ inch) and 2·54 cm (1 inch) water pipe, 10–18 cm in length (Plate 5). Another type is made by cutting off the heads of both a medium and a heavy calibre cartridge case and pressing the two cases into each other, thus having a thinner tube with a wider bowl. Also common are pipes made from discarded food tins (Plate 6). A length of wood is cut in a conical shape and a piece of tin folded tightly around it. Where the two edges meet they are folded and securely riveted. The wood is then simply pulled out. Metal pipes are usually decorated with lines and triangular designs filed round the bowl rim. Although some bone pipes (preferably made from the thigh-bone of a springbok) are still in use, they are not commonly found. As all the pipes used by the Nharo have wide stems, a small plug of bird's nest material is placed in the mouthpiece, thus acting as a filter and preventing the tobacco from falling

out. After smoking, the bowl of the pipe is stuck into the sand to prevent further smouldering, thus saving tobacco.

Women not going out on collecting trips may keep themselves busy making ostrich eggshell beads, repairing their possessions, decorating skin bags and clothes with beads or doing their toilet. While lying on the ground talking they also look for insects in their skin garments, etc. For the greater part of the day, however, they must give attention to food preparation, and the pounding of mortars can be heard all day. The principal task for women during the late afternoon is the gathering of firewood for the night.

Children staying in the village pass the day with games and tree climbing, build miniature huts with little fires in front, roast birds the boys have killed and swing themselves on a thong fastened to the branch of a tree. They may also pound melon seeds or meat for themselves, imitate the dances and clapping of the adults and sleep in the shade when they are tired. They often join their parents round the fire, listening to their conversation.

At sunset the huts are swept by the women, using branches or bushes. The sleeping-skins are then taken from the trees where they are stacked during the day and spread out in the huts. As a rule the Bushmen go to sleep early if they do not have something specific to do such as dancing or entertaining visitors, or if meat was brought into the village during the afternoon, or they have some delicacy, such as coffee, to be cooked. A minimum of bedding is used. Grass mattresses are used by way of exception. As a rule only a special sleeping-skin—often made of goat, springbok or duiker skin—with the hair left on it, is used to sleep upon. These skins are spread on the sandy floor of the hut but with the hairy side upwards. If it is cold the Bushmen cover themselves with the skin cloak (*gwasha*) and old blankets; the latter are in great demand and are obtained by buying and bartering. Besides this the small fire, kindled in the entrance of the hut and kept burning during cold nights, aids considerably in warming the hut. Dogs therefore often sleep next to their masters near the fire. The Bushmen sleep with their feet towards the fire. There are, however, no fixed rules concerning the sleeping positions of members of the family in relation to each other. A woman can sleep on either side of her husband, while the children can sleep on any side. Normally though, boys would sleep on the father's side and girls on the mother's side. If there is a baby, the man and his wife are supposed to sleep away from each other on opposite sides of the hut, as sexual intercourse is prohibited until the baby can walk. A man also has to sleep away from his wife during her menstruation but this rule does not apply to the children, who are allowed to sleep near their mother.

FIRE

Fires are made in front of huts, about a metre from the entrance. This prevents the hut from catching fire and leaves enough space for people to gather in a circle around the fire. During cold nights a small fire is kindled in the entrance of the hut. Even when large quantities of dry wood are available

fires are kept relatively small, allowing people to sit in small closed circles around the fire. Fires are the central points for social intercourse and, save for the hottest part of the day, Bushmen can be found squatting around fires, cooking, talking and smoking.

The gathering of wood is the task of women, though men often assist. Women usually carry wood with the aid of skin cloaks which are folded around the wood.

Nowadays fires are usually kindled with tinder-boxes which are bought at the shop or traded. A piece of fungus is powdered and put into the tinder-box as it starts smouldering rapidly when sparks, resulting from a piece of metal being hit with a flint, are directed into it. The smouldering bit of fungus is then scratched out, put under soft grass and blown to kindle the fire. Cheap cigarette-lighters are also in circulation among the Nharo, while matches are in big demand.

Though it has fallen largely into disuse because of the ease of starting a fire with the aids mentioned above, the method of fire-drilling is still practised. The end of a length of hard wood is put in a shallow hole in a length of softer wood which is kept flat on the ground with a foot. The hard stick is then twirled with the hands. A second man often assists in this to speed up the process. The friction causes the forming of smouldering powder which is put under soft grass and blown.

After the first fires in a new werft are kindled others are started by taking a burning stick from an existing fire. Bushmen leaving the werft on hunting trips cover embers with ash to keep them smouldering. On their return the embers are fanned with small bundles of bustard feathers tied together with a thong. When putting wood on fires, care is taken not to burn the burrs formed by a tree parasite (Loranthaceae) found on certain acacia trees. The burning of this wood, called *//a-/udisa*, is taboo* and the Nharo believe that the burning of this wood would result in large sores on the body of the guilty person and might even cause his death.

PREPARATION AND COOKING OF FOOD

If meat is available and has been shared, the Bushmen immediately start to prepare it. Large pieces of meat are cut into strips and hung in trees to dry. Except dried meat (biltong) which is eaten raw, all meat is cooked or baked.

Meat is cooked in pots or metal containers which are traded from the Bantu or bought at the shop. Meat may be cooked with water or with pieces of tsamma melon which gives off water when cooked. More often, though, meat is baked under hot ashes next to the fire as this does not dry out the meat. When

* This probably has a connection with a similar taboo among the neighbouring Kgalagadi. The Kgalagadi, however, believe that the burning of the wood may be a possible cause of strife and quarrelling. Should it be known that someone has violated this restriction and a fight in which someone was injured followed, the culprit would be liable to a fine imposed by the *kgotla*.

the strips of meat are cooked, they are removed and the ashes and sand beaten off them with a stick. A digging stick is often used for this purpose.

Though the Bushmen prefer salted meat, they rarely have salt.

As very little goes to waste, even the heads of most animals are also baked and eaten. Strips of skin of the larger antelopes, usually wildebeest and gemsbok, are sometimes roasted and stored for later use. A case has been observed where pieces of gemsbok skin, which were discarded at the site of the butchering, were collected three days later because subsequent hunting and trapping proved to be unsuccessful. The meat of some of the smaller animals is baked in special ways. Porcupines for instance, are covered with grass which is burnt to singe the hair. (The quills are removed immediately after the animal is killed.) After this the porcupine is baked whole in the hot ashes of a large fire which is made in a shallow trench to one side of the huts. Jackals are baked in a similar way, but as their skins have been removed, they are wrapped in grass which is tied round them with *Sansevieria* leaves to prevent the much sought-after fat from burning or becoming covered with sand. As porcupines have tough skins they do not undergo this treatment.

As a rule all animals are skinned and cut open and their intestines removed. An exception to this rule is made when the young of duiker or steenbok are cooked. These animals are cooked whole. They are not skinned, nor are the intestines removed, as young kids live on milk only and the contents of their intestines are not considered by the Nharo to be undesirable. Both the rumen of the larger animals and the blood, which is stored in the rumen, are cooked in pots or tins. These delicacies are the due of older people, as are the heads of animals which are baked. Fat is much sought after, and animals known for their fatness (especially eland and ostrich) are particular favourites. Tortoises are killed with a knife and baked on their backs in the hot ashes.

Plant foods are predominantly eaten cooked. About two-thirds of the plant foods utilized by the Nharo are roasted before being eaten. The most important plant food, the tsamma melon, is eaten both raw and cooked. Whether to be eaten cooked or raw, the seeds are removed and roasted in hot ashes. Afterwards the seeds and ashes are scraped away from the fire with an ash-scraper (*hi-zho*), which is an oar-shaped implement shaped from hard wood by the men. Ash-scrapers vary in length from about 30 to 80 cm and have flat surfaces at one end of 5–10 cm wide and 1–1·5 cm thick. They are also used to cover other plant foods with hot ashes and in roasting meat strips.

The roasted melon seeds are scooped up together with ashes and sand and then sieved out through a grass sieve (*/xarruba*). Sieves are made from thick stems of grass woven together with thin two-ply string rolled from the fibre of *Sansevieria* leaves (Fig. 1).

Grass sieves are made for the exclusive purpose of sifting out melon seeds, a fact which illustrates the importance of seeds as a foodstuff. Melon seeds, however, are hard and still have to undergo further preparation by pounding (Plate 7). This is done in a wooden mortar (*hõkxusha*) which is used to process

food types which are hard and inedible in their natural form, such as seeds, hard strips of dried meat and pieces of roasted skin. Mortars are made by the men from hard wood. The required length is cut off and roughly shaped with an axe. It is then hollowed out with a flat metal chisel which is tied to a length of wood with thong or fibre cord. Digging sticks are often used as hafts.

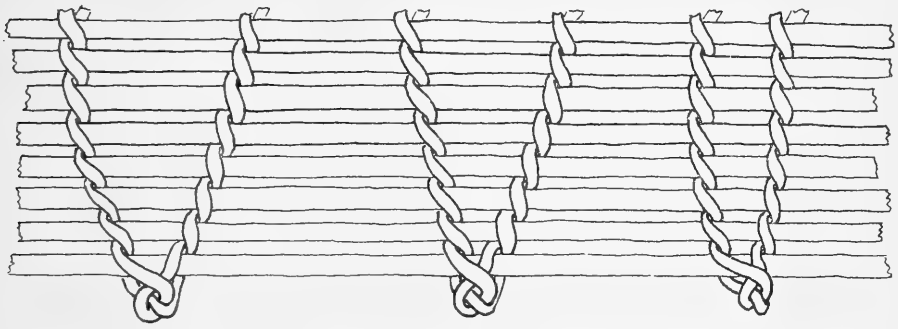


Fig. 1. Sketch showing how grass stems are woven together in manufacture of grass sieves.

Mortars are from 25 to 30 cm high, with a diameter which varies from 15 to 20 cm. At the brim the walls are from 6 to 9 mm thick, becoming thicker towards the base. The base is usually from 6 to 10 cm thick. To prevent the base from being pounded out, it is reinforced by fitting a flat round stone into a cavity in the centre of the base. Sometimes these flat stones are used to block the hole when the base has already been partly pounded out. Cracks in the walls of the mortar are repaired with stoppings of wool from birds' nests or even tar obtained at dam installations. To strengthen the walls a strip of skin is sometimes put around the mortar, covering half to two-thirds of the total height. The skin is fitted when wet and shrinks tightly around the mortar. To facilitate the transport of mortars, one or two holes are made about 2 cm below the brim, through which a leather thong is tied. As mortars are cumbersome to carry, one often finds only two or three in circulation in a werft, freely used by all.

The pestle (*//amtsha*) is made from hard wood and is 50–75 cm long and about 5 cm in diameter.

The pounding of seeds is the task of the women, but in their absence men and children sometimes pound small quantities for themselves. When the seeds are broken fine enough, they are scooped from the mortar with the hands and eaten. Pounded seeds are often added to the pot with cooked melon flesh.

The roots of plants are not cooked in pots, but eaten raw or roasted in hot ashes. Berries are eaten raw, while certain leaves, e.g. */aba* (Cucurbitaceae family), are pounded to a pulp and eaten directly from the pestle.

During periods when the Bushmen live near Bantu settlements their diet often consists largely of a single foodstuff, namely melons grown by the Bantu

from whom they obtain them by their services or begging. These melons are prepared in the same way as the wild tsamma melons, but as they are bigger, the Bushmen can dry strips for later use.

MEALS

There are no specific meal-times. If meat or plant foods are available, everyone is free to prepare food for himself at any time. In practice, therefore, one can at nearly all times of the day find somebody busy preparing food, and the pounding of pestles in mortars can be heard throughout the day.

When food is cooked in a pot, the quantity is usually sufficient for several people. Cooking in a pot, therefore, implies a 'social' meal (in contrast with the roasting of a meat strip or a root) and members of the family and others gather around the specific fire awaiting sharing. Though sometimes eaten directly from the pot or tin, cooked food is usually dished into metal dishes and allowed to cool. Before use these dishes are cleaned with small bundles of grass.

Metal spoons and forks which, like all other metal utensils, are obtained from Bantu, at the shop and at the farms, are used throughout. In rare cases small tortoise-shell ladles were observed in use.

The dish containing the food is placed in the centre of the circle of Bushmen and each one helps himself. If there are not enough spoons they take turns.

People eating together usually gather closely around the fire. Their position, however, is influenced by certain restrictions. A man is not allowed to sit next to his mother-in-law as to him she is in an avoidance category.* He must sit at least 1½–2 m away from her, preferably on the other side of the fire. He is not allowed in her hut, may not touch her when handing her meat or any food and can address her only through a mediator, usually his wife or father-in-law. He may also not sit near his mother. A man may, however, sit next to his father-in-law or his father 'because they are both men', but he must show the necessary respect. Rules of avoidance between a man and his sisters are equally strict, and they must also sit at least 1½–2 m from each other. The same rules apply for a woman with regard to her parents-in-law and brothers. Furthermore no man is allowed to sit on the spot where a menstruating woman has just sat.

Ash-heaps are usually made 2 or 3 m aslant from the entrance or next to the hut. Sometimes various households have a collective ash-heap if their huts are close to each other. Other refuse like bones, tortoise-shells, melon rinds, nutshells, etc., is also dumped on these heaps. When large quantities of tsamma melons have been consumed the rinds are discarded behind the huts to prevent the whole werft being littered. In reality though, these efforts are not very successful as the rinds and other refuse are often carried back into the werft by the children who use them as toys. Apart from this, the dogs carry bones, discarded pieces of skin, etc., into the werft, with the result that the village area is often strewn with refuse. While defecation is nearly always done quite

* The Nharo classify all kin in either an avoidance or a playing ('joking') category.

far from the village, urinating often takes place right next to the huts. This practice is not considered by the Nharo to be particularly unhygienic.

SKIN-WORKING

Skin-working is done exclusively by men. Women in turn do the beadwork decoration on the completed garments and bags. The skins of the steenbok, duiker, springbok, hartebeest and gemsbok are the ones most often used for this purpose.

After one of these animals has been killed, the skin is pegged out (hairy side down) near the village. A large number of holes is cut along the edge of the skin and wooden pegs are used to stretch it open as far as possible. The sharpened pegs are kept in a special bag (*g!umasa*) which often contains more than a hundred. Bits of fat and meat are removed from the wet surface of the skin. Because of the heat, the smaller skins dry out within a day, but are usually left for two or three days.

Various factors determine what happens to the skin after this. If the animal was caught with a trap belonging to a Kgalagadi (discussed later), the Bushmen may feel obliged to give it to the Kgalagadi. The skin will then simply be rolled and put into a tree or next to the hut. This also happens if the garment or bag to be made is not particularly urgently needed or if the possibility exists that the band will be returning to the waterholes within the near future. Normally skin-working is done during periods of relative leisure after successful hunting activities.

First the hair is removed with the aid of metal scrapers made from lengths of metal obtained from the Bantu and on the farms, which are mounted in a length of wood or in the hollow end of a gemsbok horn. Sometimes these scrapers are long enough to permit use without mounting. While scraping, the blade is occasionally sharpened on a whetstone. The hair on skins to be used as sleeping-skins is not removed. The skin is then buried under wet sand to soften it. As wet sand is usually not available, a large water-bearing bulb (*gõsha*) is pressed between the feet and scraped with the edge of a sharpened stick. The water in these scrapings is pressed out on the skin. The skin is then softened between the hands. With the larger skins some of the other men usually join in, each softening a small area at a time. Various fats are used to make softening easier. The marrow from duiker and steenbok bones is often used and also the fat of the wildebeest which is more readily available, as this animal is often killed. This fat is stored in the tip of a horn, a cattle horn being preferred as it is thick and does not curve sharply. The horns are fitted with leather straps and are hung up in trees or in the huts. Recently the Bushmen also started using used engine oil, obtained from pump-operators at the boreholes. However, this is seldom used. Afterwards the soft skins are sometimes dyed with sap obtained from the bark of a root called *g//aidi*, which gives them a reddish colour.

The scraping and softening of skins are activities that give opportunity for conversation and 'active leisure'. Not only do other men lend a helping hand,

but a gathering of onlookers joining in the conversation can usually be found lying or sitting near the scene.

When the skin is soft it is cut in the required shape and sewn by the men, who use sinew thread. The holes are pierced with awls which are made from a length of sharpened wire burnt into a wooden handle, or a piece of wire which is riveted in a cartridge case and kept firmly in position with a stopping of wool from a bird's nest.

Skin garments and bags, which in the course of time get dirty, are sometimes cleaned by rubbing them with a piece of coarse sandstone or the kneecap of a large buck like the hartebeest. Holes in bags are repaired with patches of skin and sinew-thread.

A soft stone (*n//oaba*) is powdered between grinding stones, mixed with fat and the mixture rubbed on the skin bags to give them a brown colour.

SKIN BAGS FOR PURPOSES OF STORING

A variety of skin bags is in daily use among veld-Nharo, and also to a considerable extent among farm Bushmen. According to size they can be classified into two broad divisions, i.e. medium and larger bags (*g≠obesa*) and small bags (*g≠obe— /wasa*) (Fig. 2). Bags made for a specific purpose have special names, thus the tobacco pouch is called *g≠omsa*, while the bag in which pegs are kept is known as *g!umasa*.

Skin bags are made by the men from duiker or steenbok skin, from which the hair has been removed. The men do all the preparation of the skins themselves, and also do the sewing. Women, however, are responsible for the decoration with beads.

The size of medium and larger bags varies from 20 cm wide × 15 cm high to 40 cm × 45 cm. Tobacco pouches are usually small and often do not exceed a width of 8 cm and a height of 15 cm. The larger bags are used for storing possessions in the hut and are also important for carrying equipment during migration. The medium-sized bags are used for food collecting, while adults usually have a special bag in which things used daily are carried.

The top end of the bag is sometimes left completely open, but can also be sewn to leave a smaller round aperture in the centre (Fig. 2*d*). The medium-sized and larger bags usually have a carrying strap made from a two-ply cord of leather. Small bags, like the pouch for tobacco or a tinder box, often lack straps as they are carried in the larger ones. Bags are usually decorated with beads or leather tassels. Patterns of beadwork are sewn on to the bags with sinew by the women, who nowadays use mostly commercial beads. As the shop beads are scarce, the patterns (triangular or square) are usually small. The leather tassels are sewn on the edges and in the centre of the bottom of the bag. They number from one to four and ostrich eggshell beads are sometimes strung on them. When a bag gets torn it is repaired with a skin patch and sinew.

The bag with personal possessions is nearly always hanging from the shoulder of its owner, and is in such constant use that it can almost be regarded

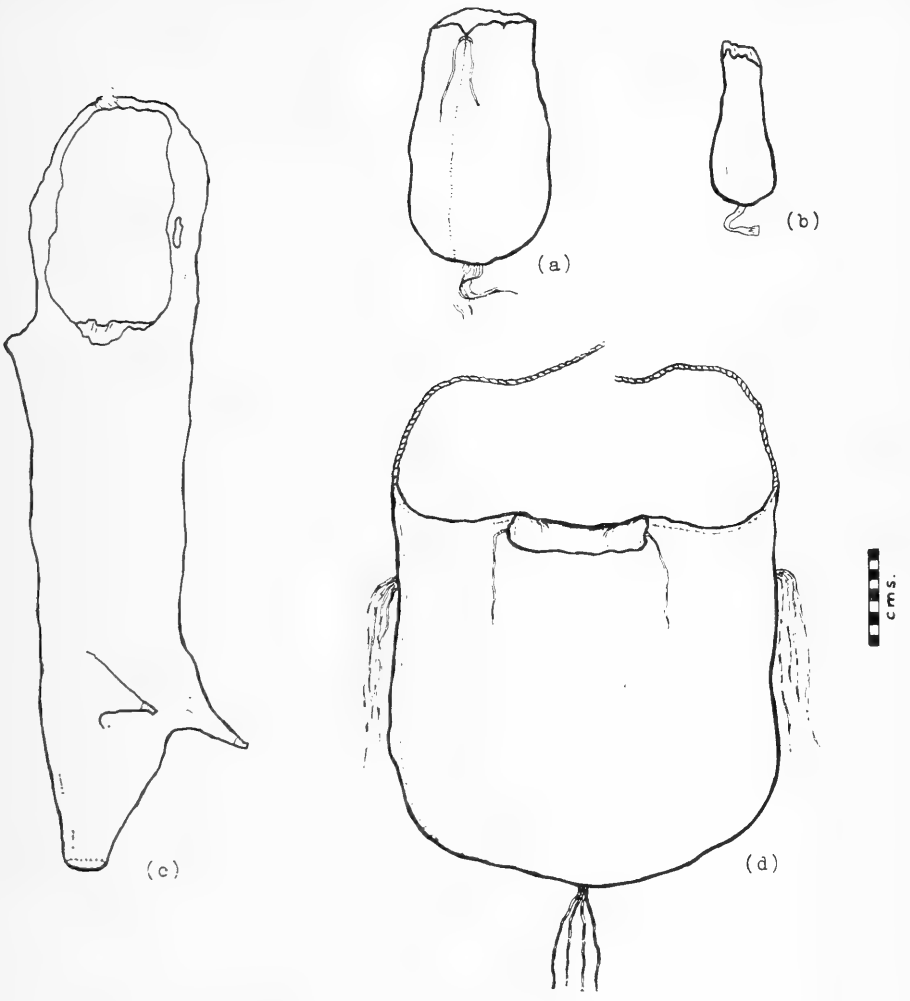


Fig. 2. Some types of skin bags used by the Nharo.
(*a*) and (*b*) G≠obe- /wasa.
(*c*) and (*d*) G≠obesa.

as part of the clothing. To illustrate the variety and quantity of personal belongings which can be accumulated and kept in such a bag, the contents of one are given here:

6 cartridge cases
1 tortoise-shell ladle
1 piece of motor-tyre tube
1 small metal lock
1 tinder box
3 metal spoons
1 tortoise-shell toilet box
15 metal scrapers
1 wooden poison mortar
1 string of commercial beads
1 bottle with fat and ochre
1 metal fork

1 metal comb
3 belt buckles
1 whetstone
1 old cigarette-lighter
1 piece of leather
3 cocoons
1 piece of sandstone
1 leather purse
4 marrow bones (steenbok)
2 blades
3 lengths of wood (off a broken necklace)
6 polish tins (1 empty, 2 with medicines, 2 with an ochre and fat mixture, 1 with a blade and a piece of cloth to repair clothes)
1 short chain
1 metal bolt
1 piece of plastic
2 ball-bearings
2 nuts
1 cork stopper
2 empty steenbok horns
1 tip of a cattle horn
1 steenbok horn with medicine
1 young eland's horn with medicine
1 empty goat horn

various pieces of sinew, wire, medicinal wood and rope
3 pieces of fungus (found on trees)
1 piece of black mamba skin
bits of charcoal

It must be noted that possessions of this kind are not often carried in the personal bag, but are usually stored in the hut in a large skin bag. The medium-sized bag which is in daily use more often contains only the owner's smoking materials, knife, metal blades, poison mortar, rope snare and some raw materials like sinew, gum, etc.

These personal bags are sometimes shared between husband and wife, as was the case of the bag whose contents are listed above.

These items are not collected at random, but each is kept with the idea of future utilization, either by the owner himself or for trade. To name but a few: the cartridge cases will be used for making pipes; the piece of sandstone to clean skins; the marrow from the steenbok bones will be used in softening skins; the fungus will be used in the tinder-box as it smoulders easily; from the tip of the cattle horn a pipe stem could be made while the mamba skin is thought to be effective when rubbed into the wounds after a snake bite.

Dress and ornament

Their advanced stage of contact is, as can be expected, noticeably reflected in the clothing of the Nharo. Shirts, trousers, jerseys, dresses and shoes are commonly worn by Nharo living permanently on farms, a fact which bears direct relationship to their payment in cash and kind. Although Nharo who are in contact with Bantu sometimes acquire old clothes by rendering service or by barter, their accumulation of clothing is much slower. Nevertheless, the stage has already been reached where most adult Bushmen in contact with Bantu own one or more non-traditional pieces of clothing. A variety of combinations between old and new is thus often worn. However, the continued use of traditional skin clothes is not due solely to the inability of the Bushmen to

buy shop clothes. Personal taste and the greater comfort of the skin clothing, which also can be made by themselves, are factors which have acted as a conservative influence. In addition, skin clothing is cooler during the summer and more functional in the veld as it does not tear as easily and is less noisy than shop clothes. For these reasons skin clothes are preferred during summer and during periods of veld life, whilst shop clothes are worn in colder weather and during periods of contact with the Bantu. The adoption of new values by some Nharo regarding clothing should also be taken into account. Men wearing the traditional loin-cloth are mocked by some women because of their 'nakedness'. Besides this, there is a general striving among veld groups to wear shop clothes during periods of association with the Bantu. Thus the same shirts or jerseys worn by boys in the veld because of the cold, are often worn by their fathers during their stay at the waterholes.

MEN'S CLOTHING

Men are responsible for the manufacture of their own clothes, as all skin working is done by them.

The principal garment for men is the loin-cloth (*g!aiba*). It is a three-pointed piece of steenbok skin of which the two shorter points are fastened around the waist while the third is drawn through between the legs and folded around the 'belt' formed by the two other points.

During the cold weather a skin cloak (*gwasha*) made from hartebeest or gemsbok skin is draped over the shoulders and knotted at the chest.

Skin sandals (*n//abó*), made from the skin of an eland, gemsbok or wildebeest, are still sometimes worn by the Nharo but have to some extent been replaced by shoes.

Men and adolescent boys also often wear skin caps (*/abadzi*) made from the skin of a jackal, bat-eared fox or aardwolf.

Nharo men wear few ornaments. Those who do, usually only have a little metal chain around the neck or a length of wire or chain around the wrist. Some women decorate their husband's skin loin-cloth with small patterns of beadwork stitched to it with sinew. Normally men do not use cosmetics at all.

WOMEN'S CLOTHING

Women wear an apron (*g!aisha*) made from steenbok or duiker skin, which is fastened round the waist. A second apron, usually smaller, is often worn beneath. Both of these may be decorated, the larger one extensively. Decoration is done by sewing ostrich eggshell beads on to the edge of the apron, while small patterns of colourful shop beads are sewn on the front. Tassels of ostrich eggshell beads are fastened to the 'belt'. A larger piece of skin is worn at the back. As this garment is sat upon, it is left undecorated.

Unlike the men, who wear the skin cloak (*gwasha*) by way of exception, women wear it every day, not only as a garment, but also as an important aid in their food collecting activities.

Women usually go barefoot. Pieces of colourful cloth, acquired through bartering and service, which are tied around the head by some women, serve as the only head-dress.

To simplify description we can also include among women's garments the babies' carrying sling called *tyari*—a word adopted from Kgalagadi (Fig. 3). It is made from the skin of a steenbok, duiker or young hartebeest which is cut in such a way that it has a broad middle part with four long points. Two of these are knotted permanently, thus making a hole through which the right

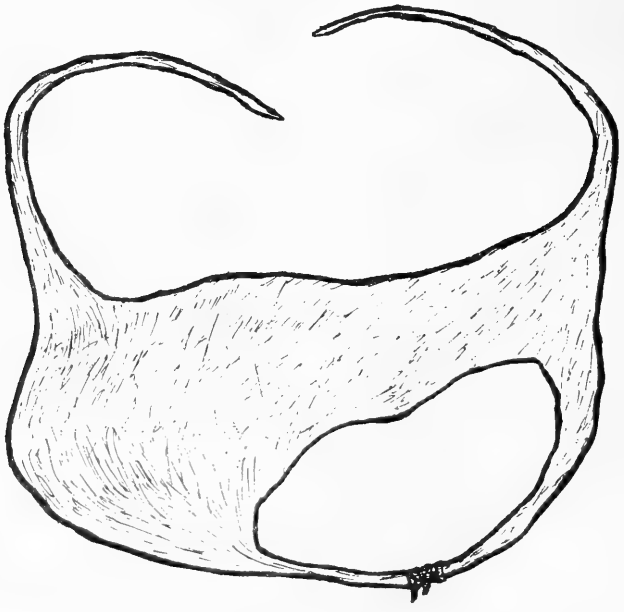


Fig. 3. Babies' carrying sling.

arm is put. Of the other two points one is passed under the left arm and the other over the right shoulder and then knotted in front of the chest. Babies are usually carried behind the left shoulder or under the left arm.

As with the men, the skin bag (*g≠obesa*) for personal possessions forms part of the daily dress.

CHILDREN'S CLOTHING

Babies usually go naked until they are about a year old when boys get a small leather apron which is fastened around the waist with a thong. Girls wear a similar apron, sometimes with tassels to which beads are later attached. Nowadays young children often wear a piece of cloth instead, also fastened round the waist. When the boys reach the age of 4 or 5 they start wearing a skin loin-cloth, while the girls start to wear a skin cloak and a larger apron which

is sometimes made entirely of ostrich eggshell beads fastened round the waist with a leather strip.

ORNAMENT

Nharo women make quite extensive use of ornaments. The most widespread ornaments are ostrich eggshell beads which are made by the women. Fragments of eggshell are bored through the centre with a drill made from a length of flattened wire, often mounted into a length of wood. The edges are then roughly rounded off by rotating the beads individually on the edge of a flat stone and chipping off the edges by hitting them with a short iron rod or a wildebeest horn. The beads are then strung on a sinew and rounded smoothly by pressing part of the length of the string on a piece of wood (a pestle is often used), and drawing a piece of grooved sandstone over it (Plate 8). To prevent the beads from turning around and becoming rounded unevenly, little bits of fibre (obtained from a bulbous plant called *≠am*) are put between beads when they are strung.

Strings of eggshell beads are worn around the neck, waist, wrists and sometimes round the chest, although commercial beads are nowadays preferred for necklaces and armbands. Pieces of aromatic wood and roots are sometimes strung with the beads. Necklets made solely from aromatic roots (*!xõdzi*) are very exceptional. Equally rare are the necklets of lengths of soft wood (*hiba*) which are strung on a thong. Besides being decorative, these are also put to medicinal use, as a person with a headache will scrape the wood and inhale the powder. Thus it seems to be worn more for curing purposes than for prevention. One type of necklet is made from lengths of wood called *//-um*, which are worn with a small leather bag containing powder from the same type of wood. The powder is eaten, and is much sought after, as it is believed to be fattening.

The women usually leave their hair undecorated. Only one woman was met who wore a triangular pattern of commercial beads tied to her hair, a method of ornamentation commonly found among more northern Bushmen. The ears are pierced and decorated with little strings of shop beads or metal rings.

Strings of coloured beads are often worn under the knee and around the ankles, while anklets of wire are very popular.

Besides these ornaments Nharo women also use certain cosmetics. Foremost among these is the aromatic powder (*tshãa*) which is made from roots and carried in a small tortoise shell (*damba*). The shells are cleaned out and the hind-leg apertures filled with a pulp obtained by pounding the roots of a *Grewia flava* tree or with beeswax. A piece of soft skin from jackal or bat-eared fox or a piece of cloth prevents the powder from spilling and is used as a powder puff. A tortoise shell is not only a receptacle but an ornament in itself, as it is often decorated with beads sewn on to a piece of leather which is tied to the shell and is worn on a thong around the neck or fastened to the apron (Plate 9).

If fat is available the women rub it on their bodies. Smaller quantities are

mixed with powdered red ochre obtainable at the shop and the mixture is rubbed on the forehead, the bridge of the nose and the cheekbones by means of a finger. Young girls sometimes paint their eyebrows with a mixture of fat and powdered charcoal. (It can also be mentioned here that during a girl's puberty ceremony she is decorated with a mixture of fat and powdered morama nuts (*Bauhinia esculenta*). The mixture is applied on the cheekbones and round the eyes.)

While both sexes are scarified for purposes other than decoration, it is only the women who are incised for ornament. Girls are tattooed on the forehead, between the eyes and on the cheekbones as well as on the thighs—often while they are still very young. The cuts are made by the older women using a metal blade (*//ouba*). Charcoal is then rubbed into the cuts.

Similar cuts are also made for medicinal and magical purposes. Those made in case of illness are made on the location of the ailment. Instead of charcoal, a mixture of roots and fat is rubbed into these cuts. Mention should also be made of the cuts which are made vertically on the forehead between the eyes of boys undergoing initiation. These cuts, which should preferably be made by the initiate's paternal grandfather, function to 'open' the eyes of the boy, enabling him to see Hisheba.* The blood which flows from the cuts belong to Hisheba, as it is his ceremony that the initiate attends. (Cuts for luck in hunting and trapping have been discussed elsewhere.)

Both sexes cut their hair regularly with scissors or blades. A popular style is the 'enlarging' of the forehead by cutting off the hair and trimming hair in the neck, especially that of the boys. Men do not shave their beards.

Water is normally not used for washing. In the veld it is usually unavailable anyway. Both sexes however 'wash' and oil their bodies, usually arms, neck and legs, by wetting pounded melon seeds in their mouths and rubbing the pulp on their bodies.

Subsistence

HUNTING

ANIMAL RESOURCES AND THEIR UTILIZATION

The animals which are of primary importance to the Nharo can be grouped as follows:

1. MAMMALS

(*a*) *Large antelopes:*

eland
kudu
wildebeest
hartebeest
gemsbok

* Hisheba is a mystical figure closely connected with the boys' initiation ceremonies. It is only visible during initiation dances and some Nharo describe it as having a vague resemblance to a man, but having an eye behind the head, hoof-like feet, and being of the same size as a light truck. Others, however thought Hisheba had two eyes behind the head and was of the same size as a man.

Of these antelopes the wildebeest, hartebeest and gemsbok are the most often killed, not only because they occur in fairly large herds but also because wildebeest and hartebeest are easily trapped in game trails while gemsbok are easily cornered and killed with the aid of dogs.

Although eland is the favourite among the antelopes, it is rarely killed, as it is uncommon in the areas north of the Okwa. Eland are said to be common towards the south, but in view of their successful trapping in their usual hunting areas the Nharo do not regard it as profitable to hunt so far away. Kudu are also extremely rarely killed, as they migrate through the area in small herds and cannot be trapped with an iron trap.

(*b*) *Small antelopes:*

springbok
duiker
steenbok

These animals are found throughout the area, though springbok herds prefer the vicinity of pans or omurambas. All three species are of primary importance to the Bushmen. The springbok can be trapped with relative ease, as herds tend to frequent certain areas and salt-licks, while the duiker and steenbok are the principal quarries of the rope snare. As these buck do not readily migrate, some Nharo groups rely heavily on them as a source of meat after other game have migrated during late winter and early summer.

(*c*) *Miscellaneous:*

leopard	springhare
cheetah	hare
wild cat	ground squirrel
warthog	jackal
antbear	bat-eared fox
porcupine	spotted genet

In terms of dietary value the porcupine, hare and springhare are most important among these, and most often trapped. Although their meat may be eaten, certain animals like the leopard, cheetah, spotted genet and wild cat are principally trapped for their skins.

The consumption of meat is subject to various restrictions depending on such factors as the type, age and part of the animal, and the sex and age of the person. These can be classed as follows:

1. Only adult men are allowed to eat the leopard. This, however, is not a fixed rule but a majority opinion, as a group of Nharo in the east held the opinion that anyone could eat the leopard. The cheetah can be eaten by everyone.
2. The young of both the larger and smaller antelopes can only be eaten by the older people (male and female) including those who have either a beard or greying hair. This restriction applies to all young buck without

horns. It is thought by the Nharo that a person who violates this rule will become very thirsty.

3. Young children should not eat kidneys, the rectum and the part of the liver to which the gall-bladder is attached. Violation of this rule is not seen as very serious and will not have the same consequence as a violation of the previously mentioned restriction.
4. Babies may not eat the heart of any animal.
5. Genitals, e.g. the udder of a female buck, are eaten only by old men and women.
6. During the period of seclusion which forms part of the initiation rites for boys and girls, meat is totally tabooed except that of the gemsbok which may be eaten by boys.
7. Meat of the gemsbok, steenbok and wild cat cannot be eaten by young men during the period in which they are taught to perform curing dances and how to go into a trance. Should a person violate this rule, it is believed that his stomach will distend and it may even cause his death.

Thus it can be seen that restrictions are mosly based on the age of individuals; differentiation on the basis of sex applies only in the case of leopard meat.

The following animals are not eaten at all and are never hunted:

lion
brown hyena
baboon
spotted hyena
wild dog
aardwolf
vulture
leguaan

The meat of these species is considered utterly undesirable by the Nharo, who often mock their southerly neighbours, the /kõ, by referring to them as lion and hyena eaters.

II. BIRDS

Birds do not play an important role as a source of meat and can be seen more as a supplementary than a primary source. There are four species on which hunting is concentrated:

ostrich
bustard
korhaan
guineafowl

Because of its size, its much sought-after fat and its common occurrence, the ostrich is the most extensively hunted among these. Korhaan and guineafowl are usually snared by the boys.

Only ostrich eggs were seen to be eaten.

III. REPTILES

A difference of opinion was found among Nharo regarding the eating of snakes. A group in the east regarded species like the puff-adder as edible because of its 'fatness'. In contrast other Nharo groups thought snakes had a bad smell and therefore did not eat them at all.

Tortoises, which are usually of small size, are regarded as a delicacy. They are collected by anyone who finds them, and taken home in the collecting bag or quiver bag.

IV. AMPHIBIANS

Frogs were said to be eaten. They are found at the pans after good rains, but because of bad rainy seasons none were observed.

V. INSECTS

Termites were the only insects seen to be eaten. Large numbers start flying after rain has fallen. During the night they are attracted by fire, where the Bushmen catch and roast them. They are also eaten raw.

HUNTING EQUIPMENT

The hunting activities of the Bushmen under discussion centre to a large extent on the use of metal traps obtained from the neighbouring Kgalagadi through trapping agreements. However, although this has affected the use of the bow and poisoned arrows as the primary hunting tools, it has not in general seriously affected the manufacture and possession of the traditional hunting equipment. Hunting is done by men and boys only.

Those who do not have metal traps rely mostly on rope snares for small game or hunt gemsbok with dogs. Younger men sometimes run down certain antelopes like wildebeest, gemsbok, hartebeest and especially the eland, which are then killed with spears. The Nharo say that by running at a constant pace and frightening the animals every time they catch up with them, the antelopes are soon exhausted.

Lions are sometimes driven from their kill and the meat taken.

The hunting equipment consists of the following:

bows
poisoned arrows
quivers and quiver bags
spears
rope snares
springhare-hooks
clubs
metal traps

Bows

The stave of a bow (*de-sha*) which is about 1·1 m in length, is made from kxomba-wood (*Grewia flava*) and cut to be thicker at the median section (about

2 cm in diameter) and tapering towards the ends. To strengthen the grip it is bound with the neck-sinews of a wildebeest or gemsbok.

The bow-string (*//ababa*) is rolled from the back sinews of a large antelope (usually hartebeest, gemsbok or wildebeest). The strands of sinew are moistened and rolled into a string on the thigh. To facilitate the bending of the bow-stave, the two ends of the stave are not cut to the same thickness. The string is slipped over the thinner end first, then coiled around the other end and fastened with a

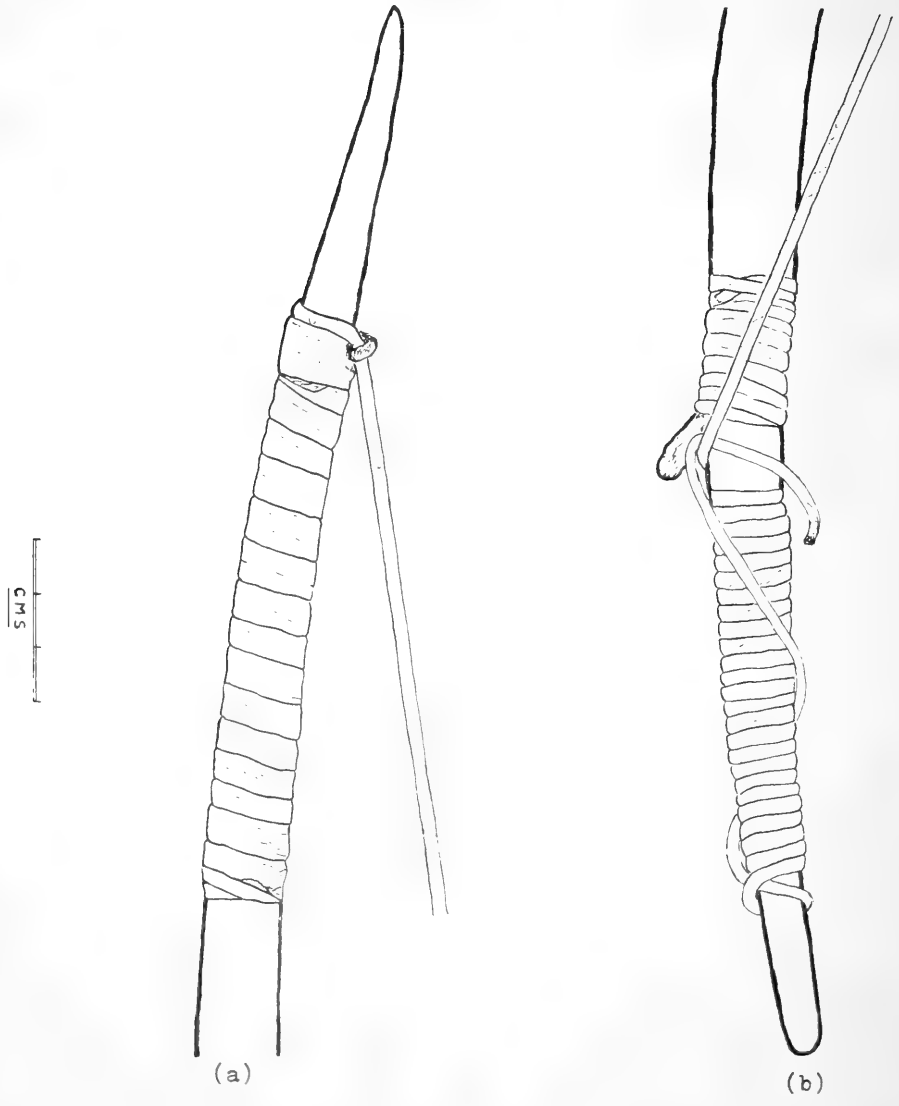


Fig. 4. Method of knotting the bow-string.
(*a*) Top end. (*b*) Lower end.

special knot (Fig. 4). A piece of thick leather, tied to the bow-stave with sinew, prevents the string from slipping when it is tightened.

Both the bow-stave and the string are regularly rubbed with fat to prevent them from drying out.

Arrows

The arrow (*kxauba*) is one of the most complex artefacts made by the Nharo. It consists of four parts: a head, link-shaft (sleeve), fore-shaft and shaft, and is made with considerable care to ensure a reasonably accurate flight.

HEAD (*kxauba*)

The head is nowadays made from wire; bone heads having fallen into complete disuse as fencing on the farms and South West African border has made wire readily available. The head is made from a single piece of wire, with the tip heated, beaten flat with a hard stone or piece of iron, and then sharpened on a whetstone or with a file; thus forming a triangular tip, the average being between 1·2 and 2·6 cm long and between 0·6 and 1·5 cm in width with a tang 7–11 cm long. Though the triangular tip is more commonly found, some individuals prefer to file the base of the triangle into barbs.

The tang is an important part of the arrow, as the poison is applied to it. To ensure that the poison clings, the tang is bound with sinew before application of poison. This sinew binding is often thinly covered with gum to prevent it unwinding.

LINK-SHAFT (*≠omsha*)

The link-shaft, which joins the metal head to the fore-shaft is made from a section of hard, hollow grass about 2·5–5 cm long. To strengthen the joint, gum is put inside the link-shaft, and the full length of the outside is bound with sinew.

FORE-SHAFT (*g//abasha*)

A hard type of wood is used throughout for making fore-shafts. Although the Bushmen say that they formerly also made them from bone (the long bones of large antelopes being used), none was found, possibly because this involves more work than a wooden fore-shaft. Generally it would appear that arrows are being manufactured with less care than previously, due to their diminishing role in hunting.

The fore-shaft, usually spindle-shaped, is from 2 to 6 cm long with one end linked to the head by means of the link-shaft. The rear end fits into the hollow fore-end of the shaft. This is not a fixed joint, and when an animal has been hit, the loose joint permits the shaft to be shaken off undamaged, while the poisoned point remains in the animal.

SHAFT (*≠aba*)

Two types of shaft are used, one being made from reed and the other from lengths of kaffir-corn stems obtained from neighbouring Bantu. The shaft is usually between 35 and 48 cm long. The front end is hollowed out by means of an awl or a length of wire to receive the fore-shaft while a U- or V-shaped notch

is cut at the butt for the bow-string. When reed is used, the notch is cut just above one of the segments in the reed, while in the case of the softer kaffir-corn stems, the butt is hollowed out and a piece of hard wood inserted, into which a notch is cut. To straighten the shafts, they are heated over the fire and bent. In isolated cases grooved stones (*/wadzi*) were found being used for this purpose. The stone is heated in the fire and the part of the shaft which has to be straightened is put into the groove to heat. It is then bent by hand. Both ends of the shaft are bound with sinew to prevent splitting, while at the butt the binding also serves as a grip and keeps the wooden butt-piece in position. Arrows used by the Nharo are never feathered.

Each man makes his own arrows. Few Nharo own more than 4 or 5 complete arrows, and a man may particularly favour one or two of them because of their accuracy.

POISON AND ITS APPLICATION

Arrows are poisoned with the contents of the larvae of a certain beetle (Chrysomelidae). The larvae are called *g!aiyane*. Poison is sometimes applied straight from the larvae on to the arrow. The larvae are kept in their cocoons until needed, and the top of the cocoon is then broken off with a finger. The larvae are then put into the palm of the hand and softened by kneading and rolling them with the fore-finger. Single larvae are then taken, their heads are nipped off and the contents applied to the tang of the arrow-head. Each man applies poison to his own arrows. Often, however, one also finds among Nharo small wooden mortars in which poison is kept (Plate 10). These mortars (*//xurudzi*) are cut from hard wood by the men. They usually have a conical shape with a flat base and are from 6 to 9 cm long with a top end diameter of 4–5 cm. They are not decorated. The contents of larvae are squeezed into these mortars and harden when becoming dry. The opening is securely plugged with wool from a bird's nest or a piece of rag, or otherwise the mortar is capped with skin. When needed, the poison in the mortar is powdered and mixed with spit. This is then applied with a thin stick. Afterwards the poison is hardened by holding the arrow-heads in the heat of a fire.

Quivers

The quiver (*n//osa*) is made from the bark of a root of one of the *Acacia* species. The root is dug out and the required length cut off. The average length is 50–60 cm, with a diameter of 5–7 cm.

The bark has then to be removed from the inside root, and this is done by heating the root in hot ashes after which the inside can be knocked out because of the faster expansion of the bark. The bottom end of the bark tube is afterwards capped with skin. The scrotum or the skin covering the knee cap of the gemsbok is preferred, but that of the kudu, hartebeest or wildebeest is also sometimes used. The skin is put on while wet and shrinks firmly round the base

of the bark sleeve where it dries. As the bark quiver has a tendency to crack, strips of neck-sinews of a large antelope are sometimes bound round it.

To keep the arrows securely in place, a soft bird's nest or nowadays a piece of rag is used as a plug. In some cases a skin cap, fitting over the top of the quiver, is used instead.

Besides the bark quiver, another type of quiver came into use more recently when farmers started to use hard plastic water pipes. Discarded lengths of pipe about 5 cm in diameter have reached the veld Bushmen through bartering. These lengths of pipe are cut to the same length as the bark quiver, and also capped with a piece of skin over the base.

As quivers are usually carried in a hunting bag, they do not have carrying straps. However, some individuals who do not have the hunting-bag use a leather carrying strap which enables the quiver to be slung over the shoulder. Sometimes fibre-cord or even a bird snare is used for the same purpose.

Besides arrows, a few unworked lengths of reed for shafts, a gumstick, lengths of grass and bits of wire as well as a stick used to apply poison, fire-drilling sticks and a sucking reed may be found in the quiver. Some men carry some of these items—usually lengths of wire, spare sinew, spare arrow-heads and a gumstick—in a small replica of the quiver. The small quiver (*n//o-/wasa*) is 20–25 cm long, and is made in the same way as the *n//osa*. The small quiver is either kept in the personal skin bag or carried in the hunting-bag.

The hunting-bag (*g≠omasa*) is made from the complete skin of a steenbok which is folded lengthwise and sewn.

Two carrying straps are formed by tying together the skin of the front and rear legs. The end of the skin which covered the neck is closed by sewing another piece of skin on to it to form the bottom end of the bag. A wide aperture in the hindquarters gives a sizeable mouth to the bag, as not only the bow, but also the quiver and spear will be carried in it, as well as small animals like spring-hares, tortoises, etc. and plant foods.

A small leather sheath, tied to the bag with a leather thong, supports the spearhead should the spear be carried with the bag.

Springhare-hooks (*g!o-hiba*)

The ends of various lengths of flexible wood are cut slantwise and the inclined planes are then pressed together and securely tied with sinew to make a flexible rod 4–5 m in length. To ensure that the tip bends easily, it is usually thinner than the handle-end, and to it a length of thick wire bent into a barb is tied with sinew (Fig. 5). The tip of the barb is sharpened beforehand and bent to such an angle that when tied to the rod, the tip is 3–5 cm from it.

The hook is poked down into the burrows, and when movement is felt it is jerked to hook the barb into the animal. One person then holds the rod, while another digs vertically above the animal and eventually kills it with a club or digging stick.

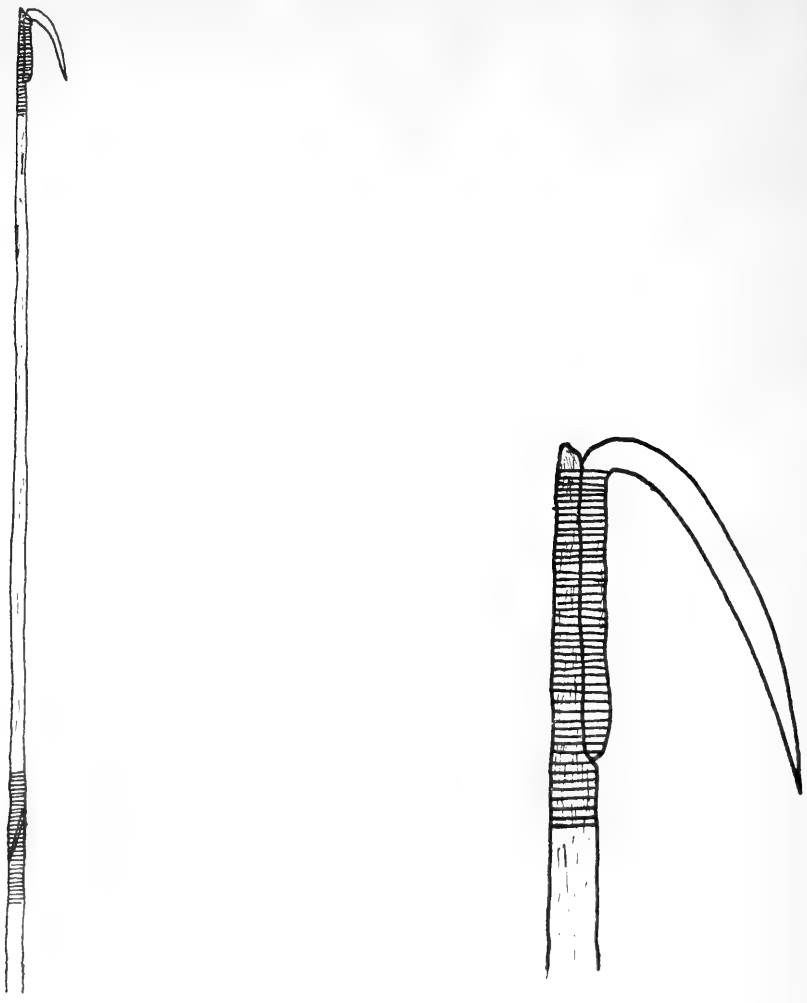


Fig. 5. Springhare-hook (g!o-hiba), showing method of attaching the wire barb.

Cape hares are not hunted in the same way as springhares because they run from a burrow as soon as the rod touches them, and are subsequently clubbed or run down by dogs. Springhare hunting, thus, is a joint effort, and is frequently practised by boys, often more for reasons of education and 'doing together', than out of economic necessity.

Clubs

Clubs are widely used among the Nharo. A length of hard wood with a knob at one end is selected for this purpose. Usually the knobs are small and the whole club rather roughly finished. If a person does not own a club, a

digging stick (*n/uisa*) often serves the same purpose.

Clubs are used extensively by trappers to finish off smaller animals, a task often performed by boys in the hunting party. Boys who do not have their own clubs use those of their fathers or (in the case of small animals like birds and springhares) any piece of wood picked up in the vicinity may be used.

The young of duiker and steenbok are also killed with a club while sleeping or hiding. On rare occasions clubs are thrown at birds or running hares.

Spears

Nharo spears (*//xaudzi*) are rather fragile looking and are usually not very well finished. Nevertheless they serve their primary purpose—the finishing off of trapped and snared animals—well enough.

The spearheads, consisting of a flat leaf-shaped blade with a tang which is often more than half the total length of the head, have an overall length of 25–55 cm. They are made from lengths of metal obtained at the farms or from the Bantu. The blade, which is heated in the coals, is beaten to a width which varies from 2 to 3 cm. The edges of the blade are sharpened, but the tang is left unworked, showing the original diameter of the metal used. The tip of the tang which fits into the shaft is sometimes beaten square to prevent it from turning.

The tang is then heated and burnt into the thicker end of the shaft, which is made from a hard wood. To prevent the wood from splitting and to keep the tang securely in place this joint is bound for 8 to 15 cm with a binding of neck-sinew from any large antelope. Shafts usually have a diameter of 2–2½ cm and a length which varies from 1 to 1·2 m. The butt is sharpened to form a point so that the shaft can also be used for digging.

A second type of spear is less commonly made. With these spears the tang of the spearhead is not burnt into the shaft but simply tied to the side of the shaft with the neck-sinews of a large antelope. As they are apparently not as strong as the spears with the inserted tang, they are only used to kill porcupine and other small game.

Rope snares

Rope snares (*g!uidzi*) are used extensively by the Nharo to catch small game and birds. The rope is rolled from the fibre obtained by scraping off the outer layer from the leaves of a *Sansevieria* sp. (*g!ui*).

The leaves are laid on a flat piece of wood and the sharpened edge of a gemsbok horn, held in position with the foot, is pressed on top. The leaves are then pulled against the edge of the horn, thus stripping off the soft exterior.

The still damp fibre is then rolled on the thigh into strings (Plate 11) which may vary in thickness in accordance with the size of animal which the hunters want to trap. To prevent fraying they are knotted at both ends. These strings are then rolled into the final rope, three being used for antelope and ostrich snares, and two in the case of bird snares.

The small piece of thin rope which triggers the snare is not rolled into the main rope, but is afterwards bound to it.

The finished snares vary in size from 3 to 3·5 m for small game snares and from 1·2 to 1·5 m for bird snares. The two main types of snare thus differ in both size and purpose, and therefore methods of setting snares are in accordance with the nature and habits of the animals to be trapped.

SNARES FOR SMALL GAME

The use of this type of snare is concentrated on catching duiker and steenbok, although a hare or even jackal may occasionally be caught.

Snares are set in game paths, usually one frequented by a particular animal. A hole some 10 cm deep and 20 cm wide is dug in the path. Right next to the hole a thin stick (trigger hook) is then hit into the ground at an angle inclined away from the hole, until only the head shows.

A flexible branch is cut and planted firmly in the ground, about a metre from the hole. If a suitable small tree grows next to the path it is used instead, as it rules out the possibility of the planted branch becoming unrooted.

A noose with a sliding knot is then made at one end of the rope, while the other end is wound around the branch and tied to it. The noose end of the rope is then pulled and the branch is bent down until the slip rope with the toggle reaches the toggle hook.

A length of wood (the trigger stick) is put over the hole with one end next to the head of the toggle hook, and the toggle is wound half a turn round the toggle hook and hooked behind it and the head of the trigger.

The trigger stick is then covered with grass and the noose around it is thinly covered with sand. To ensure that the animal will follow the path, a few branches are put on both sides of the path. One or two thin, dry branches are sometimes pressed into the sand next to the snare in such a way that they cover the path at an angle forcing the animal to lift its feet. As the Bushmen know the length of the steps of the duiker or steenbok, these thin sticks are put at a distance from the snare which will increase the possibility of the buck stepping on the trigger stick.

When this happens, the toggle becomes unhooked and the branch, which is under tension, shoots up and jerks the noose tight. When a thick branch or small tree is used, the tension is often so great that the animal is pulled off the ground when the toggle is released.

BIRD SNARES

The setting of snares for birds differs from the method used for buck snares, though the thicker buck snare is used for the larger birds like the ostrich and bustard.

The trigger stick and hole are not used in this case, and the noose is kept open by sticks (Plate 12). Instead of hooking the one end of the toggle behind a trigger stick, it is kept in position by bait. For ostriches a piece of melon or bone

is used (Plate 13), while the Nharo living in the sandy areas also use pieces of calcrete or any light-coloured stones available.

The thinner snare (*g!ui-/waba*) is used for catching smaller birds like the korhaan. For these birds the snares are baited with a piece of melon or gum. When the nest of a korhaan is found the snare is set over the nest, the eggs are moved slightly, and the toggle is hooked under an egg. When the bird moves the egg back into position, it is caught round the neck (Plate 14).

Snares are regularly checked, and trapped animals killed with the club. As birds are caught by the neck, they often suffocate.

Metal traps

The use of metal traps in their hunting activities represents an innovation of considerable importance to the Nharo. The traps, available at shops at R6.00 to R10.00 each, are bought by Kgalagadi and lent to Bushmen on a basis of repayment discussed later.

Traps are used to catch a wide variety of game, including porcupine, steenbok, duiker, springbok, hartebeest, wildebeest and gemsbok. Jackals are often caught by chance in traps set for antelopes, but more deliberate efforts are made to trap leopards and cheetahs, if they are present in the area, as good payment can be expected from the owner of the trap who, in turn, will sell the skin at the shop. The larger traps are favoured and more commonly bought, as they can trap the larger antelopes, thus giving a higher return.

The success of the traps can largely be attributed to the Bushmen's knowledge of game and the veld. Traps for antelopes are set at least 4–5 km from the village so as not to disturb the animals. Those for burrowing animals are sometimes quite near the village. After careful observation, traps are set in holes dug in game paths, usually where they fork, and also at salt-licks and communal dung mounds. Usually a digging stick is used for digging and the sand thrown over the shoulder to prevent disturbance of the area around the trap. A flat wooden disc is used to keep the two jaws apart. (The metal tongue of the trap is nearly always removed as the wooden disc gives a larger surface.) The edges of these discs are filed round to ensure rapid slipping when the trap is stepped on. If, on the other hand, the disc slips too easily, the edges are licked with the tongue and pressed into sand to roughen them.

The trap is then thinly covered with dry sand (Plate 15). Wet sand or clods prevent dry sand from flowing into the hole under the wooden disc. The teeth of the trap are not sharpened, nor are they poisoned.

When a trap is set for the larger antelopes, the chain which is attached to it is not weighted as this might hook during the animal's flight and the animal might free itself. For smaller antelopes like the springbok, a length of iron is sometimes fastened at the end of the chain, as this damages the hind legs when the animal runs, thus slowing it down.

Smaller antelopes usually do not run far, and are killed with clubs. This is usually done by the boys in the hunting party as part of their education

(Plate 16). Larger antelopes like the gemsbok, hartebeest or wildebeest run much further when trapped, but being unable to keep up with the herd, they eventually part from the others and are tracked down and cornered with the aid of dogs and killed with spears.

Burrowing animals, especially the porcupine, are easily trapped by setting the trap in one of the entrances to the burrow and blocking all the others with heavy sticks and sand. For porcupines the traps are securely anchored to a wooden peg, thus preventing the trapped animal from going deep into the burrow. As the Bushmen respect the quills, the animal is killed with a spear before being pulled from the burrow.

Influence of metal traps on the pattern of hunting

With the successful integration of the metal trap into their hunting equipment, some Nharo groups have centred nearly their whole system of meat-getting on this instrument, which has proved to be highly effective when used in combination with the field-lore of the Bushmen.

In general the trap has eased the tempo of hunting, as trap inspection can be limited to a certain time of the day; it involves less effort than having to go out searching for game and it has a much more constant rate of success.

An animal caught in a trap can be overtaken on the same day and it is therefore not necessary to sleep out. As it is found on the same day, usually still alive, the possibility of beasts of prey reaching it first is minimized.

In the field of material culture it has had a marked influence on the use of certain artefacts. The bow and poisoned arrow, although still owned by nearly all the men, has largely fallen into disuse during periods when traps are available. The spear and club normally used to deliver the *coup de grâce*, actually come to more intensive utilization; not only because the trap, unlike poison, does not kill, but also because of its higher rate of success.

The other basic hunting equipment, the rope snare and springhare-hook, are not influenced to a notable extent, as they are used to catch small game and birds, and thus do not compete with the metal trap, but are used as supplementary tools in the exploitation of the resources.

The use of traps has also influenced the pattern of collecting plant foods. Due to the relative abundance of meat after successful trapping, collecting activities are centred on tsamma melons as the primary source of water and as a supplementary food. In other words, as a result of the relative abundance of meat, the women are not forced to utilize the full range of available veldkos, and the collection of other types of veldkos can under these circumstances be seen as a matter of personal taste or chance collection, rather than an organized purposeful effort.

Generally speaking, thus, the traps have also increased the percentage of meat in the diet at the expense of vegetable foods. To give an indication of the trapping success of a Nharo group (numbering 40) on the Okwa River, the kills made over a period of 14 days can be quoted:

27 *September–4 October* 1967

Animal	*Number*	*Approx. weight**	
		kg	
Wildebeest	1	200	(trapped)
Wild cat	1	1·5	,,
Porcupine	2	30	,,
Springhare	10	25	(hooked or trapped)
Ostrich	1	135	(snared)
Tortoise	1	—	(collected)
5–12 *October* 1967			
Wildebeest	2	400	(trapped)
Gemsbok	4	720	,,
Springbok	2	45	,,
Duiker	1	15	,,
Steenbok	1	11·5	,,
Porcupine	1	15	,,
Hare	1	2	,,
		1 600 kg	

Admittedly, trapping is not always as successful as this, but these figures illustrate the superior potential of the metal trap (when compared with traditional equipment) in making possible the rapid accumulation of a meat supply which may vary from a substantial quantity to a great abundance.

PRACTICES ENSURING HUNTING SUCCESS

Practices of this nature are by no means elaborate, nor are they often resorted to. The overall impression one gets is that very few Nharo, mostly those without traps, still make use of magical practices in hunting.

A man who feels that his luck in hunting with the bow has left him usually resorts to the practice of magical scarification. Cuts, usually 4 in number, are made between his eyes, on the thumbs and on the wrists with the aid of a thin metal blade or porcupine quill. A medicinal root is roasted, powdered, and mixed with fat and this is then rubbed into the cuts. After this a piece of dried meat (from the front leg of a steenbok) is powdered, also mixed with fat, and rubbed into the same cuts by means of a thin length of steenbok bone.

Another mixture which serves the same purpose is sometimes resorted to. Similar cuts are made, but powdered wildebeest and hartebeest meat is then mixed with the roots and fat. This mixture is carried in a tin or a small horn. There is no specific person who makes the cuts, and where possible a person does it himself.

* Labuschagne, R. J. & Van der Merwe, N. J. *Mammals of the Kruger and other national parks.* Maberly, C. T. A. *The game animals of southern Africa.*

Both these mixtures are thought to ensure success in the hunting of the larger antelopes, i.e. eland, gemsbok, wildebeest and hartebeest.

For success in snaring, cuts are made on the wrists, elbows, upper arm, on the chest and on the temples, but not between the eyes. The same mixture of powdered roots, fat and steenbok meat is also used to rub into these cuts.

A single case has been observed where a magical action was performed after a trapped animal was eaten by scavengers before the trapper could reach it. The sand with a track of the scavenger was taken on one hand and blown away through a short piece of hollow wood. This satisfied the person that scavengers (jackals, hyenas, etc.) would be kept away.

BUTCHERING, TRANSPORTING AND SHARING MEAT

Larger antelopes are skinned on the spot where they were killed. For this pocket-knives obtained through bartering are used, while the breastbone is cut with an axe, often hafted with a gemsbok horn, as it proved to be stronger than wooden handles. When skinning, the Bushmen always try to get the maximum size, therefore antelopes with desirable hides, i.e. hartebeest, kudu, springbok, duiker, steenbok, etc., are often skinned right to the forehead Wildebeest are usually cut up skin and all, as the skin is not used for skin work, excepting skin sandals. These skin strips are roasted and eaten or stored for use in times of scarcity.

At the slaughtering place pieces of meat are stacked on bushes or branches cut for this purpose. The gall-bladder and testicles are discarded and horns are chopped off and left at the site if they are not needed. Apart from this, nothing is left at the site. The contents of the rumen and reticulum are scraped out by the boys and the empty 'containers' are then turned inside out. Blood that collects in the chest cavity is scraped into it, together with the lungs which are cut up in small pieces. The hole in the rumen is then pinned together with a length of wood. The liver is often roasted and eaten on the spot.

Smaller animals, e.g. the steenbok, jackal and springhare, are taken to the werft where they are slaughtered (Plate 17). Their hind legs are broken with a club or digging stick to facilitate carrying, as the broken legs can then be folded to form a carrying handle. The breaking of bones also facilitates the processes of cutting up and cooking.

Pieces of meat of the larger buck are usually hooked to a stick carried on the shoulder. When smaller quantities are carried the digging stick or spear is often used for this purpose. Smaller animals are stuck in the quiver bag or a sinew net. Sometimes they are simply slung over the shoulder or tied to a rope snare and hooked on to a digging stick carried on the shoulder. Porcupines are carried in a similar way after the quills have been removed.

As various persons usually have their traps in the same area, trapping tends to be a group activity. Thus when one of the traps is successful the other members of the party join in the tracking and carrying of meat. When Kgalagadi-owned donkeys, which are often included in trapping agreements, are available

the boys are sent back to the werft to fetch them and follow the spoor to the scene of the slaughtering. If a single person should kill a large animal in the afternoon, he would return to the werft after cutting it up and putting the meat in a tree. With the aid of others this meat would be fetched on the following morning.

Meat sharing takes place after a large animal has been killed. A small animal, only large enough to feed the successful hunter's family, does not need to be shared although visitors to his fire usually get a share of the cooked meat.

The obligation to share meat is a fundamental principle in operation in the Nharo society. Not only does trapping as a joint effort give participants a claim, but far more important are the ties of kinship, both consanguineous and affinal, and friendship which exist among members of a group. No Bushman would think of having a surplus of meat while other members of the group went hungry, as this would be an extreme violation of the obligations he has because of these ties of kinship and friendship. Friendship ties even lead them to share readily with Kgalagadi.

There are certain prescribed ways of distribution of meat in the group, and a large buck is normally shared as follows: a foreleg goes to the successful hunter's parents if they live with the group, while his brother gets a hind leg. His parents-in-law get a hind leg and part of a foreleg. The heart, liver and head go to the hunter's grandparents. If they do not live in the group he keeps these for himself. Normally he also keeps the spine. The meat is shared and shared again among others in the group. It must be pointed out that these rules of sharing are flexible and can be changed according to personal taste, the most important consideration being that everyone gets a fair share, however small.

GATHERING OF PLANT FOODS

PLANT RESOURCES

Plant foods (veldkos) are of extreme importance to the Nharo. Not only do plant foods form an important part of their diet, though their importance as a foodstuff has been diminished by the success of the metal traps, but they are the all-important source of water which makes living in the veld possible.

The gathering of plant foods is the task of the women who confine this activity to the morning if sufficient quantities of plant food are to be found. If not, they rest in the shade of trees at noon and in the early afternoon, always returning to the village before sunset, as they never spend the night in the veld. On their way home they collect firewood for the night.

Gathering is a group activity and small groups of women, accompanied by young girls, go out to areas previously decided upon. Tsamma patches, berry bushes and the locality of other food plants in the subsistence area are well known, and should an unknown area be utilized, it is explored by setting off in a different direction each day.

Men also collect melons, berries, etc. while hunting, but this is merely incidental and to satisfy their immediate requirements. However, should they

find a patch of tsamma, as many as possible will be taken home in their quiver bags or sinew nets.

The main types of plant foods eaten by the Nharo are as follows:

Nharo name

n//aiane	—	the tsamma melon, *Citrullus vulgaris*
n||am	—	root of plant of the family Cucurbitaceae
g|ã	—	root of plant of the family Cucurbitaceae
≠aba	—	root of plant of the family Cucurbitaceae
≠arru	—	root of plant of the family Cucurbitaceae
tshu kxú	—	bulb (unidentified)
g|idi	—	fruit ,,
n||uane	—	root ,,
||auane	—	root ,,
g|oro	—	bulb ,,
!arre	—	root ,,
/idiane	—	root ,,
kxom	—	berry of *Grewia flava*
khãa	—	the 'gemsbok cucumber', *Colocynthis naudinianus*
n≠ono	—	cucumber type
g||ani	—	fruit (unidentified)
/orro	—	leaves ,,
/ou	—	leaves ,,
n≠e≠e	—	fruit ,,
!u!u	—	berry ,,
/uyane	—	nut of *Bauhinia esculenta*
g|am	—	root of *Bauhinia esculenta*
/aba	—	leaves of plant of the family Cucurbitaceae
g!oane	—	gum from various *Acacia* species. Gum touched by baboons, however, may not be eaten.

Of these the tsamma melon is by far the most important. It is not only the primary source of water but also a favourite food. If a good supply of meat is available, the women will concentrate their collecting efforts largely on tsamma, even though other food plants are readily available.

Should enough food plants be collected to last more than one day, the women will spend the next day in the village. Periods of subsistence activity are regularly alternated with days of relative inactivity spent in the village.

Gathering equipment includes the following:

skin cloaks
gathering nets
digging sticks
skin bags

EQUIPMENT

Skin Cloaks

A skin cloak (*gwasha*) is preferably made from hartebeest and gemsbok skin, though goat skin is also used nowadays if available. The complete skin is used and simply draped around the shoulders and knotted in front. Cloaks are made by men and worn by both sexes.

Although classified as a garment, the skin cloak is an important piece of equipment in the women's food-collecting activities. To convert the cloak into a large collecting 'bag', three points of the cloak are fastened in front of the right shoulder thus forming the bag under the left arm, leaving the right arm free to collect with. When collecting in cold weather some women wear another smaller cloak to cover their backs.

While a skin bag (*g≠obesa*) is used mostly for collecting berries and smaller roots, the skin cloak is primarily used to collect tsamma melons and the larger roots. As Bushmen in the Okwa region are completely dependent on the water stored in these, it stresses the importance of the cloak-bag. Due to its capacity it also enables the women to collect a sufficient quantity on one trip to last at least a full day, as long distances must sometimes be covered in collecting.

Skin cloaks are also used for carrying firewood and thatching grass, when they are folded around the wood or grass, and carried behind the back. The cloak is also useful for transporting large quantities of dried meat strips from the hunting area when the Bushmen are forced back to the waterholes by a lack of tsamma.

Carrying nets

The carrying net (*/uisiba*) is made by men from strings of sinew, usually the back sinews of a gemsbok. These sinew strings are rolled into long ropes and knotted into nets (Fig. 6).

The nets are used for carrying ostrich eggshells and bags with possessions and dried meat when migrating. Nowadays, however, they are rarely found among the Nharo, as the manufacture is time consuming and requires a large quantity of sinew. In addition, the use of flour bags for carrying purposes and metal water containers which can be carried on a strap, have made the knotted carrying net less essential.

Digging sticks

The digging stick (*n/uisa*) is one of the primary tools used by the women in their food-collecting activities. The sticks which are cut by the men from hard wood (*Grewia* sp.) are about 1 m in length and $2\frac{1}{2}$–3 cm in diameter, with a sharpened point at one end. To ensure maximum effectiveness, the point is regularly sharpened with an axe or knife. Although primarily made and used as an implement for digging out underground roots and bulbs, the digging stick is a multi-purpose tool put to a wide range of uses. Thus its sharpened

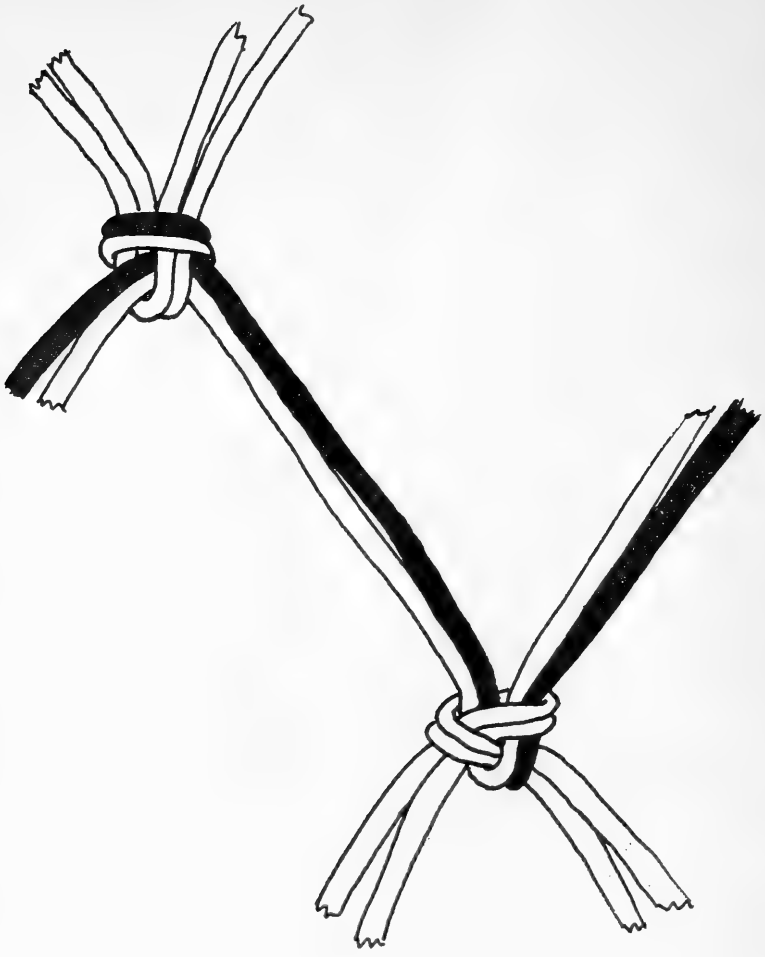


Fig. 6. Sketch showing technique used in knotting sinew nets.

point is often used to cut off the tops of tsamma melons. The melon is held between the feet and the contents are then cut from the rind or worked into a pulp. The digging stick is also used to beat off ashes from pieces of roasted meat and to tenderize hard strips of dried meat. Sometimes a metal blade is fastened to the sharpened point and the tool then used to hollow out wooden mortars. Apart from this they are often used as 'donkeys' in children's games.

The digging stick is also often used by men in hunting. Springhares hooked in their burrows are dug out with digging sticks, while men who set traps use them to dig the holes in which the metal traps are placed. Trapped small game, e.g. steenbok, springhare, etc., are clubbed with a digging stick if a club is not available, and after such kills the meat is often hooked over the stick or fastened to it by means of a rope snare and then carried over the shoulder.

Skin bags

Bags (*g≠obedzi*) used for the purpose of collecting are usually of a medium size, 20–30 cm wide and 15–20 cm high. They are used in the collection of berries, nuts and the smaller fruits and roots and carried over the shoulder on a carrying strap.

THE QUEST FOR WATER

WATER STORAGE

The ostrich eggshell is still widely used among the Nharo for storing water. A little hole is made on the top or side of the eggshell with the aid of a stone. A small pointed stone is often carried along just for this purpose. The contents of the egg are then shaken out to be fried. When water is available the eggshell is filled and the hole stopped with a plug made from soft grass. Eggshells are often decorated by men who use knives or metal blades to scratch designs which are afterwards blackened by rubbing fat and charcoal over them, thus making the engraved patterns stand out (Plate 18). These designs also function to indicate ownership during periods of contact with other Bushmen, whether in the veld or at the waterholes. This function, however, can be seen as of secondary importance, as all members in a band know each other's possessions.

With the increasing availability of plastic and especially metal containers, the eggshell container is, however, losing its popularity. The fact that metal containers (usually discarded one-gallon oil tins) are unbreakable, have a larger capacity and are more easily carried when fitted with a carrying strap, results in these containers being in great demand.

A third type of container, now seldom used, is that made from a spring-hare's skin. The hair is scraped off and the belly and leg slits sewn with sinew. It is then blown up and left to dry. These containers are not very popular, as they often leak and do not last long.

Rainwater which has collected in hollow trees is sucked up by means of a sucking reed (*≠omba*) made from various lengths of hollow grass bound together with sinew.

WATER SCARCITY AND ITS BEARING ON FOOD-GETTING ACTIVITIES

The distinction made in this paper between 'hunting' and 'gathering' as practised by the Nharo is based on the broad distinction between activities aimed at the killing of certain mammals and birds on the one hand, and activities connected with the exploitation of plant foods* on the other.

As such, this distinction also hangs together with a difference in aim, methods, technology and through the principle of division of labour, also with the sex of those who practise these activities. Nevertheless, in spite of these factors, the distinction between hunting and gathering remains in a sense largely

* The exploitation of certain non-vegetable foods could also perhaps more adequately be classified under gathering. Among these are snakes and tortoises which are collected by chance and flying ants which are simply scooped up in tins, as they appear in large numbers.

academic, because in the reality of an existence in the veld they form a combined effort in food-getting. This combination of the two processes is essential for meat-getting, as gathering is a prerequisite for hunting. This has direct relationship to the fact that the Nharo groups under discussion **utilize veldkos primarily as a source of water** and not so much as a source of food. Except for short periods during the rainy season when water may collect in the pans, **no surface water is available at all**. The permanent waterholes in the south-western Ghanzi district all support Bantu villages, and with the resultant overgrazing, game is driven further away; thereby forcing the Bushmen to have their hunting and collecting areas too far away to use these permanent waterholes.

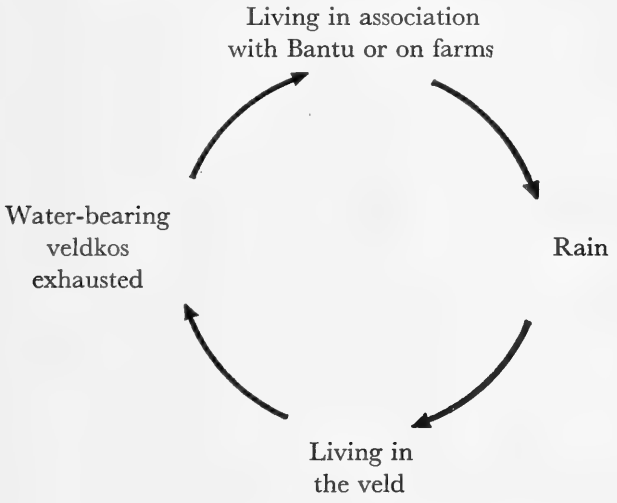
Thus the availability or non-availability of an adequate supply of water-bearing plants, principally the tsamma melon (*Citrullus vulgaris*), is the all-important factor which governs the subsistence of these Nharo. This is often also the only source of water for their dogs and Kgalagadi-owned donkeys.

In accordance with this fact the peak of hunting and gathering activities coincides with the period of maximum availability of water-bearing plants, usually from February/March to August/September. This, of course, depends on a good rainy season in the first place. The rainy season, from December to March, is inconstant and rain is often patchy, unevenly spaced or too late to make important water-bearing plants grow. The correlation between rain and the availability of veldkos practically centres between two extremes: if sufficient rain has fallen at the right time it results in an abundance of veldkos and provides a relatively easy subsistence for the Bushmen, while insufficient rain results in a total failure or inadequate concentration of veldkos to guarantee an adequate water and food supply to a group of Bushmen for a reasonable period of time. 'Reasonable period' in this case should be seen against the fact that the seasonally-frequented subsistence area of a Kalkfontein band is situated in a waterless area 80–90 km from Kalkfontein. To go there and be forced back by lack of water after a few days would be an extreme waste of energy considering the reward involved. Therefore, if doubt should exist over the rain which has fallen in the hunting area, two or three men are sent to investigate, further movements depending on their findings. If the report is unfavourable, they have no choice but to remain near the waterholes, getting food by rendering service, begging melons from Bantu with whom friendship ties exist and by small-scale local snaring of small buck and collecting of plant foods.

Although the rains in a particular season might not have been sufficient or at the right period to provide for human existence in the veld, they might have been enough to revive the grasses, especially on the patches burnt by the Bushmen. This has a stabilizing effect on at least some of the game which otherwise would have migrated. Therefore, although far less concentrated, there remains in such a season in the subsistence area a game population which is substantial if compared with the number of Bushmen who utilize this resource. In other words, the situation arises where there are not enough water-bearing

plants to support a group of Bushmen, but at the same time conditions are not so critical as to cause a large-scale migration or mortality among the animals.

Thus Bushmen forced to the waterholes (where food is not readily available) experience the dilemma of geographical separation of water and food. This is a problem which they have to contend with annually from early spring to midsummer, and is one of the main factors which force them into Bantu association or, alternatively, to the farms where relatives may work or squat. If the following rainy season proves to be a good one, the families and individuals who have split up in this way will again unite into their seasonal band and will go hunting and gathering in their traditional area. The annual subsistence cycle can be illustrated by the following diagram:



PRIMARY AND SECONDARY SUBSISTENCE AREAS

During normal years, with an adequate supply of water-bearing plant foods in the veld, the Kalkfontein Bushmen utilize food resources in an area more than 80 km from the nearest water, which is at Kalkfontein. As they invariably return to this area after good rains, living there for months until the tsamma become too scarce or wither, this area can be termed their **primary subsistence area**. However, as previously described, the utilization of resources in this area is impossible during times of scarcity when the Bushmen have to live at the water-holes.

To overcome this problem of separation between water and food, at least partly, the Kalkfontein Nharo have found a way to utilize the game resources while using water from the permanent waterholes.

As their primary subsistence area on the Okwa is too far to use this water, they utilize **secondary subsistence areas** situated about 30 to 40 km from Kalkfontein (Plate 19). These areas are the nearest to Kalkfontein which support fair concentrations of game.

As many metal traps as can be handled are borrowed from Kgalagadi, as these periods of 'crash-trapping' are limited by the water position to a maximum of 5–8 days. As much water as possible is carried, but due to the lack of water containers and the limited carrying capacity of the people, this water supply does not last longer than 3–4 days. If trapping is not successful during the first days, the Bushmen try to stretch this period beyond the limits of their water supply. As the secondary subsistence areas are within an easy day's walk from the waterholes, one or two of the men, accompanied by boys, walk back to fetch a fresh supply of water. By leaving the camp in the morning they can return before noon on the following day. The women also try to stretch the period of trapping by collecting water-bearing roots, but as a secondary subsistence area is only utilized during bad seasons when tsamma has failed, this is not very successful and cannot be relied on exclusively as a source of water.

In essence thus, these trips are **waterhole-based** with the Bushmen relying on the water supply that they carry from Kalkfontein and not on water-bearing veldkos as in the case when the primary subsistence area is utilized. Due to the success of trapping and the unwillingness of the Bushmen to fetch water more than once or twice during such a period, these periods are limited to a maximum of about 8 days.

The main object of these periods is to obtain meat and, if possible, the accumulation of a surplus which is dried and taken back to the waterholes to supplement their unstable diet during periods of Bantu association. This surplus can be quite substantial as the following table of kills during a 5-day period (27–31 July 1969) illustrates:

Animal	*Number*	*Approximate weight in kg*	*Method of killing*
Gemsbok	1	180	Cornered with dogs, killed with spears
Springbok	4	90	Metal traps
Ostrich	2	270	Rope snares
Jackal	1	7	Metal traps
Steenbok	1	11·5	,,
Springhare	2	5	,,
		563·5 kg (1 232 lb)	

Even if the percentage of edible parts is estimated as low as 50% it still leaves a supply of 282 kg (616 lb) to a group of Bushmen numbering only 15, composed of 9 adults and 7 children. (During the same period only 13 kg (29 lb) of plant foods was gathered). However, even these large quantities of meat usually do not last more than a few days, as the Nharo do not make organized efforts to store food for future times of scarcity. At all times liberal use is made of available food and at the waterholes the surplus meat is rapidly consumed by the group, joined by relatives and friends, should it become known

that plenty of meat is available. Also Kgalagadi, with whom friendship ties may exist, get a share of the meat.

Except when a large animal is killed or when the use of traps may yield an abundant supply of meat, food is normally consumed on the same or following day. With the exception of the short periods of hunting in the secondary subsistence areas, the Bushmen will ease their hunting and gathering efforts if a surplus exists.

The only foodstuff stored for long periods before being eaten is roasted strips of skin of the larger antelopes like wildebeest and gemsbok. This is not a particularly desired food as it is too hard and is therefore not eaten if other food is available.

Trading at stores

Although the value of Bushmen trade at the few shops in the area (Kalkfontein, Charles Hill, Nojane, etc.) is insignificant in terms of turnover, it is nevertheless important to the Bushmen, as this is where they obtain luxuries by bartering raw materials and artefacts.

Among the raw materials bought from Bushmen are porcupine quills (48 cents per 454 g (lb)) ostrich eggshells (10 cents each) wildebeest and gemsbok tails (5–15 cents), ostrich feathers (30 cents per 454 g (lb)), unworked duiker skins (15 cents) and jackal skins (15–20 cents).

A few Bushmen manufacture things which are sold as curios at the shops. For a bow and quiver set they receive about R1.00 while a string of leg rattles sells for 20–25 cents. Apart from this, live animals (usually ostrich chicks) are sometimes offered for sale next to the road.

Most of the money is usually immediately spent on luxuries like tobacco, sugar, coffee, mealie-meal and salt. Depending on the amount of money available, and individual and family needs, the rest will be spent on things like beads, a pair of scissors, a pocket-knife or a dish or other metal container, etc.

Economic interaction between Nharo and Bantu

Two broad categories of economic association between Nharo and Bantu (mainly Kgalagadi) can be distinguished.

To the first category belong the relatively small number of Nharo who live largely permanently near Bantu villages, and are associated with a specific household for long periods, often stretching over years.

As the groups under discussion do not belong to this category, we limit ourselves to the second, which consists of Bushmen who periodically live near the waterholes and Bantu villages, returning to the veld as soon as conditions permit. These Bushmen usually build their huts on the outskirts of the Bantu settlements. They always live on that side of the settlement which is nearest to their hunting area.

Their seasonal stay at the waterholes usually starts during September when water-bearing roots and wild melons become unavailable, and continues until January/February or even longer, depending on the rain. But though water is available at the waterholes, they are faced with a food problem. Game is scarce near the waterholes due to overgrazing and the presence of people, while veldkos is also scarce during spring and early summer. Even a measure like the periods of utilization of secondary hunting areas by the Kalkfontein people (previously discussed) gives only short-term relief as the surplus meat obtained does not last long, with the result that they often turn to the Bantu for food.

Those who are willing to work earn food by rendering service to the Bantu. Men assist in herding and watering cattle and goats at the wells; further, they cure skins and cut branches with which gardens are fenced, while the women collect firewood, carry water and assist in the care and reaping of crops, etc. Payment is nearly always in kind, and consists of a ration of either watermelon or dried strips of melon, milk, beans and mealie-meal. To this a fill of tobacco may be added. The quantity and nature of the payment naturally depend on the nature of the service and the availability of the above-mentioned products.

Better payment is offered for work which involves responsibility. In a specific case a Bushman came to a Kgalagadi, A, and offered his services. A employed the Bushman at his cattle-post because he himself was employed at a shop and unable to attend to his cattle properly. As A has a cash income he pays the Bushman R2.50 per month and 5 cents worth of tobacco per week is added. Remuneration of this type must however be seen as exceptional.

Some Bushmen do not regard the rendering of service as an acceptable solution to the problem of food shortage, and rely on friendship ties with various Bantu from whom they beg food. Though the Kgalagadi complain that the Bushmen ask them for everything but want to do nothing, the requests of the Bushmen are usually successful. But even though those who ask usually get something, the Kgalagadi are not in a position to give anything but a small ration (usually a few small watermelons), as their own supply is limited by the uncertainty of crops.

No doubt the idea of reciprocity adds to the motivation behind this type of aid to the Bushmen. Giving food to the Bushmen strengthens the possibility of reaching a trapping agreement and makes their knowledge of medicines and curing readily available.

The Nharo's ability to cure sick people is widely respected, and is used by the Bushmen to their economic advantage. Groups of Bushmen are often invited by Kgalagadi to cure someone by performing curing dances at the Kgalagadi's homestead. They are always remunerated with food. Those who are known to be good dancers and who go into a trance easily may get an additional small payment of money as they are thought to have more healing power.

TRAPPING AGREEMENTS

Trapping agreements are an aspect of the economic interaction between Nharo and Kgalagadi which have had a far-reaching influence on the economic life of the Nharo, as it is through these that metal traps become available to the Bushmen.

The recruiting of a trapper is the result of friendship ties strengthened by aid from the Kgalagadi and contact over a long period. Friendship ties are, however, not an absolute prerequisite, as the great skill and success of some Bushmen in using traps are known by most trap-owning Kgalagadi in the village, and these Bushmen may be approached by Kgalagadi whom they do not know well.

Because of the advantages of the metal trap, a Bushman will usually accept an offer of a trap, unless he has had previous unpleasant experiences with such a person, or if he already has too many traps to handle.

Conditions of these agreements are based on the division of animals caught, with the basic rule that all the meat belongs to the Bushmen, while half the antelope skins (if more than one is caught) and all the skins of carnivores (lion, leopard, cheetah, jackal, spotted genet, wild cat, etc.) belong to the owner of the trap. Should the Bushmen return to the waterholes with a surplus of meat, the owners of traps often receive small presents of meat, though the Bushmen are under no obligation to share meat with them.

A special payment is made to the Bushmen for valuable carnivore skins. Payment usually takes the form of a blanket and a quantity of mealie-meal. Sometimes money may be offered instead. A Bushman, N, received R6.00 from the owner of a trap when he brought him the skin of a leopard. Some time after this the same Bushman, N, trapped a female leopard and also killed her cub. The owner of the trap then gave the skin of the cub to N who sold it at the shop for R8.00.

Hunting dogs are sometimes lent to Bushmen who use them to hunt jackals and small game. The same conditions of division which apply to game killed with traps are in force in these cases. Donkeys are also often lent to Bushmen by owners of traps to facilitate the transport of traps, skins and meat.

A few Nharo know how to shoot with a rifle, and due to their superior fieldcraft they are sometimes asked to hunt for Kgalagadi who own rifles. Rifles are not lent to Bushmen migrating to the veld for a long period. Rifle-hunting is usually limited to single days and the Bushman returns the rifle in the evening. An animal killed with a rifle is taken to the home of the owner of the rifle who usually puts a donkey at the hunter's disposal. The hunter must account for the cartidges he has used (he usually does not get more than two or three) and is afterwards remunerated with a share of the meat.

Trapping and hunting agreements naturally also hold the possibility of cheating and friction, and in practice one finds examples of this. A Bushman, T, once gave the owner of a trap more than fifteen jackal skins which he had trapped over a long period. T expected to get two or three of the skins which

could be sold at the shop for 20–25 cents each, but he received no payment. T and another Bushman, N, then returned the Kgalagadi's trap and refused to trap for him again.

In another case a Kgalagadi lent his dog to a Bushman, D, who found that the animal was a poor hunting-dog. He therefore took the dog back to its owner who did not believe his story and accused D of stealing the skins of animals the dog had killed. As punishment for the alleged crime the owner of the dog (who is a pump operator) forbade the group of Bushmen to which D belongs to use the water at the borehole, and threatened to shoot those who trespassed. As the Bushmen did not know their rights with regard to the Government borehole they obeyed the order. The Bushmen certainly are not always the wronged party, but cheating on their part is difficult to detect, as the Kgalagadi have no check on animals caught with their traps.

Viewed in perspective, however, cases of this nature are isolated as agreements are stabilized by the mutual advantages they offer. While Bushmen want traps because of their high rate of success in obtaining meat, the Kgalagadi are equally eager to get as many game skins as possible. Apart from the fact that some Kgalagadi still make skin garments, the highly rewarding game-skin and kaross trade offers a cash income. Both parties are also careful not to become known as violaters of agreements, as this will have the consequence that Kgalagadi will not offer traps to such Bushmen, and Bushmen will not readily trap for such Kgalagadi. Should a Bushman agree to trap for such a person he would be mindful of the possibility of being cheated and keep more skins for himself than is allowed by the agreement.

Ownership and inheritance of property

People have individual ownership of tools and objects they themselves have manufactured. Ownership also bears relationship to the economic roles of people. Thus women are not only the owners of huts because they have built them, but also own most of the things in the hut because they use them in performing their domestic tasks or in their subsistence activities.

Among the individually owned possessions of men are included their hunting equipment (bows, arrows, quivers, spears, hunting-bags, snares, etc.) and other personal things like pipes, tobacco-pouches and tinder-boxes.

Men and women have their own skin bags and items of clothing and ornament. Children also own their own clothing and usually have their own blankets.

There is, however, no strong concept of ownership and the Nharo do not accumulate possessions. It is discouraged and sanctioned by society as a possible cause of jealousy and trouble within the band. Because of their nomadism, the quantity of possessions has to be limited as people must carry the things they own. Instead of accumulation, therefore, they try to put the essential items of equipment to the widest possible range of uses.

The system of playing (joking) relationships no doubt further weakens the

concept of ownership, as it permits people to borrow (or sometimes even take) the property of their playing (joking) partners without asking, and use it for as long as they want to.

The borrowing of property from kin who are to the borrower in an avoidance category* is not prohibited, but the owner's permission must be asked first.

For these reasons all Nharo groups known by the author live on basically the same material level. They all own a sufficient quantity of the equipment required to make a living in their environment and do not strive to own more than others.

When a man dies, his possessions are taken by his father or brother, who divides them among the sons of the deceased. The eldest son is supposed to get more than the others. If the deceased did not have sons, his possessions are shared among his brothers and other male relatives.

A deceased woman's possessions are shared among her daughters, or should she not have any, among her sisters and other female relatives. Clothes, skin cloaks and blankets are never inherited as they are buried with their owner, the deceased being wrapped up in blankets and cloaks.

Summary

The present-day economic life of some Nharo Bushman groups of the western parts of the central Kalahari is discussed. Special reference is made to the use of tools and equipment, both traditional and non-traditional, by these Bushmen in making a living in their harsh environment.

Acknowledgements

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The author is indebted to the following persons associated with the South African Museum, Cape Town: Miss E. M. Shaw and Mrs. A. C. Lawton read

* As already mentioned, the Nharo classify all kin in either an avoidance or a playing (joking) category, each category being associated with certain patterns of behaviour.

the manuscript and made useful suggestions. Miss L. M. Phillip did some of the illustrations and Mr. A. Byron and Mr. J. Kramer printed the photographs. Mrs. P. Eedes and Mrs. R. Oberholzer kindly typed the manuscript. Special thanks are due to Dr. T. H. Barry for his interest in, and support of fieldwork.

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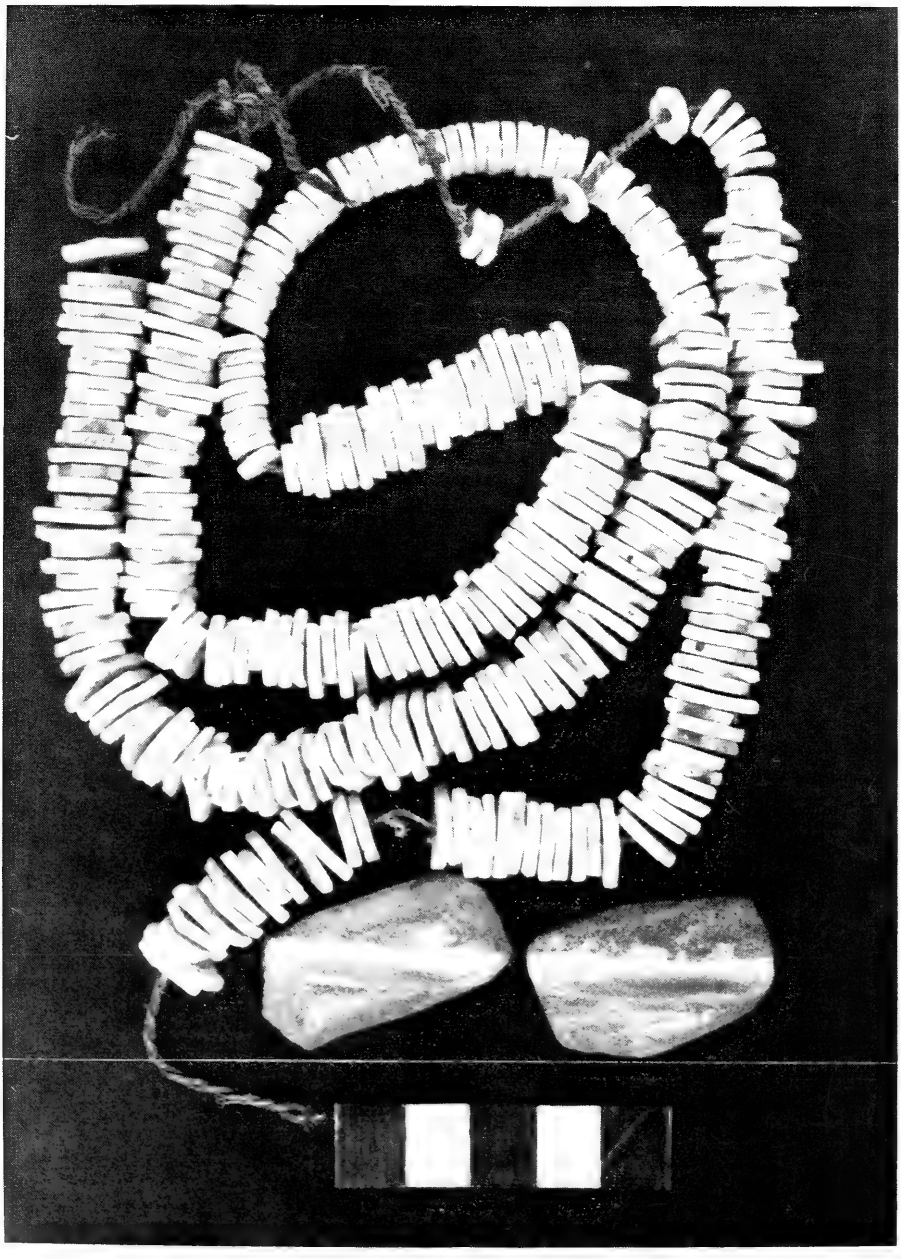
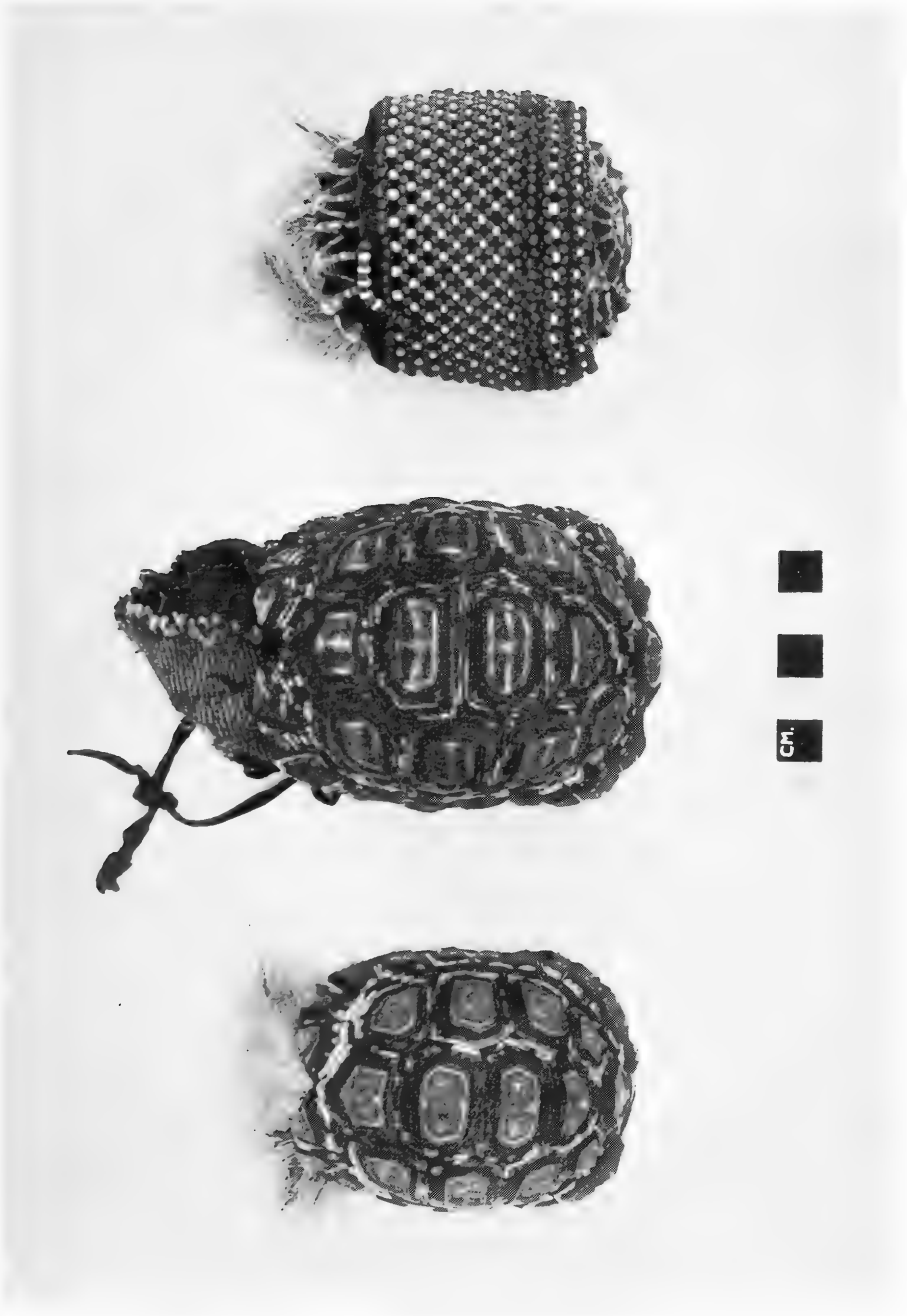
Woman drawing deeply on her metal pipe.

A Nharo smoking a pipe made from a discarded tin. The scarification on his back is clearly visible.

Woman pounding seeds in a wooden mortar.



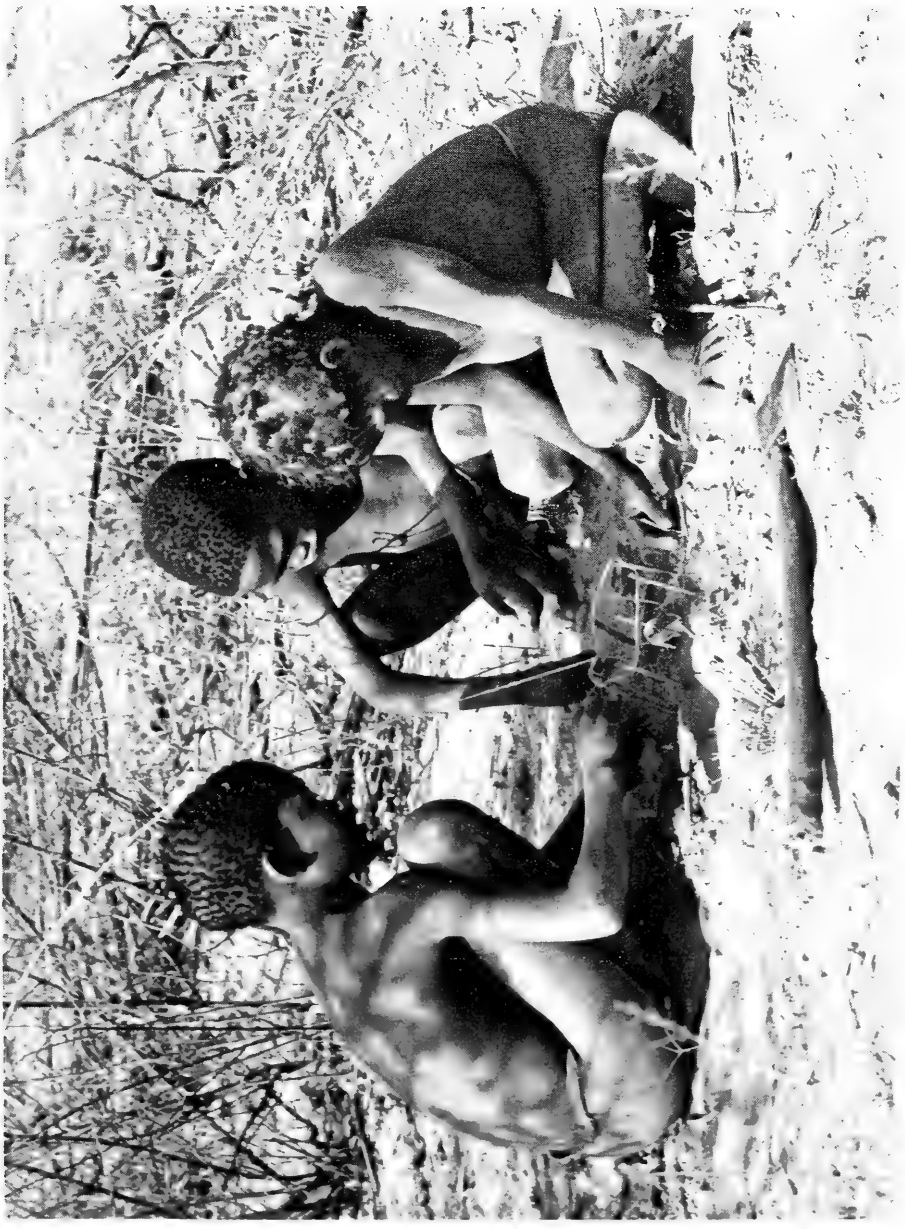
An uncompleted string of eggshell beads shown with 2 pieces of grooved sandstone to smooth the edges of the beads.



Tortoise-shell toilet boxes.

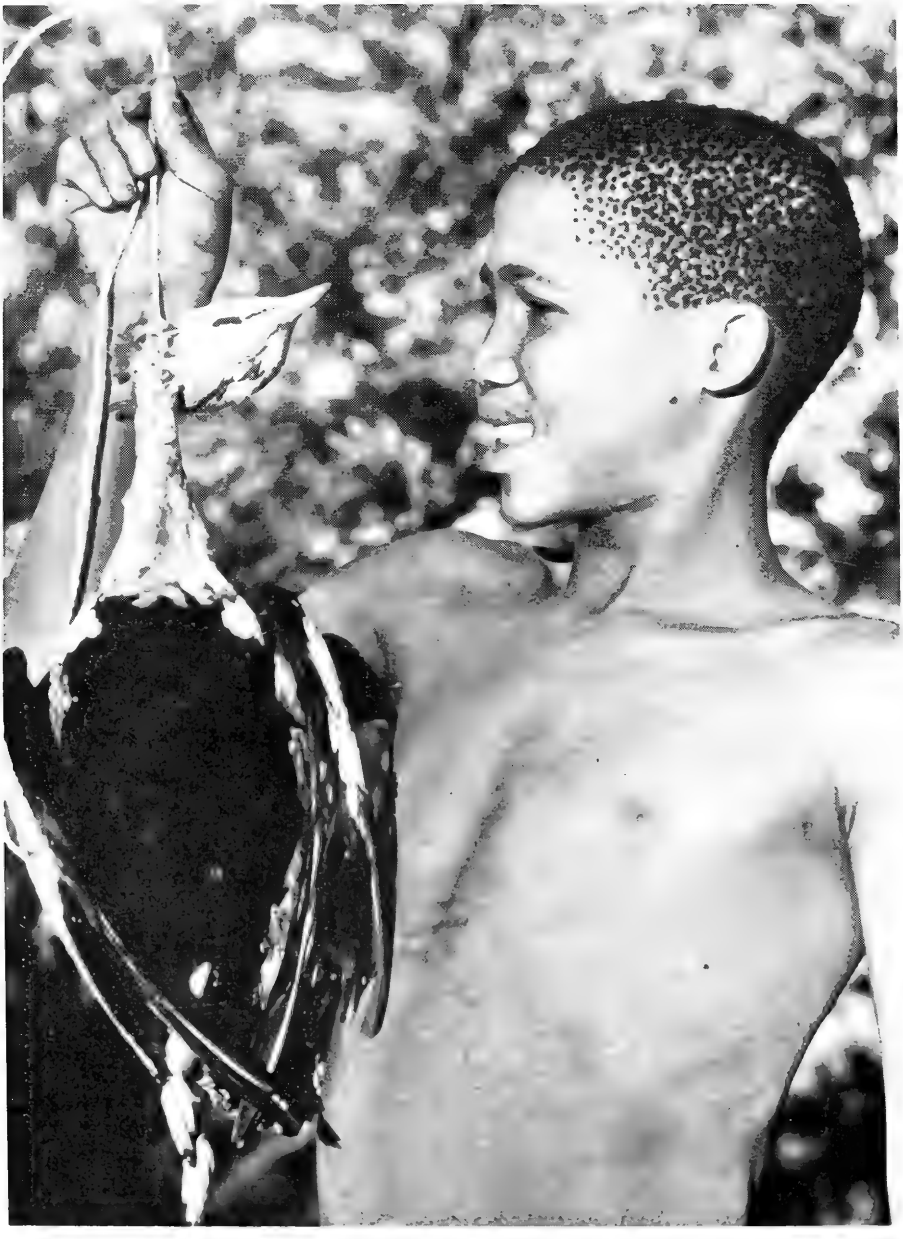
Examples of poison mortars (//xurudzi).

A rope snare being manufactured.



Boys setting a snare for birds.

A rope snare baited with a piece of bone.

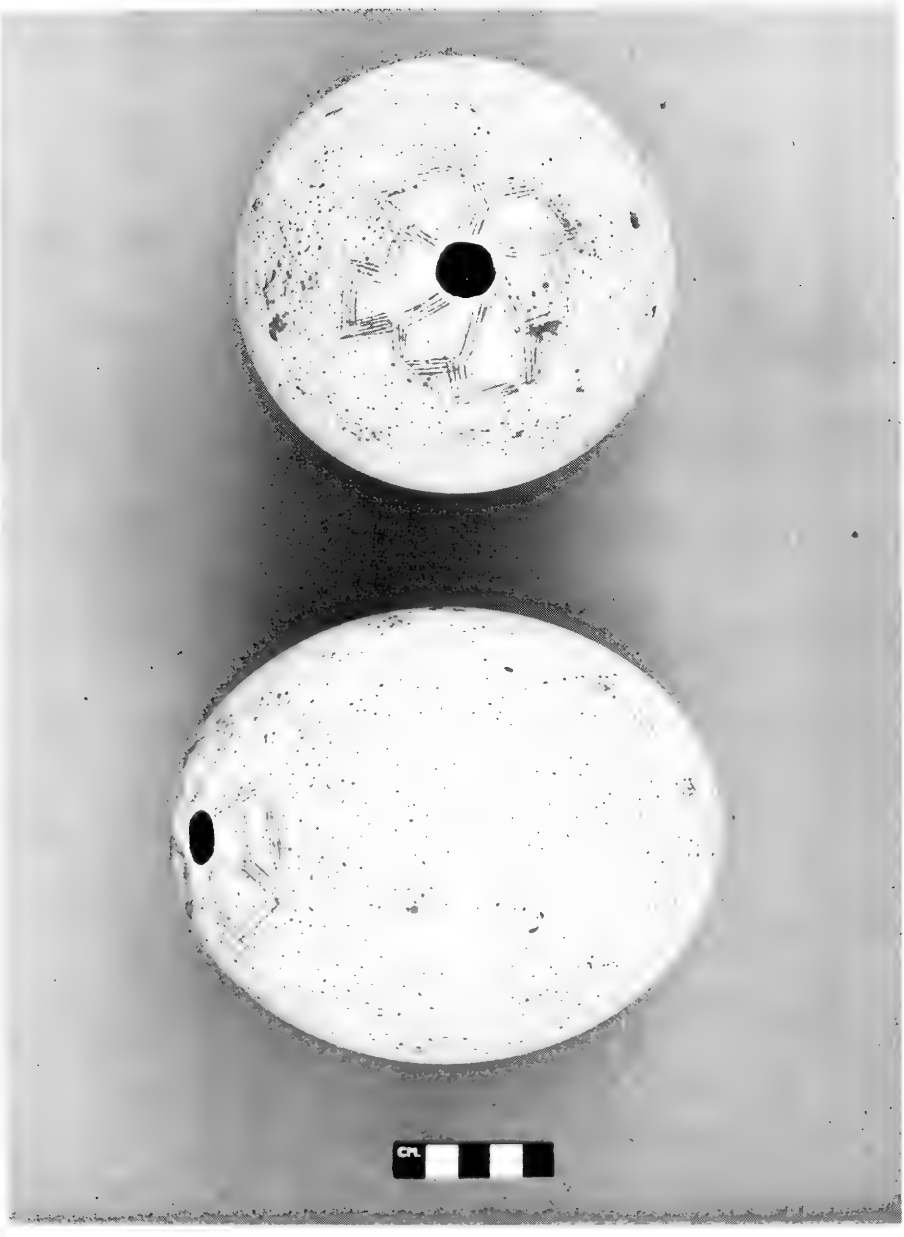


Boy with snared korhaan.

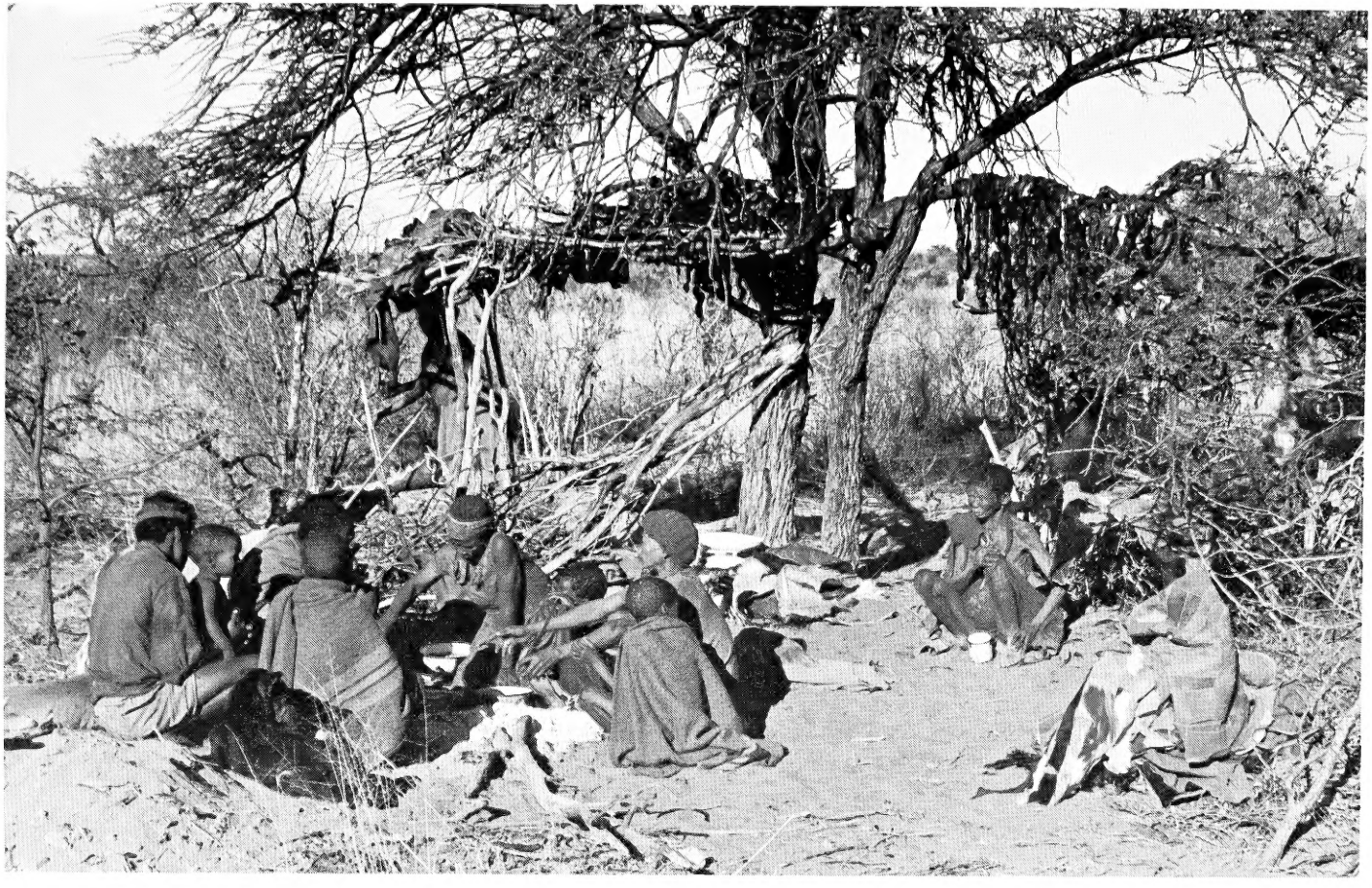
Man covering a metal trap.

Boys killing a trapped ostrich, using stones and a gemsbok horn. The metal trap and chain can be seen on its leg.

A Nharo hunter and his dog follow a game trail on their way home after a successful hunt.



Engraved ostrich eggshells used as water containers.



Part of a typical temporary camp used when the Bushmen are in a secondary subsistence area. Meat strips hang in the trees to dry.

INSTRUCTIONS TO AUTHORS

Based on

CONFERENCE OF BIOLOGICAL EDITORS, COMMITTEE ON FORM AND STYLE. 1960.
Style manual for biological journals. Washington: American Institute of Biological Sciences.

MANUSCRIPT

To be typewritten, double spaced, with good margins, arranged in the following order: (1) Heading, consisting of informative but brief title, name(s) of author(s), address(es) of author(s), number of illustrations (plates, figures, enumerated maps and tables) in the article. (2) Contents. (3) The main text, divided into principal divisions with major headings; subheadings to be used sparingly and enumeration of headings to be avoided. (4) Summary. (5) Acknowledgements. (6) References, as below. (7) Key to lettering of figures. (8) Explanation to plates.

ILLUSTRATIONS

To be reducible to 12 cm × 18 cm (19 cm including caption). A metric scale to appear with all photographs.

REFERENCES

Harvard system (name and year) to be used: author's name and year of publication given in text; full references at the end of the article, arranged alphabetically by names, chronologically within each name, with suffixes *a*, *b*, etc. to the year for more than one paper by the same author in that year.

For books give title in italics, edition, volume number, place of publication, publisher.

For journal articles give title of article, title of journal in italics (abbreviated according to the *World list of scientific periodicals*. 4th ed. London: Butterworths, 1963), series in parentheses, volume number, part number (only if independently paged) in parentheses, pagination.

Examples (note capitalization and punctuation)

BULLOUGH, W. S. 1960. *Practical invertebrate anatomy*. 2nd ed. London: Macmillan.

FISCHER, P.-H. 1948. Données sur la résistance et de le vitalité des mollusques. *J. Conch., Paris* **88:** 100–140.

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ZOOLOGICAL NOMENCLATURE

To be governed by the rulings of the latest *International code of zoological nomenclature* issued by the International Trust for Zoological Nomenclature (particularly articles 22 and 51). The Harvard system of reference to be used in the synonymy lists, with the full references incorporated in the list at the end of the article, and not given in contracted form in the synonymy list.

Example

Scalaria coronata Lamarck, 1816: pl. 451, figs 5 *a*, *b*; Liste: 11. Turton, 1932: 80.