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THE AGRICULTURAL AND HUNTING METHODS
OF THE NAVAHO INDIANS

W. W. HILL

NEW HAVEN

PUBLISHED FOR THE

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1938

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EDWARD SAPIR

LESLIE SPIER

Editors

PREFACE

A record of the economic phases of Navaho life is virtually non-existent in the literature. In the fields of social organization, ritual language and music there exists a great deal of published material, but there remain to be added the economic and technologic aspects of the culture. With this in mind, the following study was undertaken.

The material here presented includes a description of the agricultural and hunting methods of the Navaho, historic documentation relating to these phases of Navaho life, and the involutions and local variations encountered. Other sections are concerned with the integration of ritual in the various activities of everyday life and with a comparison of Navaho agricultural and hunting methods with those of adjacent cultures.

The writer was fortunate in working with a people whose primitive culture still is functioning. This made it possible to check and recheck the material with a larger number of informants than usually is encountered.

It became immediately apparent that there are several sub-ethnic units represented in the Navaho area. In some cases these local variations are so pronounced that an individual can be located geographically according to his school of thought and type activity. In many other areas more evidence is necessary before conclusions can be drawn. During the course of the narrative these have been pointed out in the hope that they may offer a clue to future workers.

Another direct result of numerous re-checkings of material was the exposure of individual variations and examples of involution. As the innate abilities, technical proficiency, religious and secular interests, etc., of the informants differed, so did their accounts. Actually, while all Navaho are aware of the general patterns described in the following paper, there is no single individual capable of repeating in detail all the facts that it contains. In this sense the picture may be said to be distorted. However, from the point of view of tracing various forms of cultural growths and influences and for comparative purposes, it is an essential factor that these minute details be included. Likewise, it is only through detail that the various integrations of the several phases of culture can be shown. For this reason effort was made to present as complete a picture as possible not only from the economic side but in its integration with the mythological and religious aspects as well.

It was originally intended that the paper should include other economic phases beside those of agriculture and hunting, as well as a description of Navaho technology, but for purposes of expediency, it was decided to limit the present publication to these two aspects.

The material here presented was gathered during the summer of 1933 on a field trip under the auspices of Yale University, and during the period between July 1, 1934 to July 1, 1935, as a Fellow of the National Research Council.

I wish to acknowledge my indebtedness to Yale University and the National Research Council under whose auspices the field work was done, to Dr. Edward Sapir who was instrumental in making the field work possible, and to Dr. Sapir and Dr. Leslie Spier for direction and assistance in the preparation of this paper.

May, 1935

W. W. HILL

INFORMANTS

The following informants were used. Their locations give indication of the territory covered in the work. Where important divergences occur in the accounts, the initials of the informant have been appended.

East

José Mario Chavez	Cañoncito, New Mexico
Willito Platero	Cañoncito, New Mexico
Tomacito	Chaco Canyon, New Mexico
Kinipai	Mariano Lakes, New Mexico
The Late Little Smith's Son	Crown Point, New Mexico
Mr. Left Handed	Crown Point, New Mexico
John Johnson	Crown Point, New Mexico
Dedxspa	Crown Point, New Mexico
Mr. Mustache	Ramah, New Mexico

Central

Mrs. Ben	Divide, New Mexico
Naldjei	Coalmine, Arizona
Sam Scott	Coalmine, Arizona
Nazonzi	Red Lake, Arizona
Yellow Left Hander	Red Lake, Arizona
Little Woman	Ganado, and Hunters Point
Dark Man	Ganado, and Hunters Point
Thick Man	Round Rock, Arizona
Cold Water	Black Mountain, Arizona
Slim Woman	Nazlini, Arizona
Big Voice	Nazlini, and Black Mt., Arizona
Mr. Chanter	Sawmill, Arizona
Margaret Shirley	Sawmill, Arizona
Pete Price	Fort Defiance, and Zúñi, Arizona
Curley	Chinle, Arizona
Ace Moon	Lukachukai, Arizona
Pulled the Warrior Out	Lukachukai, Arizona
Interpreter's Son	Lukachukai, Arizona
Mary McKinley	Lukachukai, Arizona
Little Woman	Lukachukai, Arizona
Slim Curley	Crystal, Arizona
Roan Horse	Crystal, Arizona

Late Fat One's Son	Ship Rock, New Mexico, and Fort Defiance, Arizona
Little Man	Canyon del Muerto, Arizona
One Who Killed A Man	Manuelito, Arizona
The Left Handed One	Nava, New Mexico
Left Handed	Aneth, Utah
Tall One of the Mexican Clan	Redrock, Arizona

West

Mr. Headman	Head Springs (Hard Rock), Arizona
Grey Hair	White Cone, Arizona
Slim Gambler	Keam Canyon, Arizona
He Who Lies	Steamboat Canyon, Arizona
Mr. Deer Way	Jeddito, Arizona
Tall Woman	Keam Canyon, Arizona

INTERPRETERS

Albert G. Sandoval	Lukachukai, Arizona
Miles Tso	Crown Point, New Mexico
Clyde Leiser	Fort Defiance, Arizona
Gary Hildreth	Fort Defiance, Arizona
Roger Natani	Oraibi, Arizona

PHONETIC KEY

The author wishes to express his thanks to Father Berard Haile for his kindness in transposing his recordings of native words into the accepted orthography. Several words and phrases pertaining to hunting are no longer in use and could not be deciphered by Father Berard or his assistants: these have been omitted. Native words from Goddard and the Franciscan Fathers are not transposed.

Vowels. The vowels are a, e, i, and o. Half long vowels are indicated by the raised period: aː; long vowels by the raised period followed by an apostrophe: a'. High tone is indicated by á above vowels; the low tone is not indicated; rising and falling tones are indicated by ǎ and â respectively. A hook below vowels indicates nasality: ą. Diphthongal combinations are found in ai, ei, ao, eo, io, and oi.

Consonants. The labials are w-, b-, and m-. The alveolar dentals are d-, t-, t'- and n-, to which the preglottalized ɲ should be added as a distinct phoneme. The vowel tone is carried by n, of which the high is indicated n'. The gutturals are x-, h-, γ-, k- and k-. Labialized gutturals are represented by superior ʷ. The sibilants are s, z, ʒ (-dz), c (-ts), č (-tš) and š (-sh), ž (-zh), ʒ' (-dž), č' (-tš'), č' (-tš'). The laterals are l, ł, λ (-dl), λ' (-tl), and λ' (-tl').

CONTENTS

	PAGE
PREFACE	3
INTRODUCTION	II
Territory	II
Annual cycle	14
Daily round	19
AGRICULTURE	20
Field location	20
Ownership	21
Preparation for planting	24
Planting	28
Cultivation	35
Harvesting	39
Storage	42
Crop utilization	45
Non-food plants	47
Introduced plants	48
Summary	51
AGRICULTURAL RITUAL	52
Observances and beliefs	55
Minor rituals	57
Major ceremonies	61
Farm songs	61
Seed Blessing Ceremony	71
Rain Ceremony	71
Summary	95
HUNTING	96
Mythological background	99
Education in ritual hunting	100
Ritual hunting	101
Wolf Way	101
Big Snake Way	113
Mountain Lion, Tiptoe, or Deer Way	117
Talking God Way	121
Encircling by Fire	122
Stalking Way	122
Arroyo Way	131
Witch Way	132
Sacred buckskin	132
Minor ceremonies in ritual hunting	134

Miscellaneous beliefs connected with deer hunting	143
Utilization of the deer	144
Antelope hunting: Corral Way	145
Bear hunting	157
Eagle catching	161
Summary	166
NON-RITUAL HUNTING	167
Summary	176
CONCLUSION	177
Ritualization of everyday behavior	177
Navaho culture in relation to neighboring cultures	182
BIBLIOGRAPHY	191

ILLUSTRATIONS

PLATES

Explanation of plates

AT END

1. Navaho informants
2. Planting methods and antelope corral
3. Navaho fields
4. Harvesting, threshing, and storing corn

TEXT FIGURES

	PAGE
1. Map of Navaho territory	12
2. Method of determining size of field	21
3. Schematic representation of helical field	29
4. Methods of progressive planting	31
5. Ceremonial arrangement of corn stalks and hank of dried melon	40
6. Storage pits	44
7. Antelope corrals	150
8. Ceremonial bluebird	151
9. Ceremonial arrangement of paraphernalia	152
10. Eagle-catching pits	162
11. Coyote traps	169
12. Rodent traps	173

AGRICULTURAL AND HUNTING METHODS OF THE NAVAHO INDIANS

INTRODUCTION

TERRITORY

IN order to understand the cultural and psychic adjustments which have occurred in the course of the development of the Navaho agricultural system, it is necessary to review the salient physical conditions of the Navaho country.

According to Amsden¹ there is good reason to believe that the Navaho tribe in early historic times centered in the northeastern portion of their present territory, with the San Juan River marking their northwesterly limit, and the foothills of the high mountains lying along the present Colorado-New Mexico boundary as a barrier to the northeast. Southward lay the chain of Pueblo villages from the Rio Grande west into Arizona. Westward lay a vast empty area which the tribe was later to occupy.

The region occupied by the Navaho Indian reservation today is located in northeastern Arizona and the adjacent portions of New Mexico and Utah. It comprises approximately 25,000 square miles of territory situated roughly between 108° and 111°45' north latitude, and 34° 55' west longitude.²

This territory forms a portion of the Colorado Plateau province (Fig. 1). It is a region of flat-lying or slightly tilted rocky plains cut by canyons and surmounted by mesas and buttes. About a third of the country lies between six and seven thousand feet above sea level; ten percent is between seven and nine thousand feet. The remaining area is almost entirely situated between the four and six thousand foot levels. The extremes of elevation are Navajo Mountain, 10,416 feet, and the mouth of the Little Colorado River, with an elevation of 2,800 feet. In general the region is a plateau of about 5,500 feet elevation.

The main mountain masses are Navajo Mountain, Carrizo Mountains, Chuska Mountains, Black Mesa, and Segi Mesa. The first two are of laccolithic origin; the latter are mesas, slightly altered by the folding of the strata. Lesser mesas and great numbers of buttes of sedimentary and igneous origin, with volcanic necks, canyons, and washes form the major landscape features.

The drainage divide of the area extends from Dutton Plateau to Echo Cliffs. The 14,000 square miles of territory lying north of this line, drains into the San Juan River. The remaining area finds outlet for its surface water by way of the south flowing tributaries of the Puerco, Little Colorado, and Colorado Rivers.

¹ Amsden, *Navaho Weaving*, 126.

² The material for the following sketch is derived from Gregory, *The Navajo Country*, 21-23, 50-68, and 85-93, and the *Geology of the Navajo Country*, 11-14, 118-19, and 130-35. For a more detailed account see these two papers.

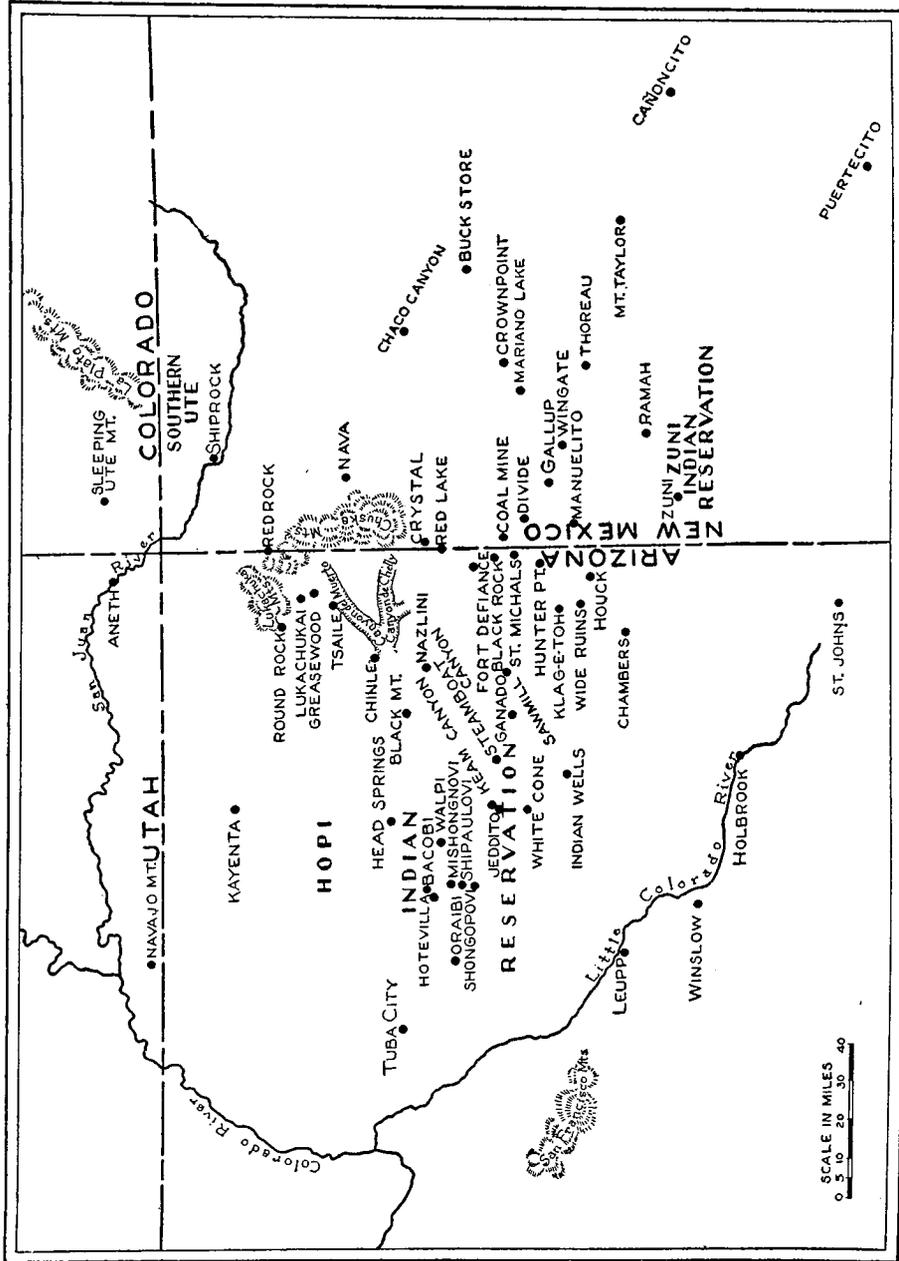


Fig. 1. Map of Navaho territory.

The grades of topographic features show the influence of aridity. The water courses, though intermittent, are choked with coarse alluvium, the testimonial of floods. In some areas bedrock is exposed; in others the winds have deposited dunes. In general, bare cliffs replace talus slopes, and in many areas actual desert occurs.

Climatically the Navaho reservation is designated as a semi-arid region, with micro-thermal temperature conditions, and an area in which there is a deficiency of precipitation present at all seasons.³

The mean annual rainfall recorded at eight stations on or near the reservation is as follows:⁴

Hite, Utah	—Altitude 3,500 feet—	6.92 inches
Aneth, Utah	— 4,700	— 4.96
Fruitland, N. M.	— 5,200	— 6.89
Keam Canyon, Ariz.	— 6,600	— 10.94
Winslow, Ariz.	— 4,853	— 7.07
Tuba, Ariz.	— 4,700	— 5.30
Holbrook, Ariz.	— 5,069	— 9.15
Fort Defiance,		
St. Michaels, Ariz.	— 6,900	— 12.80

About thirty-seven percent of the mean annual precipitation falls in July, August, and September, twenty-five percent occurs from October to December; twenty-six percent from January to March; and the remaining twelve percent falls in the period from April to June. The summer rains come in the form of short, extremely violent thunder showers accompanied by lightning. The winter precipitation often includes snow. Many of the summer showers are local in character and may only water a few hundred acres; others evaporate before they reach the ground. There are also known cases where the total rain for one of the wet months occurs in a single shower.

It can be seen that while the maximum rain occurring in the three summer months makes agriculture feasible, the slightest variance from the expected norm leaves the basic economy of the Navaho Indians on a precarious footing. A slight reduction of the total percentage of rain of the three growing months will cause crop failure. Likewise, the uneven distribution of precipitation in any one of these three months may have the same effect.

Temperatures also add to the uncertainties of successful farming. As is to be expected, much of the local variation is directly dependent on elevation and topographic positions. For the stations previously mentioned, the maximum annual range of temperature is as follows:⁵

³ For more detailed information see Thornthwaite, *Climates of North America*.

⁴ See Gregory, *Geology of the Navajo Country*, 13.

⁵ See Gregory, *The Navajo Country*, 64 *et seq.*, for more detail.

Keam Canyon	—109° (101° to - 8°)
Hite	—113° (115° to - 2°)
Aneth	—116° (106° to -10°)
Tuba	—121° (108° to -13°)
Fort Defiance, St. Michaels	—123° (98° to -24°)
Fruitland	—124° (110° to -14°)
Holbrook	—127° (106° to -21°)

The average date of the first killing frost varies from September 13th at St. Michaels to October 20th in the Colorado Valley. The last killing frosts in the spring range from March 21st at Hite to June 15th at St. Michaels. The stations at which observations have been made have the following growing seasons: St. Michaels, 89 days; Fort Defiance, 98 days; Keam Canyon, 105 days; Chinle, 124 days; Holbrook, 127 days; Tuba, 133 days; Fruitland, 161 days; Aneth, 161 days; and Hite, 201 days. Here, as in the case of the rainfall, the margin of safety for successful farming is slight. Corn takes an average of from ninety to one hundred and forty days to mature, so that even in normal years there is difficulty in harvesting a successful crop in many areas, except under exceedingly favorable conditions.

At this point it will be worth while to mention another physiographic factor which has affected agriculture, particularly in the phases of field location and irrigation. Traceable cycles of erosion have long been recognized in the Navaho country and in the southwest in general.⁶ The latest of these cycles began about 1880. Whatever its climatic causes, it was undoubtedly intensified by the overstocking of the reservation with sheep, and the resulting loss of vegetative cover. The Navaho themselves are aware of the latter cause. This cutting and redeposition has resulted in two things: first, a continued shifting of the farm units; and second, a change from the flood water type of irrigation to ditch irrigation. These two factors will be discussed at greater length under their proper headings.⁷

The Navaho has overcome this somewhat formidable physical background in two ways. First, by practical adjustment of agricultural methods, and second, by incorporating into the agricultural round a series of ceremonies which attempt to realize for him a control of the phenomena over which he actually has no control. In the following description of Navaho farming methods these two phases will be separated so far as is possible.

ANNUAL CYCLE

To insure some consistency in the detail to follow, a short resumé of the seasonal and daily life of the people is presented first.

The Navaho have a lunar calendric system. They divide the year into two primary seasons, summer and winter, but also recognize four seasons of the year. The lunar year

⁶ Bryan, *Flood-Water Farming*, 445; Gregory, *The Navajo Country*, 100, and the *Geology of the Navajo Country*, 122-23.

⁷ It is well to note in this connection that the theory of progressive desiccation in the Southwest, as espoused by Ellsworth Huntington (*The Climatic Factor*, 78-100) has been rejected as without validity, hence the supposed changes in agriculture due to this cause are untenable.

begins with the first frosts of autumn. Depending on the locality, this coincides with either the new moon of September or October. There is always a dispute between the people of the mountain regions, where the winter season comes early, and those of the valley, as to whether the September or October new moon ushers in the new year. These calendric disputes are characteristic of other parts of western North America. Among the Navaho, they form one of the chief topics of conversation at social gatherings throughout the winter, but they are forgotten with the arrival of planting time in the spring. The argument reaches its height at the time of the new moon of January or February and fist fights often result. "These arguments are just like the ones the whites have over religion; just hard feelings for no reason and no one is ever convinced." The lunar count ceases to be of significance to most people after the new moon of May or June, and many fail to count the new moons until the arrival of the next fall frosts. "The reason that the people do not count the summer months is that summer is a time of plenty; but winter is a time of privation and they wish to know when it will be over."

The Navaho, while recognizing twelve months, were aware of the inadequacy of the lunar calendar.

There are twelve months in the year but occasionally a thirteenth slips in. Coyote purposely did this. This is how the confusion was caused. Coyote was the messenger for First Man and First Woman. When the laws of nature were being fixed for Earth Man by the Holy People, they ignored Coyote. Yet there was nothing done without him. He always got in somehow at the last moment. So it was in the case of the months. It was decided that each season should have three months. When this was agreed upon Coyote came in and told them they were foolish to do this and slipped in this extra month. He did this to cause confusion so that man would have to exercise his mind to figure it out. So it is with many other things.

The autumn season was called 'ake'd. Winter, summer, and spring were known respectively as xai, ší, and dā'. The lunar calendar and the associated occupations for the year ran their course in the following manner. That there was an overlapping of the occupations from month to month is to be taken for granted.

October, the first month of the new year, was called tǎ'žǐ' (backwards) or "part of it" which referred to the fact that in this period the tops of the mountains were covered with snow while the foothills still remained bare. Another name for this month, according to the Franciscan Fathers,⁸ was ghāji (back to back); namely, when the white of winter and the yellow of summer meet, turning their backs on each other, the one to proceed, the other to retrace its steps. According to Goddard⁹ this month was called nalac (spider). This period was one of rather intense activity. It marked the end of the harvest season. The corn was still drying and the men and women busily engaged in harvesting, drying, and storing the farm produce. If the household was not conveniently located for winter fuel, preparations were made to move to the foothills for winter. General

⁸ *An Ethnologic Dictionary*, 58.

⁹ Goddard, *Navajo Texts*, 134.

preparations for winter were the order of the day. This month also saw the beginning of the piñon nut harvest. Piñon nuts were gathered until the snow fell and then again after the snow melted in the spring. The principal foods of this month were the products of the farms: melons, squash, and corn. An effort was made to use any surplus produce and any non-storable produce. In this month began the five and nine night ceremonies. The moccasin game could only be played at this time in conjunction with these ceremonies.

The next month, November, was called *níč'i cósí* (the light wind). If necessary the families now moved into their winter quarters bordering the foothills. As soon as this was accomplished the men set out on deer hunting expeditions to secure a supply of meat to be jerked for winter use. In the absence of the men, the women engaged in their ordinary household duties. The chants of nine nights duration were now in full swing and continued until the snow melted in the spring. The moccasin game could now be played apart, as well as in its ceremonial connection. These ceremonies and the moccasin game, with the stick game for women, and the hoop and pole game for men, were the outstanding forms of social release during the winter months.

December is known as *nłč'i coh* (the big wind). This month was very cold and the people were more or less confined to their hogans. One informant stated that this was the correct period for the performance of the Night Chant and the Corral Dances. According to another informant this month was too cold for public performances, and only chants of two and five nights with no accompanying public performances were held. Two occupational pursuits were in vogue. Pit hunting of eagles commenced late in November and was continued on through the winter until January. If the snow was deep communal rabbit hunting with clubs was engaged in. The main dependence for food was on the crops which had been stored and the venison secured by the November hunts.

The next month, January, was called *yas nít'e's* (the dry snow) (Goddard,¹⁰ "snow cooked"). This referred to the snow being frozen so hard that there was no moisture in it. The weather conditions were so inclement that most activities were greatly restricted.

The period ushered in by the February new moon was *'acá biyá'ž* (eagles young ones), and was so named because the eagles laid their eggs in this month. The weather was still cold but it was possible to engage in corral hunting of antelope. This formed the main economic activity of the period.

March was called *wóžč'í'd* (Goddard,¹¹ *xoztcint*, "horns lost"). The eaglets were now hatched and this word referred to their cry. By this time the frost had begun to thaw out of the ground, so that the fields could be cleared preparatory to planting. If the snow had melted in the hills another search for piñon nuts was made. The moccasin games were now stopped because the thunder had returned. "The Thunder, Bear, and Snake People started the moccasin game. They decided that the earth people might be allowed to play it in winter. If they should play it at any other time they would be injured by a snake, bear, or the thunder."

¹⁰ *Loc. cit.*

¹¹ *Ibid.*, 135.

The month of April was tǎ'čil (stubby feather). Pin feathers had now appeared on the eaglets. This month was given by the Franciscan Fathers¹² as "short corn" and by Goddard¹³ as hit'atcil (little vegetation). After the introduction of dike and ditch irrigation the land was given its preplanting flooding. Rabbits were hunted on horseback. The horses were shedding at this time and it was believed that the sweat caused by the running made them shed faster. The chants with the outdoor performances were now discontinued because it was thought that the dancing packed the soil in the fields. Indoor ceremonies might be held at any time, as might the Squaw or War Dance if the occasion demanded. During the summer months rain ceremonies were performed when needed. This division of the ceremonies into a summer and winter series is suggestive in a modified form of the division occurring among the Zuñi and Hopi.

The month of the May new moon was known as tǎ'coh (big feathers). The eaglets were now almost ready to fly. The Franciscan Fathers¹⁴ give this month as datso (tall corn) and Goddard¹⁵ as atatso (leaves large). Those who had moved to the foothills moved back to the valleys in late April or May. They and the families who had remained in the valleys were now occupied with the spring planting.

June was called ya'ishǎščilí, which means "gathering in the first wild seeds that mature." It has also been translated as "I insert the small grains," referring to the planting of the crops.¹⁶ By this time, the supplies which had been stored for the winter were beginning to run low and if the season was late real hardship resulted from lack of food. Much of the time the women were occupied in harvesting the relatively small crops of wild seeds which became available. The men spent their time in the fields cultivating. Usually the War or Squaw Dances were first held in June and repeated through the two following months. However, as mentioned before, they could be performed whenever necessary.

July was ya'ishǎscoh, which means, "the gathering of weed seeds on a big scale." The Franciscan Fathers¹⁷ translate this as "the big sugar cane." The women were busily employed harvesting the seed crop which in former days was quite important. The seed crops were especially necessary at this period as the winter supplies were now exhausted and the field crops not yet available. Since the coming of the trading posts and the introduction of new agricultural products by whites, wild seeds are less needed during this month. The men were occupied with hoeing the fields for the last time.

August is called bini'nǎ'čósí (the time of maturing in a small way). The whole family now turned its attention to the crops. Some of the earlier crops began to mature and were harvested.

The month of September was bini'nǎ'coh (the time of the big ripening). This was

¹² *An Ethnologic Dictionary*, 59.

¹³ *Loc. cit.*

¹⁴ *An Ethnologic Dictionary*, 59.

¹⁵ *Navajo Texts*, 135.

¹⁶ Franciscan Fathers, *op. cit.*, 59.

¹⁷ *Loc. cit.*

the month in which most of the crops were harvested. Harvesting occupied the energies of the people to the exclusion of most other pursuits.

The introduction of sheep¹⁸ among the Navaho created some additional monthly activities. In former times, when the rams were allowed to remain all year around with the flocks, the lambing season came in February. Later, when the rams were separated, the lambs came in May. During this period the flocks necessitated constant attention. May was also the time for shearing and preparing the wool for market.

In June and July it was customary for those who owned sheep to drive the flocks to the mountains in order to take advantage of the green feed and to escape the heat of the valleys. However, only one or two members of the family normally accompanied the flocks; the rest remained at the fields. In August the sheep were brought back so that the herders could assist with the harvest.

¹⁸ In connection with moving the sheep to the mountains for summer pasturage and the winter move of the household to the foothills for fuel, there has grown up a current belief that the Navaho are nomadic. This is emphatically not the case. While they may be only partly sedentary they are not in any sense a nomadic people. Whatever their older practices, the Navaho have been since historic times primarily sedentary agriculturalists (see Benavides, 43-44). Furthermore, they consider themselves primarily farmers and as such belonging to a certain restricted area.

This belief of their nomadism is so widespread that it is well worth while going into its ramifications in some detail. J. W. Hoover, in his paper *Navajo Nomadism*, has classified their movements under eight headings: (1) moves between summer and winter pastures; (2) seasonal moves controlled by temperature condition; (3) temporary moves for summer farming; (4) winter moves to convenient fuel; (5) moves after showers for pasture in drier parts; (6) moves in search of water for domestic purposes and for animals; (7) autumn moves for piñon nuts and for peaches; and (8) moves for social purposes. All these headings are misleading and in no way, in their reference to the Navaho, constitute nomadism. The Navaho feel themselves as belonging to a definitely restricted and circumscribed area. Their ignorance of territory thirty or forty miles from their home is startling. (Older writers have commented on this same fact; see Cosmos Mindeleff, *Navajo Houses*, 482-85.)

If we take up Mr. Hoover's headings specifically we see that 1, 2, 5, and 6 may all be classed together in their reference to livestock. It is only within the last sixty years that sheep have become economically important to the Navaho. Cattle even yet have almost no significance. What Mr. Hoover seems not to realize is that it is seldom necessary to take the sheep more than ten or fifteen miles in search of water, pasturage, or to escape temperature extremes. Also, the flocks are and were accompanied only by one or two persons, almost never by the whole household. These movements can therefore hardly be classed as nomadic, as the distance traveled is not significant and the permanent household is not disrupted.

Concerning the movements made for summer farming and winter fuel, if they are made at all the distance traveled is usually negligible. Formerly, before the removal of the timber from the lower altitudes, these moves were not made; the people staying all year around at their fields. In more recent times, since wagons have been introduced, wood is hauled to the summer residence which is then occupied all winter. In fact, hauling wood is a highly considered winter pastime. In the Canyons of del Muerto and de Chelly the population moves from the bottom of the canyons to the rim, a distance usually of not more than half a mile. They store their crops in the canyon bottoms whence they return at frequent intervals for supplies. This can scarcely be considered as a case of nomadism as Mr. Hoover infers.

Categories 7 and 8 are questionable. If trips of short duration to gather piñon nuts or to trade for peaches constitute nomadism then any people who leave their home to trade or to buy supplies are nomadic. Likewise, neither can a friendly visit or an attendance at a ceremony stamp a people as nomadic.

DAILY ROUND

The Navaho family rises at dawn. Unless a person arises early and takes advantage of the fresh morning air it was believed that he will not be healthy. The Talking Gods also go over the country at this time and if a man were up he would be blessed by them with health and wealth. If he stayed in bed until after the sun was up the Being of Poverty would spit on him and throw dirt on him and he would never be able to achieve anything. The young people were not allowed to sleep after sunrise because at this time the Crow People fly back and forth over the hogan: if they saw someone covered up they would begin to gossip, telling each other that someone was sick in that place. This was considered bad, since someone in the household might become ill because of this gossip.

At dawn it was customary to sing one of the many Blessing Way songs and to make a pollen offering. When this was ended the man's first duty was to round up the horses. As soon as he had left, the women started preparing breakfast. They first took out the ashes.

At the time the people built the first hogan they were commanded to take the ashes out early before sunrise. If they did this it was considered as a pollen offering to the several gods. If they waited until after sunrise it was not considered as an offering. As soon as the ashes were removed the hogan was swept. A hogan cared for in this manner is considered an invitation for the Holy People to come and visit. The Holy People will do this if the hogan is well cared for.

The women then cooked breakfast. As soon as the children were up they took the sheep out to graze in the cool of the morning. When the men returned, breakfast was served. The children brought in the sheep during breakfast or else they were relieved by other herders while they ate.

After breakfast the men went to the fields and worked. If the sheep had been brought in, the children again took them out to graze. The women wove, attended to the general household duties and tended the smaller children. The noon meal was usually omitted or was simply taken casually. The man and the herders usually stayed in the field and with the flocks until evening.

When the men came in and the herders returned with the sheep, the evening meal was prepared. The ashes were cleared out again just before sunset when the light was weak.

You cannot throw hot ashes out in the middle of the day because it is a gesture of disrespect to the sun. You must be careful not to spill any of the ashes on the way to the ash heap. If you did this you were making a trail for poverty to come to your hogan. The Holy People stay away from a hogan where ashes are spilled about.

No prayer was said when the ashes were dumped and they could be thrown in any direction.

When the evening meal was finished those present rubbed their legs with their hands and said, "May they be lively, may I be healthy." Then another Blessing Way song was sung and more pollen was offered. After this it was customary for the father of the family to give a talk to the children, which was both educational and ethical in character. After this the family generally retired.

AGRICULTURE

FIELD LOCATION

The choice of field location necessitated a rather precise knowledge of local conditions. The prime essential was the possibility of getting water on the land. This was accomplished in two ways, by locating either where a perennial or intermittent stream could be conducted by ditches to the field, or where the natural flood would inundate the land. Hence, fields were distributed along the courses of perennial and intermittent streams, on the gentle slopes below escarpments, on the flood plains of ephemeral streams, and on the alluvial fans at the mouths of streams. The recent erosion cycle beginning about 1880 has caused a shift of land holdings. Many farms once advantageously located for water, became useless and were abandoned because of the gullying and trenching accompanying the accelerated erosion. This was especially true in the regions where flood-water irrigation was practised.

The Navaho were concerned to some extent with the selection of soil. If possible a locality with sandy loam was found. They preferred sites sufficiently sandy to insure that the moisture did not dry out too quickly. To determine this, a hole was dug to discover if the soil was moist eight or ten inches below the surface (P.P., B.V.). The soil was tested. "Good soil should not have too much sand or too much adobe" (C.). One of the older members would take a pinch of soil, taste it and rub it between his hands to judge its texture. By tasting, it was also determined whether the land was salty or sour. "In this way you could tell whether the land was good or not" (C., G.H., B.V.). At Cañoncito individual clusters of corn were planted over a wide area. The farm plot for the following year was then chosen on the basis of the most productive cluster. Another criterion of land selection was relative freedom from trees, brush, and other natural encumbrances.

The size of the field was determined by standing in the center of the flat and shooting arrows in the four directions. Where these arrows hit, marked the four sides of the field. A variant of this is shown in Figure 2 (M.H.).

A stake was set at the start and an arrow shot from this point. Where it hit, another stake was set and another arrow shot in the same direction and marked. Then the bowman returned to the spot where the first arrow had hit and shot in the other two directions to determine the boundaries on those sides. The size of the field varied a great deal according to the terrain but the consensus of opinion places the average field at about six acres. The Navaho say that it was possible formerly to have larger fields because the weeds on the flats did not grow so rankly as at present.

It was not uncommon for a man to have two farms: one in the mountains where he raised wheat, oats, potatoes, and beans, and another in the valley for squash, melons, and corn. But this practice came into use only since the introduction of wheat from Spanish

sources. Naturally, work on the farms accorded with the planting seasons of the various crops.

OWNERSHIP

The question of ownership of land among the Navaho has always been obscure and the reports on it conflicting. According to the Franciscan Fathers,¹

In many districts land is held in severalty by members of one or affiliated clans to the exclusion of all others. Each family selects a portion of the tracts, indicating the boundary by a heap of stones, a foot path or a fence.

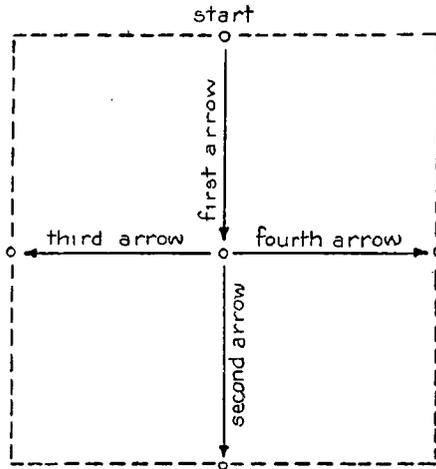


FIG. 2. Method of determining size of field.

According to Reichard² the land is "owned" only in the sense that it is used. She quotes Chee Dodge of Chrystal and George Bancroft of Tuba City as follows:

The farm belongs to the one that starts it and descends in his or her clan. A woman owns the farm and her relatives inherited in the following order: mother, sisters or brothers.

If questioned directly as to whether he owns the land, the Navaho almost invariably answers, "We do not own land, we simply use it." While this statement is interesting from the point of view of attitude to the land, the actual connotations of "using" go much deeper and have well defined legal aspects. I have chosen the term "inherited use ownership" to describe the particular type of land holding current among the Navaho. The only features that distinguish Navaho land holding and ownership from our own are that the land might be used by anyone if it was not being used by the nominal owner, and that land was not

¹ Franciscan Fathers, *An Ethnologic Dictionary*, 265.

² Reichard, *Social Life of the Navajo Indians*, 91-92.

bought, sold, or rented, at least not until recently. These differences appear to be due to the fact that there has always been sufficient land to satisfy the demand.

None of the informants questioned had ever heard of a case of one clan holding land in any district to the exclusion of all other clans. "If one clan is more numerous in a given locality they will hold more land in that area; that is all."

The first man or woman to farm a certain tract was always assured of the right to use that land thereafter. In the case of a man, his sister's son normally inherited the right to use it. In the absence of the nephew the heirship went to a brother or sister. In recent years, however, this system of inheritance has broken down and there has been a tendency for the land to pass directly to a man's children. In the case of real property held by a woman, the normal inheritance is still from mother to children. Verbal wills were sometimes made. A disinterested person was called in and told of the desired property disposition. After death he would see that the wishes were carried out. There was communal use of land only in the sense that various members of the family, relatives, or friends of the first user might by his permission be allowed to plant on a portion of the land. However, definite boundaries existed between the fields; according to two informants, between the fields of a man, his sons, and his sons-in-law (C., P.P.); according to others, between the crops of a man and those of distant relatives and friends (S.C., M.L.). Besides being able to decide who might plant on the land he himself had first used, a man could decide whether or not a person was to be allowed to cultivate a field adjoining his farm. "Anyone wishing to bring land under cultivation next to a field already under cultivation had to get the permission of the 'user' of that field" (S.C., M.L.).

The first user of a tract, or anyone who has inherited land from a first user, had the right to cultivate that land whenever he wished. If he or his heirs went away for a period of years, they would be within their rights in coming back and evicting anyone who had been using the land in the interim. It was customary to place a relative on the land if a protracted absence was foreseen.

There are cases known where men have come back and found that someone had planted in the field that they had been the first to use. In that event a man dug up the seeds that had been planted and sacked them. Then he planted his own crop. Occasionally a fight resulted, but this was unusual. In other cases the squatter would pay the rightful owner or give him a share of the crop, if the latter allowed it to remain in the ground. If the corn illegally planted had already sprouted a third person was usually called in to arrange a compromise payment.

Property rights in agricultural produce were more extensive. As everyone in the family contributed labor towards production, the crop was considered as belonging to the family as a whole. Anyone might dispose of portions of the standing crop without consulting other family members. In this connection it was customary for wealthy individuals to contribute surplus field crops or other food supplies to indigent members or families of the district.

None of the informants had ever heard of anyone trading or selling land in former times. However, in recent years, due to white contacts, the buying, selling and renting of land has come into being.

Wild shrubs and trees which grew upon a man's land were not considered as belonging to him. Anyone was justified in coming into a field and picking berries and nuts. "Nature put them there for everyone" (C., P.P., M.L.). Likewise, it was legitimate for a man to go into a corn field owned by another and cut down a tree growing there. I was told that up to the present day private ownership of wild plants could not be enforced. The only exception to this is found in del Muerto and de Chelly where patches of prickly pear were privately owned. This appears to be a comparatively recent innovation brought about through the necessity of protecting the cactus against the inroads of livestock.

On the contrary, if a tree or bush was planted by an individual it was always his, unless he relinquished his right to it of his own accord. If a man planted a tree and subsequently abandoned the land, he was within his rights if he came back years later and demanded payment for the tree or for the produce from it. This holds even though in his absence another man has cultivated the tree. "I would come and say that the tree really belongs to me, I planted it, and I am a kind of root to it, even though you have been cultivating it. So for friendship's sake you should give me something for it so that we will be square" (O.W.K.A.M.). A fight or a dispute between the two men might ensue, but an agreement would finally be reached.

Pasture was considered as belonging to everyone, and everyone grazed his herd where he wished. However, no one would intentionally run his stock on a range which he knew was being grazed to capacity by another man. Owing to the comparatively late development of the sheep industry, it has only been within the last thirty or forty years that there has been a need of more range.

Water was also used communally. Springs were free to the use of anyone for stock or for domestic purposes. Private ownership of springs was learned from the whites. Where ditch irrigation was practised, the person farthest upstream used what water he wanted and those below got what was left. In recent years water from irrigation systems built by communal labor or by the United States government is apportioned to the several land holders.

There were several methods employed in designating the boundaries of adjacent fields. The most common appears to have been the planting of a double row of corn, that is, planting two rows eight to twelve inches apart, instead of the usual six feet. Another common method was to plant a row of yellow corn next to a row of white. Still another method was to use the dikes and ditches as boundary marks. This is a late innovation. Often at planting time, piles of rocks, ridges of dirt, and posts are set up to mark the field and to guide the planter. When the corn had grown to some height the leaves of the two outside rows were tied together to show ownership. When the corn was maturing the ears from the outside rows were picked first to insure a further identification of the property line.

Fences are of late introduction. They date from the introduction of stock, when it became necessary to protect the fields from the herds, although strict laws on property damage were supposed to give protection.

A difference of opinion exists as to who first suggested the idea of fences to the Navaho. Some say that they were copied from those of the Pueblos and Mexicans, and others contend that they were first introduced by the Americans. The earliest types were merely limbs piled one upon the other, or rested on upright forked posts.

PREPARATION FOR PLANTING

Preparation of the land preparatory to planting was done in April. If the land was being put into use for the first time, it was burned over to remove as much of the brush and tree growth as possible. The larger trees were then removed by setting fire to the base. "You never leave trees if you can help it; they take too much water from the corn." Generally no attempt was made to clear the land of the larger stones, though occasionally a fire might be built around them to break them into pieces convenient for removal. All clearing was done by the men "unless there were women who thought they were strong enough to stand the heavy work."

Land on which a "ghost hogan" had rested, namely a hogan in which some person had died, was never used for farming purposes. Crops were planted around these small areas. I have seen several of these in various parts of the reservation.

Irrigation of the land was the next step in preparation for planting. There were essentially three ways in which land was flooded.

The aboriginal type consisted solely of intercepting flood waters on land advantageously situated. No mechanical means were used to deflect the water. This type of irrigation is still used in some parts of the reservation, especially in the Black Mountain region.

Another type of irrigation was accomplished by diking the flats so that the spring floods were caught and held on the lands, insuring a thorough soaking. For this kind of irrigation rough and semi-permanent dams were sometimes built across arroyos to deflect the water into the flats. It was not known exactly when this form of irrigation became prevalent. Simpson,³ in 1849, stated that he saw no evidence of irrigation (ditch or canal?). In 1855 Letherman⁴ said that some of the localities did irrigate, and Bandelier⁵ in 1880 stated (on documentary evidence?) that the Navaho irrigated at some places. That dike irrigation was introduced, at least in some localities, before the Navaho were taken to Fort Sumner in 1864 is certain from evidence of informants born before that time. The Navaho believe that it was copied from the Pueblos.⁶

Ditch irrigation, according to the Navaho, definitely dates from after the sojourn at

³ *Journal of a Military Reconnaissance*, 53.

⁴ *Sketch of the Navajo Tribe*, 288.

⁵ *Final Report of Investigations*, 1: 176.

⁶ For a full account of this type of irrigation in various parts of the Southwest see Bryan, *Flood-Water Irrigation*.

Fort Sumner. It was used in localities where there were perennial streams and to a lesser extent in regions where the streams were intermittent. Formerly, and even at the present time in most localities, the crops were entirely dependent on the seasonal occurrence of flood waters.

In recent years government projects have brought sections of Crystal, Red Lakes, Tseli, Whiskey Creek, Ganado, and Ship Rock under ditch irrigation. At Lukachukai there is a permanent supply of water. This has been utilized in ditch irrigation but it is unequal to the need, and dike flooding and semi-permanent dams are still in use.

Along the San Juan River there were ditches leading from the river to the fields. The arroyos were also dammed so that the water was forced to spread over the fields. The river ditches were only used once or twice during the summer. The people irrigated from the side creeks after every flood. Most of them simply planted along the river and depended on the side creeks for water. The dams and ditches were about two and one half feet high and deep, respectively. Crop failures were known to have occurred from drought, but they were very rare.

Dike irrigation was practised around Nava (Newcombe) as long as the informant could remember, about sixty-five years. The informant from this region said that he thought this type of irrigation superseded the floodwater type after the Navaho became intimate with Jemez.

At Manuelito, flood irrigation with dikes was begun soon after the stay at Fort Sumner. This type of irrigation was also used at Chinle and down through the Chinle Valley to the San Juan, as it was along the Little Colorado River.

The Navaho of Canyons del Muerto and de Chelly practised a little ditch irrigation. Because of the peculiar geographic features of these canyons, natural conditions supplied sufficient water. During the winter the flood waters froze over the fields and with the spring thaws the fields were thoroughly soaked. During the summer, floods or underground seepage supplied enough moisture for the crops.

In cases of extreme drought, in the eastern and western areas and in del Muerto and de Chelly, water was carried in pots, water baskets, or goatskins from springs or water holes dug in the wash, and the plants were watered by hand. There was never known to be a crop failure from lack of water in the two canyons. This last method of hand irrigation suggests Pueblo affiliations.

Irrigation of wild plants with no cultivation, as practised by the Owens Valley Paiute,⁷ did not exist among the Navaho. "That is nature's work. The water will wash seeds to other places and they will grow" (P.P.). "In the spring after a rain there is a stream which arises from the ground. This stream (ʼáhí) plants all the wild seeds for the Navaho" (M.H.).

The time of planting varied according to locality and altitude, but most planting was done from the time of the full moon of May until the appearance of the following new moon which might come as late as early June. This practice is followed to the present day. Some

⁷ See Steward, *Irrigation Without Agriculture*.

of the people thought early planting desirable, but the majority say it is useless to plant early because the crops will not sprout until warm weather comes.⁸

Besides the moon, several other natural phenomena were used as guides for regulating planting. At Lukachukai each family decided when the right season had arrived. The factors which regulated their judgment were the appearance of the May full moon and the leafing of the aspen in the mountains (A.S., A.M.). At Fort Defiance and in the vicinity of Zuñi the leafing of the wild cherry, the blossoming of the "slim" yucca, and the appearance of the Pleiades in the west signaled planting time. "You eat the roasted berries of the yucca while planting to give good luck" (P.P.). The Pleiades were also one of the several planting guides in the eastern and western areas (S.G., K.). At Cañoncito planting was begun when the moon rose before the sun had set (W.P.).

On the San Juan River the planting season was longer. It began early in May and continued through June. It terminated when the first fruit of the "slim" yucca burst open, which might be as late as the first of July.

In this connection the Canyons del Muerto and de Chelly and the Mariano Lakes area present a somewhat aberrant case. There the time of planting was primarily determined by the position of the sun. In the canyons, at the place of the Standing Cow (Pl. 4, lower left) (about eleven miles up Canyon del Muerto from Chinle) the sun never strikes on the canyon floor during the winter. In spring the people watched the progress of the sun down the north wall of the canyon, until in late April when it reached the edge of the flat on that side, then planting was commenced. "All the neighbors then started planting." In the fall when the "sun goes along the edge of the mesa top on the south side of the canyon," it was considered time to harvest. At Mariano Lakes the progress of the sun along the mesa was watched until it reached a particular notch or, indoors, until it shone through the smoke hole on the east side of the hogan, but did not cross the fire.

Determining the agricultural procedure by watching the sun directly parallels the method used by the Hopi and Zuñi in their regulation of planting and harvesting.

The four most important crops were corn, melons, squash and beans. These furnished over fifty percent of the food supply. Of the four, the most important economically and sentimentally was corn. Around corn were clustered the rites, tabus, and observances associated with agriculture. Likewise, in ceremony, myth, and agricultural education corn plays a more important rôle than any of the three other products.

The first crop to be planted was corn. The Navaho distinguished several varieties of corn according to their colors: white, yellow, blue, black, variegated, striped, and red corn. The white corn was associated with the male sex and the yellow corn with the female sex.

Immediately following the planting of the corn, watermelons were sown. In order that the plants should not all mature at one time, other plantings of melons took place at inter-

⁸ At the time of planting and subsequently at intervals through all stages of growth, maturation, and harvest, there were performed Corn or Farm songs to protect and realize successful crops. These are described with the ritual side of agriculture (p. 61 *et seq.*).

vals for about a month. Watermelons were never grown in the mountains. Even at a 6,500 foot elevation melon crops were uncertain. The Chinle Valley, which is at a lower elevation, was noted for its melons.

Two kinds of melons were recognized. Both varieties were called *téh ži'yání*. Both were round; one was dark green with black seeds, the other striped with pink seeds. Some of the seeds from both kinds had two black spots at the top. The striped variety was believed to be the sweeter of the two. The size of the melons varied, but if the crop was good they would average between six and ten inches in diameter. The Navaho say that while they found watermelon seeds in the cliff ruins, those that they grew came from the Pueblos.

Muskmelons were planted at the same time as watermelons, or immediately after them. The older type of muskmelon was an elongated variety.

As soon as the melons were planted, the squash crop was put in. Two aboriginal varieties were recognized. One (*na'yízí ce'é*) was gourd-shaped and about eight inches long and four in diameter. The other was round and striped, and grew to a large size, having an average diameter of twelve inches.

Beans were the last crop to be planted and the first to mature. They were usually planted some time after the full moon of June. According to P.P. this coincided with the appearance of the night hawks in the evening. It was believed that if they were planted earlier they would not bear well, and that a late planting insured a good crop. They were grown both in the valleys and the mountains, but the valleys were considered the best place to raise them.

Before the introduction of new foreign varieties, five kinds of beans were distinguished: pink beans (*na'ohí dinl'čí'ígí'*), black (*na'ohí ližinígí'*), white (*na'ohí ligo'ígí'*), yellow (*na'ohí lico'ígí'*), and spotted (*na'ohí likižigí'*).

Seed corn for the coming year was selected at the time of harvesting. The considerations governing the choice of ears for seed were the size of the ear and its freedom from worms. If wormy ears were included, it was thought they would bring cut worms the following season. If two ears grew on one stalk these were also added to the seed stock. The ideal ear was about eight inches long, two and one-half inches in diameter at the butt, and with kernels in straight rows.

There were several ways in which seed might be selected. The approved way was for a man to go through his field while the corn was still standing and choose the seed. These ears were not husked; the husks were merely opened enough to judge them. If one stalk bore two ears, the whole stalk was pulled and added to the seed supply. The stalks with the ears attached and the selected ears were all stored in the bottom of the storage pit. "This is the right way to select seed." (C.).

Another method employed was to pick out the best ears while the corn was being husked. Enough of the husk was left on these ears so that they could be tied together and hung in the hogan during the winter.

A third practice was to choose the seed from the corn when it was drying or from the

general store after harvest. The largest and longest ears were picked. The seed corn was then sacked separately and stored in the pit with the other corn. These two latter methods are still in general use.

Information from del Muerto, de Chelly, and Chaco Canyons was that when the corn was ready to harvest, the owner decided where it was to be carried. Then he went to the field and picked four stalks on which two ears of corn were growing. He took these to the place where the corn was to be piled and laid one stalk on the east side, the next on the south, the third on the west, and the last on the north. The corn was then picked and the ears piled on these four stalks. After husking was finished the eight ceremonial ears from these stalks were taken and formed the "ritually principal" seed for the coming year. To this was added seed from corn of all colors (see p. 40).

Watermelon and muskmelon seed for the coming year was selected from the best melons as they were consumed. The seed was dried and then stored. It was stored either in separate sacks with the rest of the produce in the storage pits or was kept in the hogan. If stored in the hogan it was put in a clay pot covered with a flat stone, rag, or buckskin, or closed with a wad of adobe.

Squash seeds were chosen from the largest mature squash. These seeds were carefully cleaned, thoroughly dried, placed in sheep or goatskin sacks, or a pot with a clay stopper to fit, and stored. The sacked seed might either be stored in the pit with the corn or in a separate pit. The pots containing seed were usually hung in the hogan but could be stored in the pit.

Beans for seed were usually selected from the store on hand at the time of planting. However, sometimes more care was taken, the best being selected for seed as the beans were winnowed.

All seed was subjected to quasi-magical treatment before planting. A description of this follows in the section on minor rituals (p. 57).

PLANTING

Planting, especially corn planting, was usually accomplished by communal effort. When an individual was ready to plant he prepared an extra supply of food and sent out word that on a certain day he would plant. The people in the vicinity gathered in his field on the day named. Those who assisted usually included all the people in the community. No particular relatives were called. No pay was given these helpers, other than feeding them. However, the one whose field was planted was supposed to tender his services to his neighbors when their fields were planted.

Communal planting is still being practised. My interpreter planted his corn and beans on June 12th. (This is considered late to plant at Lukachukai.) He sent word to his neighbors who responded with fifteen teams and fifty men. Ten acres were plowed and planted in five hours. These men received no pay, but were given food for themselves and their horses. Nearly all the farms in the Lukachukai district were planted in this manner.

Aboriginally there were two ways in which the field was planted. If it was large, planting began in the center of the field and the corn rows were planted in the form of a helix. According to M. H. one, two, or four helices might originate from the one, four, or five first clusters planted. The progression was east, south, west, north, that is, clockwise (Fig. 3). At the finish, rows were planted on either side of the helix to fill out the field. This was called the wide field (dá'ákeh xóte:l).

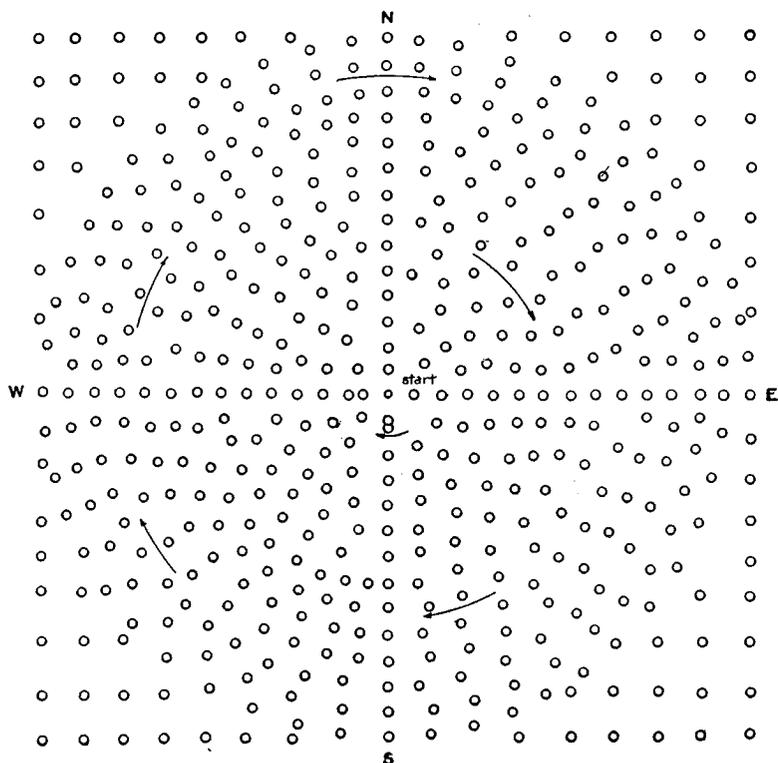


FIG. 3. Schematic representation of an ideal helical field.

A further account of corn planting is given by the Franciscan Fathers.⁹

What may be designated as the ceremonial way of planting is not observed by many today. This requires that the corn be planted in the form of a helix, winding the several rows sunwise. In the center of a large field, and facing east, the first grains are planted, followed by others a step or two east, south, west and north of the central plant in the order mentioned. The second row is continued from the northern plant so as to encircle the five plants. The men and women planting are careful to advance ahead of one another, but never outside the circle once begun. Thus the

⁹ *An Ethnologic Dictionary*, 263-64.

winding continues, increasing the periphery of each circle until the twelfth has been reached, where the final plant is on an exact radial line with the eastern plant of the initial five. This farm is known as the circle farm.

This custom of finishing in a radial line from the first seeds planted is paralleled in basketry, where the start and finish of the basket are in a direct radial line and marked by the "trail." Today this type of planting appears to have gone into disuse.

The second type of planting was in rows. Piles of stones were often put up to guide the sower. No attempt at regularity of rows, transversally or diagonally across the field was attempted. If an individual worked alone he started at any side of the farm plot that was convenient. When three or four persons were present they began at the center of one of the field edges, planted one row each, then divided and worked away from each other as in Figure 4, a.

In communal planting the leader started at one corner of the field and planted two clusters. Then the next man began work on his own row. When he had planted two clusters the third man began on his, and so on. Eventually all the workers were staggered across the field and did not interfere with each other's work. When the first man completed his row he passed over beyond the last and started back (Fig. 4, b). This was called "oblong field" (dá'ákeh xazlá).

A third way of planting, ceremonial in character, is mentioned in the myths (p. 54). This seems never to have been actualized.

The clusters of corn were planted an arm span to nine feet apart. "When the corn is fully grown the blades of corn will touch each other across this distance. If you plant closer the plants will be crowded" (C.). One informant stated that the Navaho at times planted corn in clusters eight feet apart and rows four feet apart. "This gave room for hoeing and for the plants to grow. If you crowd your corn too much it will not grow" (S.C.) (Pl. 3, upper left and right.)

Corn of each color was planted separately in a different part of the field. It was decided beforehand what color of corn was to occupy each section and how much of each was to be planted. There was no association of the colors of corn and the directions of the sections of the field in which they were planted.

The number of seeds planted in each hill varied. If a man had insufficient seed he planted five kernels to a hill; otherwise eight, nine or ten seeds were planted in each hill, depending upon the character of the seed and prevalence of worms. Letherman¹⁰ says fifteen seeds were put in each hill.

It was believed that kernels which did not come up were "eaten" by those that did and that the growing kernels absorbed the strength of those which failed to sprout.

A difference of opinion exists on the correct depth at which corn kernels should be planted. Some stated that they must not be planted deeper than four finger widths. "If

¹⁰ *Sketch of the Navajo Tribe*, 288.

you plant too deeply, before the blades get to the surface they split up and get tired" (S.C., M.H., W.P.). Others gave about six inches as the normal planting depth (C., G.H., L.M.). Letherman¹¹ states that in regions where they did not irrigate, the kernels were planted ten or twelve inches deep if the soil was porous. Simpson¹² also mentions deep planting in connection with porous soil, as does Matthews.¹³ The statements of these white observers are probably correct, and are borne out by Collins' experiments,¹⁴ the

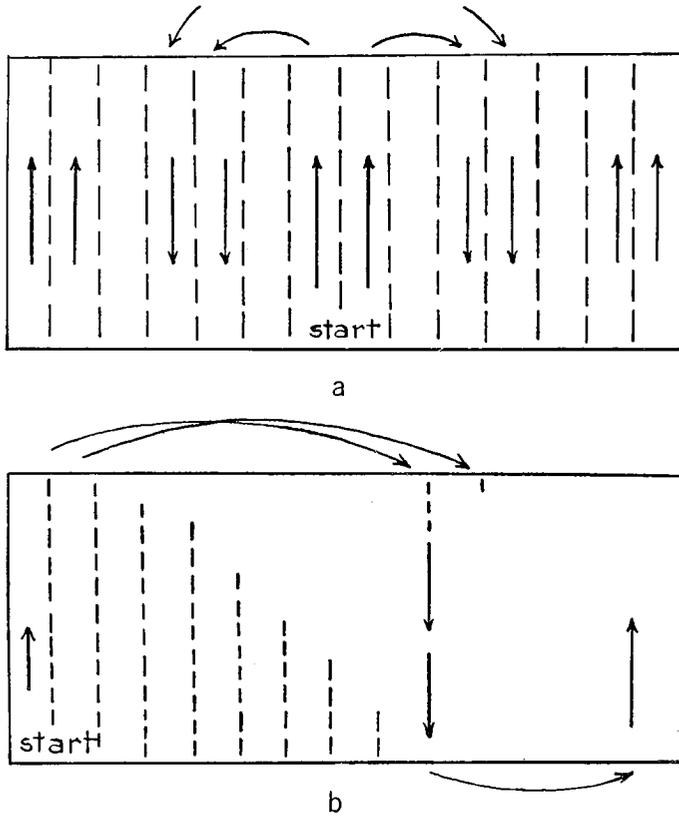


FIG. 4. Methods of progression in planting fields. a, Center start; b, end start.

diversity depending on soil texture and the possibility of irrigating the land. However, it must not be overlooked that while the soil was commonly loosened to a depth of a foot the seed was not always planted at that depth (see below).

¹¹ *Loc. cit.*

¹² *Journal of a Military Reconnaissance*, 53.

¹³ *Navaho Legends*, 2.

¹⁴ *A Drought-Resisting Adaptation*, 293-301.

The implement used was the digging stick. There were two types, both made of a hard wood such as cedar, greasewood, or oak. The older type was about two and one-half feet long with its diameter varying according to the size of the limb from which it was made. It was worked to a chisel-shaped point at one end. The acuteness of the angle at the point varied according to the texture of the soil to be worked. When using this implement the operator knelt and swung it to the left side of the body with much the same stroke as is used in paddling (Pl. 2, *upper left*).

The second type of digging stick has a projection near the bottom, formed by the branch of the tree from which it was taken. This type was about three feet long, and the blade was spatula or shovel-shaped and wider at the bottom than in the older type of digging stick. It was operated from a standing position in the manner of a shovel. After the point was driven into the ground a final twist on the projection was given by the foot. This type was introduced from the Pueblos. It reached the various Navaho districts at different times, some of them as late as sixty years ago. The majority of the Navaho say that the idea came from Jemez.

When planting corn certain men used the digging stick, while women or men followed, inserting the kernels. Sometimes a man and wife planted together, otherwise a girl would follow a man. The man with the digging stick took a hop and a step from the squatting position used in digging, squatted where he landed, and made the next hole for planting. The dry surface soil was scraped off and the moist earth loosened. Then the planting stick was jammed straight down. The resulting hole was filled with loose, moist soil and on top of this, four to six inches from the surface, was placed the seed. "It was easier for the roots to work down this way. The corn is much healthier if planted with a digging stick than if the tools of the whites are used" (C., T.). The kernels were covered with the feet. This had to be done with care, because if the ground was tamped down too hard the corn would not come up, and if tamped too gently the soil dried out. The feet were placed together over the kernels. In this way the soil at the sides was packed firmly while that directly over the seed and under the arch of the foot was left relatively soft. This allowed the sprouts to come up easily. "The women had to be watched because they were more careless than the men in covering the seeds" (S.C.). "If you are not careless in planting your corn you will get a good crop" (C., S.G.).

At Manuelito it was customary, when the kernels had been covered, to put some dry dirt on top of the tamped earth to keep the soil below from drying out.

In the Canyons del Muerto and de Chelly, if the soil was dry at the time of planting, wet earth was carried in to be put in the holes made by the digging sticks. The kernels were planted in this wet earth, which was then covered with dry dirt.

Aboriginally, corn was never planted in artificially formed basins to catch the water run-off. This practice has come in with the increase of population. In earlier times there was plenty of land favorably located for water, and this aid to irrigation was not necessary.

Today corn is furrow planted. A man follows the plow on every fifth or sixth furrow

and drops seven or eight seeds every two paces. The following round of the plow covers the seed.

From the time the kernels were planted until the mature crop was stored, the various developmental stages of corn were recognized and designated by special names. Generally eighteen stages were referred to, though some informants introduced additional modifications. Some disagreement occurred in the correct order of the sequence of stages eight, nine, and ten. The stages were as follows:

1. (?) "Put them in the ground" (M.L.). This referred to the planting of the kernels.
2. "Corn has sprouted" or "taken root." This was the period four or five days after planting when the corn had begun to sprout.
3. "Dry ground it went through." After the corn had been planted a week or more, it was customary to go through the field and dig out a few clusters to see how it was progressing. By this time it would have grown into the top layer or crust of the field, hence the name for this stage.
4. "Corn turns green." This referred to the appearance of the sprouts above ground giving a greenish tinge to the field.
5. "Corn has curled." This is the stage of growth at which the corn leaves began to turn downward. It occurred when the corn was eight to nine inches high.
6. "Corn about to have a baby" (i.e. about to produce ears). This term was applied when the corn reached a height of between two to three feet.
7. "Corn with pistils coming up." The stage at which the pistils emerge.
8. "Small ears start." This referred to the appearance of the nubbins.
9. "All silk red." The stage at which all the ears possessed silk.
10. "Corn pollen starts coming out."
11. "Teeth are swelling." The time at which the kernels began to form on the ears.
12. "A few are ripening" or "ripe to be eaten." This referred to the time when some of the ears were ready for roasting.
13. "All are ripe." The period just before the harvest.
14. "A few are white." A few of the corn husks have turned white and were ready to harvest.
15. "All are white." The period of maturity.
16. "Pulling from the stalk." The time of gathering the corn.
17. "Corn in a pile." Corn piled near the hogan ready for husking.
18. "Corn with the husks off." The stage at which it was husked.
19. "Corn spread to dry."
20. (?) "Storage" (M.H.). Corn placed in the storage pit.

The different parts of the corn plant were specifically named as follows: corn pistil: *nadâ' bizó-l* (tassel); corn leaf: *nadâ' bitâ'*; ear: *nadâ'*; corn stalk: *nadâ' bakaz*; lower parts of stalk: *nadâ' behégai* ("the things that go round the bottom that are white");

corn roots: nadá·' bikéłó·1; corn pollen: nadá·' bitádídí·ń; kernel: boγ^wo·' ("corn tooth"); cob: dá'áci·n; husk: dá'á·tan; corn silk: nadá·' bici·γα·'.

The digging stick was used in planting watermelons and muskmelons. These were planted in a patch apart from the corn, as it was believed that they would not bear if planted between the corn rows. However, melons and squash were often planted together. They were planted far apart to give ample room for the vines to spread; the average being about twelve feet between rows and clusters. Extremes of this average were three feet (M.H.) and twenty feet (M.L.).

The soil beneath the seed was loosened to a distance of eight inches. The seed was planted in moist dirt at a depth of two or three inches. Some of the dry dirt was scraped aside leaving a depression to catch the water run off. About ten seeds were planted in a cluster. "Some seeds will not sprout. That is why you plant so many" (S.C.). The plants do not come up for at least ten days. Usually a second crop of melons was planted in order that mature melons might be available throughout the season.

In the extreme western and eastern sections of the reservation precautions were taken against damage to the melon plants by sun, wind, or sand. A row of bush twigs, a foot to a foot and a half high, was placed to the windward of the plant. This kept the sand from blowing in and shaded it from the afternoon sun. According to M.L. thin slabs of stone and pieces of bark were also used for this purpose. When the runners grew out, small twigs were placed on either side of them to prevent the wind from whipping them about. Both these practices have Pueblo analogues.

As in the case of corn the various growth stages of melons were recognized and carried specific names. They were as follows:

1. "Melon planted." This referred to the period immediately following the planting.
2. "Melon grown up from the ground." This stage was that of the first appearance of the plants above the ground.
3. "When two ears come out." The ears are the two leaves which unfold when the plant reaches a height of about two inches.
4. "They come out four ears." The stage slightly later than the previous one when four leaves show.
5. "Starts to spread out." This refers to the first appearance of the runners.
6. "Vines spread out." The term applied when the runners reach a length of three feet.
7. "Melon with blossoms."
8. "Little melon is growing on a vine." This was the stage at which the blossoms dried and the melons began to form.
9. "Many watermelons coming on the vine." This term was applied when many small melons developed.
10. "Melons taste better." This stage is so named because the melons were six to eight inches in diameter and were eaten by children at this time.

11. "Some melons get ripe." This referred to the first melons ripening.

12. "Most melons are ripe."

13. "All melons are ripe."

The plant terminology for melons, where comparable, was the same as for corn.

Squash was sometimes planted between the corn rows or with the melons. However, it was generally planted in a separate patch because the crop then tended to be larger.

In order that the plants should come up quickly, the seed was put in a sack, which was then filled with water and manure, and buried close to the fire. The seed was examined from time to time until it sprouted, then it was planted. The hills, like those of melons, were planted far apart to give room for the vines to spread. Ten feet between rows and hills was considered the correct distance. Five or six seeds were planted at a depth of about four inches. "If too many squash seeds are put in a hole, they crowd each other and do not sprout well" (S.C.).

Like melons, in the eastern and western districts, squash were protected from winds and sun by rows of bush twigs.

The terminology for the growth stages and plant parts of squash was the same as that for melons.

Men planted beans with the digging stick, women inserting the seeds. Beans were planted between the corn rows more often than any other crop. However, they were thought to produce better crops if planted in separate patches. The different colors might be planted separately or not, as the planter wished. Five, six, or seven beans were planted in each hill; hills and rows being about a foot and a half to four feet apart. In the east they were protected from the sun and wind by rows of bush twigs. It was said that some people had good luck with beans, while it was impossible for others to get a good crop. A man who failed to get a good crop would get one of these "lucky" people to plant his crop for him.

The growth stages of beans varied somewhat from those used for previous plants. They were as follows:

1. "Beans planted."
2. "Beans just coming up."
3. "Beans with two ears."
4. "Beans with four ears."
5. "Beans grow bigger." This referred to the stage at which the plants were eight to ten inches high.
6. "Beans with blossoms growing on."
7. "Beans with pods hanging on."
8. "Beans becoming a little yellow" (i.e. the pods becoming yellow).
9. "When all get white" (i.e. the pods). The stage of maturity.

CULTIVATION

All crops were systematically weeded and hoed two or three times during the season. Formerly, two types of hoe were employed. The older form of hoe was made from the

shoulder blade of a deer. According to the Navaho it was first used without hafting. Later a short handle was affixed and finally a handle three feet in length. The stick used for the handle was either split at one end and the shoulder blade inserted, or jointed and bound with fiber from wide bladed yucca. Handle and blade were in the same plane. The operator assumed a squatting position and shoved the hoe ahead to remove the weeds (Pl. 2, *upper right*). (So far as I could judge this statement of the change is based on actuality, not on legend.)

The other type of hoe was made of wood: a straight shaft with a square blade beveled on each side. Like the older type, it was operated by pushing it before the worker.

The informant from the San Juan River district had never heard of the shoulder blade hoe. He stated that before the introduction of iron only the oar-shaped wooden hoe was in use.

A variant and another type of hoe are mentioned by the Franciscan Fathers.¹⁵

There were two different types of hoes in the earlier days. The straight hoe was made of wood hewn down to the thinness of a board, one end of which was beveled on both sides. A small hole was provided near the center of the board and a grip near the end. In operating the hoe was grasped in the palm of the right hand, passing the four fingers through the opening in the end, and the thumb of the left hand through the small hole near the center. In this manner it was scraped forward, the operator, in a sitting position, covering the radius within his reach. This hoe was called "either side hoe," because it might be used that way, or because the operator might clear the ground on any side from one position.

The other type of hoe was also made of wood and was used in a standing position after the manner of a scythe. It consisted of a curved blade to which a wooden handle was secured by a thong of elk. It was grasped in the left hand while the thumb and index finger of the right hand passed through a thong of elk secured to the rear of the blade. This hoe was known as nabehe gudi, or na go benaha gudi, the side hoe, or with which one hoes from the side. [According to P.P. these were used by Zuñi and Hopi, not the Navaho.]

While iron hoes have long been in use (L.M. said that the first hoe he ever saw was made from iron traded in by the Mexicans, eighty years ago), both the wooden hoe and the digging stick have been employed until comparatively recent times, and are still being used. At the present time, iron hoes from the trading posts are supplanting the older types.

Crude forks or rakes were employed, in the eastern and western districts, for removing cut weeds from the fields. In lieu of a rake, cedar or piñon branches were used to sweep off the weeds (T.). The rakes consisted of a two, three, or four forked limb cut to convenient sizes. Occasionally a cross piece was tied with yucca midway across the prongs to brace them. The absence of these implements in the entire central area suggests their late diffusion from the Pueblos.

Weeding and hoeing was done whenever it was thought necessary. This was primarily a man's work, but if the men were occupied elsewhere, the women did it.

¹⁵ *An Ethnologic Dictionary*, 266.

The corn field was generally hoed twice during the season. The first hoeing took ten days, on an average, to complete; the second took less time. Work was started early in the morning and continued until the day became hot. The man then rested until late afternoon when the work was continued, often until after dark.

Melons were hoed whenever necessary. Squash was hoed twice like corn, while beans generally needed three hoeings.

There was little cultivation aside from this. The plants were never hilled up except in the Cañoncito district. If the roots were exposed by wind or floods, they were recovered. If entirely washed or blown out, or if the crop was eaten by grasshoppers it was replanted, provided the season was not too far advanced. If after planting the top soil was too wet and caked, holes were punched in the surface with a stick to allow the sprouts to come through.

If, when the corn sprouted, too many plants came up in a cluster, the weakest were pulled up and used for food. It was also believed that when the pollen appeared it must be shaken off the corn or it would turn into cutworms.

Melons were thinned when necessary. Five plants to a cluster was considered the correct number. This work was done early in the morning. Care was taken to pack the soil around the remaining plants to prevent them wilting.

If, when the squash grew, the vines spread too fast, the ends were pinched off so that the plants would begin to bear.

Rotation of crops was never heard of and no land fertilization was practised. The Navaho never knew of a piece of land that became exhausted.

No wild plants were planted or cultivated. However, the Navaho of del Muerto and de Chelly guarded yucca against inroads of live stock.

The principal hazard to corn was cutworms. The Navaho got rid of these pests in several ways. Most commonly they were picked from around the roots.

In other instances minor rituals were performed to cause their disappearance (see p. 58.)

No successful way to protect crops from grasshoppers was known. If they came and ruined the crops, the fields were replanted if it were not too late in the season. They were replanting for this reason when I visited Canyon del Muerto in early July. One informant stated, "There is nothing you can do about grasshoppers. I have tried songs and prayers but they are not too successful" (L.M.). Another informant had tried the Cliff Dweller pottery method (see p. 58 *et seq.*). "It was no good. It is funny about grasshoppers, if they are after weeds they just eat up the weeds in the corn field and do not touch the corn. If they are after corn they eat only it" (L.H.).

A partially successful means of getting rid of grasshoppers was to drive a band of sheep through the field. "The grasshoppers have sticky feet and when they jump up and light on the wool they stick there. Grasshoppers originate around Taos. You drive the sheep toward the northeast and the grasshoppers do not come back" (P.P.).

In the old days, according to the informant from the San Juan area, no one ever heard of an insect attacking squash. However, the informant from Chaco Canyon recommended a mixture of urine and goats' milk to protect squash from chinch bugs and cockroaches.

Until the corn was more than six inches high, the rabbits were destructive. To prevent them from ruining the corn, watchers were placed in the fields. Other methods practised were sprinkling the plants with mountain sheep or venison broth, decayed rabbit intestines mixed with water, or the whey from goat cheese made with fawn rennet. This latter was considered best because it protected the corn during the night. Scarecrows were also used to keep rabbits from the corn. One woman had a toy teddybear in her corn field which she said was very efficacious (Pl. 3, upper left).

There was no special procedure to save the crops from the ravages of gophers and chipmunks. Occasionally the Cliff Dweller sherd ceremony was used for kangaroo rats. They were also killed with deadfall traps (see p. 172). According to one informant (B.V.) men with lighted cedar torches would surround a field at night, converge toward the center, and kill the rats thus encircled.

Skunks also bothered the crops. When encountered in the fields they were clubbed. "You must be careful to approach them from the right end" (L.M.). These and porcupines were also shot at night (M.H.).

In the fall when the crops were maturing coyotes, foxes, and dogs were troublesome. In order to prevent them from tearing up the plants, watchers were stationed in the field during the day. At night someone stayed in the field, and with a sling threw stones about the field to scare them away. In the Canyons del Muerto and de Chelly, when the coyotes became too numerous, a coyote drive was held. Men were stationed at narrow places in the canyons to kill them. At Head Springs it was said that a yucca cord placed around the field, on poles two feet high, would prevent coyotes from entering the field. Scarecrows were also supposed to keep coyotes away.

Corn which a coyote had chewed upon or otherwise come in contact with could not be used for food, or the individual would become ill in the Coyote Way. Chanters utilized the ears from such plants in ceremonies. They were given to children to cure illnesses resulting from their mother's having seen a dead dog during pregnancy.

If bears ravished the field the corn which they touched could not be used or illnesses of the Mountain Way type would be contracted. "A bear will always listen to a prayer if you say it. You go out in the field where he has been and pray. If he continues to come back it is all right to kill him" (P.P.).

Prairie dogs were chased off by watchers or, according to M.H., killed by digging out the holes for a short distance and tamping in the earth so tightly that they could not dig out.

Crows and bluejays were the two chief pests among the birds. Crows were particularly troublesome when the corn was beginning to mature. The most common methods of guarding against them was to place watchers in the fields or erect scarecrows. Sometimes the

scarecrows were those of the figure of a man or rags tied to a stick. If some of the crows were killed, they were hung on poles, being considered most efficacious.

Another common method of protection against crows was to erect poles in and around the field. These poles were about eight feet high and from their tops yucca strings were strung above the corn. "The crows will not come near your field, then" (P.P., M.L., M.H., W.P.). "Occasionally rags were hung from these yucca strings" (W.P.).

At Chaco Canyon a custom similar to one of Zuñi was employed. Holes were bored through corn kernels, and horse hairs several inches long were tied through the holes. These were scattered through the field. When the crows swallowed the corn they were not able to swallow the trailing horse hair and eventually starved to death.

Bluejays were most troublesome when the corn was drying. They were shot with bows and arrows, and later with slingshots and guns.

In the eastern district the farmers rose early and frightened birds from their fields. Then they built a smoke fire. It was said that if this was repeated for several days the birds would leave.

With the introduction of domestic animals, customary laws governing damage from this source came into being. If horses or sheep ran through the fields or ate up the crops the damage was paid in sheep or some other commodity. If the damage was slight, the owner might overlook it. However, if it occurred a second time the owner would collect payment for both occasions. The owner of the field would count the number of damaged plants in the presence of the man whose stock had done the damage. The damages were then computed on the basis of what the harvest would have been. On some occasions there was argument, the stock owner contending that the crop was not as good as the owner claimed. However, as a rule, an agreement was soon reached.

HARVESTING

The bean crop was the first to mature. Beans were harvested in early September, about the time of the September new moon. The mature plants were pulled, roots and all, great care being taken not to shell out the beans. The plants were then heaped on a previously cleared spot. The man of the family beat them with a wooden club or tramped upon them, removing the stalks to one side. The woman winnowed the beans by pouring them from a basket. Usually a man and wife worked together.

A variant of this threshing process occurs in the San Juan region, where only pods were picked and the plants left in the field. The pods were piled on pelts and tapped lightly with a stick. "They were easy to shell" (L.H.). They were not winnowed, the chaff being simply brushed aside as the harvesting progressed.

The corn harvest was next, usually beginning about the middle of September. Everyone in the family participated, and if the field was large neighbors were called to assist. They were paid for their services in corn.

When the owner was ready to pick the corn he went into the field and selected four

corn stalks, each of which bore four ears, one in each of the cardinal points. These were taken to the place where the ears were to be piled and laid with their growing tips pointing toward the four cardinal directions. The first stalk picked was placed in the east, the second in the south, the third in the west, and the fourth in the north. Then two more stalks of the same kind were laid transversely, tips pointing southeast and northwest across the four. The first (A) represented the zenith, the second (B) the nadir (Fig. 5, a). The corn, as it was picked, was piled on these stalks. When husking was completed and the six stalks were reached, the ears from these were husked in order from east, south, west, north, zenith and nadir. These ears were called the "main seed" or "under corn." The kernels were mixed with next year's seed and thought to insure a good crop. It was a common saying that no

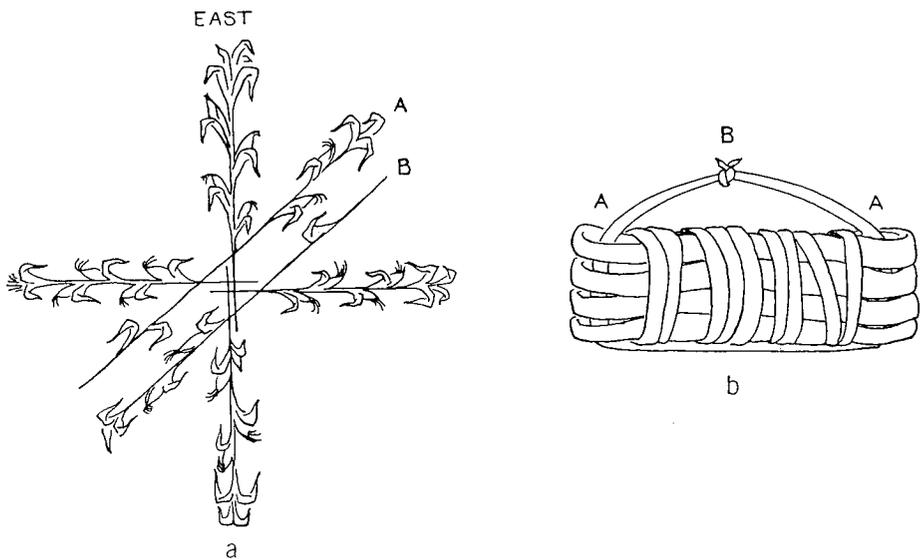


FIG. 5. a, Ceremonial arrangement for corn stalks prior to husking; b, hank of dried muskmelon.

matter how much corn was taken away from a pile prepared in this manner, the height of the pile would remain the same. (The corn in Plate 4, *upper left and right*, was piled in this manner.)

The workers placed a foot on the stalk and bent it down to pull off an ear. When a quantity of ears had been gathered, they were piled on the corn stalks laid in the cardinal directions. In late years the stalks have sometimes been cut off at the base and all laid heading in the same direction. The men then pulled off the ears and tied the stalks in bundles for winter use. Husking was done either in the field or at the hogan. The law of butts and tips was not observed in husking; informants thought it funny that I should ask. The workers grasped the tips of the husk in both hand, pulled downward, and broke off the

stem at the butt of the ear. Blankets, and before them, buckskins, were used to transport the corn.

After husking, the corn was usually put to dry on the sunshade (ni'í): or it might be put on the ground, bare rock, or on brush (Pl. 4, *upper left and right*). It was watched and turned from time to time. Less commonly a ridge pole held up by two supports was employed to dry corn. About twenty ears were tied together on the rack or two ears were tied together by their husks and hung over such poles. According to P.P. this was the proper way to dry seed corn. Racked corn would dry in ten to fifteen days, other methods required about a month. The test of thoroughly dry corn was the ease with which the kernels could be removed.

As soon as the corn was dry it was threshed. A two, three, or foursided windbreak was put up and an oblong pit dug in the center in which the husked ears were dumped. Then hard wood clubs (usually oak) about four feet long, like baseball bats, slightly up-curved at the end, were obtained. The men sat down around the pit beating the corn with the clubs, while the women raked the kernels out with their hands into baskets. Different colored corn was shelled separately. "If the corn is dry it will thresh out easily" (C.). It was then winnowed by pouring it into the wind from the baskets.

Before this method of beating for threshing corn came into use, the kernels were removed from the cob with a pointed stick, one row at a time. Otherwise, the butt of one ear was struck against the side of another until some rows of kernels were removed from top to bottom. This was repeated on the opposite side of the ear. The remaining kernels were then removed by twisting the cob in the hand. This is still being done in some localities.

In de Chelly and del Muerto Canyons the corn matured as early as late August. Besides the usual way of threshing, the corn might be threshed out on the flat ground inside the walls of an abandoned stone hogan (Pl. 4, *lower left*). When threshed, the corn was customarily dried on the ground at the base of the cliffs, where it lay protected from the rains.

It was the practice throughout the Navaho area, if the season happened to be short and the corn was hit by frost, to pick it immediately. In order to save this green corn it was prepared in the following manner. A fire was kept burning all day in a pit, which was cleaned out at sundown. The green corn was then thrown into the pit and covered first with corn husks and then with dirt. Next morning the roasted corn was taken out, husked, and placed in the sun to dry. This added a flavor which was different from that of ordinary corn. Freshly roasted green corn was called *le'shibé'ž*. After it was dried and shelled it was called *našžíži*. According to M.H. a second crop of corn was planted when the first was half grown to insure a supply of these two products.

The first frost marked the end of the watermelon season. All the melons were gathered at this time and some were consumed. Those remaining were cut in thin slices, hung on bushes, and dried.

Along the San Juan, the melons were peeled before they were sliced for drying.

In the Canyons de Chelly and del Muerto it was said that watermelons were not dried, though they were aware that the people of the Chinle Valley dried them.

Like watermelons, the muskmelons ceased to bear after the first frost. These melons were prepared in two ways. The immature ones were picked leaving from five to eight inches of stem attached to the melon. If gathered in this manner they would ripen in storage.

The mature muskmelons were dried. Brush was gathered and laid on a flat surface. The melons were cut in half and placed on this for ten days. When partially dry they were cut spirally and hung in trees or over poles for another week. Then the spirals were bent back and forth upon themselves and a second one was wrapped around the first to form a hank (see Fig. 5, b). A string was run through the projecting loops A,A, and tied at B. A pole was run under this string and the hanks hung in the sun until thoroughly dry. These were called *bikídesdiz dahneskání* (muskmelons rolled over and over).

The squash matured about the same time as corn. A squash was judged mature when the rind became very hard. They would stand storage in this condition; the hardest and most perfect were selected and stored.

The remaining part of this crop was dried. There were three ways of drying squash. The large round variety was peeled, cut in half, and put out to dry. When these halves were partially dry they were cut into spiral strips, several of which were tied with another, forming a figure eight hank. These were then put out to complete drying. According to M.L. the hanks were placed in a solution of boiled muskmelon before the final drying. One of these hanks was called *náni'stá'z* (*náhinestá'z*).

The gourd-shaped squash were cut in spiral strips, tied in bunches, and put out to dry.

If frosts were due, the immature squash were picked, cut in slices and put out to dry. This kind of squash was called *šá'ni'ke'*.

Great care was taken to protect the drying squash from rain. If it started to rain, they were gathered in a pile and covered with blankets and sheep or goat pelts to keep them from moulding.

STORAGE

The winter food supply was placed in storage pits located in the field, or near the summer hogan. There was usually at least one to four of these pits for each family. If it happened that two families used the same pits, the produce belonging to each family was kept separate by placing cedar bark between.

There were different types and variants of these storage receptacles. The most common, and according to the Navaho the oldest, was a globular pit somewhat constricted at the neck. These were formerly excavated with a digging stick. Dry ground was selected for the excavation and, according to W.P., a fire was built in the pit to harden it and to insure that no moisture remained. The size of the pit depended on the amount of produce to be stored. The average depth appears to have been about five to six feet. The bottom of the pit was lined with shredded cedar bark and more of this bark was added to the side walls as the pit was filled. When it was filled, shredded cedar bark was carefully piled in the

opening and covered with sticks or a flat rock and then a foot of dirt (Fig. 6, a). All signs of the pit were obliterated. After this was done the owner noted some natural object such as brush, a tree, or a rock, so that the cache could be located when the food was needed.

The mythical origin of the storage pit is given in the legend of the Plume Way Chant.

The way they got the storage pit is this. A long time ago there was famine and starvation in the country. The people were just barely able to keep alive. A certain one of the people dreamed that at a certain place there was a bin of white corn packed in cedar bark. They sent a boy and a girl to that location to look. These children came back with a handful of corn. The people were saved. They did not starve. They saw how the bin was built and got the idea of building bins like it. This underground bin was the first idea. Later they got the idea of building these bins above ground (S.C.).

A variant of this storage pit was found in parts of del Muerto and de Chelly. There the pit was dug and a circular wall of stone and adobe added, to give extra storage room (Pl. 4, *lower right*). About two thirds of the storage space was below ground and the rest enclosed by the wall. These bins averaged six to eight feet in depth and about three feet in diameter. In closing this type of pit poles were placed across the opening, on which a cloth was laid, and this covered with dirt. The stones from the Cliff Dweller ruins were utilized in making the pit walls and also on occasion the rock storage houses of the Cliff Dwellers were repaired and used. "This was often the cause of War Sickness and the War Dance had to be held to cure the people" (L.M.).

Another type of pit was rectangular. An excavation five feet deep, three feet wide, and six feet long was made. The bottom and sides were lined with cedar bark. Above the stored produce was left a seven inch air space. Then sticks were laid horizontally across the pit to within a foot and a half of one end. This end formed the entrance to the pit and smaller sticks were laid longitudinally to cover the opening (Fig. 6, b). Over all was piled six inches of cedar bark and finally a foot of dirt. Occasionally during the winter it was necessary to thaw the ground with fire before the pit could be opened. Whenever supplies were taken out, the sticks, bark, and dirt were carefully replaced. A few pits had a hatchway in the center of the roof by which produce could be removed.

Recently a variant of the rectangular storage pit came into use. The pit was first dug. Two supports were set up at the ends of the pit, and a stringer placed between them. Then poles were leaned on the stringer from the sides and ends and covered with bark and dirt. The entrance was made in either of the two sides.

Natural cavities in cliff surfaces were also used for storage. If these were large, stone walls were built across their openings. Flat stones were then laid on edge in front of the walls and rubbed with moss to give the appearance of a solid cliff face. If small, a flat stone was placed in front of the opening and sealed there with mud.

Corn was usually stored in the bark-lined, globular pits. It could be stored either on the ear or shelled. It might be poured loose into the pit or placed in goat skin, or preferably, elk hide containers. These sacks were about four feet long, wider at the top than at the

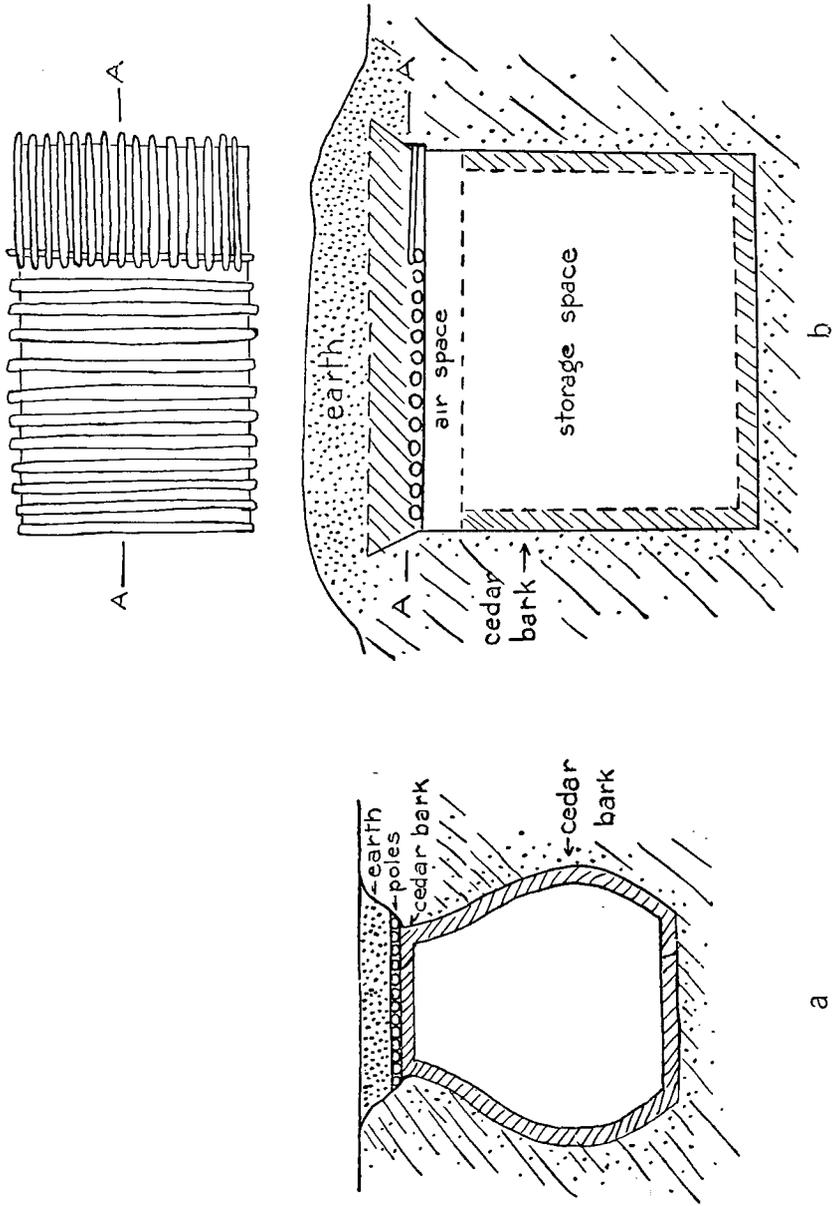


FIG. 6. a, Globular storage pit; b, rectangular storage pit.

bottom, and usually made by sewing two skins together. The elk hides or elk hide sacks were traded from the Ute. "Elk skin is more flexible and lighter in weight than buckskin, but not as tough. These elk hide sacks lasted for years" (C.).

Generally before placing the corn in the pit a pair of ears, each pair of the same color, were placed at each of the cardinal points with the tips inward. Two more ears were then placed in the center of these eight. "This was done so that you would have sufficient corn in the future. As you pile the corn in upon them you think of them as the foundation of future crops" (G.H.).

If the ground was dry and the corn properly cured, it would last two years without moulding in the pits. On the other hand, if the ground became damp, or if the corn was improperly dried, it would ferment and be lost.

The hardest and most perfect mature squash were selected for storage in the rectangular pits or in unused hogans. Great care was taken not to bruise the rinds. Each squash was wrapped in cedar bark or corn husks before being placed in the bark-lined pit. This kept them from getting bruised in storage and also kept them from freezing. In this manner they would keep until about February.

The dried squash was stored in either type of pit with corn or mature squash.

Both the mature and dry watermelons were stored exactly as were squash. In de Chelly and del Muerto, watermelons were sometimes wrapped in weeds as well as corn husks and cedar bark. One informant said that mature watermelons would only keep for a month; another stated that they would last until about the middle of December.

When the first frost came, the immature muskmelons were picked and placed in storage. These would ripen there and therefore this crop lasted longer than the watermelons. The dried muskmelons were stored like, and with, dried watermelons or squash.

Beans were stored with corn but were kept separate by bark partitions or by sacking them separately. They were said to keep indefinitely if properly dried.

CROP UTILIZATION

The four major crops under discussion were utilized as food throughout their various stages of growth, as well as in their mature stage. Besides their use as food, some were reported to have medicinal value.

Corn was first used as food when the owner went through the field and thinned the clusters that had too many sprouted plants. These were saved and boiled as greens.

When the corn grew to a height of about three feet, the whole stalk was picked, placed in the ashes, roasted, and eaten. The ears had not begun to form on the plant at this time. The informant did not know any name for this food.

When the corn had reached a height of four feet the same procedure was followed. However, at this time the stalk was too tough to be eaten and only the juice was sucked out.

When the corn first came into silk, the ears were picked, chopped up, and boiled to make a kind of soup.

When the kernels first started to form on the ears, the ears were picked. The kernels were scraped off, mashed, and boiled. Ears in this stage might also be roasted.

When the kernels became a little larger, they were cut off with a knife, ground on a metate, and made into bread. Corn leaves were laid on hot ashes, the dough was placed on these and covered with more leaves, and the bread (*diłúgí le's'á'ń*) baked in this manner. The dough was too liquid to be baked in any other way.

At the next stage of growth, when the kernels were harder but still had to be removed with a knife, the resulting dough was stiff enough to be worked with the hands. This was placed in the husks which had been carefully removed and then baked in the ashes. This was called green corn bread (*ncidogo'i*). This dough might also be poured out on a hot cooking rock to be made into piki or paper bread (*cé'estéi'*).

This was the last stage in which the corn was used green. "After this it gets too ripe and loses its flavor" (C.).

After threshing, the mature corn was used in many ways and combinations. The most frequent forms of preparation were bread, a variety of mushes, dumplings, and fried cakes.

Formerly, the husks were burnt, but after the introduction of domesticated animals they were fed to horses and cattle. They were never given to sheep.

In times of famine corn cobs were ground up and used for flour.

When the pollen first appeared on the corn it was gathered and saved for ceremonial use. The stalk was shaken vigorously and the pollen caught in a basket tray. Formerly, this could only be gathered by a virgin boy or girl. If he or she knew any Corn songs they sang them while they worked. If not they were sung by a man before going into the field.

Corn of different colors, destined for ceremonial use, was selected at the time of harvest. The ears had to be perfectly formed and filled out with straight rows of kernels to the tip of the cob. Before the corn was used ceremonially it was placed in a hogan during a one night chant.

Smut from corn was gathered, boiled and eaten. Both the smut and the resulting food were called *dá'áča'n*. "When a man finished eating this he rubbed some on his feet saying, 'We are going to have a great deal of rain and large crops. No hail will hit our crop. Everything is going to be as it used to be.' This is why the Navaho have never tried to rid their corn of smut" (P.P.). The chanters of the Plume Way used smut for blackening (L.H.).

Squash, like corn, was used in all stages. When the blossoms (*tá'i'cóhi'*) appeared they were picked and strung on strings or twigs to dry. When dry, they were boiled with mutton tallow or with meat. "They are like your cabbage. They give things a good flavor" (L.H.).

Squash were boiled and eaten in all degrees of immaturity. When they were almost mature they were cut in half and roasted in the ashes, convex side up. There was no special name for squash cooked in this manner, they were merely called "roasted."

When mature the squash was cooked beside the fire. It was turned from time to time until it was done.

The dried squash was boiled and eaten with mush. A pinch of corn mush was put in the mouth, then a pinch of boiled squash, and so on. "Squash is like your dessert" (C.).

The squash seeds that were not kept for planting were dried, parched, shelled and ground. This meal (c'á'lbái) was eaten dry or made into the same dishes as the corn meal.

The roots, leaves, and the seeds of the squash were used by shamans and were made into a stew for the patient.

Both watermelons and muskmelons were used before they matured as well as in their mature state. They were eaten as soon as they had any flavor. "The white man's melons have no flavor when they are green" (L.M.). It was believed that muskmelons, if eaten in too large quantities, would give a person sore lips because they were too sweet. "Watermelons will not do this" (L.M.).

The dried melons were boiled to a jelly-like consistency and used as dessert.

The watermelon seeds not needed for planting were dried, parched, and ground into meal, which was used in the same manner as corn meal.

From the time the bean pods formed until they matured, they were eaten boiled in all stages. The pods were also roasted, ground, and used like corn meal, or boiled with meat. The mature beans were almost always boiled.

Formerly bean vines were saved and burnt. The resulting ashes were mixed with corn meal to give color to the bread, if cedar ashes were not available.

The shamans used the root of the bean plant and occasionally the bean itself for medicine. The blossoms were used by Night Way chanters as medicine.

NON-FOOD PLANTS

Cotton (na:ká) was never grown by the Navaho: its cultivation was mentioned only in myths. According to informants, almost no cotton was used except as twine in certain ceremonies. This was traded from the Pueblos.

Like cotton, there is reference in the myths to the planting of tobacco. However, it was never planted by the Navaho in historic times. They depended on wild plants for their supply.

Gourds were raised. They were believed by the Navaho to be one of the first plants cultivated. They were the earliest crop planted in the spring, as they were slow to mature. Planting took place about the first of May. Seeds were not treated in any way. The gourd patches were small, only ten or twenty clusters being planted. The clusters were planted far apart like squash, with a great many seeds planted in each cluster. The Navaho say that this crop was hard to grow and not dependable, probably because it was planted so early. However, if three or four plants came up, the crop was considered a success, because once started, the plants were exceedingly hardy and bore great numbers of gourds. They were often irrigated by hand. In the Ramah and Chaco Canyon districts the vines

were placed over forked sticks in order that the gourds would grow straight (probably a Zuñi diffusion). The growth stages of this product were designated by the same names as those of melons. The crop matured soon after the frosts came in the fall.

The gourds and their seeds were never eaten. The seeds necessary for the next year's planting were dried and stored. Gourds were used for either ceremonial or utilitarian purposes.

Ceremonially, gourds were used for rattles or medicine dishes. If a shaman needed a rattle he tied a string around the neck of a certain gourd so that as it grew it would become large and round.

For domestic purposes they served as dippers and spoons. If any of the gourds were unusually large, these were selected and used for canteens.

INTRODUCED PLANTS

Peaches and wheat were introduced into the Southwest by the Spanish, and diffused to the Navaho on the aboriginal level from the Pueblos.¹⁶ Because of the manner of their introduction the Navaho class them with corn, beans, squash, and melons, and apart from products introduced under the reservation regime.

Their introduction altered the economy of the Navaho to some extent. In the case of peaches, the effect was localized in Canyons del Muerto and de Chelly and at Nazlini. The introduction of wheat was of more far reaching consequence. In the first place, it furnished a crop which matured early in the summer. This eliminated much of the actual want, which existed during this period, occasioned by the shortage of stored food and by the uncertainties of the wild seed crop. It was, according to the Navaho, an off-season crop. "A man would say, 'I am going to put in a crop of wheat because it will meet me when I am hard up' " (C.). Second, it was possible to grow wheat at a higher elevation. This brought more land under cultivation and eventually led to the utilization of this land for other crops.

The principal peach-growing center was in de Chelly and del Muerto Canyons (Pl. 3, *lower left*). According to the traditions of these localities peaches are of Hopi origin.

One day a strange woman came into camp with a baby on her back. She was a Hopi woman who had left her village because of starvation. She did not speak Navaho, so they conversed in sign language. The child was a girl. Finally, she and the child learned the language. The child grew up and married a Navaho. These Navaho had very poor bows made only of scrub oak. However, they did have poison for arrows, made of the stingers of different insects, which killed game right away. A little scratch was enough. Besides the corn that was raised, seeds and berries were gathered in the Canyons, especially sumac berries. This Hopi woman told where she was from, and from time to time the Navaho visited the Hopi, bringing back peach seeds. She had told them of this fruit being raised among the Hopi. The first peaches were planted in Canyon de Chelly at the White House. After a time more sites were cleared in de Chelly as far down as its junction with del Muerto. Del Muerto was so full of mountain lions, wolves, and bears that it was impossible to go up it. From

¹⁶ Watermelons and muskmelons the Navaho consider aboriginal plants.

the White House in de Chelly there was found a trail which led to the Antelope Ruin in del Muerto, where a man discovered an open place in the brush. With the increase of population the people began to spread. The leader of these people was of the Jemez clan. The old orchard at White House still belongs to the Jemez clan. The first peaches in del Muerto were planted at the Antelope Ruin (L.M.).

The introduction of peaches in the Nazlini region is late. They are said to have been brought there by the Red Soil clan shortly after the Navaho returned from Fort Sumner (S.W.).

Peach trees or orchards were planted in the early spring (L.M.) or late fall (S.W., G.H.). When planted in the spring the peach pits, which had been dried after the previous harvest, were cracked, the kernels taken out, coated with tallow and then planted. "They come up quickly if this is done" (L.M.). A hole a foot deep was dug and a handful of kernels was placed in it. If possible the trees were planted near a protecting cliff and in heavy soil. They must never be planted in alkali soil. Basins were dug around the plant and they were frequently watered by hand. If the trees were well cared for, that is, by weeding, watering, and keeping stock away from them, they would begin to bear in three or four years. The trees were trimmed only when the limbs died. These were cut off so that new growths would spring out.

There were two kinds of peaches, clingstones and freestones. The clingstones were considered best, as it was stated that they could be bruised and abused yet hold their flavor.

Two methods were employed to prevent frost striking the trees before they blossomed in the spring. The first was to tie to the tree those brands that had been dropped by the dancers at the termination of the Fire (Corral) Dance. The second method was to lay a burnt stone from a sweat house at the base of the tree.

Formerly, watchers were kept in the field almost continually, from the time the peaches reached the size of marbles until the harvest. They protected the crop from the inroads of foxes, chipmunks, rock squirrels, and rats. These animals were shot or caught in stone dead-fall traps. Later, the watchers also kept livestock out of the orchards.

The peach crop ripened about the end of September. The peaches were picked, carried from the orchard in burden baskets, stoned, and laid on the rocks to dry. Fruit that fell from the tree was never wasted, but was also cut in half and dried. If the peaches began ripening too fast neighbors were called in to assist with the work. It took ten days for the peaches to dry.

Dried peaches were sacked in buckskin or goat hide sacks (grain sacks are now used), then stored separately from other products in pits or storehouses. According to P.P. pits used for storing peaches were lined with rock.

As soon as the peaches were as big as marbles they were eaten. They were eaten raw or cooked at all subsequent stages.

The kernels were dried, but were not considered good eating. Their chief use was for polishing the cooking stones.

The peach crop was very important to the peoples of del Muerto and de Chelly. Because of the peculiar geography of their location, hunting, and later, sheep raising were restricted. To some extent they depended for meat food on what they could get through trade. Peaches were one of the articles which were most sought after by people elsewhere. Hence, as soon as the peach crop began to ripen, the Indians from the outside came to trade for them. (My interpreter said that some years ago he counted the wagons of fifty visitors between the mouth of Canyon de Chelly and its junction with Canyon del Muerto.) Formerly, meat was usually traded for peaches, but also baskets, leggings, and buckskins. Later sugar and coffee were added to this list. "We could always make good trades with peaches" (L.M.). Formerly a sack of peaches two feet high was worth a sheep. At present, a grain sack of ripe peaches is traded for a sheep: one of dried peaches is worth five sheep.

According to Navaho tradition, wheat was introduced shortly after 1680. The first wheat introduced was a smooth headed variety, bearded wheat coming in much later. Both kinds were spring wheat. Winter wheat is at present just getting a foothold on the reservation.

All methods of the corn growing complex were transferred to the cultivation of wheat. Wheat was planted in March or April, one to three acres to a family. According to two informants (C., M.H.), it was planted in rows and hills about three feet apart; others (S.C., P.P.) said the hills were only a foot apart. Wheat was usually planted along the foothills where the mountain streams could be used for irrigating. The Navaho said that wheat needed irrigating if they were to get a good stand: however, wheat was never planted on flooded ground.

After plows were introduced, the wheat was furrow-planted, or if a man was sure he could get water on the land, he would sow the wheat broadcast. Most people preferred planting in hills because of the convenience in weeding. Broadcasted fields had to be weeded by hand.

The wheat crop matured in July or August and was threshed and stored before the green corn crop matured. In harvesting, the heads were grasped in one hand and the stalk cut off just below the heads with a knife. The heads were then thrown into a blanket and carried to a plot of ground which had been cleared. A number of people sat around this pile and beat the wheat with clubs, or horses were walked over it to thresh it. It was winnowed first by throwing it up with the hands and finally by pouring it from a basket.

Scythes, introduced about 1890, were also used in harvesting wheat. Horses came to be used in threshing. They were ridden back and forth over the piles. These methods of harvesting and threshing are still used today. The winnowing process is the same as that practised formerly.

Like corn, wheat was stored in pits, ground into meal, and consumed in loaves (*le's'á'ń*), dumplings (*k'inešbíži*), and fried cakes (*náneska'dí*).

After the return to the reservation from Fort Sumner, the systematic introduction of American products began. The two earliest and most important were pumpkins and potatoes, which added substantially to the food supply. The elements of the squash culture

were transferred to the cultivation of pumpkins. With the introduction of potatoes American methods of cultivation seem to have also been introduced.

In quite recent times oats, alfalfa, and garden vegetables have been taken over with varying success.

SUMMARY

The agricultural system of the Navaho appears to have been fairly uniform throughout the area under consideration. The only definite exceptions which occurred were in the extreme western and eastern sections, the del Muerto, de Chelly, and Nazlini district, and the Cañoncito area. Apart from these aberrant cases, the variations noted were probably due to lack of corroborating data, individual emphasis, or geographical conditions.

The geographical element, while it did not affect agricultural procedure to any great extent, did affect the economic opportunities in different localities. Planting and harvesting in de Chelly, del Muerto, and Nazlini were always earlier than in other regions because of their protected locations. The next most favorable farming districts were along the San Juan River and the Chaco Wash. In the Chinle Valley crops matured earlier on the northerly farms because of their lower altitude. Correspondingly, in regions of higher elevation like Tesli, Lukachukai, Black Mountain, Crystal, Ganado, and Sawmill the season of planting and harvesting was later.

In the case of del Muerto, de Chelly, and in part Nazlini, an actual cultural variation had developed. The occurrence of such traits as a sun position calendar, private ownership of gathering patches, peach orchards, dry planting methods, a variant of the storage pit, prevalence of hand irrigation, peculiar treatment of melon seed, the failure to dry water-melons, are, in the author's experience (with the exception of the sun calendar which appears in one other locality), all restricted to this limited area. This, plus the fact that the district was assured of an adequate agricultural food supply but was dependent on trade for meat foods, sets them definitely apart from other regions. Furthermore, this separatism is recognized by the people themselves, both within and out of the Canyons. Some of these divergences can be directly assigned to peculiar geographical circumstances, others have Pueblo analogies; a few are undetermined. It is possible that, with more thorough inquiry, this section may prove to be one of the focal points of Pueblo intrusion.

Another clearly defined sub-area is that of Cañoncito. The characteristics of this area are negative ones. Superficially it appears Navaho. However, comparative isolation and long contacts and inter-mixture with adjacent Mexican communities have stripped it of all the refinements of Navaho culture. The lack is especially noticeable in ritualistic observances connected with agriculture and other phases of Navaho culture.

Less marked are the divergences in agricultural procedure of the eastern and western peripheries. Those that occur represent mostly accretions from surroundings Pueblos, primarily Jemez, Zuñi, and Hopi. Such diffusions include, in the east, the erection of brush wind breaks and sun shades beside plants, the use of a wooden fork for clearing weeds from the field, hanging gourd runners on poles to insure straight gourds, and the horse-hair corn kernel method of killing crows. In the west diffused items are the fork for clearing weeds and the brush sun shade and wind break.

AGRICULTURAL RITUAL

It is impossible to understand the function of agriculture in the life of the Navaho without the correlative ritual accompanying all phases of this occupation. While for the purpose of descriptive clarity, ritual and practical agricultural processes have been separated in this paper, no such division existed in the minds of the Navaho. For them, both phases were interwoven into a highly integrated whole.

Before taking up the actual ritual pertaining to agriculture, an attempt will be made to appraise the Navaho attitude toward ritual in general, toward ritual bearing specifically on agriculture, and to agriculture itself as a venerated procedure. The clues to these attitudes were found mostly in statements indirectly concerned with the occupation in question, for example, in the mythology, in general statements on ritual, and in the system of education with reference to agriculture.

All ceremonials, irrespective of their specific objective, were believed to benefit agriculture indirectly, and to be given for the common welfare of the community. In the observances, quasi-magical performances, and rituals going to make up the agricultural complex as a whole, several attitudes were portrayed.

In the observances of the nature of tabu, the attitude of the practitioner was hardest to grasp. For some Navaho there appeared to be no conscious connection between the observance of these restrictions and a specific objective. They were performed as a matter of routine without apparent connection with tangible results. In other cases, these same acts were consciously connected with an expected positive or negative effect.

In the quasi-magical acts and ritual performances, the ceremony was actually directed toward the crops and their success. There appear to be two fundamental ideas governing these ceremonies. In the case of the quasi-magic rites, there was primarily the belief that the characteristics inherent in one substance or object might be transferred to another. The basic process was that of contagious magic. In the ritual performances stress was laid more on the control of natural phenomena through the correct recitation of formulae. The two were in no sense independent and each in actual practice acted as a concomitant of the other.

From the point of view of Navaho psychology, success in any field appears to have been based on these ritual factors. This point was admirably portrayed in the volunteered statement of one informant at the beginning of his work with me. He began his account with, "I have always been a poor man. I do not know a single song (i.e., ritual)" (L.M.). It is impossible to state too strongly the belief as illustrated by that statement. It summed up in a few words the whole attitude of the Navaho toward life and the possibility of success. With respect to agriculture, it was not the vicissitudes of environment that made for successful crops or failures, but the control of these natural forces through ritual.

The attitude toward agriculture and especially toward corn was one of veneration. Whether this attitude applied specifically to corn, or to food in general, is difficult to understand. The word for corn also means "that which you eat." It would appear that corn had come to include symbolically all forms of food products, and in such capacity had come to be looked upon as the most venerated and sacred of plants. Aside from this feeling of veneration there appears to have been a genuine religious exhilaration associated with corn and its cultivation. Both these feelings were illustrated in the following volunteered statements:

Formerly no seeds of any kind were wasted. All seeds must be used in some way. This especially applies to corn, as it is very sacred. My granduncle used to tell me, "If you are walking along a trail and see a kernel of corn pick it up. It is like a child lost and starving." According to the legends corn is just the same as a human being, only it is holier. This is because you put a few kernels in the ground and they multiply a thousand fold.

When a man goes into a corn field he feels that he is in a holy place, that he is walking among Holy People, White Corn Boy, Yellow Corn Girl, Pollen Boy, Corn Bug Girl, Blue Corn Boy, and Variegated Corn Girl. If your fields are in good shape you feel that the Holy People are with you, and you feel buoyed up in spirit when you get back home. If your field is dried up you are downhearted because the Holy People are not helping you (S.C.).

The corn fields are holy places because you plant the seed and it grows. The Yei make it grow (K.).

You raise your corn just as if it were a baby. You sing Holy Songs in your home and in your corn field. Your corn field is a Holy Place like your home (M.L.).

A man would walk through his field and think of what a good crop he was going to get. He would know that the Talking God knew what was in his mind and that his crop would be a success (M.H.).

Agriculture is a holy occupation. Even before you start to plant you sing songs. You continue this during the whole time your crops are growing. You cannot help but feel that you are in a holy place when you go through your fields and they are doing well. It is the same way when you find a particularly productive patch of wild plants (P.P.).

In the educational system, another attitude of the Navaho toward agriculture was brought forth. The stress in this case was placed more on the economic value of the occupation to the group. It was described as a pursuit by which social status was gained and was placed before ethical ideals in importance. Also, as the following statements bear out, agriculture appears to have been thought of as a pleasant rather than arduous task.

As a boy I looked on working on the farm as fun. The other young boys I knew felt the same way and took pride in their father's fields. When I got my own farm I liked to work, but I lacked implements. This lack of implements is present today.

A man instructs his son how to farm and the best methods to use. A wise man teaches his sons and daughters to farm, and in that way the whole family takes an interest in the field. Especially is this true of the sons. They were made to feel that farming was a pleasant occupation and that every-

one felt that some corn should be raised. People like to farm. At present people should occupy themselves more with farming, as it is the solution of their problems (C.).

In my youth a man would get his children around the fire at night and instruct them about corn. He would say corn is a food. It needs a great deal of care and a great deal of attention. It is very important to the family. It is very necessary for the life of the family. As long as you live corn is to be a food, and that is the reason you should not be lazy in tending it. That is what my father and mother told me, so now I instruct my children that way. The old folks would end their talks by saying to their children, "After you learn to take care of your fields and stock, you must learn not to tell lies, you must learn not to cheat because if you should do these things you will disgrace your own people, and you will be looked down upon as not as good as an ordinary person, and people will have no respect for you" (S.C.).

In the old days people used to talk to their children. They would say to the boy, "If you are not strong you will not be able to plant a large field. You must do your share. You will have to plant by yourself and work all day without food. The man who eats and becomes thirsty is not strong" (M.H.).

The religious sanction for agriculture is well formulated. The mythology and chant legends are rich in reference to the whole agricultural process. A variety of legends give episodes or accounts of the origin of planting and harvesting and these are continually referred to in order to account for present day behavior.

The following mythical account was obtained:

When the first Navaho started living in this country, they lived at the following places: El Huerfanito and Huerfano Peaks (Gobernador Knob ?) and at a place called *cé'yi'i*. The very first Navaho were in this region. The district as a whole was called *dinétah*.

The people picked a level flat where the water would spread out. This field was called *dá'ák'eh xazlá* which means "oblong field," a narrow corn field. First they had to hunt for implements and material to make them. Changing Woman, who sent them from the west, had instructed them how to farm and they followed her instructions. She taught them farm songs. They had to get hard wood for tools. One hard wood is greasewood; another is cedar.

For four years the Navaho planted in a set way; then everyone planted as they wished. In the beginning four hills of corn were planted in the east, starting in the southeast and running north. These four hills were of white corn. Next, four hills were planted in the south. The first of the four hills was planted in the southwest and the next three east of it. These hills were of yellow corn. After this, four hills of blue corn were planted in the west, beginning at the northwest and running south. Finally, four hills of round corn were planted in the north, starting from the northeast and going toward the west. This does not agree with the directional color association in rituals. Then following the same order, and starting at the southeast hill, each section of the square was planted twelve rows wide. As before, white corn was planted in the east, yellow in the south, blue in the west, and round corn in the north.

This formed the center portion of the field. Then twelve men started from the east and went sunwise [clockwise] and planted corn in any color. Twelve digging sticks were used. The first six men carried greasewood digging sticks. The other six men carried cedar digging sticks. They circled the field twelve times. Then the field was planted.

In about four days the corn sprouted. Today the quickest corn sprouts in six days.

When the weeds came up they were plucked out by hand. This was not fast enough, they had to make something to use which was quicker. First they used the shoulder blade of a deer. Then the shoulder blade was put on a handle. This hoe was used in a squatting position.

At this time the corn was husked right on the plant. The ear only was taken and the plant was left intact. This corn was not put in a pit; it was simply stacked in the hogan in piles, butts and tips alternating.

This field was a communal field. All labor was communal and everyone had an equal share in the crops. October was the month when all crops were divided; then all the families shared. Today October is the harvest time and a time for ceremonies and dancing (C.).

A quite similar but more detailed mythological reference to the origin and technique of farming occurs in the legend of the Night Chant as the myth of the Whirling Logs.¹

These attitudes took concrete form in a great number of observances, beliefs and ceremonies. Before enumerating these rituals and observances, it is necessary to point out that, with few exceptions, they were all exoteric in character. This was also true of rituals dealing with domestic activities. In this they differed from the great mass of Navaho ritual, as exemplified by the curing, hunting, war, and trading ceremonies, which were esoteric and controlled by one man, or at most by a small group of highly trained and specialized individuals. While losing none of their religious character, agricultural rituals were considered in the light of folk knowledge. This knowledge was thought of as being as much a part of the agricultural process as was planting and, in this sense, was distributed throughout the whole group.

Variations from this norm were found in the Rain, Lightning, Hail, Wind, Water, and Blessing Way ceremonials. With these ceremonials, the familiar ritual pattern of the Navaho asserted itself and a shaman, a specialist in these esoteric rituals, conducted the proceedings for the benefit of another individual or group. However, these ceremonials were necessitated only when exoteric observances failed, under special conditions and at widely varying intervals. They formed a marginal and incidental part of the agricultural ritual complex and, as such, their divergence cannot be considered as affecting the norm.

OBSERVANCES AND BELIEFS

Most of the observances and beliefs had a negative or tabu quality. They applied to various phases of agricultural and climatic phenomena. Again, where specific reference was made to plants, it was always to corn in its symbolic sense of "that which you eat."

During the planting, according to one informant (C.), no pregnant woman, nor man whose wife was pregnant, was allowed to work in the fields. He believed that if they participated in the planting, though the corn came up, it would never be healthy. Other informants (S.C. and P.P.) stated that the corn would not come up, and that if such a woman came into the field while the corn was young, it would wither, but if the corn had matured

¹ Matthews, *The Night Chant*, 187-92.

no bad effects would follow. Another reason given for banning pregnant women from the field was as follows:

A child, before its mother gives birth to a second child, will act childish and cry all the time. If such a woman went into the fields the roots of the corn and tendrils of the vines would act just as the child and would make no effort to grow (P.P.).

Two other informants (M.L., M.H.) stated that women about to give birth were kept from the field because if any of the amniotic fluid touched the field the corn would die. Another belief was that if women in such condition worked in the field each husk would contain one large and one small ear (T.W.).

No menstruating woman was allowed in the field. It was believed that her presence would prevent the seed from growing, cause the plants to dry up, and the soil to turn red. In recent time this particular tabu has not been too rigidly observed.

It was permissible to have sexual intercourse in a corn field as, according to most Navaho, this did not harm the corn in any way. An exception to this was P.P. who placed such an act in the same category with a perversion transgression.

He said, "In all your ceremonies you mention white corn first (White Corn Boy), yellow corn next (Yellow Corn Girl), then blue corn (male), then mixed corn (female). After these Pollen Boy and Corn Beetle were mentioned. All these are Holy Beings. If such an act took place in the corn field White Corn Boy and Yellow Corn Girl would become jealous and cause trouble (P.P.).

The death of the owner of a field was not considered "bad luck" except that the crop might go untended and suffer for that reason. Neither was it believed that misfortune would follow if a person in ill health worked in the field.

It was believed that if the crop was planted with a digging stick it would be healthier than if planted with the tools of the white man.

While in the field, an individual was careful not to sing any songs but the Corn or Farm songs (see p. 61), else the corn would not prosper.

Other tabus were believed to protect the crops from insects and rodents. If ears which had worms in them were chosen for seed, it was believed that they would cause worms to attack the corn the following year. Likewise, as soon as the pollen appeared on the corn it was shaken off to prevent it from turning into worms.

Shinny played in a corn field was believed to bring rodents or sand storms.

Other observances were concerned with the weather. One informant stated that, "winter ceremonials must never be held in summer because they brought on early frosts, worms, and bugs" (G.H.). Another explanation was that the dancers in these winter ceremonials tamped the ground hard during the dances, and this was transferred to the fields, so that the corn could not break through the hard ground (A.S.). Today this tabu still holds, and the Navaho will only perform these dances in summer if they are a great distance from any corn fields.

Early frosts were also thought to be caused if Emergence tales were related during the

summer, if a man plugged his water jug with corn husks during the growing season of the corn, if a man ate from a partially cooked ear of corn and put the remainder back into the fire to finish cooking, or if he drank water from a melon rind.

Dumplings could not be cooked in the corn field until after the harvest was finished, else a hailstorm would hit the field.

It was believed lightning would strike the field if food was stirred with a knife.

MINOR RITUALS

A series of quasi-magical acts were somewhat more complex. These differed from the observances noted above in that they included a more active and directive participation of the individual towards a positive result.

The pre-planting practices of treating seeds are examples of this. There was applied to the seed some drought resistant plant, ground stone, red ochre, or some material associated with water. The most common method of treating corn before planting was to sprinkle it with water in which the leaves of cedar, spruce, piñon, and greasewood had been soaked. Sometimes the leaves of these plants were chopped up or rubbed in the hands and then mixed with the corn kernels. These plants are all evergreens and drought resisting. These properties were thought to be transferred through the seed to the corn plants.

Another common practice was to mix ground "mirage stone" with the kernels. This "made the kernels hard," and the plants "healthy," "drought resistant," and "prolific."

Wild onion was chopped up and put in water, into which the seed was put to "increase the crop," "keep evils away," and "enable it to withstand cold."

At times the kernels were also "treated" by the sun. When a person was ready to plant he would take his seed to the field and lay it out in the sun. Then planting was begun and the seed was taken from this pile as needed. "This gave the sun a chance to treat the seed for the people" (L.H.).

Two methods of treating corn kernels were believed to insure rain for the crops. One was to collect mud balls from the washes or "mud from beneath water" and mix this with the seed. The other was, when planting, to place a few red striped kernels of corn with the seed of each of the other colors of corn.

When storing the harvest, a stalk of corn having two ears was placed in the bottom of the storage pit to insure a healthy crop for the following years.

At Cañoncito the seeds were not treated in any way.

Like corn, watermelon seeds were treated in a variety of ways. Along the San Juan River they, as well as corn seed, were customarily treated with the leaves of a drought resistant plant such as greasewood, cedar and wild onion. The informant from this area denied that red ochre was ever used on melon seeds. Generally, throughout the rest of the region, the seeds were soaked in a solution of red ochre, which was believed to give the melons a good color. The seeds were also soaked in a solution of a weed called t'éh ži-yání. This plant bears a great many berries, and it was thought that this character was transferred to the melon seed which would, as a result, bear accordingly.

In the Canyons del Muerto and de Chelly a variety of yucca imported from the White Mountain Apache, was mixed with the melon seed. "This gave the melons a sweet flavor" (L.M.).

In recent times syrup and candy have been mixed with the melon seeds to make the melons sweet. Canned grapes were kneaded like dough and applied to the seed to give the melons a good flavor.

The seeds of the muskmelon were treated exactly like watermelon seed.

Like melons, squash seeds were placed overnight in a solution of red ochre or roots of the boxthorn (*Lyceum pallidum*) to give the mature squash a good color. Along the San Juan, leaves of cedar, spruce, or greasewood were applied to make the seed drought resistant.

In all areas other than the San Juan River district, it was denied that any treatment was given to bean seeds before planting. On the San Juan the beans, like all other seeds, were treated with leaves of drought resistant plants.

To prevent early frosts, to prolong the warm season, and to keep the plants from freezing, burnt stones from the sweat houses were placed in the fields or at the base of fruit trees. Cedar brands used in the Corral (Fire) Dance, were, on occasion, tied to the peach trees to prevent killing frosts.

To protect the corn from the inroads of rabbits, the plants were sprinkled with broth made from deer or mountain sheep.

Beside the practices mentioned above, which were an everyday adjunct of agriculture, most Navaho farmers had at their command several small ceremonies which were utilized whenever needed. Some of these were employed in ridding the crops of insects; others were used in case of drought.

The rituals connected with ridding corn of cut worms represent one of the best examples of personal variation and involution.

The "Cliff Dweller sherd" practice was prevalent throughout the area under consideration. When cutworms bothered the corn, farmers caught one in the field and carried it some distance away. The worm was then placed on a sherd of Cliff Dweller pottery. Pollen and pulverized "jewels" were sprinkled on it. It was called by its "secret" name and told to return to its mother, from whence it came, and not to bother the field any more. The sherd was then placed on the ground. The direction in which the worm crawled on leaving the sherd predicted the success of the procedure. If the worm started away from the corn field it was a sign that all the worms would leave. Contrarily, if the worm turned in the direction of the field it showed that the ceremony had been ineffective.

There are individual variations and elaborations that have crept into this ceremony. Two informants (L.H. and P.P.) stated that the sherd had to be taken from a ruin, and that when the worm was placed on it, it was taken back to the ruin again. Here a ceremony was performed by a shaman. Two other informants (C. and S.C.) stated that the worm was merely placed on the sherd, which was then deposited on the ground at some distance

from the field. Other individual practices consisted of throwing the worm and sherd into the ruin (M.L.), and placing the sherd on top of the worm (P.P.).

The Navaho believe that this ceremony was taken over from the Pueblos. "This is really a ceremony belonging to the Hopi people. It is in the myth of the Twins that it originated with the Hopi people" (S.C.).

Related to the above were other rites. The farmer procured an arrowhead and taking a sherd and worm walked toward the east about a mile. He placed the worm on the sherd facing east. Then the man sat down and began to saw the worm very gently with the arrowhead. As he sawed the first time he said "ha ha," the second and third times "ha ha ha." On the fourth time he said "ha ha ha ha," and cut off the worm's head. Then the worm was removed from the sherd and its head placed toward the east while saying, "Go back to your mother, White Shell Woman, from where you came." (A long time ago when White Shell Woman was alive worms were sent to the field by the winds [M.H.].) After this the man immediately went home.

Another related method of ridding the fields of worms was given by M.M. Four worms were gathered and turned inside out over twigs from the "slim" sunflower. These were taken to the kiva in a cliff ruin and stuck into the earth with the worms level with the ground. The worms were then covered with a sherd. After this four circles were drawn around the sherd with an arrowhead and the ceremony was complete.

Two other methods of ridding the fields of cut worms were practised at Chaco Canyon and Mariano Lakes. A few worms were gathered and placed in a container. The farmer took these to the mountains and hunted until he found a mountain mahogany which had a "caterpillars nest" in its braches. The worms were placed in this web. "Very soon the worms will disappear from your fields" (T.). No prayer was recited.

In a second method worms were caught, impaled, and turned wrong side out over small twigs. These twigs were then placed beside the plants and were believed to cause the remaining worms to leave. This same custom was also practised at Cañoncito and Ramah. However, in the latter district a sunflower twig was always used.

In de Chelly and del Muerto, beside going through the procedure with the Cliff Dweller pottery, the worms were picked off and drowned, or water was poured around the base of the plants. The latter method hardened the soil and killed the worms. A good rain was said to have the same effect. At Fort Defiance ashes were mixed with the water and then poured on the base of the plants.

Another method of getting rid of cutworms was also in vogue around Manuelito (O.W.K.A.M.). A few of the worms were gathered from the field and placed in the hot ashes of the fire. This was believed to cause the remaining worms in the field to leave. Those that were left were supposed to become withered.

Several widely disseminated rituals were concerned with rain-making. These, as opposed to the Rain Ceremony (p. 71), were performed by a single individual for his own benefit.

According to one informant (C.), if a man's corn was drying up he took abalone, turquoise, white shell, jet, corn pollen, "water pollen" (cat-tail pollen), "water iron ore" (from the edge of the ocean), and "blue pollen" (the petals of the violet) and put these together for an offering at a perennial spring.

The offering was to the ones who had charge of the rain, usually one of the Thunder People. The individual pleaded with the beings and prayed for rain. If the beings heard his prayer it would be answered by rain. Formerly this method was more successful than it is today (C.).

Two other informants (P.P., M.L.) stated that there were several well known shrines at which offerings for rain were made. Among these were Tunnel Springs, Chuska Peak, and the San Francisco Mountains. In the east the Navaho used those shrines which belonged to the Zuñi.

In another of these ceremonies the wind is prayed to. The wind is believed to be the messenger between the earth beings and all the things and beings invisible to man. Pollen was offered to the wind, while the man said, "Ask the one who is in control to send a little rain. As you know, my crop is drying up. Send just a little water" (S.C.).

Some indication of the origin of these rain rituals is suggested by the statement of one informant. "In case of drought we did something like the Zuñi and Hopi did. We made offerings of 'jewels' at streams and sang and prayed for rain" (C.).

There was another minor ritual, which was performed in case lightning struck the corn in the field. According to one informant (S.C.), thunder and lightning were looked upon as Holy Beings and no attempt was made to prevent them from striking. Any measures used to control them were thought to make them worse. They were believed to have the human attribute of perverseness. However, that there were attempts to ward off lightning is clear from the statements of other men (S.C., T.M., T.O.M.C., M.L.). Some told of songs which were formerly sung to keep lightning from striking the fields; the others said that a variety of wild gourd (ndilkal) was placed in hogans as a protection against lightning. The songs commanded the lightning to remain high and not hit the earth. "After singing these the men would talk to the lightning as if it were a small boy, telling it not to be silly." The greatest danger was considered to have been at the time of the first summer rains. If one of these rains stopped suddenly, it was believed that a man or sheep had been struck.

Unlike the previously mentioned observances and rituals, the Lightning Ceremony could be performed only by a so-called chanter or shaman. If the corn field was struck by lightning this ceremony had to be performed before any of the produce could be used. A shaman was immediately hired to give the ritual. He might be a chanter of the Blessing Way, Wind Way, Chiricahua Way, or Shooting Way ceremonies.

If a Shooting Way chanter was called in, he proceeded to the corn field and made a deposit of "jewels" at the stalk of corn which the lightning had struck. Then he offered prayers and songs pertaining to lightning. After this he set aside three or four plants near the one struck and drew a circle around these with a bullroarer. This completed the cere-

mony. The plants thus marked off, and the plant which was struck, were allowed to mature and go to waste. They were never used as food. Occasionally some "strong" shaman of the Shooting Way ceremony would take a few kernels from them for medicine, but only from the plants set aside, never from the stalk which had been struck.

This ritual appears to have been common everywhere except at Cañoncito. There the corn from fields struck by lightning might be used for food after the lapse of a few days. "You waited until the smoke had cleared from the field, otherwise you would contract tuberculosis" (W.P.).

If the corn field was damaged by hail no ceremony was performed. The farmer used whatever remained of the crop. However, rituals to prevent crop damage by hail were performed. When a hail storm threatened the man went to his field and sang songs. Then he took some tałáh xałá "mud from underneath water" (this mud was obtained from below the salt crust in the center of the salt pit near Zuñi), ceremonial salt (áshj̄h biži) and the first few hail stones that hit the field and put them in his mouth. He blew this mixture first toward the east, then toward the south, west, and north. "Then it would begin to rain instead of hail" (P.P.).

Another related practice, according to M.L., was to sing the songs and exhale a "poof" in the direction from which the storm was coming. "This prevented the hail stones from being large." Hail Way chanters were hired to perform these rites by those who did not possess the esoteric knowledge (T.).

No record of the above practices was obtainable from the Cañoncito district.

If wind was damaging the crop, it was called by its "secret" name and told to leave the corn alone. In extreme cases of damage by wind or flood, Wind and Water Way chanters were hired to protect the crops. These were specialized esoteric rituals.

MAJOR CEREMONIES

Three principal major ceremonies occurred in connection with agriculture: the Seed Blessing Ceremony, the Rain Ceremony, and the Corn or Farm songs. The first two were typical esoteric rituals conducted by a shaman.

FARM SONGS

Contrarily, the Farm songs were the property of the entire group. "A man should not keep these secret, because they referred to food and were essential to the life of the people. These songs would be told to anyone who asked for them" (S.C.). As a rule a man did not pay to be taught them. "These songs were in the same class of such everyday practices as praying when ashes were scraped over a hole left by a cooking pot, praying when a stirring stick was removed from a cooking pot, or saying, 'May they be lively' when you rubbed your legs after a meal" (S.C.).

The myth background of these songs is given by Matthews in *Songs of Sequence of the Navajos*. In this connection, it must be said that the Navaho distinguished between songs in the myths and ceremonies, and the actual Corn or Farm songs applied to agriculture. The

myth and ceremonial Corn or Farm songs were not the same as those used for agricultural purposes.

The burden of these Farm songs covered the agricultural processes from planting until harvest. Theoretically, the songs should be sung at four day intervals; actually, the several sets were sung when the stage of maturity of the corn reached the right point for the song. Hence the songs did not form a continuous ritual, but they are thought of in that way by the Navaho.

When the farmer dug the first hole in the field at the time of planting, he faced his hogan and sang:

I wish to put in
In the middle of the wide field
I wish to put in
White corn I wish to put in
Soft goods and hard goods with I wish to put in
Good and everlasting one [the corn]
I wish to put in

I wish to put in
In the middle of the oblong field
I wish to put in
Yellow corn I wish to put in
Hard goods and soft goods with I wish to put in
Good and everlasting one
I wish to put in

Its track leads into the ground
In the middle of the wide field
Its track leads into the ground
White Corn Boy his track leads into the ground
With soft goods his track leads into the ground
With hard goods his track leads into the ground
Good and everlasting one its track leads into the ground

Its track leads into the ground
In the middle of the oblong field
Its track leads into the ground
Yellow Corn Girl her track leads into the ground
With hard goods her track leads into the ground
With soft goods her track leads into the ground
Good and everlasting one its track leads into the ground

The farmer then proceeded with the planting. When the field was entirely planted he sang:

They have gone into the ground [the seeds]
In the middle of the wide field

They have gone into the ground
 White Corn Boy he has gone into the ground
 With soft goods he has gone into the ground
 With hard goods he has gone into the ground
 Good and everlasting ones they have gone into the ground

They have gone into the ground
 In the middle of the oblong field
 They have gone into the ground
 Yellow Corn Girl she has gone into the ground
 With hard goods she has gone into the ground
 With soft goods she has gone into the ground
 Good and everlasting ones they have gone into the ground

After planting, it was customary for a man to visit his field every day and walk through it and around it. On the fourth day he dug out one of the hills of corn and observed that the corn had sprouted. (This is only theory: actually it was not until the sixth day or later that the corn sprouted.) He took one of these sprouted kernels of corn, again faced towards his hogan, and sang:

It has started both ways [meaning both the roots and the stalk are growing]
 In the middle of the wide field
 It has started both ways
 White Corn Boy he has started both ways
 With soft goods he has started both ways
 With hard goods he has started both ways
 Good and everlasting ones they have started both ways

It has started both ways
 In the middle of the oblong field
 It has started both ways
 Yellow Corn Girl she has started both ways
 With hard goods she has started both ways
 With soft goods she has started both ways
 Good and everlasting ones they have started both ways

After another interval (theoretically four days) the man again walked about through the field. He observed that a few of the plants were beginning to appear above ground. While he was walking around on this inspection he sang:

Now it has come up
 In the middle of the wide field
 Now it has come up
 White Corn Boy now he has come up
 With soft goods now he has come up

With hard goods now he has come up
 Good and everlasting one now it has come up

Now it has come up
 In the middle of the oblong field
 Now it has come up
 Yellow Corn Girl now she has come up
 With hard goods now she has come up
 With soft goods now she has come up
 Good and everlasting one now it has come up

The next period of growth was when the corn had begun to appear above the ground in all parts of the field. This was supposed to be four days after the first plants showed above the surface. The farmer made another trip to his field at this time, and while walking around it sang:

1. Now one is green
 In the middle of the wide field
 Now one is green
 White Corn Boy now one is green
 With soft goods now one is green
 With hard goods now one is green
 Good and everlasting one now one is green
2. Now one is green
 In the middle of the oblong field
 Now one is green
 Yellow Corn Girl now one is green
 With hard goods now one is green
 With soft goods now one is green
 Good and everlasting one now one is green
3. Now two are green
 In the middle of the wide field
 Now two are green
 White Corn Boy now two are green
 With soft goods now two are green
 With hard goods now two are green
 Good and everlasting ones now two are green

Stanzas 4, 6, 8. Substitute the alternations of Stanza 2, i.e., oblong field, Yellow Corn Girl, hard goods mentioned before soft goods.

5. Now three are green
 In the middle of the wide field
 Now three are green
 White Corn Boy now three are green

With soft goods now three are green
 With hard goods now three are green
 Good and everlasting ones now three are green

7. Now it is green [the whole field is green]
 In the middle of the wide field
 Now it is green
 White Corn Boy now he is green
 With soft goods now it is green
 With hard goods now it is green
 Good and everlasting ones now they are green

The next visit to the field was made (theoretically) on the sixteenth day. The man first walked around his field in a clockwise direction and then walked through the field. It was compulsory that the whole field be covered during the walk. As he walked he sang:

My corn is arising
 My corn is continually arising
 In the middle of the wide field
 My corn is arising
 White Corn Boy he is arising
 With soft goods my corn is arising
 With hard goods my corn is arising
 Good and everlasting ones they are arising

Repeat with alternations given above.

The fifth set of songs were sung (theoretically) on the twentieth day. As before, the owner went to the field and while walking around sang:

My corn loves me
 In the middle of the wide field
 My corn loves me
 White Corn Boy he loves me
 With soft goods my corn loves me
 With hard goods my corn loves me
 Good and everlasting ones they love me

Repeat with alternations.

By the twenty-fourth day the corn was supposed to have grown high enough so that when the wind blew the stalks back and forth they touched each other. At this stage in the development of the crop the following set of songs was sung:

My corn embrace each other [the plants touch each other in the wind]
 In the middle of the wide field
 My corn embrace each other
 White Corn Boy embrace each other
 With soft goods my corn embrace each other

With hard goods my corn embrace each other
 Good and everlasting ones they embrace each other

Repeat with alternations.

In the process of growth the corn would grow unevenly. Some of the plants were much higher than others and would cast shadows, the smaller plants would not. The set of songs sung at the seventh interval (supposedly the twenty-eighth day after planting) referred to this uneven growth.

My corn casts darkness here and there [casts shadows]
 In the middle of the wide field
 My corn casts darkness here and there
 White Corn Boy he casts darkness here and there
 With soft goods my corn casts darkness here and there
 With hard goods my corn casts darkness here and there
 Good and everlasting ones they cast darkness here and there

Repeat with alternations.

On the theoretical thirty-second day the eighth set of songs was sung. By this time the stand of corn was fairly even all over the field which, because of this, was in shadow. The songs refer to that fact.

My corn causes darkness
 In the middle of the wide field
 My corn causes darkness
 White Corn Boy he causes darkness
 With soft goods my corn causes darkness
 With hard goods my corn causes darkness
 Good and everlasting ones they cause darkness

Repeat with alternations.

The next series of songs dealt with the corn coming into silk. These songs told how at first only one stalk came into silk, followed gradually by the rest of the field, and how the silk turned white in its final stage of maturity.

1. One has turned red [come into silk]
 In the middle of the wide field
 One has turned red
 White Corn Boy he has turned red
 With soft goods one has turned red
 With hard goods one has turned red
 Good and everlasting one it has turned red

Stanzas 2, 4, 6, 8, 10. Repeat with alternations.

3. Two have turned red
 In the middle of the wide field
 Two have turned red

White Corn Boy two have turned red
 With soft goods two have turned red
 With hard goods two have turned red
 Good and everlasting ones two have turned red

5. Three have turned red
 In the middle of the oblong field
 Three have turned red
 White Corn Boy three have turned red
 With soft goods three have turned red
 With hard goods three have turned red
 Good and everlasting ones three have turned red
7. All have turned red
 In the middle of the wide field
 All have turned red
 White Corn Boy all have turned red
 With soft good all have turned red
 With hard goods all have turned red
 Good and everlasting ones all have turned red
9. All have turned white [this refers to the final stage of the silk]
 In the middle of the wide field
 All have turned white
 White Corn Boy all have turned white
 With soft goods all have turned white
 With hard goods all have turned white
 Good and everlasting ones all have turned white

Songs were next sung when pollen appeared on the corn. As the farmer went through the field and shook the stalks to dislodge the pollen, he sang:

1. Nicely one shakes it off
 In the middle of the wide field
 Nicely one shakes it off
 White Corn Boy nicely one shakes him off
 With soft goods nicely one shakes it off
 With hard goods nicely one shakes it off
 Good and everlasting one nicely one shakes it off

Stanzas 2, 4. Repeat with alternations.

3. Its body one shakes off
 In the middle of the wide field
 Its body one shakes off
 White Corn Boy his body one shakes off
 With soft goods its body one shakes off

With hard goods its body one shakes off
 Good and everlasting ones their bodies one shakes off

When the corn matured in the fall, and the man was ready to begin harvesting, he went to the center of the corn field and laid out four corn stalks, one in each direction. On these were piled the harvested ears. While he was pulling and laying out the four stalks he sang the following song. The song referred to the fact that, as the man stepped on the stalks to bend them over before he pulled them, they gave out a crackling sound.

From my toes they give out a sound
 In the middle of the wide field
 From my toes they give out a sound
 The white corn from my toes it gives out a sound
 With soft goods from my toes they give out a sound
 With hard goods from my toes they give out a sound
 Good and everlasting one from my toes he gives out a sound

Repeat with alternations.

As soon as this was finished the farmer was ready to commence harvesting the corn. Another set of songs was now sung telling of the various steps in the gathering of the corn. The first set told of stepping on the stalks prior to removing the ear.

From the tips of my toes they give out many sounds
 In the middle of the wide field
 From the tips of my toes they give out many sounds
 The White Corn from the tips of my toes it gives out many sounds
 With soft goods from the tips of my toes they give out many sounds
 With hard goods from the tips of my toes they give out many sounds
 Good and everlasting one from the tips of my toes he gives out many sounds

Repeat with alternations.

The next set referred to the noise made as the ear was pulled off the stalk.

1. From my finger tips it gives out a sound
 In the middle of the wide field
 From my finger tips it gives out a sound
 The white corn from my finger tips it gives out a sound
 With soft goods from my finger tips it gives out a sound
 With hard goods from my finger tips it gives out a sound
 Good and everlasting one from my finger tips he gives out a sound

Stanzas 2, 4. Repeat with alternations.

3. From the tips of my fingers they give out many sounds
 In the middle of the wide field
 From the tips of my fingers they give out many sounds
 The white corn from the tips of my fingers it gives out many sounds

With soft goods from the tips of my fingers they give out many sounds
 With hard goods from the tips of my fingers they give out many sounds
 Good and everlasting one from the tips of my fingers he gives out many sounds

The next set of songs was sung when the corn was being carried in a blanket and dumped in the center of the field.

It rolls
 In the middle of the wide field it rolls
 The white corn it rolls
 With soft goods it rolls
 With hard goods it rolls
 Good and everlasting one he rolls

Repeat with alternations.

As the corn pile increased in height and the corn pile began to spread out, the song above was supplanted by the following:

It increases and spreads
 In the middle of the wide field
 It increases and spreads
 The white corn it increases and spreads
 With soft goods it increases and spreads
 With hard goods it increases and spreads
 Good and everlasting one he increases and spreads

Repeat with alternations.

When the field had been stripped and all the corn was piled, the following songs were sung:

My corn collects together
 In the middle of the wide field
 My corn collects together
 The white corn collects together
 With soft goods my corn collects together
 With hard goods my corn collects together
 Good and everlasting one he collects together

Repeat with alternations.

The husking of the corn was the next part of the agricultural process. The songs sung during this proceeding referred to the noise made by the husk as it was pulled off.

1. Now from my finger tips it gives out a sound
 In the middle of the wide field
 Now from my finger tips it gives out a sound
 The white corn now from my finger tips it gives out a sound
 With soft goods now from my finger tips it gives out a sound

With hard goods now from my finger tips it give out a sound
 Good and everlasting one now from my finger tips he gives out a sound

Stanzas 2, 4. Repeat with alternations.

3. Now from my finger tips it gives out many sounds
 In the middle of the wide field
 Now from my finger tips it gives out many sounds
 The white corn now from my finger tips it gives out many sounds
 With soft goods now from my finger tips it gives out many sounds
 With hard goods now from my finger tips it gives out many sounds
 Good and everlasting one now from my finger tips he gives out many sounds

The final set of Farm songs was sung when all the husked corn had been spread out to dry.

At my entrance they are gathered
 In the middle of the wide field
 At my entrance they are gathered
 White corn at my entrance it is gathered
 With soft goods at my entrance they are gathered
 With hard goods at my entrance they are gathered
 Good and everlasting one at my entrance he is gathered

At my entrance they are gathered
 In the middle of the oblong field
 At my entrance they are gathered
 Yellow corn at my entrance it is gathered
 With hard goods at my entrance they are gathered
 With soft goods at my entrance they are gathered
 Good and everlasting one at my entrance he is gathered

At my entrance by means of the corn a beautiful sight spreads out
 In the middle of the wide field at my entrance by means of the corn a beautiful sight
 spreads out
 The white corn at my entrance by means of it a beautiful sight spreads out
 With soft goods at my entrance by means of the corn a beautiful sight spreads out
 With hard goods at my entrance by means of the corn a beautiful sight spreads out
 Good and everlasting one by means of him at my entrance a beautiful sights spreads out

At my entrance by means of the corn a beautiful sight spreads out
 In the middle of the oblong field at my entrance by means of the corn a beautiful sight
 spreads out
 The yellow corn at my entrance by means of it a beautiful sight spreads out
 With hard goods at my entrance by means of the corn a beautiful sight spreads out
 With soft goods at my entrance by means of the corn a beautiful sight spreads out
 Good and everlasting one by means of him at my entrance a beautiful sight spreads out

SEED BLESSING CEREMONY

The Seed Blessing ceremony was widely practised (P.P., M.M.). This magical treatment of the seed preparatory to planting was communal in its scope

If there was a Blessing Way chanter in the locality, when the time of planting approached, he sent word of the ceremony to the surrounding families. These families brought ears of corn to be used for seed. They might be of any color. Food was also brought in order that a feast could be held during the gathering.

When the chanter was ready to start the ritual the corn was brought into the hogan and piled upon white buckskins (usually two). Ground male and female mirage stone was then sprinkled on the pile. (The white stone is female, the stratified male.) Next the corn was covered with a sacred buckskin (see p. 132). When this was done the chanter began the one night Blessing Way ceremony. This was similar to the ordinary Blessing Way chant but shorter in duration.

During the singing any one who wished might approach the corn, take out his pollen, sprinkle it away from him and then toward him, and pray. The prayers were individual but conformed to a general pattern. An example is as follows:

May I have a good crop
May it rain after I plant
That I may have a good crop.

The singing and the prayers continued until dawn. Then each person departed with the corn which he had brought. Four days after the ceremony the blessed ears were taken to the center of the field, shelled, and sprinkled with mirage stone. After this the field might be planted.

This ceremony was thought to insure a good crop and to prevent the prayers of an evil or jealous person from damaging one's field. The chanter received no pay for the ceremony, performing merely for the general community welfare. However, such ceremonies were usually followed by communal planting, and in this case the chanter's field was planted first, the fields of the others in their turn.

RAIN CEREMONY

Successful growth of the crops depended on most of the year's rainfall coming in the three summer months. At best, the growing season for the corn crop was short, so that any variation of the rainfall from the norm was a matter of vital concern. This gave rise to a number of beliefs concerned with the prediction of the weather.

The moon was, according to the Navaho, the most reliable of all rain indicators. At the beginning of the month, if the crescent moon was lying on its back with the prongs upward, it was considered a sign that it would be a bad month with no rain. If the crescent was tilted it was a good prediction of rain. "The moon is a funny thing. It is always changing its size and moving around. I wonder if it rides a horse" (C.).

Rings around the sun were believed by some to foretell rain; others considered this a

sign of a coming sand storm. If there were two red spots on either side of the sun (parhelia) there would surely be a sand storm. If the sun looked smaller than usual, snow would follow. "The sun looks as if it were frozen" (C., K.).

Dampness in the air and a hazy horizon in early morning was a sign that rain would follow. Again, a morning with dark clouds in the east and a north wind foretold rain.

Also, if on visiting his field in the morning the farmer found drops of dew in the junctures of the corn leaves with the stalk, it was a sign that rain would follow.

If a great many strange plants came up in the spring, a wet summer was due.

If the springs became almost dry during the summer and then the flow suddenly increased, though there was not a cloud in the sky, it was thought that rain would soon fall.

By some it was believed that rain would always come toward the end of each of the summer months. "The Hopi always danced at the end of the month. Then when it rained they said that they caused it to rain. However, they lied as it was going to rain anyway" (S.L.).

If you play shinny using a dead nighthawk for the ball it will bring rain (P.P.).

The Navaho distinguished two kinds of rain: male and female. The male rain was quick, heavy thunder showers. "When the rainy season starts a cloud appears, you hear thunder, a heavy shower with thunder and lightning follows: that is male rain" (C.). Female rain is a gentle drizzle which may last all day. The thunder comes in an even roll and there is less lightning.

According to mythology the coyote is in control of the rain.

The Holy People came together to put up the four sacred mountains, the stars in the heavens, and to make the seasons.

Coyote wanted a name for himself other than *ma'i*. He wanted the name of the sacred mountain *sisna žiní* (Pelado Peak, i.e., Blanca Peak) given to him, but the Holy People refused. Then he went to the sacred mountain *co'žit* (Mount Taylor) and asked for that name but the Holy People named him "first worried" instead. Next he went to the sacred mountain *do ko'osí'd* (San Francisco Mountains) and asked for that name but the Holy People named him "little wolf" instead. Finally he went to the north to the sacred mountain *dibénca'* (San Juan Mountains, i.e., La Plata Mountains) and asked for that name but the Holy People named him "howler through the dawn" instead.

Finally, so he would not feel so bad, they told him that he could be responsible for the rain. He was to give the sign of the rain and to have a great deal to do with the growing of corn. The Black Clouds, Male Rain, Black Fog, and Female Rain were put in his charge. Therefore when you hear a coyote howling through the dawn it is a sign that it will rain within four days. If one coyote howls others howl and soon it is passed through the whole country that it is going to rain.²

Beside the individual rain rituals previously mentioned (p. 60),³ a rain ceremony or

² The Navaho attribute the recent draught to the extermination of the coyote by the government. "The noses of these animals are black and they are always wet; this means rain. The Thunder People made the noses for these animals; that is why we should not talk about or harm them."

³ Two informants also attributed rain bringing to the Squaw Dance and Night Way chant ceremonies.

rain chant existed. This was conducted by a shaman or chanter who was paid by the group deriving benefit from the ceremony. However, this ritual was known to comparatively few people and very seldom used. My informant (P.T.W.O.) was one of two people who knew the ceremony in the area including Chinle, Crystal, Lukachukai, Black Mountains. He had performed the ritual but once, and then only a portion of it, and that without success. The man from whom he had learned the chant had conducted it only twice, on both occasions for his individual benefit and not for payment by the group. The reason given for the rarity of the ceremony was that "the people have discouraged the practice of performing for rain in recent times" (P.T.W.O.).

Too much stress has been laid on the importance of esoteric ritual among the Navaho. The theatrical character of the major ceremonies has caught the attention of field workers to the detriment of our knowledge of exoteric folk rites. These major ceremonies have intimate concern for a select minority only, and allow only indirect or passive participation of the group as a whole. It must be understood from the outset that while the following rain ceremony bulks large in print, its importance to the agricultural process was minor and its connection with it quite secondary. As a ceremony it has interest because of its rarity and ritual significance; as a part of Navaho agriculture it was insignificant.

The informant had been taught the rain ceremony by a "granduncle" of his clan, who related to him how he happened to learn the ceremony from a blind man.

One day the people were hoeing corn. They came home and said that the corn was drying up. So the blind man cut a little bit of a prayer stick and was led from the hogan to a short distance beyond the ash pile. He deposited the prayer stick there with a song. A short time after, it began raining over at the corn fields.

The informant's granduncle then asked for the ceremony and was taught by the blind man.

The informant paid his granduncle a set of coral beads, a saddle blanket, and an ear of "petrified" corn that had been handed down in his family from his grandmother, for teaching him the ceremony. While he was being taught, the informant drew pictures of clouds, wind, etc., on paper to assist in remembering the continuity.⁴ The granduncle asserted he had taught him the entire ceremony, but the informant was quite sure that a small portion had been withheld and that he did not know quite the complete ceremony.⁵

If a bad drought occurred, the people of the neighborhood came together and inquired of each other where a rainmaker could be found. A man was chosen to go to one of these

According to T.L.L.S.S. clowns were introduced as a part of the Squaw or War Dance for the specific purpose of causing rain. According to K., before the Navaho went to Fort Sumner, the Night Way chant was performed in summer in order to bring rain. Neither of these statements were confirmed by other Navaho.

⁴ This is not an unusual procedure. One chanter had a bundle of sticks which he used to remind himself of the several steps in the ritual. Today young men learning ceremonies often make colored drawings of the sand painting on paper.

⁵ It was the custom never to relate quite the complete ceremony to any individual, but always to hold back a small portion of it.

shamans and solicit his help. The shaman always denied having any knowledge of how to bring rain and had to be coaxed to perform the ritual. A reasonable rain chanter demanded only a few scraps of "jewels" as payment: others insisted on an additional fee of dry goods. Livestock was never tendered as payment.

The reason you must never pay the rain chanter with animals was that, when he started the rain, if he had been paid in animals, the thunder and lightning would strike animals and men. The Thunder People who go along with rains are humans. They are boys just like us, and get careless and shoot animals and humans.

From the Navaho point of view the Rain ceremony was a "one night sing." Actually, the performance extended over three days. The first day was taken up by the construction and blessing of the ceremonial hogan. On the second day the offering was prepared, and on the third it was deposited.⁶

The construction of a special brush hogan was the first activity undertaken. (Previously the chanter had taken a series of sweat baths, so that he was ceremonially clean.) The framework consisted of three forked poles, interlocked at the top, as was common in the old style hogan. Then two poles marking the doorway were leaned against the north and south poles of the framework. The door was toward the east. Additional poles were then leaned on the tripod to fill out the frame. Next, boughs of cedar or piñon, or both, were piled tip end down on the framework. "This is to cause the rain to fall that way." Only piñon and cedar could be used in building the hogan. Cedar was used when performing for male rain; piñon for female rain. If both male and female rain were desired, both were used. The doorway, fireplace, and smoke hole were like those of the ordinary hogan.

The next step in the ritual was the blessing of the ceremonial hogan. However, before this began, the chanter instructed the people on certain observances.

If anyone were to fall asleep in the hogan it would spoil the effect of the ceremony, hence small children were excluded.

The people were told to sit far enough apart so that there would be no danger of touching one another. During a ceremony, the individuals in a hogan were supposed to sit and think hard, stare straight ahead, and be very quiet. If the chanter was performing the ceremony in the right manner some one of the audience would get a vision pertaining to the chanter and his objective. This would be a sign that the ceremony was being properly conducted and that it would be successful. If the visionary was jostled by a neighbor, the vision would be interrupted, and its significance lost.

While the ceremony was in progress a serious mein had to be observed. If a person should talk foolishly it was believed that lightning would strike him.

While in the hogan all conversation had to contain reference to water or to rain. Metaphoric substitution was made. For example, if someone entered, it was said, "someone is floating," if that person sat down, he was said "to have stopped floating."

⁶ It is customary for an individual relating a story or instructing a pupil to take out his pollen and make an offering. My informant did this before he began this account of the ceremony.

In entering or leaving the hogan a person always had to proceed in a clockwise direction.

The poker lying by the fire must not be stepped over. Anyone who came into the hogan had Holy People following him. If he stepped over the poker it blocked the passage of the Holy People and caused them to halt. For this reason the poker was never laid with its point to the fire, because there was too much chance of stepping over it.

While singing or prayer was in progress no one was allowed to leave the hogan, for fear some of the "power" would be taken with him, thus weakening the ceremony.

A menstruating woman was never allowed to enter the ceremonial hogan, else all the lands would become bare, red and dry. Even a man whose wife was menstruating was not allowed to enter.

No dogs were allowed in or around the hogan. "The dog is an animal of bad luck and will spoil everything that is going on." However, cats have been brought to a ceremony. Their status was undetermined, but people usually kept them away for fear they might create a disturbance.

When these instructions had been given, the blessing of the hogan took place. This blessing had to be performed immediately, because a great number of Holy People were believed to follow the chanter, and if they saw that the poles of the hogan had been marked, they would not hesitate to enter.

The chanter entered the hogan, and walking sunwise, took his place in the west. He then asked someone in the hogan to mark the poles with corn meal. This corn meal was from corn of all colors. The man chosen came to the chanter and picked up the basket of corn meal which lay on the left side of the chanter. He then walked contra-clockwise to the pole at the southeastern side of the doorway and pressed some corn meal against it. Then, going clockwise, he marked the south, west and north foundation poles with the corn meal in the same manner. However, he must not completely circle the hogan. Therefore, after marking the north post, he returned contra-clockwise to the southeastern doorway pole. Here he turned and, starting from the east, went clockwise to the south, west, and north, but again not completing the circle. On this trip he sprinkled the remainder of the corn meal on the floor of the hogan, while he prayed, "May it rain for us today." All the corn meal in the basket must be used. "If any was left in the basket it was the same as saving or preventing the rain." This completed the hogan blessing ceremony. If this had been accomplished in the afternoon, the chanter simply waited in the hogan until night.

When the chanter decided that it was time to start the ritual for the evening (about three hours after sundown), he sang the following song. This was used especially in the Rain chant and was sung at intervals during the ceremony.

I usually walk where the rains fall
Below the east I walk
I being the Talking God
I usually walk where the rains fall
Within the dawn I walk

I usually walk where the rains fall
 Among the white corn I walk
 I usually walk where the rains fall
 Among the soft goods I walk
 I usually walk where the rains fall
 Among the collected water I walk
 I usually walk where the rains fall
 Among the pollen I walk
 I usually walk where the rains fall
 By means of the white corn darkness is cast
 As I walk where it usually rains
 Over it dark clouds cast a shadow
 As I walk where it usually rains
 Over it male rain casts a shadow
 As I walk where it usually rains
 Among it zigzag lightning hangs suspended here and there
 As I walk where it usually rains
 Among it straight lightning hangs suspended here and there
 As I walk where it usually rains
 Among it is a gentle spray of rain
 As I walk where it usually rains
 Among it is the twittering of the rain prairie dogs heard⁷
 As I walk where it usually rains
 At the tips of its tassels the twittering of the blue ceremonial bird is heard
 As I walk where it usually rains
 At its base the whites of water are⁸
 As I walk where it usually rains
 I being the good and everlasting one
 As I walk where it usually rains
 My front being pleasant
 As I walk where it usually rains
 My rear being pleasant
 As I walk where it usually rains
 As I walk where it usually rains

I usually walk where the rains fall
 Below the west I walk
 I being the House God
 I usually walk where the rains fall
 Within the evening twilight I walk
 I usually walk where the rains fall

⁷ The rain prairie dogs are small birds which come out after a rain.

⁸ This refers to the froth of the flood waters left in the fields after a rain.

Among the yellow corn I walk
 I usually walk where the rains fall
 Among the hard goods I walk
 I usually walk where the rains fall
 Among the water's children I walk
 I usually walk where the rains fall
 Among the pollen I walk
 I usually walk where the rains fall
 By means of yellow corn darkness is cast
 As I walk where it usually rains
 Over it the dark fog casts a shadow
 As I walk where it usually rains
 Over it the female rain casts a shadow
 As I walk where it usually rains
 Among it sun's rays hang suspended here and there
 As I walk where it usually rains
 Among it is a gentle spray of rain
 As I walk where it usually rains
 Among it is the twittering of the rain prairie dogs heard
 As I walk where it usually rains
 At the tips of its tassels is the chirping of the corn bug heard
 As I walk where it usually rains
 At its base the whites of water are
 As I walk where it usually rains
 I being the good and everlasting one
 As I walk where it usually rains
 My rear being pleasant
 As I walk where it usually rains
 My front being pleasant
 As I walk where it usually rains
 As I walk where it usually rains

When this song was ended a prayer was said. The chanter prayed alone, unless someone (a virgin boy or girl)⁹ had been chosen to deposit the prayer stick and the "jewel" offer-

⁹ The office of depositor seems to be derived from the fact that, in the Navaho mind, a ceremony does not take place unless there is a patient involved. This individual satisfied the ceremonial pattern in that respect. The one who filled this office was tested for virginity in the following way. A doubled cord was put around the neck of the person being tested. The looped end of the cord was placed at the Adam's Apple and the loose ends were brought around the neck to meet at that point. A mark was made at the point where the loose cords came in contact with the looped end. The person being tested held the cord firmly between the teeth at that point. The strands were then parted, forming a loop. If this loop, based on the measurement of the neck, could be placed over the head of the candidate while being held in the teeth, it proved that he or she was not a virgin. On the other hand, if the loop could not be forced over the head, the person was a virgin. The above test was applied to several individuals and, in all cases where definite knowledge was available, it proved to be valid. If a person

ing. This person then repeated the prayer after the chanter, word for word. The chanter picked up his medicine bundles, gave one to the virgin, and held the rest while repeating the following prayer:

Blanca Peak [symbolic of the east]
 White shell bead with which it sits [with which it is garbed]
 Blanca Peak
 San Francisco Peak
 Abalone shell bead with which it sits
 San Francisco Peak
 With dawn it sits Blanca Peak
 With evening twilight it sits San Francisco Peak
 With a mixture of soft goods it sits [is covered] Blanca Peak¹⁰
 With a mixture of hard goods it sits [is covered] San Francisco Peak¹¹
 Blanca Peak San Francisco Peak they gaze on each other time and again
 San Francisco Peak Blanca Peak they speak to each other time and again
 With their feet I shall walk about
 With their legs I shall walk about
 With their means of traveling I shall move about
 With their torso I shall walk about
 With their mind I shall walk about
 With their voice I shall walk about
 With their head plumes I shall walk about
 That which extends out of their head top¹²
 By means of it I shall go about pleasantly
 That which surrounds them [the mind] it shall also surround me
 By means of it I shall go about pleasantly
 Surrounding me [the virgin says surrounding it] the mountain ranges and the beauty which
 extends up their slope
 By means of it I shall go about pleasantly
 The good and everlasting one I shall be as I go about pleasantly
 The good and everlasting one I shall be as I go about pleasantly
 My front shall be pleasant
 My rear shall be pleasant
 As I go about pleasantly
 May it be pleasant
 May it be pleasant
 Mount Taylor
 Turquoise bead with which it sits

who was not a virgin was used as depositor, the ceremony was nullified. When a girl was picked for this office, one was always chosen who had not yet reached puberty.

¹⁰ The home of the sun is in the east; he possesses all the soft goods.

¹¹ Changing Woman lives in the west; she controls all the "jewels" or hard goods.

¹² The mind or the intentions come out through the ring in the hair.

Mount Taylor
 La Plata Mountains
 Jet bead with which it sits
 La Plata Mountains
 Blue sky with which it sits Mount Taylor
 Darkness with which it sits La Plata Mountains
 With mixture of vegetations with which it sits Mount Taylor
 With mixture of game with which it sits La Plata Mountains
 Mount Taylor and La Plata Mountains they gaze on each other time and again
 La Plata Mountains and Mount Taylor they speak to each other time and again
 With their feet I shall walk about
 With their legs I shall walk about
 With their means of traveling I shall move about
 With their torso I shall walk about
 With their mind I shall walk about
 With their voice I shall walk about
 With their head plumes I shall walk about
 That which extends out from their head top
 By means of it I shall go about pleasantly
 That which surrounds them it shall surround me
 By means of it I shall go about pleasantly
 Surrounding me the mountain ranges and the beauty which extends up their slope
 By means of it I shall go about pleasantly
 The good and everlasting one I shall be as I go about pleasantly
 The good and everlasting one I shall be as I go about pleasantly
 Below me may it be pleasant
 Above me may it be pleasant
 Around me may it be pleasant
 From my mouth may it be pleasant
 May it be pleasant
 May it be pleasant
 May it be pleasant
 May it be pleasant

This was one of the most important prayers. It could be used not only in the Rain Ceremony, but also in any of the Blessing ceremonies.

When the prayer ended, pollen was taken and given to the man sitting in the south-eastern side of the hogan, who put some in his mouth, some on his head, and sprinkled some away from him. The pollen was then passed sunwise around the hogan and everyone offered pollen in the same manner. As each offered the pollen, he said the following prayer:

May it be pleasant
 May it rain for me today
 So that I may raise a big crop of corn of all colors, white, yellow, blue, grey

May I enjoy the beautiful flowers that may be brought by the rain
 May my stock get fat

This was not a set prayer. More might be added according to the preference of the individual; but at least this much must be said.

This prayer ended the ceremony for the first night. Everyone went to sleep almost immediately, as proceedings commenced again with the first hint of dawn. If, during the night, anyone dreamed of rain, corn, or flowers it was considered a good omen and was related to the group. If someone dreamed of drought, it was considered a bad sign, which the dreamer kept strictly to himself.

Next morning everyone arose early. The first act was the singing of a song identical with the opening song of the ceremony, except that the burden was, "I walk where there are an abundance of crops," instead of, "I usually walk where the rains fall."

A prayer was said at the completion of the song. Its content was:

The earth its feet by means of I shall walk about
 Its legs by means of I shall walk about
 Its torso by means of I shall walk about
 With its mind I shall walk about
 With its voice I shall walk about
 With its head plumes I shall walk about
 That which extends from its head top
 With it I shall walk about pleasantly
 The good and everlasting one I shall be as I go about pleasantly
 My front shall be pleasant
 My rear shall be pleasant
 As I go about pleasantly
 May it be pleasant
 May it be pleasant

There were fourteen verses to the song; the first lines alone differ. The first lines of the other verses were:

2. The sky its feet by means of I shall walk about
3. Mountain Woman her feet by means of I shall walk about
4. Water Woman her feet by means of I shall walk about
5. Darkness its feet by means of I shall walk about
6. Dawn its feet by means of I shall walk about
7. Evening Twilight its feet by means of I shall walk about
8. The Sun its feet by means of I shall walk about
9. The Talking God his feet by means of I shall walk about
10. The House God his feet by means of I shall walk about
11. White Corn its feet by means of I shall walk about
12. Yellow Corn its feet by means of I shall walk about

13. Pollen its feet by means of I shall walk about
 14. Corn Bug his feet by means of I shall walk about

To the last verse was added:

My rear is pleasant
 My front is pleasant
 My below is pleasant
 My above is pleasant
 My surroundings all are pleasant
 Out of my mouth be pleasant
 May it be pleasant
 May it be pleasant
 May it be pleasant
 May it be pleasant

As soon as this song was finished, pollen was passed and offered as before.

Following the pollen offering, if a depositor for the "jewel" had been chosen, this person was given a bath with suds from the yucca root. If a girl had been chosen she was curtained off while the bath was given by a woman assistant. A boy, if chosen, took his bath without being secluded. He was dried with white corn meal; the girl was dried with yellow corn meal. Singing continued throughout the progress of the bath.

If no one was chosen as depositor, everyone in the hogan gave himself a general cleansing with yucca suds. However, they did not take baths.

When the ceremonial bathing was over, preparations for the making of the prayer stick began. A man was sent out for materials. If he could possibly find the drifted stalk of an *ndí-γílinłčíní* (odorous sunflower, *Gymnolomia*), that was used, if not, *táłid* (water scum) was used. However, one of these two plants must be obtained, by command of the being in charge of rain. "This was because any kind of driftwood represents a part of this being's body."

If the man returned with the "odorous sunflower," the prayer stick (*ke'tá:ń*) was cut from it. Its size was determined by the distance between the second and third joints of the little finger of the chanter. If "water scum" was brought, the chanter wrapped it clockwise, and as evenly as possible, around a reed. It was then allowed to dry thoroughly on the reed and cut to size as the stick above. Great care was always taken in the handling of the "water scum" prayer stick that the scum would not be cracked.

Next the prayer stick had applied to it *túiká:ł* (water carrier) and some mud, taken from beneath water.

Painting the prayer stick was the next step. If the chanter desired, he made two prayer sticks; a blue one representing "green earth," and a black one symbolizing "dark sky." If only one was used it was always black. This stick was first painted black. Then with more black paint, two clouds representing rain, and two chains of zigzag lightning were drawn on it. If a blue prayer stick was also used, the clouds and lightning were painted in yellow.

The rain falling from the clouds was represented by four to twelve lines. The lightning flashes were correct only if they had four angles apiece.

After the painting was finished, the butt end of the prayer stick was plugged with the downy feathers of either the nighthawk, swallow, or hummingbird. The nighthawk was the thunder bird; the swallow the rain bird, and the hummingbird was thought to be associated with water.

When the butt end was plugged, "mountain tobacco" (*zìl ná'oh*) was put in the prayer stick. The tip end was then plugged with "water pollen" (*tó baxádí'ń*). This was pollen which was obtained after a heavy rain. It was picked off the rocks or from the foam left by the floods. This completed the construction of the prayer stick.

It was now laid on a small piece of sacred buckskin (see p. 132). Both the tip of the prayer stick and the head of the buckskin must point east. Then both were placed in a basket in the rear of the hogan and covered with a cloth. The "trail" of the basket must also point toward the east. After that the chanter announced that those who desired to attend the rest of the ceremony had to take yucca baths. When they had cleansed themselves, the chanter prayed as follows:

The Dawn Boy I am
 The Dawn Talking God I am
 The Sunrise House God I am
 The Dawn Talking God I am
 The Sunrise House God I am
 The Dawn Pollen Boy I am
 The Sunrise Corn Bug Girl I am
 May it be pleasant
 May it be pleasant
 The Changing Woman, her inner-being one [soul], her son, her grandchild I am
 May it be pleasant
 May it be pleasant
 White Shell Woman, her inner-being one, her son, her grandchild I am
 May it be pleasant
 May it be pleasant

The prayer continues with the following substitutions in the "inner-being" lines: The Earth, The Sky, The Sun, The Moon, The Dawn, The Evening Twilight, The Monster Slayer, The Born of Water One, The Talking God, The House God, The Rounded Ear of Corn Boy, The White Corn Boy, The Yellow Corn Girl, The Pollen Boy, The Corn Bug Girl, The Mixture of Soft Goods Boy, The Mixture of Hard Goods Girl, The Mirage Boy, The Haze Girl, The Old Age Boy, The Everlastingly Beautiful Girl, The Blanca Peak the chief mountain, Mount Taylor, San Francisco Mountain, La Plata Mountains, The Yucca Mountain (in the White Mountain Apache country),

The Knoll on the Rim Mountain (in the Black Mountains), The Three Mountains (mythical), The Gobernador Mountain, The Mountain Lying on the Other (in the Lukachukai Range), The Beautiful Mountain, The Huerfano Mountain, The Wide Belted Mountain (near Cuba, N. M.), The Rain Mountain (mythical), The Corn Mountain (mythical), The Pollen Mountain, The Corn Bug Mountain, The Soft Goods Mountain, The Hard Goods Mountain, The Mirage Mountain, The Haze Mountain, The Everlasting Mountain, The Everlastingly Beautiful Mountain. It then continues:

The Changing Woman's feet of white shell bead shall be my feet with which I shall walk about

The Sun's feet of turquoise bead shall be my feet with which I shall walk about

The White Shell Woman's legs of white shell shall be my legs with which I shall walk about

The Sun's body of turquoise bead shall be my body with which I shall walk about

Changing Woman's head plume of white shell bead shall be my head plume by means of which I shall go about

The Sun's head, plume of turquoise bead shall be my head plume by means of which I shall go about

The Changing Woman, pollen yellow in color lying across her lips, that shall lie across my lips, by means of which I shall go about

The Sun, pollen blue in color lying across his lips, that shall lie across my lips, by means of which I shall go about

The Changing Woman, pollen yellow in color that streams into her mouth, that shall stream into my mouth and by that means I shall go about

The Sun, pollen blue in color which he breathes, I shall breathe and by that means I shall go about

Changing Woman, pollen yellow in color which she breathes, I shall breathe and by that means I shall go about

The Sun, pollen blue in color by which he speaks now and then, that shall be mine and by that means I shall go about

Changing Woman, pollen yellow in color by which she talks now and then, that shall be mine and by that means I shall go about

The Sun, pollen blue in color by which he talks now and then, that shall be mine and by that means I shall go about from here

By means of that he talks [Changing Woman and the Sun]

By means of that I am speaking from here

By means of that I am talking

This day dark clouds shall appear for my benefit

By means of that I talk this day

Male rain shall appear for my benefit

By means of that I talk this day

Dark fog shall appear for my benefit

By means of that I talk this day

Female rain shall appear for my benefit

By means of that he is talking from yonder

By means of that I am talking from here

The beautiful white corn shall mature for me
 The beautiful blue corn shall mature for me
 The beautiful mixture of corn shall mature for me
 Its pollen I shall have the benefit of
 Its dew I shall have the benefit of
 Its pollen I shall kick about with my feet
 Its dew I shall kick about with my feet
 From all sides beauty shall extend to me as I walk about
 Good and everlasting one I shall be as I walk about
 My front shall be pleasant as I walk about
 My rear shall be pleasant as I walk about
 My below shall be pleasant as I walk about
 My above shall be pleasant as I walk about
 My surroundings everywhere shall be pleasant as I walk about
 Beauty shall extend out of my mouth as I walk about
 May it be pleasant
 May it be pleasant
 May it be pleasant
 May it be pleasant

The chanter prayed while standing, holding the basket in which rested the prayer stick. When he finished, he set the basket down with a clockwise turn. This was an important point in the ceremony. If the chanter missed a word in the prayer, or became confused in the order of the prayer, the ceremony was immediately stopped. If this prayer was successfully accomplished, the proceedings then rested until late afternoon.

When the chanter decided that it was time for the ceremony to again begin, all the people present were called into the hogan. The sacred buckskin, with the prayer stick on it, was placed directly back of the fire. The head end of the piece of buckskin lay toward the east. The prayer stick was placed on the north side of the buckskin with its tip toward the east. Next, the chanter folded the buckskin slightly so as to form a ridge in the skin. Beside this first ridge he deposited a pile of "jewels": white shell, abalone, turquoise and jet. A second ridge was formed and "water iron ore" was deposited there. Beside the third ridge, a pile of blue pollen was placed; next to the fourth ridge pollen from cat-tails, and beside the last ridge, corn pollen.

When the chanter had finished making these deposits, the virgin put some of each of the materials in the five different piles. Next everyone in the hogan, going clockwise, made a deposit on the buckskin of these different materials. As they finished putting on the corn pollen, they put some in their mouths, some on their heads, and sprinkled some toward themselves from the east, saying:

May it rain for me today
 May I have an abundance of crops
 (More could be added if the individual wished)

Everyone present was compelled to participate in this ritual, except menstruating women, and men whose wives were menstruating. Also, if anyone had blood stains on his clothes from butchering sheep, etc., he was barred from the hogan. The hands of all the depositors had to be clean. "This was because these things were being offered to the Holy People and you must not offer your own dirt with them."

When everyone had deposited, the chanter took the buckskin and placed it back in the basket, being very careful to keep the ridges in the buckskin up so that the offerings would not become mixed. It was then covered as before. The ceremony was now discontinued until evening.

About three hours after sundown, preparation was made for the all night singing. A "spread" was laid out and placed immediately back of the fire. This "spread" consisted of blankets, saddle blankets, calico, and money up to the amount of twenty-five dollars. This served as pay for the chanter. The chanter next placed the basket containing the sacred buckskin, the "jewels," and the prayer stick on the "spread." As before, pollen was offered by everyone present. Following this, the hogan was blessed again (by marking the poles as before). The details of this blessing were the same except that now pollen was used instead of corn meal.

As soon as the blessing of the hogan was completed, the all night singing commenced. Songs were sung continuously until dawn of the next day. The majority of these songs were ordinary Hogan and Blessing Way songs. However, at varied intervals during the night, songs pertaining directly to rain or corn were inserted. The following is an example of one of the rain songs:

In the far distance [view]
 From there with me it rained out
 In the far distance
 From drifting of dark clouds it rained out with me
 In the far distance
 From drifting of male rain as it rained out with me
 In the far distance
 At its front zigzag lightning shall be striking as it rained out with me
 In the far distance
 Behind it [the rain] the splintering of wood shall be as it rained out with me
 In the far distance
 As it rained ahead of it as it rained out with me
 In the far distance
 Good and everlasting one I am being as it rained out with me
 My front shall be pleasant
 As it raised out with me
 My rear shall be pleasant
 As it rained out with me

Other songs of this type substituted, "It is raining along with me," and, "Over here

for it [the rain] I walk about," for the phrase, "In the far distance." The burdens were the same.

At the first suggestion of approaching daylight, the ordinary dawn songs were sung. Then everyone sat in the hogan and waited for the sun to rise. As soon as the sun arose a discussion took place as to where the offering was to be made. Preferably a spring or a "geyser" was selected, otherwise a place in a wash where a great deal of driftwood had accumulated. The choice of the location for the offering had to be by unanimous consent of all present.

When the spot for the deposit had been approved, the chanter and the virgin dressed themselves in their best clothes, putting on all their ornaments. Then each took some of a special white corn meal, which had been prepared the day before and kept all night in the hogan, and a buckskin. The chanter also carried his bundle, pouch, a "spread," the sacred buckskin, prayer stick, and "jewels." These two then started out together toward the place where the deposit was to be made. When they came within about two hundred yards of the selected spot, they stopped and prepared themselves. The "spread" was laid. Then the buckskins, white corn meal, and the "jewels," sacred buckskin, and prayer stick were laid on this. The white corn meal was then opened. The chanter and virgin unbound their hair and rubbed the corn meal over hair and face. "This corn meal is rubbed on because you are going to a Holy Place." Then each took one of the buckskins and put the head over the left shoulder, brought the tail of the skin up under the right arm, and tied the two ends together in front.

When these preparations were completed, the chanter gave the sacred buckskin with the "jewel" and the prayer stick on it to the virgin. He then picked up his medicine bundles and walked ahead, followed by the virgin. He watched very carefully where he stepped, taking precautions against hitting his toes on stones, kicking sticks, stumbling, stepping over bones or the dung of a coyote or dog. If he had to cross a ditch or a trail, he sprinkled pollen over before he crossed. If he failed to do this the passage would be blocked for the Holy People. The pollen opened the passage for them. It was believed that two groups of Holy People always accompanied the chanter; one group that wished to do good for the people, another who wished them ill. The latter group were always on the north side of the chanter hoping that he would make a mistake, because that would nullify the ceremony.

At a distance of from twenty to twenty-five yards from where the offering was to be made, the chanter stopped and sang a song:

At a home I arrived
 Below the east
 At a home I arrived
 At the Talking Gods' home
 I arrived at
 Home of dawn of his
 I arrived at
 Home of white corn of his

I arrived at
 Mixture of soft goods home of his
 I arrived at
 Collection of water home of his
 I arrived at
 Pollen home of his
 I arrived at
 Mixture of hard goods attached to me
 As I arrived at a home
 Home made of dark clouds I arrived at
 Home made of male rain I arrived at
 Home made of dark fog I arrived at
 Home made of female rain I arrived at
 Home made of vegetations I arrived at
 Home made of flowers I arrived at
 Good and everlasting one I being as I arrived
 My front being pleasant as I arrived
 My rear being pleasant as I arrived
 At a home I arrived
 At a home I arrived

At a home I arrived
 Below the west
 At a home I arrived
 At the House Gods' home
 I arrived
 Home of evening twilight of his
 I arrived at
 Home of yellow corn of his
 I arrived at
 Mixture of hard goods home of his
 I arrived at
 Water child home of his
 I arrived at
 Pollen home of his
 I arrived at
 Mixture of hard goods attached to me
 As I arrived at a home
 Mixture of soft goods attached to me
 As I arrived at a home
 Home made of dark fog I arrived at
 Home made of female rain I arrived at
 Home made of dark clouds I arrived at
 Home made of male rain I arrived at

Home made of vegetations I arrived at
 Home made of flowers I arrived at
 Good and everlasting one I being as I arrived
 My rear may it be pleasant as I arrive
 My front may it be pleasant as I arrive
 My below may it be pleasant as I arrive
 My above may it be pleasant as I arrive
 My surroundings all may they be pleasant as I arrive
 May it be pleasant extending out of my mouth as I arrive
 At a home I arrived
 At a home I arrived

The chanter sang this song while standing. When he had finished, he proceeded to the spot where the deposit was to be made. This site was either a pile of drifted rubbish, a mud ball that the water had rolled along, a bubbling spring, or a "geyser."

If the deposit was to be made on drift rubbish, a pile four finger widths to eighteen inches high was selected. The higher the pile on which the offering was made, the heavier it would rain. The deposit must never be made higher than eighteen inches. "That is the Witch Way and you would just be causing bad luck."

If a spring was the site chosen and a gentle rain was desired, the deposit was made four finger widths from the edge of the water. Accordingly, as heavier rains were desired, the deposit was made three, two, or one finger width from the water. "If you are a witch you shove the whole offering into the water. This causes a cloud burst."

If the "jewels" were placed near a mud ball the same procedure was followed; four finger widths away for a gentle rain, and closer if heavier precipitation was desired. If the offering was placed on top of the mud ball a cloud burst would follow, causing damage. It was considered inadvisable to deposit the "jewels" at a mud ball unless no other sites were available. "This is because a mud ball is round like hail and likely to bring hail."

When the chanter (or the virgin) was ready to make the offering he stood before the place of deposit and in his mind drew a line around the territory in which he wished the rain to fall. Then he took the offering and made a motion around the boundary which he had in mind. He then placed the offering as follows: the prayer stick nearest the site, then in a line back of it the "jewels," the "water iron ore," blue pollen, cat-tail pollen, and the corn pollen in that order. Whenever possible the offering was placed on the west side of the chosen location. When this was completed the chanter said a prayer, which was always the same irrespective of where the deposit was made.

Water Ox young man the finest prayer stick I have given to you
 The finest of turquoise I offer to you
 The finest of white shell beads I offer to you
 The finest of abalone shell beads I offer to you
 The finest of jet beads I offer to you
 The finest of haliotis shell beads I offer to you

The finest water iron ore I offer to you
 The finest of blue pollen I offer to you
 The finest of flag pollen I offer to you
 The finest of corn pollen I offer to you
 Although there are many hardships
 Those are not for what I am making offering
 The finest of dark clouds for that I have made an offering to you
 That is what I came after
 The finest of male rain for that I have made an offering to you
 That is what I came after
 The finest of dark fog for that I have made an offering to you
 That is what I came after
 The finest of female rain for that I have made an offering to you
 That is what I came after
 The finest of collections of water for that I have made an offering to you
 That is what I came after
 The finest of water children for that I have made an offering to you
 That is what I came after
 The finest of vegetation for that I have made an offering to you
 That is what I came after
 The finest of flowers after that I have made an offering to you
 That is what I came after
 Good and everlasting one I being as I go about
 My front being pleasant as I go about
 My rear being pleasant as I go about
 May it be pleasant
 May it be pleasant

Water Ox young woman the finest of prayer sticks I am offering to you
 The finest of turquoise I am offering to you
 The finest of white shell beads I am offering to you
 The finest of abalone shell beads I am offering to you
 The finest of jet beads I am offering to you
 The finest of haliotis shell beads I am offering to you
 The finest of water iron ore I am offering to you
 The finest of blue pollen I am offering to you
 The finest of flag pollen I am offering to you
 The finest of corn pollen I am offering to you
 Although there are many hardships
 Those are not for what I am making offering
 The finest of dark fog for that I have made an offering to you
 That is what I came after
 The finest of female rain for that I have made an offering to you
 That is what I came after

The finest of dark clouds for that I have made an offering to you
 That is what I came after
 The finest of collections of water for that I have made an offering to you
 That is what I came after
 The finest of water children for that I have made an offering to you
 That is what I came after
 The finest of vegetation for that I have made an offering to you
 That is what I came after
 Good and everlasting one I being as I go about
 My rear being pleasant as I go about
 My front being pleasant as I go about
 May it be pleasant
 May it be pleasant

Water Horse young man the finest prayer stick I have given to you
 The finest of turquoise I offer to you
 The finest of white shell beads I offer to you
 The finest of abalone shell beads I offer to you
 The finest of jet beads I offer to you
 The finest of haliotis shell beads I am offering to you
 The finest of water iron ore I am offering to you
 The finest of blue pollen I am offering to you
 The finest of flag pollen I am offering to you
 The finest of corn pollen I am offering to you
 Although there are many hardships
 Those are not for what I am making offering
 The finest of dark fog for that I have made an offering to you
 That is what I came after
 The finest of female rain for that I have made an offering to you
 That is what I came after
 The finest of dark clouds for that I have made an offering to you
 That is what I came after
 The finest of collections of water for that I have made an offering to you
 That is what I came after
 The finest of vegetation for that I have made an offering to you
 That is what I came after
 Good and everlasting one I being as I go about
 My rear being pleasant as I go about
 My front being pleasant as I go about
 May it be pleasant
 May it be pleasant

Water Horse young man the finest prayer stick I have given to you
 The finest of turquoise I offer to you
 The finest of white shell beads I offer to you

The finest of abalone shell beads I offer to you
 The finest of jet beads I offer to you
 The finest of haliotis shell beads I offer to you
 The finest of water iron ore I offer to you
 The finest of blue pollen I offer to you
 The finest of flag pollen I offer to you
 The finest of corn pollen I offer to you
 Although there are many hardships
 Those are not for what I am making the offering
 The finest of blue clouds for that I have made an offering to you
 That is what I came after
 The finest of male rain for that I have made an offering to you
 That is what I came after
 The finest of blue fog for that I have made an offering to you
 That is what I came after
 The finest of collections of water for that I have made an offering to you
 That is what I came after
 The finest of water children for that I have made an offering to you
 That is what I came after
 The finest of vegetation for that I have made an offering to you
 That is what I came after
 The finest of flowers for that I have made an offering to you
 That is what I came after
 Good and everlasting one I being as I go about
 My front being pleasant as I go about
 My rear being pleasant as I go about
 May it be pleasant
 May it be pleasant

Water Horse young woman the finest of prayer sticks I am offering to you
 The finest of turquoise I am offering to you
 The finest of white shell beads I am offering to you
 The finest of abalone shell beads I am offering to you
 The finest of jet beads I am offering to you
 The finest of haliotis shell beads I am offering to you
 The finest of water iron ore I am offering to you
 The finest of blue pollen I am offering to you
 The finest of flag pollen I am offering to you
 The finest of corn pollen I am offering to you
 Although there are many hardships
 Those are not for what I am making offering
 The finest yellow fog for that I have made an offering to you
 That is what I came after
 The finest of female rain for that I have made an offering to you

That is what I came after
 The finest of yellow clouds for that I have made an offering to you
 That is what I came after
 The finest of collections of water for that I have made an offering to you
 That is what I came after
 The finest of water children for that I have made an offering to you
 That is what I came after
 The finest of vegetation for that I have made an offering to you
 That is what I came after
 The finest of flowers for that I have made an offering to you
 That is what I came after
 Good and everlasting one I being as I go about
 My rear being pleasant as I go about
 My front being pleasant as I go about
 May it be pleasant
 May it be pleasant

This ended the first set of prayers. The chanter stopped at this point, took a short rest, and thought over the following sets of prayers in order that he might be able to recite them correctly.

A zigzag bodied being am I as I speak
 A long bodied being am I as I speak
 At the sky hole above the sky
 At the mountain that lies in the water
 At the home of the dark clouds
 At the square made of dark clouds
 At a trail made of lightning
 The dark clouds which are in the interior
 They have begun to move toward me
 The male rains which are in the interior
 They have begun to move toward me
 The dark fogs which are in the interior
 They have begun to move toward me
 The male rains which are in the interior
 They have begun to move toward me
 The yellow fogs that are in the interior
 They have begun to move toward me
 The female rains that are in the interior
 They have begun to move toward me

 The Rain Boy with the dark cloud feet
 He arises facing me
 The Rain Boy with his dark cloud feet
 By means of these he arises facing me

The Rain Girl with the dark fog feet
 She arises facing me
 The Rain Girl with her dark fog feet
 By means of these she arises facing me

The Rain Boy with the dark cloud legs
 He arises facing me
 The Rain Boy with his dark cloud legs
 By means of which he arises facing me

The Rain Girl with the dark fog legs
 She arises facing me
 The Rain Girl with her dark fog legs
 By means of which she arises facing me

Rain Boy with the dark cloud as a means of travel
 He arises facing me
 The Rain Boy with his dark cloud as a means of travel
 By means of which he arises facing me

Rain Girl with the dark fog as a means of travel
 She arises facing me
 The Rain Girl with her dark cloud as a means of travel
 By means of which she arises facing me
 The Rain Boy with the dark cloud torso he arises
 The Rain Girl with the dark fog torso she arises
 The Rain Boy with the dark cloud mind he arises
 The Rain Girl with the dark fog mind she arises
 The Rain Boy with the dark cloud voice he arises
 The Rain Girl with the dark fog voice she arises
 The Rain Boy dark wind lightning with it extending into his mouth by means of which he
 breathes and gives his call as he arises facing me
 The Rain Girl blue wind rainbow with it extending into her mouth by means of which she
 breathes and gives her call as she arises facing me
 The Rain Boy dark wind lightning with it being his head plume he arises toward me
 The Rain Girl blue wind rainbow with it being her head plume she arises toward me
 Dark clouds by means of which you would conceal your body as they move along with you in
 that way you will pleasantly come among us
 Male rain dark fog by means of which you would conceal your body as they move along with
 you in that way you will pleasantly come among us
 Female rain blue clouds by means of which you would conceal your body as they move along
 with you in that way you will pleasantly come among us
 Male rain blue fog by means of which you would conceal your body as they move along with
 you in that way you will pleasantly come among us

Female rain yellow clouds by means of which you would conceal your body as they move along
with you in that way you will pleasantly come among us
Male rain yellow clouds by means of which you would conceal your body as they move along
with you in that way you will pleasantly come among us
Female rain white clouds by means of which you would conceal your body as they move along
with you in that way you will pleasantly come among us¹³
In the center of my wide field there you will descend pleasantly
In the center of my oblong field there you will descend pleasantly
A dark water foam as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A blue water foam as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A yellow water foam as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A white water foam as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A dark floating log as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A blue floating log as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A yellow floating log as a means of travel and a means of concealing your body you will have as
you pleasantly descend
A white floating log as a means of travel and a means of concealing your body you will have as
you pleasantly descend
In your front flashes of lightning will be in this way you will come pleasantly among us
In your rear a splintering of wood shall spread out in this way you will come pleasantly
among us
In your front rain and splashing of water will proceed you in this way you will come pleasantly
among us
In your rear maturing of crops and spreading of water will be
Pleasantly we will acquaint ourselves with one another
Pleasantly we will greet each other

This much was a set prayer and had to be given. When this was finished, the chanter added two other prayers of his own, making them either long or short as he wished. Next he and the virgin took out their pollen, put some in their mouths, some on their heads, and sprinkled some toward themselves while asking for rain. Then both made a clockwise turn and started toward the hogan, the virgin leading. The trail home was the same as that used to the spot where the deposit was made. When they arrived at the place where they had unbound their hair, they stopped and dressed it again. Then they proceeded to-

¹³ This reference to female rain and white clouds was usually left out of the prayer. This was because white clouds were hail clouds and dangerous. They were only mentioned if the chanter wished to damage the corn-fields.

ward the hogan with the virgin still leading. The chanter sang songs during the whole course of the return journey.

On arriving at the hogan the chanter gave an account of his trip to make the deposit. He told whether he had hesitated in the prayers, whether he had made any mistakes, or if the ceremony had gone off well.¹⁴ He always spoke in the plural. Whether there had been a virgin assisting or not, the reference was always to us or they. "This is because a great many Holy People went with him."

If the ceremony had been performed correctly and was pleasing to the "gods," it was believed that rain would fall that night. If it did not rain that evening, it was probable that it would within four days. But if it did not rain within twelve days, the people knew that the chanter had made a failure of the ceremony.¹⁵

SUMMARY

The ceremonial aspects of Navaho agriculture presented an even more uniform and widely disseminated pattern than was found in the practical side of agricultural procedure. While they were definitely magical and religious in content, they stood in contrast to the bulk of Navaho ritual in that they were primarily exoteric in character. As attributes of agricultural procedure, they played a rôle of vital importance in every stage of cultivation. As part of the agricultural complex, they were most often found interwoven with the actual procedure at points where it had failed to meet the necessities of an inhospitable environment, and served to compensate for the lack of technical development.

¹⁴ This is similar to the custom in warfare: the leader reports to his men how he has performed the ritual and they judge from his report whether the fight will be successful or not.

¹⁵ The day after that on which I recorded this ceremony, it rained very heavily. Both my interpreter and informant attributed this to the fact that the ceremony had been related.

HUNTING

Hunting, after agriculture, formed the most important economic pursuit of the Navaho. It did not offer as constant a supply of food as the crops, but it did supplement them in an important way.¹

Today most of the larger game has disappeared and has been replaced in the economy by sheep. However, as late as forty years ago game was still plentiful and many Navaho are alive who have taken part in the various forms of hunting.

Deer and antelope were the most important source of meat. They were hunted seasonally, namely in November-December and in February respectively. Deer were so numerous that a party of four to ten men commonly killed, in a fortnight's hunt, as many as a hundred. Two individuals attested to having killed seventeen and twenty-one deer apiece on a single hunt, furnishing about three months' meat supply for the families represented. "It might last until spring if you did not have too much company."

Popular deer hunting regions were the Carrizo Mountains, the La Plata Mountains, the Lukachukai Mountains, Blue Mountain (near Monticello, Utah), and Sleeping Ute Mountain (near Cortez, New Mexico).

Antelope furnished a less abundant food supply because of the relative uncertainty of the catch and because the communal method employed in hunting them necessitated the division of the kill among a larger number of people. Antelope corrals were known to have been built in the vicinity of St. Johns and Tanner Springs, near Keam Canyon, Jeddito, White Cone, Dot Klish Canyon, Chambers, Thoreau, and near Escavada Wash, a tributary of Chaco Canyon.

Other animals which played a minor rôle in Navaho economy were the rabbit, prairie dog, porcupine, mountain sheep, elk, squirrel, bear and turkey. Of these the rabbit and the prairie dog were the most important and were hunted under organized methods. The remainder were killed only when they happened to be encountered.

Before the introduction of guns the bow was the common weapon. The sinew-backed bow was most used; but the self-bow, trussed-bow, and elk horn bow were known to have been employed. In shooting, the bow was held diagonally across or in a vertical plane with the body.

The bow and arrows were carried in a quiver of mountain lion or wildcat skin. The arrow feathers were in the same plane as the shaft, not spiralled. Foreshafts were made for cane arrows, but such were rarely used. Most arrows had wooden points formed by sharpening the ends of the shaft. It was tabu to make flint points and only those which could be found were used. "It was told in the past that the 'giant' had all the arrow points. Later it

¹ The Navaho of del Muerto and de Chelly presented an exception. They did almost no hunting, depending on trade for their meat supplies.

was said that the 'Horn Toad People' made them" (A.M.). Since the introduction of iron, points of that material have been used on arrows. Property marks were not placed on arrows. "A man would always recognize his own arrow. It is different with guns: all bullets look the same" (C.).

Dogs were used for hunting when no ritual was involved. They were trained to track and follow wounded animals. Some were castrated. They were never eaten. According to D.M. if the stomach of a fawn was rubbed on a dog's nose he would scent the deer at a great distance.

In the practical procedure of hunting a variety of methods were employed. Deer were stalked, tracked, shot from ambush, surrounded by fire, trapped in pitfalls, and run down. Antelope were stalked, impounded, and run down. Elk were tracked. Bears were enticed from their dens in winter and clubbed. They were usually killed only for ceremonial purposes. Rabbits were surrounded, run down, clubbed, hunted with slings, and pulled from burrows with poles. Most small animals were shot, or caught in deadfall traps.

With the exception of deer (in rare cases rabbits also), fire was never used in hunting to drive the game. However, hunters were known to build fires on a tongue of land leading up to a mesa in order to prevent the game from escaping.

No game of any kind was ever intentionally run over cliffs or into box canyons.² "Deer sometimes ran over a cliff, but this was very rare. The deer knew the country and would not do a silly thing like that" (C.).

Hunting was sometimes done from behind blinds built at waterholes.

The turkey was the only bird important as a food. It was shot or "run down." The eagle, like the bear, was hunted for ceremonial purposes. It was caught by stationing hunters in baited pits. Smaller birds, used ceremonially, were trapped or shot.

The Navaho distinguish very clearly two types of hunting: ritual and non-ritual. This was brought forcibly to my attention in the following manner. While discussing the process of making a quiver from the skin of a mountain lion, I inquired how the lion was hunted. I was informed that, "Oh, we do not hunt mountain lions; we merely kill them. We hunt deer, but not mountain lions" (C.). From the Navaho point of view there was no such thing as hunting mountain lions because there was no ceremony involved in their killing.

Deer, antelope, bear and eagles were ritually hunted. The ritual behavior and observances employed were of the same pattern as those used in the chants and in war. The hunting party was under the direction of a shaman or chanter. This man instructed the hunters as to their conduct, and performed and directed the rituals. His knowledge was esoteric and he received for his work an extra allotment of the kill. When such a shaman announced that he was going on a hunt, volunteers would present themselves. Anyone was eligible, even though he were a chanter of another Way of hunting than that of the

² This is contrary to the statement made by Matthews (*Navaho Legends*, 239, note 170) that deer and antelope were often run over cliffs.

shaman initiating the hunt. The ritual began as soon as the party left home and continued for the duration of the hunt. These ceremonies of the several Ways of hunting, which applied to personal conduct, camping, killing and butchering the game, breaking camp, etc., show great uniformity. However, each Way was distinct in the Navaho mind and as such must be described here in detail.

A few remarks on the attitudes involved in those pursuits are necessary.

The Navaho believed that although the hunters killed the game, the game did not die but eventually returned to its "own country." "The game are like human beings, only holier. They are like Holy People" (R.H.). For this reason hunters were particular to observe all the rituals and tabus. If any were unfulfilled it was thought that the game suffered. This, the animal would report on its return "home" and as punishment sickness, death, or accident was meted out to the hunter guilty of the transgression.

Another reason given for the adherence to the ritual was that the Talking Gods were cognizant of the hunters' actions. If these gods saw that the restrictions were being carried out properly, they drew the game toward the hunter in order that it might be easily killed. The animals themselves were also thought to be aware of the hunter's conduct. "If a hunter observed all the ritual the game allowed itself to be killed. No game would want to be killed by a man who was careless."

The hunters felt that by observing the conditions of the ceremonies they themselves underwent a change. They believed that the ritual made it possible for them to accomplish much more than was possible for them under ordinary circumstances. For example, in the Wolf Way of hunting, they thought that they actually came to possess many of the attributes of the wolf, particularly his prowess in the hunt.

The beliefs connected with catching eagles paralleled those current in hunting deer, antelope and bear. All rituals and rules were strictly adhered to because "the eagles go way up in the sky and live there. They are like the earth people, only more holy" (C.).

The most outstanding feature of the ritual hunt was the complete reversal of the psychology of the participants. Through the hunt they found release from ordinary restrictions. In everyday life around the hogan the hunters were normal individuals of the group. They shunned speaking of death, blood, or killing. Their hunting songs could not be sung because of their danger to women, children and sheep. However, as soon as the party left on a hunting trip the individual behavior underwent a complete change. The hunters did everything possible to emulate the animal in whose Way they were hunting: eating from branches, sleeping like animals, and using animal cries to call other members of the party. Topics that dealt with blood and death, which under ordinary circumstances were avoided, were now spoken of with the utmost freedom. The hunters were charged to keep their minds on killing and things pertaining to death. The demeanor, habitually gay, became dour, and no joking or levity of any kind was countenanced. Dreams of killing and defeat, which in ordinary circumstances were omens of disaster, were interpreted on a hunting trip as signs of good fortune. After meals, instead of the usual "may it be pleasant,"

the hunters recited some phrase connected with killing. Again pollen was thrown into the fire, an act which, under ordinary circumstances, was one of the worst sacrileges a Navaho could commit.

At the termination of the hunt "everything pertaining to killing was put away [out of mind], everything was pleasant again, and Blessing Way songs could be sung." However, before a hunter took up the ordinary routine of life he had to cleanse himself in the sweat house. If this was not done it was thought that all future prayers of that man would be ineffectual.

MYTHOLOGICAL BACKGROUND

Sanctions and rationalizations for the several Ways of hunting are in the myths.³ The control of the game was divided among three beings. What were the functions and duties of these three beings was not well formulated in the Navaho mind, and opinions differed.

One informant stated that the animals were under the control of be'gočidí.

Be'gočidí was the son of the sun. The sun committed adultery with everything in the world. That was how so many monsters were born. After this, the sun was put a way off so that this could not happen again. But as the sun came up he touched a flower which became pregnant and gave birth to be'gočidí. He was the youngest son of the sun, and the sun spoiled him. He was put in control of many things, such as game and domestic animals. He was a berdache and the first pottery-maker.

He could also move about invisibly and change into different forms at will: a rainbow, wind, sand, water, etc. He was named be'gočidí because he would make himself invisible and sneak up on young girls to touch their breasts, shouting "be'go, be'go" (breast). He especially annoyed men who were hunting. When a hunter had taken his aim and was ready to shoot, be'gočidí would sneak up behind him, grab his testicles, and shout "be'go." This spoiled the hunter's aim every time. The worst was when a man and woman lay down to have intercourse. He was always touching one or the other and shouting "be'go" (S.C.).

According to another informant be'gočidí was the one who made the game, but the control of them was in the hands of Talking God and the Black God (C.). A third (O.W.K.A.M.) stated that the Talking God controlled the bucks and the Black God the does, and that those two gods taught the Navaho the songs used in hunting.

Still another informant (T.L.F.O.S.) gave the following account:

The Talking God and the Black God were in control of game, but be'gočidí was more important. The trouble with him was that you could not depend on him. He was the son of the sun, invisible, yet likely to appear at any time. He was the god of game and taught the Game songs to men.

One of the several explanations of hunting ritual is contained in the following abstract from the author's collection of Navaho myths. The action of the story is purported to have taken place in the vicinity of ci'č'in bi'tó (Sumac Springs) near Kayenta.

³ Myths referring to the specific Ways of hunting are given below with the description of those Ways.

There were four wealthy brothers. The youngest of the four gambled away all his property and was turned out by the other three. He decided to take a journey down a large river and prepared a log in which to travel. He was assisted by a pet turkey and the Holy People. After many adventures he completed the journey and arrived in a strange country. He met a girl and a man. The latter warned him against traveling to the mountain regions located at the cardinal points. He disregarded the warning and on four successive days visited these areas, where he was taught the various rituals concerned with hunting, skinning, butchering, etc. Finally he returned home and taught the several ceremonials to the other Navaho.

EDUCATION IN RITUAL HUNTING

When boys reached the age of eighteen or twenty, they began to accompany hunting parties. At first they were given the menial tasks of the camp to perform, but gradually assimilating the lore of the hunters, took part in the hunt. If they were ambitious to become party leaders they approached one of the shamans or chanters who knew the ritual of the particular Way they wished to learn, and asked to be instructed. The instruction was usually given in a sweat house some distance from the hogans, as Game songs were thought to be dangerous to women, children and livestock. The pupil generally paid the instructor, payments varying according to the Way of hunting, and according to what relationship, if any, existed between instructor and pupil. There was no clan specialization in any particular Way of hunting. A leader would teach anyone who asked to be instructed.

One Wolf Way hunter (C.) was taught the ritual by his clan uncle, to whom he gave the first deer that he killed as payment. Another Wolf Way hunter (T.L.F.O.S.) was instructed by his father's brother. He made no payment because the uncle was "like a father to him." However, whenever he killed a large buck he presented this to his uncle.

In the Big Snake Way the novice cared for the horses and attended to the cooking on his first few trips. One informant (I.S.) was taught by his father and did not pay for the instruction, though he would have had to pay if anyone but a relative had instructed him. The price for instruction in this Way of hunting was a horse or a buckskin.

A leader in the Mountain Lion or Tiptoe Way (T.M.) learned the ritual from his granduncle. His first duties were to watch camp, gather fuel, get water, and prepare the meals. His granduncle taught him the ritual songs while they were hunting. These songs could not be sung around the homes else the children would become ill.

According to another leader of the Mountain Lion Way (T.L.H.O.), a boy first joined a hunting party as camp tender. In this capacity he had opportunity of learning to hunt and of hearing the appropriate songs and prayers. If he wished to become a leader he approached the head of the party and asked to be instructed. To his instructor he paid a "black" bow and a tail feathered arrow or a thin string of white beads large enough to go around a thumb. In this string of beads were included one abalone bead, one of turquoise, and one of jet. No one was allowed to teach this ritual without payment irrespective of relationship. One informant was instructed by this father's brother and paid him a string of beads. Parts of the ceremony were taught at home, others in the sweat house. Throughout the

period of instruction the pupil had to remain continent. After he had mastered the ceremony, he hunted alone the first time; the second time one man accompanied him, the third two men, and the fourth as many men as wished could join the party.

The informant who knew the Stalking Way (A.M.) had first been one of a party of hunters in the Talking God Way. On his first trips he merely flushed game for the other hunters. Later on he was allowed to participate in the killing. Sometime afterwards he met a clan uncle who was a Stalking Way hunter and decided to learn that Way.

I wanted to learn that Way of hunting because the way the old man told the rules made me sure that I could always get buckskin and venison if I knew them. Beside, the old man said you could get anything you wanted by trading the products of the hunt for them. I asked the old man to instruct me. We built a sweat house away from home, and he taught me during sweat baths.

RITUAL HUNTING

WOLF WAY

The Wolf Way (na'ǎé· coh· kehgo) was one of the most popular ritual modes of hunting deer, but used less frequently in hunting elk. Late in the fall, from the first of November until the full moon of December, hunting parties were planned. "This was before the deer had mated: they were fattest at this time." The leader planned the trip and announced that anyone in the locality who desired hides or meat should join. Usually four to ten men made up the party.

The meeting place and the day for departure decided on, the volunteers prepared themselves for the trip. Several methods were employed in reckoning the time between the organization of the party and the day of departure. Each member might tie the same number of knots in a string and untie one each day. Another method was to take a certain number of pebbles, corn kernels, or twigs, and throw one away each day until all were gone. A third practice was to cut notches in a stick each day until the requisite number of days was totaled.

During the period of preparation the hunters concerned themselves with their equipment. Each made a new pair of moccasins with thick soles and each was expected to make new leggings, shirt and pants. These had always to be of grayish color, never red or black.

Food for the trip consisted of corn meal and corn bread. Meat was not included because it was thought that if the being in control of game saw the meat he would think that the hunters had an ample supply and would not allow the game to be killed.

Each volunteer was told to bring extra horses for packing.

The day before leaving, all members of the party took sweat baths. The ordinary sweat house songs were sung.

On the appointed day the men left for the designated meeting place. From the time they left home until the termination of the hunt they kept a serious mein. It was believed that a man who talked or acted foolishly would meet with a hunting accident.

The location of the actual hunt was generally two or more days' travel distant, so the

gathering place was usually the first camping site of the party. Occasionally, if the whole party assembled before noon, the actual journey was begun. The first camp was without restrictions or ceremonies other than that following each meal the men rubbed their hands on their legs and said:

May my horse be strong
 May my horse be fleetfooted
 May my horse's hoofs be tough
 May my own shoes be tough
 May I be fleetfooted

In the morning the leader gave instructions to the party. They were told never to point a weapon at a person or horse. "This was for safety's sake" (O.W.K.A.M.). Likewise they were told not to shoot crows, wolves, wildcats, or coyotes, because these were partners in the hunt. They were hunting in the Wolf Way and the wolf had to be respected. The crow notified the hunters of the proximity of game by flying over the deer. The coyote was considered as a fellow hunter who ran to investigate what the crows had seen, and the wildcat was respected because of its hunting prowess.

The screech owl was also considered in partnership with the hunters. In one of the myths the screech owl promises to inform the hunters where the finest deer are to be found. At night when this bird was heard, its location was noted and the party set out in that direction the following morning.

When the location chosen for the hunt was reached everyone searched for a spot where deer tracks were numerous. When such a place had been located the leader selected a site for the camp, usually under a cedar or piñon tree and convenient to fuel, water and grazing.

Next a circular brush windbreak was erected. The leader marked the outline of the circle with pollen. Starting in the east he made a semi-circle going south as far as the west. Then he returned to the east and completed the circle going north to the west. The party was told to gather brush and the leader began to sing. As he sang the brush circle was built. The south semi-circle was built first, then the north. An entrance was left in the east. The three informants of the Wolf Way of hunting disagreed on the direction of the tips of the boughs in the brush circle. One (O.W.K.A.M.) stated that they should point toward the rear of the circle because all the Game songs told of leading the game inside the circle to the rear. Another (C.) said that they should point east toward the entrance, and a third (T.L.F.O.S.) that they should be laid clockwise.

Firewood was piled in the east outside the entrance with the growing tips of the wood toward the rear of the circle.

When this was completed the leader took his pollen, started at the woodpile and sprinkled pollen along the south half of the circle as far as the west, praying:

Along here the minds of game shall be drawn to this point
 Where its lungs its death blood shall be
 The finest and largest of game shall be drawn in here

After this prayer the leader instructed the men to place the growing tips of the wood toward the rear of the circle when replenishing the fire.

The brush circle was now ready for occupation. Another difference of opinion occurs as to the positions occupied by the hunters within the brush circle. The informant who held that the tips of the boughs were laid clockwise, stated that the leader took his place in the north and that no one was allowed to sit on his left. The informant who stated that the tips of the boughs pointed toward the rear of the brush shelter said that the leader's position was at the juncture of the bough tips in the west and that those who sat in the south side of the circle came in first, followed by those who occupied the north side.

All equipment was brought into the shelter. If any remained outside it was thought that the man to whom it belonged would meet with a hunting accident. The only thing permitted outside the circle were the hides of the deer. The first hide was placed at the northeast point of the brush circle. Hides subsequently obtained were placed beside the first one, going clockwise, until the north point of the windbreak was attained. If the party had good fortune in hunting and the hides reached this point, all were gathered up and tanned.

All weapons were leaned against the brush directly behind the leader. According to two informants (O.W.K.A.M., and C.), the growing tips of the wood forming the bows, the points of the arrows, and the barrels of the guns pointed rearward. Two other informants (T.L.F.O.S., and M.F.) said that they were laid pointing north in a clockwise semi-circle on the ground. "If you hung anything up or leaned it against something it was like putting up a scarecrow to frighten the deer."

No person was allowed to pass between the leader and the fire, nor could any object be passed across that space. The leader was believed to draw in the game by his magic: these powers were cut off and his ceremonies nullified if someone crossed in front of him.

One informant (C.) stated that the hunters could not pass between the fire and the woodpile; however, another (O.W.K.A.M.) contradicted this.

When all equipment was in the brush circle the evening meal was cooked and eaten. When everyone had finished, the leader announced that the camp had been made for the purpose of killing the largest bucks and the finest of does and that the hunters were to let nothing enter their minds but the desire to kill the best of game.

No one was allowed to go to sleep too early because it showed a lack of interest in the hunt, made the hunter lazy, and caused the game to run away. Instead stories of good fortune encountered in the past were related. These might be of successful trading trips, of good luck in gambling or on hunting trips. Tales concerned with failure were strictly tabu.

The hunters urinated and defecated in a hole, on a bush, or at the base of a tree. This prevented the urine from running off and in like manner prevented the game from running away. It also lessened the chance of urinating or defecating in a deer track or on a deer hair, which was thought to cause serious sickness.

No one was allowed to sneeze, cough, or laugh loudly. In coughing or sneezing the individual lay down close to the ground and muffled the sound. "This kept the deer from being frightened."

After meals, instead of saying "May it be pleasant," something pertaining to killing or to the death of game was said, for example, "May my eyesight be good."

The animals believed to be in partnership with the hunters were now designated by their "secret" names. The wolf (ma'i coh, big coyote) was called na·łé· coh. The coyote (ma'i) was called na·łé·i ćó·z, and the crow (gā·gi) was called čałči na·łé· ćó·z [an archaic, untranslatable reference, B.H.]. "This was because the hunters respected these animals as partners."

The leader also instructed the party as to its conduct during the hunt, telling them never to walk flat-footed, and never to come up suddenly over a ridge without first looking. If the men hunted in pairs the man in front carried his weapon pointed toward the front, the man following, his toward the rear. When climbing steep mountains the weapons were carried on the lower side so that they would fall away from the individual if he slipped.

By the time the leader had given these instructions and the hunters had related their accounts of good fortune, evening had arrived. The ritual then began. The leader said, "Let us sing for game. We will sing a few songs and then go to bed."

Accounts of the first steps of the evening ritual were obtained in two slightly varying forms. One, that each hunter took pollen, sprinkled it over his gun and asked for luck, saying something such as, "I want to kill a big buck or a big doe." Then each put pollen in his mouth, sprinkled some toward himself from the east, and prayed again for good fortune (T.L.F.O.S.). According to another informant (O.W.K.A.M.) the hunters laid their weapons around the inside of the circle, pointing toward the rear. Each weapon overlapped the one in front. The arrows or cartridges and hunting knives were laid on top of the bows and guns. Next the leader took his medicine pouches from his shoulder sack and set them in front of him. The hunters took pollen from these pouches, put some in their mouths, some on their heads, and sprinkled some on their weapons from butt to tip, praying:

From here may I kill the biggest of game
 May I break its bones
 May I shoot through its heart
 May I break its back
 May I never miss the game
 That my gun may know the game

After this each hunter took a pinch of pollen and threw it into the fire. As it sputtered in the flame he said, "May I have luck to roast meat with these sounds." This was the only case known where pollen was thrown into the fire: it was a mark of disrespect to do so. This was strictly forbidden except on hunting trips where no one spoke of things as "pleasant" but always spoke of killing.

Following the pollen offering, the leader sang a set of four Hogan songs. These were a particular set of Hogan songs pertaining to hunting and were said to have been taught to the Navaho by be'gočidí.

1. My hogan he is making for me
 I being the Talking God
 My hogan he is making for me
 On top of the dark mountain
 He is making my hogan
 With dark piñon boughs
 He is making my hogan
 The finest of black game [bucks]
 Are standing on the four sides of my hogan
 In that way he is making my hogan
 Its death will obey me as it stands on the four sides of my hogan
 In that way he is making my hogan
 Its death blood in colors of red this day it shall obey me

Stanzas 2, 4. Substitute: Black God, blue mountain, blue piñon, female deer. Stanza 3. Substitute: has made (for is making).

5. He is building for me
 I being the Talking God
 He is building for me
 On top of the dark mountain
 He is building for me
 With dark mirage stone
 He is building for me
 The finest of black game
 Are standing on the four sides of my hogan
 In that way he is building for me
 Its death will obey me as it stands on the four sides of my hogan
 In that way he is building my hogan
 Its death blood in colors of red this day it shall obey me

Stanzas 6, 8. Substitute: Black God, blue mountain, blue mirage, female game. Stanza 7. Substitute: has built (for is building).

Then the leader sang a set of two Fire songs:

The fire he is making for me
 I being the Talking God
 The fire he is making for me
 On top of the dark mountain
 The fire he is making for me
 The Big Fly Man
 He is making a red fire for me
 With a red star

He is making a fire for me
 With the finest of black game standing through the four sides of the fire
 In that way he is making a fire for me
 Its death shall obey me as it stands through the four sides of my fire
 In that way he is making a fire for me
 Its death blood in colors of red this day it shall obey me

He is making my fire for me
 I being the Black God
 He is making a fire for me
 On top of the blue mountain
 He is making a fire for me
 The Big Fly Man
 He is making a blue fire for me
 With a blue star
 He is making a fire for me
 With the finest of female game standing through the four sides of the fire
 In that way he is making a fire for me
 Its death shall obey me as it stands through the four sides of my fire
 In that way he is making a fire for me
 Its death blood in colors of red this day it shall obey me

When these ended the leader sang two or four Game songs. One informant made the following comments about the songs:

These songs started away off, so many mountains away, and gradually worked toward the camp, finally ending up inside the brush circle at the rear. You must never sing these songs near the hogans because of the women and children. The children's bones and minds are soft. These songs speak of death and evil things and the women and children and horses and sheep get sick because their minds are not as strong as men's (T.L.F.O.S.).

1. He searches for me [the game]
 I being the Talking God
 He searches for me
 On top of the dark mountain
 He searches for me
 Among the flowers
 He searches for me
 The finest of bucks
 He searches for me
 With his left front quarter
 He is searching for me
 With his death blood red in color he obeys me
 As he searches for me
 His lungs this day become mine
 As he searches for me

Stanza 2. Substitute She (and her), Black God, blue mountain, female game, her right front quarter, nerves (for lungs).

3. It stands in wait for me
 I being the Talking God
 It stands in wait for me
 On top of the dark mountain
 It stands in wait for me
 Among the flowers
 It stands in wait for me
 The finest of bucks
 It stands in wait for me
 With its left front quarter
 It stands in wait for me
 With its death blood red in color it obeys me
 As it stands in wait for me
 Its lungs this day become mine
 As it stands in wait for me

Stanzas 4, 6, 8, 10. Substitutions as in Stanza 2, but with It throughout instead of She.

5. It lies in front of me⁴
 I being the Talking God
 It lies in front of me
 On top of the dark mountain
 It lies in front of me
 Among the flowers
 It lies in front of me
 The finest of bucks
 It lies in front of me
 With its left front quarter
 It lies in front of me
 With its death blood red in color it obeys me
 As it lies in front of me
 Its lungs this day become mine
 As it lies in front of me
7. Wherever I am walking it lies in the rear of me⁵
 I being the Talking God
 Wherever I am walking it lies in the rear of me
 On top of the dark mountain
 Wherever I am walking it lies in the rear of me
 Among the flowers
 Wherever I am walking it lies in the rear of me
 The finest of bucks

⁴ This refers to the deer tracks which the hunter follows.

⁵ This refers to a deer following the hunter as he tracks another deer.

Wherever I am walking it lies in the rear of me
 With its left front quarter
 Wherever I am walking it lies in the rear of me
 With its death blood red in color it obeys me
 As wherever I am walking it lies in the rear of me
 Its lungs this day become mine
 As wherever I am walking it lies in the rear of me
 9. It lies around about me
 I being the Talking God
 It lies around about me
 On top of the dark mountain
 It lies around about me
 Among the flowers
 It lies around about me
 The finest of bucks
 It lies around about me
 With its left front quarter
 It lies around about me
 With its death blood red in color it obeys me
 As it lies around about me
 Its lungs this day become mine
 As it lies around about me

When this song was ended the leader inquired of the members of the party if they knew any songs belonging to other Ways of hunting. Then, in turn, beginning with the hunter in the southeastern portion of the brush circle, each sang whatever songs he wished.

After everyone had had an opportunity to sing, the leader said, "I think we have sung enough. We had better go to bed." He then sang two more songs called Songs of Sleep. These were among those songs thought to have been taught the Navaho by *be'gočidí* and were believed to bring the hunters auspicious dreams.

As the leader began the second Song of Sleep each hunter picked up his weapons and held them upright in front of him. When the song ended each hunter prayed in his own way for success. When the individual prayers were ended each hunter replaced his weapons back of the leader.

Next the leader instructed the party how to sleep. They were not allowed to lie flat on their backs because the soles of their feet would be toward the fire. The heat from the fire was thought to weaken the hunters and also make the game watchful. Everyone slept on his side with his knees flexed, "like the game." If a man wished to turn over he assumed a standing position, stretched his legs, and then lay down. "If he did not do this he would get sick." Sleeping in the correct manner was thought to make it possible for the hunter to approach the game without frightening it. The leader closed the instructions, saying, "We want to rise before dawn tomorrow so we can have a little ceremony. Try to remember whatever you dream during the night."

The hunters arose before dawn and sang the Morning songs. If anyone had dreamed during the night he related the dream. If the dream was of killing, being chased, of being defeated, of receiving a gift, or of having sexual intercourse, it was considered a good omen. Ordinarily to dream of the first three subjects was considered a prediction of disaster for the individual or his family. Usually three or four men in the party had dreamed. No one who dreamed of a ghost was permitted to recount the dream.

When the dreams had been related two or four Hunting songs were sung, the weapons were "blessed" with pollen, as on the previous evening, and breakfast was cooked and eaten. By this time it was light enough to start out on the hunt.

A camp tender was appointed to guard the camp in the absence of the party. One of his duties was to gather firewood which he laid tip toward the fire. This man was not allowed to eat alone. The whole party must eat together, otherwise it was thought that bad luck would result.

Each hunter picked up his weapons and left the brush circle clockwise, following the leader. They first went to the top of a hill and made a "jewel" offering. Each "jewel" had a straight line incised upon it. They were laid with a prayer at the foot of a cliff rose bush. No songs were sung at this time. However, as the hunters left for the actual hunt each sang a game song.

Next the leader gave further instructions. The hunters were told when calling their partners to use the call of the "hoot" owl, screech owl, coyote, or a whistle like a bird's. "You must never call as a human because you are hunting in an animal's way and must act like animals."

When a hunter killed a deer he gave a wolf call to attract the attention of his partners. "This was because it was told in the myth that the wolf, when running down a deer, gave a call at the kill no matter how hard he ran. This was to invite everyone to come and eat of his meat, crows, coyotes, etc."

The hunters were cautioned to be careful in shooting at the first deer that was seen. They always attempted to shoot the deer in the heart. Boys were told to shoot low if the deer was a short distance off, or if running or jumping. Great stress was laid on killing the first deer shot at, because it was believed that if it got away the rest of the deer would also. Connected with this was the belief that if on the way to hunt a man killed a porcupine or a rabbit, the "luck would start coming."

In the practical procedure of the hunt, two or three men worked together. The best shots of the party hid beside the deer trails at the outlets of a canyon. The rest beat the brush to flush the game and drive it toward the ambushed hunters. As soon as a hunter flushed a deer, he made a smoke signal to notify the party. In turn each one of the hidden hunters gave a wolf call as the deer ran by his post. In this manner the deer was kept running until it was tired out, then it was dispatched with an arrow. This process might take a half day or a day. When the first deer had been killed attempts were made to kill the following ones without exhausting them. The most common method was to track them. "Often the deer were so thick that all you had to do was to decide which one to kill" (C.).

If two men were present when a deer was killed they immediately ran to the fallen deer and turned its head toward the camp. "This was to draw the minds of the game to your camp." If three men were together and one of them shot a deer the two others raced to the fallen animal. The first to arrive jumped on the deer, turned its head toward the camp, thanked the shooter, patted the deer, and said. "May others like you follow you, may you bewitch many others." This man received the hide of the deer.

When turning the deer the hunter was very careful not to inhale the breath of the dying deer. "This will make you sweat and make you sick right there. Of course the leader had medicine for this, but prevention was better than cure" (O.W.K.A.M.).

Once the deer was turned with its head toward the camp it was thought that if anyone passed between the head and the camp the hunting luck would be cut off.

Each step in the skinning and butchering of the animal was carried out according to a set of rules. The man who claimed the hide began to skin the deer. His partner or partners gathered piñon branches and laid them in a pile with the growing tips toward the camp. According to one informant, the deer was laid on these boughs for skinning (C.). Another stated that it was laid on the piñon after the skin had been removed (O.W.K.A.M.).

When the brush pile had been made, a fire was built and all assisted with the skinning. The skinner first made an incision at the breast and cut the hide along the belly back as far as the anal aperture. Next he made a cut forward from the breast to the edge of the lip. If either the anal aperture, the genital aperture, or the lip was cut it was thought that the hunter cut off his luck.

Next incisions were made on the inside of the legs to meet the ventral cut. According to one account the hoofs were left on the hide (C.). According to another, a cut was made around the leg just above the hoof, which was left on the carcass (O.W.K.A.M.). The legs were then skinned out. Care was taken not to cut a gland (ažakun?) located in the rear part of the back legs. "This has a strong smell. If you cut it it makes all the rest of the deer fleet footed."

When the legs were skinned the hide was removed up to the head. In skinning the head of a buck a V-like cut was made on the forehead between the horns, with the apex of the V at the nose. If the deer was a doe a single incision was made down the center of the forehead. Next the skin was cut around the lips, eyes, and nose, and if a buck, around the horns. Starting under the jaw it was then possible to peel the hide off over the head. Care was taken not to damage the eyes or the skin about them. "If the skin about the eyes was cut, it would bring on eye sickness."

With fawns the back legs were skinned first, then the hide was cased without further cutting. No ceremony was connected with the skinning or killing of fawns. The meat was cooked and eaten in camp.

The hide was reversed and placed back on the deer, head to tail. Then the hunters patted the deer, rubbed blood from its mouth on their weapons, and asked for good fortune, saying, "I want to have good luck." After this the skin was removed and the butchering began.

Occasionally it was agreed before the party left that if a very fat buck was killed, the fat layer under the skin would be taken off before the butchering. This was done only when the party was small; for a large party the fat was cut up with the meat.

"The Talking God instructed the people in this way of butchering when he told them how to skin the game for their own use." The lower leg joints were broken and allowed to hang to the carcass by the tendons. The meat on these joints was torn away from the bone. Next, cuts were made on either side of the jaw and the lower jaw pulled out. The breast meat was cut away from the bone and left attached to the throat. An incision was made along one side of the breastbone through the belly to the tail and the intestines removed.

The entrails were taken out, beginning with those forward in the body. "This will cause the rest of the deer to retrace their steps again when they are flushed and run away."

According to one informant (C.), the contents of the stomach was emptied on the piñon boughs in front of the deer; according to another (L.F.O.S.), it was deposited at the tail of the animal. If a buck had been killed the penis was buried in the stomach content with the tip projecting. The bladder of a doe was buried in the same manner. The urine was allowed to drain out naturally, because it was thought that if the bladder was squeezed the hunter would contract an illness. Burying these organs in the stomach content was supposed to make the deer hide in the brush rather than run away when the hunter approached.

The colon of a buck was wrapped around one of the horns. The intestines and the liver were thrown on the fire, roasted, and eaten, "because the hunters were hungry." Curiously enough the rule that all the hunters must eat together seems not to apply in this connection.

In cutting up the carcass, it was permissible to remove the four quarters before the intestines, if the hunter desired. However, they were usually left until later. The fore quarters were cut off first, leaving the shoulder blade attached to the body. The hind quarters were taken off, leaving the hip bone on the backbone. The ribs were cut from the backbone. The ribs that had the breastbone attached were the property of the man who killed the deer. The neck was cut and the lower jaw split off. The lower jaw, tongue, windpipe, lungs, heart, and meat from the breast were left in one piece. This portion also belonged to the hunter who had killed the deer. The windpipe was split down the center. "You must never leave it whole. As soon as it was split the deer was dead, otherwise it was alive" (O.W.K.A.M.). This completed the butchering.

If the hunters wished to continue hunting the meat was placed in a tree; if not, two men of the party were selected to carry the meat to camp. These packers were notified by smoke signals of the location of subsequent kills.

The meat was carried on a frame. Two poles, about as long as the individual's height, were placed about a foot to eighteen inches apart. On them three cross pieces were tied with yucca leaves near the center of the poles, at approximately one foot intervals. The meat was placed on this frame, covered with the hide and tied in place. A tumpline or breastline was tied to the frame so that the load could be carried on the back. Often the top of the frame extended above the head of the packer.

Meat could not be taken inside the brush circle until the whole party returned from the hunt. It was stacked on a pile of brush located on the south side of the woodpile, the brush lying with tips toward the camp circle.

When everyone had returned, the leader took his place in the brush circle. The hunters decided who had made the first kill and the meat of that deer was taken in first. The sections of meat which included the tongue, heart, jawbone, lungs, and breast meat, and the ribs with the breastbone attached were hung in the rear of the windbreak, on a stringer supported by two forked poles. Those of the first deer killed were placed on the south end of the stringer. The same portions of other deer were placed north of this, in the order in which they were killed. None of these might be eaten while the party remained hunting. At the termination of the hunt each hunter took home those sections that belonged to him.

The remainder of the meat was piled on piñon boughs in the rear of the circle, the boughs laid with their tips pointing clockwise.

The hide of the first deer killed was placed outside the brush circle to the south. The ears were arranged to point clockwise. Other hides were placed next to the first, going clockwise.

The horns were chopped out of the skull and placed inside the circle. The informants disagreed as to their position. Some said that the horns of the first buck killed were placed in the south, the rest following clockwise. According to others the first set of horns rested back of the meat pile in the west and faced east, and the horns of other bucks were laid in clockwise sequence by the side of the first.

The heads of the deer were placed beside the fire as soon as they were brought into camp. When the eyeball burst the head was turned and left until the other eyeball burst. This was thought to cause other deer to become blind. These heads formed most of the meat food of the party.

When all the meat had been placed, a man was appointed to distribute it. Excluding the hide, which belonged to the man who had first jumped on the deer after it was shot, and the ribs with the breastbone attached, tongue, lungs, heart, lower jaw, and breast meat, which were the property of the man who killed the animal, the remainder of the meat was divided among the party. The leader received the largest share: the rest shared equally. For example, a man would first be given a fore quarter, then a hind quarter, then a set of ribs; then the order would repeat itself. The distribution was made every evening after the hunt.

Each hunter kept his meat separate from the rest. He might cook it or jerk it as he desired.

The same proceeding was gone through each day for the duration of the hunt. A party might stay out from two to fifteen days. When the desired quantity of meat had been obtained, and when each hunter had had an opportunity to claim a hide, or when the food supply began to run low, the leader announced that the party was ready to break camp.

At this announcement everyone began to scrape the hides. Cedar poles, on which to rest the hides while scraping them, were cut and a piece of turquoise sunk in the center. For doe skins a piñon pole with a white shell bead was used. The beads represented offerings to the "Game Gods." It was thought that if a man used such a pole without first inserting a bead, or if he was called away and did not lay the pole flat on the ground, his joints would stiffen.

After the hides were scraped the meat was cut up. The bones were removed and left in the brush circle. Fats that had become rancid were thrown away. If a man had obtained more meat than he needed, he gave some to less fortunate members of the party.

When everything was packed and the party was ready to depart, the horns were taken out and ritually deposited: occasionally they were left in the camp and the ceremony performed there. The horns of the first buck killed were placed at the base of a young piñon or mountain mahogany. The horns of the other deer, in the order in which they had been killed were placed in a line, extending east, back of the first pair. If the terrain in the east was not level, the line was extended toward the south. A deposit of turquoise beads was made and pollen was offered. The pollen was sprinkled on both sides of the horns, while the leader prayed: "Talking God, my granduncle, today I wish to thank you for the good you have given us. Today this shall return to you as your own."

After this, the party returned to camp and reversed the tips of one of the boughs of the brush circle at each of the four cardinal points. This was a signal that the restrictions of the hunt were ended. The hunters erected a sweat house where all cleansed themselves, and then washed their clothes. "Everything pertaining to killing was put away [out of mind]. Everything was pleasant again and Blessing Way songs could be sung" (T.L.F.O.S.).

This terminated the hunt and all were at liberty to again take part in the normal life of the community with the exception of the married men, who had to take another sweat bath before having intercourse with their wives.

Occasionally the leader might decide to continue the hunt on the way home. In that case the sweat bath was postponed. However, it had to be taken before the party reached home.

BIG SNAKE WAY

The Big Snake Way of hunting deer (*łi'scoh kehgo*) followed the ritual pattern of the Wolf Way (I.S.). In the Navaho mind the principal difference lay in the songs used. In actual hunting procedure there was also a difference: the goal in the Wolf Way was to drive the deer toward ambushed hunters, or to trail them, but in the Big Snake Way they were not driven. "They (the hunters) attack like snakes from ambush." Minor differences in observances also occurred. Only deer were hunted in the Big Snake Way.

The leader gathered a party of any number and made up of hunters of various Ways. However, all hunters must obey the leader and those of other Ways of hunting were not allowed to sing their songs without permission from the leader.

Any food that would keep was taken for rations. Jerked meat and corn bread formed the major supplies.

No restrictions were observed before leaving home or while on the journey. They went into effect only when the party arrived at the locality where the permanent camp was to be made (I.S.). It was permissible to kill rabbits on the trip. However, the crow and coyote were considered partners in the hunt and could not be molested. The entrails of the deer were always left for the crow and coyote (Naldjei).

The leader chose the camp site. Any available brush was used in making the brush circle. The growing tips of the brush were laid pointing east and the entrance was to the east. "The tips of the brush in the circle must point east because all the hunters sat facing that way." The size of the enclosure depended on the number of men in the party (I.S.).

According to Naldjei the first two limbs that were broken off were laid in the west with their growing tips touching. After these foundation branches were laid the remainder might be piled on in any manner.

The firewood was piled east of the entrance with the tips lying east and west.

On the first evening all the weapons were brought out and the tips of the bows, arrows, guns, cartridges, and knives were pointed toward the east. The man occupying the south-eastern portion of the circle put some of his pollen in his mouth, some on his head, and sprinkled some toward himself, saying, "May I have good luck." Then, in turn, clockwise, each member of the party did the same (I.S.). According to Naldjei pollen was never placed in the mouth while on a hunt. "You do that at home. When hunting always throw it away from you so the gods will bring you luck."

When this was ended the leader sang some songs. Those referred to the building of the brush circle and the fire, but were "different" from those sung in the Wolf Way.

When the leader had sung four songs, the pollen blessing was repeated. Then the weapons were carried to the place where each hunter was to sleep. The leader slept in the center of the group immediately behind the fire; there were no specified places for any other members of the party.

The hunters were not allowed to lie on their backs. "That was the way you were going to place your game for skinning. If you lay on your back you would not kill any game." The hunters also slept with their legs flexed, for if a man slept with his legs stretched out it was thought that the deer would run out of his sight "like lightning" before he had an opportunity to shoot.

If a man had a "bad" dream while hunting he deposited pollen at the base of a tree at the top of a hill. Such a dream would be one of being bested by a man at home. Good luck dreams included those about seeing a person shedding blood (the opposite interpretation from that given in ordinary life), of a girl at home, or of shaking hands.

No one was allowed to pass between the fire and the woodpile. "This would cut off the luck."

There were no restrictions concerning urination.

One of the party was designated to tend camp. This individual had a special song. His duties included cooking, gathering fuel, and doing general chores. He was not allowed to eat by himself because this was thought to bring ill fortune to the party.

Women were occasionally included in the hunting party. They assisted with the camp duties, jerked meat, and scraped green hides. They were forbidden to have intercourse with any of the members of the party, and if a woman's husband was in the party she was not allowed to sleep near him.

The party prepared to leave on the hunt before dawn. All lined up beyond the woodpile and sang. At a certain word they put their arrows to their bow strings, or cartridges in their guns, and left for their respective hunting locations.

Men usually hunted in pairs. The hunters waited for the deer to pass along their trails. No attempt was made to flush the deer or drive them toward ambushed hunters. "You would know right away whether you were going to have luck. If you were going to have bad luck the deer would keep running. If you were going to have good they would come right up to you and you could almost grab them by the legs."

Should the party see no deer, or if those that were seen got away, the leader acted to overcome this. He took "jewels" from his pouch and deposited them near a deer track, near a tree on which a deer had rubbed its horns, or near a dead tree which had fallen with its tip pointing toward the camp. The "jewels" offered were turquoise, white shell, abalone, and jet. On each was scratched a straight line. "The reason that this was put there was that the hunter wished to cut the deer's belly that way." After the offering, prayers were said.

When a wounded deer stepped into a gopher hole it was believed that he left something behind to tire the hunter. If it walked or jumped over a log it was thought to have placed a protection between itself and the hunter. To avoid losing the deer the man always passed on the south side of the hole or log.

When deer were seen breeding it was a sign that the man's wife had committed adultery in his absence. (C.L. cited his own case as an example of the truth of this belief.) If a hunter could kill the buck it was believed that misfortune and death would overtake the man at home. If a dying doe urinated it was thought that the hunter's wife was desiring to have intercourse.

If blood gushed from the mouth of the slain deer it was rubbed on the points of the arrows or the end of the gun barrel.

If there were two men present when a deer was shot, the hide fell to the share of the hunter who had not killed the animal. If only one man was present and he skinned the deer, the hide belonged to him. The individual who made the kill retained all the meat, except the lungs, which were the property of the leader. When camp broke up the leader disposed of these lungs as he wished.

A deer was skinned on the ground where it fell. The head was turned toward the camp. "This was done in order that all the deer would face the camp and that their minds would

be drawn toward the camp." Next the Black God and the Talking God were thanked. No one was allowed to pass between the head of the deer and the camp, because it was thought that this would head all the deer away. Nor could the hunter step over the carcass for fear of contracting an illness.

When skinning, an incision was made at the breast and the hide slit first toward the rear, then toward the head. Next the skin of the forelegs was slit on the inside, followed by the hind legs. The animal was then skinned out up to the head. In skinning the head, a little of the hide was left around the mouth, nose and eyes. If the skin about these three places was cut it was thought that an illness would afflict the hunter. This sickness was incurable except by the Plume Way chant ('a'cose'). The skin was not reversed on the carcass as in Wolf Way.

In butchering, the fore quarters were cut off first and the joints broken. Next the head was cut off, leaving the lower jaw attached to the body. Then the hind quarters were removed and the joints broken. The hip bone was left attached to the backbone. After this the intestines were taken out and parts which were to be used were cleaned. Unborn fawns were eaten. They were considered a delicacy and it was thought if they were left the gods would consider the hunters were wasting meat and send bad luck. The content of the stomach was dumped in a pile. The penis or the bladder was buried in this pointing toward the camp.

This was done in order that the game would head toward the camp. You take them out toward the rear because you want to prevent breech birth of your children. The genitals placed in the stomach content will form another live deer. You say, "You will be alive again as a deer, here are your genitals and whatever else you have" (Naldjei).

The lower jaw, with the tongue, lungs, and heart attached, was taken out. Next the ribs were cut off, leaving only the backbone.

When a fat buck was killed this fat was skinned off. If the hunter was alone he put this tallow, the tenderloin, and the breast into the hide and carried it to camp, while the remainder of the carcass was cached in a tree. All portions of the animal taken into camp had to be split or slit otherwise the hunter would contract stomach trouble and his wife have difficulty giving birth to children.

There were songs for skinning, taking out sinews, and for caching the meat.

When the hunters returned to camp they placed their weapons on the ground within the brush circle, pointing clockwise. They were not allowed to hang weapons on a tree or bush. "If you were careless with your weapons you would have no luck."

When one of the party killed a deer late in the day, and as a result did not reach camp until the rest of the party were asleep, he set down his pack outside and waited for someone to wake up and bring the meat in for him. A hunter could not bring his meat into the brush circle unless no one else was present.

The meat was placed at the rear within the circle. The horns of the first deer killed were placed inside the brush shelter at the west. Those horns obtained later were placed

next to the first pair, running toward the east, in a contra-clockwise direction. The lungs, hearts, etc., were placed in the same order as the horns.

Camp was broken when the leader decided that enough game had been killed. The decision was usually a sudden one and no special preparations were made.

Before the hunters left for home the horns were deposited at the base of a young spruce or piñon tree and a prayer was said. They were lined up in reverse order from that given them in camp and faced away from the camp. "This was because you were wishing the deer to return to their own country." Then each member of the party passed his pollen horizontally between the horns and himself, saying, "May I live long; may I have good luck."

If there were a great many skulls the leader took the one belonging to the first deer killed and placed it on the branch of a tree. Skulls of deer subsequently killed were placed on other limbs, going clockwise, each on a higher limb than the last. This ended all restrictions and the hunters returned to camp, gathered their belongings, and left for home.

On the journey home, if an individual ate meat from a bone, he did not throw the bone away but placed it carefully in a bush. This was done out of respect for the deer. Only the bones of ordinary animals were thrown on the ground.

When the party arrived in sight of their homes each member sang a particular hunting song to himself. On arrival each took a sweat bath. When clean he mixed some of his hunting herbs and all present were given a taste of these or rubbed with them. After this all might partake of the venison.

MOUNTAIN LION, TIPTOE, OR DEER WAY

Like the two previous hunting rituals the ceremonies and observances of the Mountain Lion or Tiptoe Way (na'ize'?), sometimes also known as the Wildcat Way, conform very closely to the established ritual pattern. This Way was primarily concerned with the killing of deer. It was also used for hunting antelope and, according to one informant, for mountain sheep. This last, however, is doubtful.

In the western portion of the Navaho area a minor local variant of this Way of hunting occurs. In their practical aspects the hunts are identical. However, in the west the appellation of Mountain Lion Way is replaced by that of Deer Way (bĭh kehgo). The small ritual aberrancies which occur have been noted in the general account under the informants' names, G.H. and M.D.W.

Beside the difference in songs, this Way of hunting was distinguished from others in practical procedure. According to the Navaho the most important of these features were: always to keep the arrows on the bowstrings ready to shoot, to walk continually on tiptoe, and to walk against the wind. "You cannot tiptoe in American shoes" (T.L.H.O.). The hunters tiptoed along the game trails and investigated likely hiding places for deer. There was no stress on trailing deer and they were not shot from ambush.

The leader gathered a party and a date for departure was set, always an odd number of days away, usually five, seven, or nine. Corn meal and meat were taken for supplies. A

hunter was not allowed to cool his mush by blowing upon it, because it was thought that in so doing he blew the game away. In cooking the meat care was taken to clear off the embers of the fire before placing the meat on them. If a hunter got ashes on his meat "it showed that when he killed meat he was not careful with it and not fit to use it."

When the party set out on the hunt all the members were told to put everything from their minds but the idea of killing game. All their thoughts, prayers, and songs had to be about game. If luck was good the party stayed in the field only ten days, but if the game was scarce they might stay out for as long as a month.

When the locality of the hunt was reached, a circular brush shelter was built. The tips of the brush were all laid pointing toward the back of the circle. The entrance was to the east.

The woodpile was outside the circle due east of the entrance. The tips and butts of the firewood were laid east and west.

The station of the leader was in the rear of the circle at the juncture of the tips of the brush, with the other hunters on either side. Each man was compelled to sleep in the same spot for the duration of the hunt. The men were instructed to sleep on their sides. If they wished to turn over they stood erect and then lay down again. It was believed that sleeping and turning over in this manner would prevent the deer from seeing the hunter. "They would continue eating and not run away. If you slept on your back with your legs extended you would not be able to see the deer" (G.H., M.D.W.).

If a member of the party had a dream which under ordinary circumstances would have disturbed him, this did not apply on a hunting trip. The ill fortune portrayed in such a dream was thought to be transferred to the game and the dream therefore was a symbol of good omen. If, while hunting, you dreamed you killed a man it was a sign that you would kill a very large deer. It was considered good luck if a hunter dreamed of hearing old cedar trees fall. "The next day you must go toward the direction in which you heard the tree fall and there you will kill some deer. If the hunters do not dream you will kill no deer" (M.D.W.).

While hunting it was forbidden to kill crows or coyotes. "They were your friends and were also hunting. Besides you use the coyote songs for the purpose of catching and killing deer" (G.H.). However, if a fawn was chanced upon it was believed that unless it was killed bad luck would follow. Contrariwise it was thought that its death would insure the killing of other deer.

If a deer cried out when shot it was believed that the animal was conveying information of a misfortune which had happened to one of the party.

When urinating the hunter faced towards his home. "This was for good luck." He dug a hole in which to urinate, as it was thought that if the urine ran off the game would run away. This restriction was not recognized in the Deer Way (M.D.W.).

The party arose at dawn, and as soon as breakfast was finished they prepared to leave for the hunt. The weapons of each hunter were laid before him while a song was sung.

They rubbed their entire bodies with "medicine" to prevent being hurt or frightened should a deer spring up beside them. Following this the hunters picked up their weapons and the party walked out of the circle clockwise around the fire.

The leader directed the party to deploy in different directions. The hunters tiptoed about looking for deer tracks and went into places where deer might be expected. If a deer was flushed, the wolf call was given and an attempt made to head the deer in a pre-arranged direction.

When a hunter flushed the same deer several times and lost it he sat on its tracks and sang a song. The hunter then followed the spoor believing that on the next occasion he would find the deer asleep and be able to kill it.

The first deer shot belonged to the leader, irrespective of who killed it. The leader was at liberty to dispose of this animal in any way he saw fit, but this had to be previously agreed upon.

Deer hides might be claimed in several ways. If the leader killed the first deer, he was privileged to skin the deer while singing a song and to keep the hide. When a solitary hunter shot a deer and finished skinning it before anyone else arrived, he kept the hide. However, he might be half through when another hunter arrived. The newcomer would come up to the deer, pat it and say, "Thank you." The killer of the animal then stepped aside and the other hunter finished the skinning and kept the hide. When three or four hunters were together and a deer was killed, the first to reach the animal claimed the hide.

Occasionally it was agreed upon that all the skins were to be brought into camp, dried, and distributed at the termination of the hunt. When the hunt was over, the party lined up and, beginning with the leader, the hides were distributed in rotation. Anyone was privileged to stand next to the leader in the line, either a seasoned hunter or a novice.

Deer were placed on a pile of piñon boughs for skinning. The tips of the boughs and the head of the animal pointed toward the camp. It was thought that if anyone passed between the head of the deer and the camp the luck of the party would be cut off. An incision was first made in the hide along the ventral side; then on the inside of the hind quarters; then on the inside of the fore quarters. Next the skin was cut around the mouth, leaving the lips, and around the eyes, leaving a ring of hide. "This was done in order that the deer would return to its country in perfect condition. If the deer were to go back damaged, the hunter would become ill" (T.L.H.O.). The hide of the head was cut down the forehead to the nose. Then incisions were made from the horns to this median cut. It was tabu to slip the hide off over the horns and these incisions made it possible to take it off around them. The skin was reversed on the carcass, tail to head, head to tail, and the hunters patted the deer and asked for good fortune.

If a buck was very fat the fat was skinned off in the same manner as the hide.

When the butchering began the joints were broken and left hanging to the carcass by the tendons. If this was not done it was thought that the next animal shot would not fall. Next the front quarters, and then the hind quarters were removed. The hip bone was

left attached to the backbone. After this, the ribs were cut on one side of the breastbone, the belly opened and the intestines removed. The contents of the stomach was dumped in front of the head, and the genitals of a buck were buried in this, with the tip of the penis pointing toward camp. The genitals of a doe were treated in the same manner. "This was done in order that the game would head toward the camp." The lower jaw, windpipe, lungs, and heart were taken out in sequence. The windpipe was slit while facing camp, "as you wanted the deer to come toward your camp" (T.M.). Finally the ribs and head were removed, leaving only the backbone.

The same restrictions were observed in skinning and eviscerating does and fawns, except that it was not necessary to cut around the horns in those instances.

The jaw, lungs, windpipe, heart, fat from the kidneys, and the ribs with the breastbone attached belonged to the hunter who made the kill. One informant, who was left-handed, said that he always received the left set of ribs with the breastbone. The sinews were given to anyone who needed them.

If the hunters were ready to end the hunt for the day they carried the meat into camp. If they desired to continue, the meat was cached temporarily, or carried in by the camp tender. It was placed in the hide, the legs of which were tied diagonally across, front leg to back leg. The head was placed on top of the pack facing the direction in which the hunter was going. A breast strap was used in packing.

On arrival at camp the horns were chopped out of the head and placed inside at the rear of the brush circle, in line with the juncture of the tips of the boughs at the back. They were piled one upon the other, with the horns of the first buck killed resting on the bottom.

East of the entrance to the brush circle and the woodpile was a pile of piñon boughs whose tips pointed west. The packs were unloaded on this and the meat was carried into the circle and stored on boughs at the rear. As the supply of meat increased it was jerked, either inside or outside of the windbreak.

No one was allowed to pass between the fire and the woodpile, or the woodpile and the unloading pile, for fear of cutting off luck of the party.

A stringer supported by forked poles was erected inside at the rear of the circle and on this were hung the jaws, hearts, lungs and windpipes. The first was hung at the south end of the stringer, the second north of this and so on, until the north end was reached. Then the next jaw, etc., was placed on the first one at the south, and the process repeated. Putting the jaw and other parts on the stringer back of the fire, from south to north, was said by the Navaho to symbolize a corral. It was thought that this induced the deer to come to the brush circle.

It was customary in hunting in the Mountain Lion Way to observe all rituals and restrictions for four days. At the end of this period the leader would say, "Let us have a sweat house." This was built, baths were taken, and the restrictions were lifted, the men then acting and hunting as they wished. However, the hunters were still not permitted

to have intercourse with women. While women were allowed to accompany the party, it was thought advisable not to have them along, as they offered too much temptation.

During the hunt no one was allowed to leave the party and return home. The entire party had to break camp and leave together. When the party decided to leave, the day of departure was set three days ahead. A sweat house was built, where the older men took baths while the young men prepared the packs. Once a man had taken a sweat bath he was not allowed to shoot any more game. "You could not shoot a deer even if it walked into your camp."

On the day of departure the horns were deposited at the base of the finest spruce that could be found. They were piled in the same order that they had occupied in the circle. Between the horns of the first buck killed the leader placed a turquoise, a white shell bead, an abalone shell bead, a jet bead, corn pollen, and "blue pollen" (the petals of the violet). After this each member of the party offered pollen and said a prayer, asking for continued "good luck" and giving thanks.

In the Deer Way the heads were placed in a row from south to north facing east, about a hundred yards east of the camp. Once the heads were taken out no more hunting was permitted. Pollen was sprinkled toward them and songs were sung. "As soon as the hunters leave these heads will turn into deer again. These deer will go back to their home" (M.D.W.).

The party then started for home singing Blessing Way songs during the journey. On arrival, before they disbanded, the leader announced that he would have a Blessing Way ceremony performed over the hunters by a chanter. Each hunter was told to bring some meat to be used in the ceremony. Those who as yet had not taken sweat baths did so, and washed their clothes. All were required to stay away from women until this ceremony had been performed. It was an all-night ceremony at which the hunters offered pollen, said prayers, and sang, asking for good fortune in the future. When this was completed all members of the party were at liberty to participate in the normal life of the community.

TALKING GOD WAY

The Talking God Way of hunting deer appears to have been the most informal of all the ritual Ways of hunting. It could be indulged in by a single individual or by a group. The person or persons did not make camp, but hunted from home. According to some, because no camp was made, there was no ritual connected with this Way of hunting. Others stated that ritual was practised, but could give no consistent account. This difference of opinion was probably due to the fact that while the observances pertaining to skinning and butchering were adhered to, the camp rituals, which to the Navaho were the most important of the hunt, were eliminated.

This was the only type of deer hunting in which dogs were used. They were taught to track the wounded animals.

A unique method of hunting under this Way was contributed by M.L.H. The hunter

concealed himself in a tree in or near the bedding ground of the deer and waited until dark. From this advantageous position he shot the animals as they slept.

ENCIRCLING BY FIRE

One of the rarer ritual methods employed in hunting deer was encircling by fire ('ináxodo:ká:í).⁶ This type of hunt was used in the fall when the vegetation was driest. The leader of the party picked a locality in which deer were known to be numerous. He first went to some high point and shouted a warning to the Bear People to leave the deer. "This was because the deer and the bears went together in the fall. As soon as the bears heard the warning they left right away" (R.H.).

Next the chanter searched until he discovered some deer dung. He made a circle of grass around the dung and sang and prayed over it. Then making fire with a fire drill, he lit the pile at the four cardinal points. When the fire burned brightly the eight principal runners lit their cedarbark torches in the flame (M.M.).

Two men with lighted torches ran in wide semicircles. They lit the grass, bushes, and anything combustible. They ran on until the two semicircles converged and formed a complete circle of fire. The rest of the runners started at intervals and fired the gaps left by those who went before.

Half of the remaining members of the party followed each of the runners. Their duty was to keep the fire from spreading and to make it burn toward the center of the circle from all sides.

It appears to be characteristic of deer that they will first run around the edges of a wall of fire looking for an outlet. Lacking this means of escape, they make no attempt to break through the ring, but bunch toward the center. The Navaho were aware of this and, as soon as the animals bunched, they rushed in and commenced shooting. When the deer were killed, the fire was put out and the meat divided among the party. The leader received an extra share of the kill.

What appears to be a variant of this Way was called "ring around it" (indžetií?) described by M.L.H. In this hunt a large number of persons, either on foot or horseback, formed a circle about eight miles in diameter. The participants then lit cedarbark torches and converged toward the center. The deer were shot as the ring closed in.

STALKING WAY

The description of the Stalking Way (be-dáh) has been divided into two parts for purposes of clarity. The first account is concerned primarily with stalking deer. The second description deals almost entirely with antelope stalking, a practice which according to accounts was confined to the western portion of the Navaho area.

⁶ A myth reference to the Navaho hunting antelope in this manner occurs in Matthews, *Navaho Legends*, 95 ("Early Events in the Fifth World").

There are several mythological accounts of this Way of hunting; Matthews⁷ has published two; a third is as follows:⁸

Hunting the Stalking Way was first taught to the people by be'gočidí. This god taught the art to the head of a family of the Bitter Water clan. This man did not seem to have any luck. He was hunting when the game god came to him. The god said, "Let me try," and he laid out his costume. This consisted of the head of a deer with the bones taken out, and two poles of hardwood to serve as front legs. He put these on and walked out among the deer. When he arrived among them he cut the back tendons of four deer. That is the way he killed them. The horns of this stalking outfit were made of wood. After this the god taught the man how to use this costume, but it took him a long time to get used to it. First he killed a deer at Fluted Rock (3il dahsi'4); then he killed a mountain sheep at Navaho Mountain; next he killed an antelope with it at tezudi (?) (a location supposedly in the southern part of the reservation); later he killed a buffalo with it near the Mancos River. After he had killed these four animals in the Stalking Way, that Way was taught to others. That was how stalking was introduced among the people. After a time, when it was taught to others, they were instructed that only two men should hunt together.

Actually, a party might consist of more than two persons. In this case, the songs and ceremonies were similar, but the practical procedure differed.

In the first type the party consisted of the stalker, his assistant, and possibly a female relative who tended camp. The stalker dressed in costume, and with the aid of this disguise he went among the deer and killed them. Deer, antelope and mountain sheep were killed in this manner. If the fortunes of the two men were good they stayed out from two to four days.

The stalking costume was made of "sacred buckskin," the hide of an unwounded deer (see p. 132). Skinning an animal for a stalking costume was carried out in the same ritual manner employed for all "sacred buckskins" (see p. 133). However, the skin of the head and neck were cased and no incisions were made in the head skin except around the horns, which were removed from the head before the skin was slipped off. The buckskin was then tanned with the hair on.

A framework of twigs was inserted in the head under the forehead and nose to keep that portion of the hide extended. The head of the hunter filled the vacancy left by the removal of the deer's skull. Strings attached to either ear were held in the hunter's hands and pulled to give the illusion of a living animal.

The real horns of the deer were not used. They were too heavy and, according to the myth, the hunter was forbidden to use them. Cedar branches resembling deer horns were obtained. These were notched around the base. Next a strap of buckskin was run over the head and attached to either wooden horn to act as a brace. Inside, at the base of each wooden horn, was tied a piece of jet. "This represented the real horn of the deer."

These wooden horns were painted. The juice of a piece of "wide yucca" heated over

⁷ Matthews, *The Mountain Chant*, 391; *Navaho Legends*, 70-71.

⁸ The principal informant of the Stalking Way of hunting was A.M. Supplementary information was given by M.H. who, however, was more familiar with antelope stalking.

a fire was squeezed into a receptacle. Scraps of wood, against which a deer had rubbed its horns, were gathered and burned. This charcoal was mixed with the yucca juice and the liquid rubbed on the wooden horns to stain them.

The costume from neck to waist was made as follows. Beginning at the outside edge the hide was cut spirally toward the center, forming a single continuous narrow ribbon of buckskin. This was twisted in order that the hair always appeared on the outside. The end of this line was tied in one of the holes of a perforated buckskin collar. The adjacent portion of the ribbon was then pushed through the remaining holes to form a series of loops, which formed the base on which the shirt of the costume was constructed in a loose chain stitch. When the shirt attained the proper length, a draw string was inserted through the final series of loops. This served to tie the shirt at the waist and to prevent it from unraveling.

To this garment were attached four "jewels." At the throat was a white shell bead which represented the windpipe. About at the heart a "red stone bead" was tied to symbolize the lungs. A short distance below was placed an abalone shell bead and below this a turquoise bead. These last two represented respectively, the lining between the stomach and heart, and the liver. A bundle was attached at the waist containing "sacred dirt" from the tracks of deer, antelope and mountain sheep.

The costume from the waist down was made from pieces of dressed buckskin with the hair on, and pieced together to form long strips. One of these was wound clockwise, like a puttee, around each leg from hip to ankle.

The front legs for the costume were canes made from mountain mahogany or cliff rose wood. They had an angle at the top which formed a hand hold for the hunter, and were carved at the bottom to look like the hoofs of deer. The whole stick was wrapped in dressed buckskin with the hair on.

This completed the costume, except for the bow and arrows which were carried in a quiver hung over the left shoulder.

At the termination of the hunt the costume was taken apart. The shirt was unraveled and the horns taken out of the head to be hidden from sight until ready to be used again. The reason given was that if the women and children saw the costume it would make them ill. Especially were the horns considered dangerous in this respect.

When a man who knew the Stalking Way wished to go off on a hunt he selected a companion to assist him. While journeying to the hunt locality, if they encountered any mourning doves (*xashídí*), grouse (*dih*), bluebirds (*dóli*), yellowbirds (*cidi-łcoí*), or turkeys (*tąži*), they shot them because this was thought to insure good luck. The myths told that these birds guarded the gateway to the home of the game. Therefore, if one of them was killed the hunter believed that he would be able to pass through the gateway and gain access to the game. No one made a special hunt for these birds, they were killed only incidentally as encountered. When a hunter killed one he could not leave it lying but must take it with him to eat.

When the hunting location was reached, a brush circle was built, with the entrance

to the east and the tips of the brush pointing toward the rear. The diameter was from six to eight feet. No one was allowed to pass between the fire and the woodpile. It was thought that a hunter who disobeyed the rule would be gored by a deer.

Before going to sleep the hunters laid their bows and arrows in front of them, and sang:

In the east
 In the midst of dawn
 Among the beautiful flowers
 The best of game [bucks] are killed
 Tail feathered arrow with the black bow
 May I shoot through the hearts of game [bucks]
 And the blood shall come out of the mouth of the game after I have pierced its heart
 Its death obeys me [may I have good fortune]

This song was sung eight times, but with a change of melody each time.

If the stalker wished to further insure good fortune, an offering and prayers were made. The offering, consisting of a "jewel," iron ore, and "blue pollen," was deposited at the foot of a mountain mahogany. The "jewel" had four straight lines scratched on it. "These marks were put there for the purpose of killing your game and skinning it." They represented the skinning of the game and symbolized the four animals mentioned in the myth (p. 123). As the offering was made the following prayer was delivered.

Below the east
 The home of the dark mountain
 In the interior of the jet home
 The center of the jet basket
 From the edge of the jet basket
 A dark game starts toward me
 This way toward me
 A turquoise basket sits
 At its edge toward me the game is walking
 This side of that a red stone basket
 At its edge toward me the game is walking
 A white shell basket
 At its edge toward me the game is walking
 Within sight of my home [brush shelter]
 Towards me the game is walking
 To the entrance of my home
 The game has walked
 There in a sunwise [clockwise] fashion
 It has turned toward me
 Tail feathered arrow with the dark bow together I have put through its heart
 This day it [the game] became my body

This prayer had four parts. It was said once for the bucks, once for does, once for fawns, and once for game of all kinds.

After this prayer the hunters retired. While sleeping they "had to lie as an animal does." They knelt, placed their elbows on the ground, their faces in their hands, and slept in that position. The reason given was that in stalking the hunter walked like an animal, therefore he must sleep like an animal.

In the morning the hunter took his stalking costume and with his partner left for the hunt. When deer were sighted a quarter of a mile or more away, the hunter put on his disguise. Next he sprayed himself with an herb ("smells like gland") which smelled like the gland found in the back leg of the deer. This prevented the game from scenting the hunter. As he started toward the deer he imitated their actions and sang the following song:

I am starting toward it
I am as be'gočidí
I am walking toward it
As be'gočidí
Game of all kinds
I am walking toward it
I have arrived
I am being as the young of the game

By the time the song was ended the hunter had approached near the game. From time to time he looked back to his partner who was hiding in the brush. That man, by motioning, gave him his directions. When he arrived among the deer he picked out the animal he wished to kill and shot it.

The stalker was not allowed to encircle the dead deer because in so doing he would pass between the deer and the camp, which was thought to cut off the hunting luck.

The deer was laid on boughs of spruce or piñon, never cedar. "Never skin a deer hanging up like a sheep." The head was pointed toward the camp. An incision was made in the hide on the ventral side. Next cuts were made in the skin on the outside of the legs and the hide was cut around the leg above the hoofs, leaving the latter on the carcass. While skinning the hunter never held the legs of the deer between his own. "This was because there is a zigzag line on the leg like lightning. If you held the leg that way you would be struck by lightning."

Next the hide around the mouth and eyes was cut, leaving a little of the skin attached to those parts. If the hunter skinned the lips, or cut them, it was thought that he cut off his hunting luck. If the eyes were skinned or mistreated in any way it was thought that the hunter would not only lose his luck during the present hunt, but in all hunts thereafter. "The reason for this was because the game god said, 'While you may kill a deer here, it is really not dead, but goes back to its own country.' " If it were not skinned properly it was thought that the deer would be ill when it got back to its home.

When the hide was removed it was reversed and laid back on the carcass, with the

tail in the mouth of the deer. The hunter patted the deer, saying, "May I have good luck like this all the time, may I kill a great many deer." Putting the tail of the hide in the mouth of the deer was thought to prevent deer from rushing, frightening, or harming the hunter. Reversing the hide on the carcass was believed to make the hunter invisible to the game.

The rules for butchering were said to have been given by be'gočidí. It was thought that if a man did not follow these he would lose his hunting "luck."

The front quarters were first removed, the joints broken and left hanging to the quarters by the sinews. Then, beginning at the lower point of the breastbone, the meat was pulled off toward the head. Next the belly was opened and the intestines taken out.

The contents of the stomach were emptied at the tip of the deer's nose. This was thought to make the deer unable to scent the hunter. In this contents of the stomach were buried the genitals of the animal. "This was done so that these parts might go back with the deer to its own country. You must never take these parts home."

The colon was cleaned. If a buck had been killed its colon was wrapped around one of the prongs of the left horn; if a doe, around the right foreleg. This act was believed to give the hunter luck and make it possible for the deer to return whole to its "own country."

Next a cut was made down one side of the breastbone, leaving it attached to the left set of ribs. This gave access to the lungs, heart, windpipe, tongue, lower jaw and breast meat, which were removed toward the head of the animal. "This was like sending it back to its own country." As soon as these organs were removed the windpipe was slit, which was thought to make it impossible for other game to run away.

The kidneys were taken out and the fat removed. They were placed beside the carcass on the pile of boughs. They were never taken to camp "because Coyote laid down in the beginning that these parts were to be his share."

Next the hind quarters were removed, leaving the hip bone attached to the backbone, and the joints were broken. When this was completed the hunter could cut the remainder of the carcass in any way he wished.

When the butchering was finished the stalker divided the meat with his partner and two packs were made up. Part of the meat was bundled in the hide: the remainder was tied with a piece of yucca rope. As the men carried the meat to camp they sang a song "which made the load lighter."

Toward my home
I have started with my game
I am on the way with my game
I am within view of my home with my game
I am at the entrance of my home with my game
After I have taken my game into my home
Game of all kinds follow it into my home

At camp they broke off piñon boughs which they placed in the rear of the brush circle, tips pointing toward the back. The meat was put on these. A forked stick was set up in

the rear of the brush shelter on which were hung the heart, lungs, windpipe, tongue, lower jaw, and breast meat. These were never placed with the rest of the meat. It was thought that hanging them up notified the Holy People that the hunter had killed the game and followed all the instructions in the correct manner.

The hide of the first deer killed was bunched together so that the head and the ears lay on top. This was believed to draw the game toward the camp. All hides were placed outside the brush circle. The first one rested back of the circle in the west, at the juncture of the bough tips. The second was placed to the north beside this. This order was followed until the hides reached the entrance at the east; then the next was placed back of the first at the west and another semicircle begun.

Hides were never put on the south side of the circle because the hunters were instructed to urinate on that side. The wind generally blew from the south and any loose hair from the hides would be blown about. This eliminated the chance that the hunter might urinate on some deer hair, which was thought to drive the game away.

The top of the skull was chopped out so that the horns were left in one piece. They were placed back of the meat inside the circle, running contra-clockwise from north to south.

The head was cooked by the side of the fire. It was cooked first because it was thought that in cooking the eyes were singed, causing the hunter to be invisible to all other game.

The bones of the head and all other accumulated bones were placed inside the circle at the rear.

The meat was jerked when the supply became large. It was cut in strips and laid across a stringer supported by the sides of the brush enclosure. When dried it was cut into smaller pieces and stored in buckskin sacks.

When the hunters decided to leave for home, the bones which had accumulated were broken. Not a single one was left whole, because it was believed that by breaking the bones deer hunted in the future would be unable to escape.

These bones and the horns were deposited at the base of a cliff rose. The horns were placed in the same order that they had occupied in the brush circle; the first pair in the north and the rest lined up to the south by way of the west. The bones were put on the boughs on which the meat had rested in the camp circle. If the first deer that had been killed was a buck a turquoise bead was placed between its horns (if a doe a white shell bead was put on its head) and the following prayer was said:

In the future that we may continue to hold each other with the turquoise hand [for doe, white shell hand]

Now that you may return to the place from which you came

In the future as time goes on that I may rely on you for food

To the home of the dawn you are starting to return

With the jet hoofs you are starting to return

By means of the zigzag lightning you are starting to return

By the evening twilight your legs are yellow
 That way you are starting to return
 By the white of dawn your buttocks are white and that way are you starting to return
 A dark tail be in your tail and that way you are starting to return
 A haze be in your fur and that way are you starting to return
 A growing vegetation be in your ears and that way are you starting to return
 A mixture of beautiful flowers and water be in your intestines and that way are you starting
 to return
 May turquoise be in your liver and abalone shell the partition between your heart and intes-
 tines and that way are you starting to return
 May red shell be your lungs and white shell be your windpipe and that way are you starting
 to return
 May dark wind and straight lightning be your speech and that way you are starting to return
 There you have returned within the interior of the jet basket in the midst of the beautiful
 flower pollens
 Pleasantly you have arrived home
 Pleasantly may you and I both continue to live
 From this day you may lead the other game along the trails that I may hunt
 Because I have obeyed all the restrictions laid down by your god in hunting and skinning
 you
 Therefore I ask for this luck that I may continue to have good luck in hunting you

This much was a set prayer, after which the hunter could recite personal prayers asking for added favors.

When the prayers were ended the men went back to camp and washed the blood from their hands. No one could remove blood stains during the hunt. If they wished they might build a sweat house and take baths, otherwise baths were taken as soon as they reached home. It was thought that unless sweat baths were taken, the prayers said by the hunter in the future would be ineffective.

The second type of Stalking Way hunt involved a large party of men. Any number of volunteers could join in the hunt. These men hunted in any manner they wished, without the aid of the stalker's disguise. The only part of the costume taken were the two poles which represented the front legs of the deer, which were placed in the rear of the brush circle while the men were out hunting.

The leader of the party knew the songs, prayers and directions of the Stalking Way of hunting, but he took no part in the actual hunt, staying in the brush shelter. From there he directed the hunt and performed the rituals. Between times he merely slept and ate the food placed before him.

This type of Stalking Way hunt always had a camp tender, who cooked the meals, jerked the meat, gathered fuel, and obtained water. He was not allowed to eat by himself. If he got hungry he threw some food into the fire ("gave food to the fire"), then he might eat "because he and the fire were eating at the same time." The camp tender was also for-

bidden to sleep while the party was out, else the hunters would be unable to see the game.

At times women acted in the capacity of camp tenders if they knew the songs pertaining to the care of the camp. However, only women who were related to the hunters were allowed to accompany the party. A man never had intercourse with his wife while on a hunting trip. Only in the event of a woman joining the party would the two-man Stalking Way hunt have a camp tender.

Apart from the inclusion of a camp tender, difference in the actual hunting procedure, confinement of the party leader to the brush circle, and the hunting of deer only, the second type of Stalking Way hunt did not differ from the first. All the songs, rituals, restrictions and observances outlined above applied with equal force to the personnel of the larger parties.

The descriptions of antelope stalking differ enough from the foregoing account to warrant their separate discussion. As in the case of impounding, these methods were most highly specialized among the western Navaho, where antelope were most numerous.

Considerable variation existed in the costume. According to G.H., the stalker wore the head skin of an antelope. The skin was filled with wool and secured on the stalker's head by a strap running from the ears under the man's chin. Eye holes were made in the skin of the neck. M.H. held that the head skin of a deer was always used. Klastci, P.P. and M.L. contended that male antelope heads with horns attached were worn. The latter stated that the hide was first dressed, the mouth sewed up, and a white shell placed between the lips to represent the teeth. A turquoise was placed between the horns. "This stood for something holy." A wooden hoop was put inside to keep the skin taut. Two cords attached to the stalker's blanket kept the head in place. The head was called *be'dáh* (something you use when you sneak about).

The shoulders and back of the stalker were covered with a grey blanket, *'akágíščí:n(?)* (like a skin). This was spotted or rubbed with red or yellow ocher to give the illusion of a genuine hide. This could be laced over the chest (M.L.) or secured only at the neck (M.H.). If worn the latter way white clay was rubbed on the chest and belly of the hunter. If no blanket was used the stalker dusted himself thoroughly with whitish earth (G.H.). The arms were covered with white clay.

Two wooden sticks, *be'gíš* (with a digging stick), completed the disguise. These were painted white and represented the front legs of the antelope.

It was thought that only those who knew the songs pertaining to antelope stalking could wear the disguise in safety. Before such an individual went out he first washed his body and hair thoroughly to prevent the antelope from detecting him. The costume was laid before him and as he washed and donned the disguise he sang songs, softly to himself.⁹

When ready the stalker approached downwind of the antelope, slowly, pawing at the dirt with his sticks and imitating their actions. Weapons were carried under the arm. If

⁹ According to P.P. only members of the Tall House clan might hunt in this manner.

the sticks were not used the hunter merely crawled forward on hands and knees. Once he was sighted, the animals' curiosity led them into range. Informants stated that it was possible to kill two to four antelope before the herd broke and ran.

Related to antelope stalking was a type of hunt called *ya'din'lžin* ("to put something out like a scarecrow"). There was no ritual connected with this practice of flagging antelope and according to informants it was limited entirely to the western Navaho.

The hunter placed a pole with some white material attached to it to the windward of a herd. He then hid himself a short distance from the pole behind a bush or in a declivity and waited for the curious animals to investigate. When they came within range they were shot.

ARROYO WAY

Another distinctive method employed in killing deer was the utilization of pitfalls. This was called the Arroyo Way (*čákeh kehgo?*). According to one informant (C.) the ritual observances and restrictions in this manner of hunting were identical with those of the Wolf Way, except for the songs which referred to pit hunting. According to Klastci and P.P. a separate ritual pertained to this hunt. A fourth informant (M.D.W.) said no ritual was used.

"There were still many deer in the country when this method was in use" (C.). No animals except deer were hunted by intention in the pits, but if other animals fell in it was considered so much the better.

When the hunters (only one hunter according to M.D.W.) finished building their camp they went out and located several of the most frequently used deer trails and dug pits in them. When possible trails running beside a cliff bordering on an arroyo were selected. Generally four pits were dug in each trail. These were slightly wider and longer than the length and breadth of a deer and were four to six feet deep. According to C. a forked pole was placed at either end, within the pit. These were located far enough from the end walls so that when the deer fell into the pit it was caught back of the front legs and in front of the hind legs and held suspended. They were set just high enough to prevent the deer from touching the floor of the pit.

A sharpened stake was placed back and a little to one side of the forked pole, located in a position to pierce the heart of the deer as it fell into the pit (C.). According to M.D.W. and Klastci, no forked sticks were used, but instead three to five stakes were placed in the pit to impale the deer. The latter contended that the stakes were set in holes in a log braced in the bottom of the pit, rather than in the earth. According to another informant (P.P.) no mechanisms were placed in the pit. He said that the deer's antlers would hang on the pit edges, keep the front legs off the pit floor, and prevent the deer from escaping.

Small twigs were laid across the excavation and covered with cedar bark and earth. According to P.P. sunflower stalks were used, one layer being laid across and a second layer, composed of lighter stalks, placed transversely on top of the first. In both cases ledges were left on the pit edge so that the covering would be flush with the ground. The

earth was carefully raked and swept to eradicate all marks that might make the deer suspicious. "Then the trail is put back over the pit" (Klastci).

A variant of the above pit construction was occasionally used (P.P.). In this case the long axis of the excavation was at right angles with the trail. The depth of this pit was six to seven feet. The deer fell head foremost into the trap and was unable to escape.

When the work was completed the hunters might flush the game and "coax" them toward the trap or they might simply leave the success of the hunt to chance. In the latter case the traps were visited every morning. Both the construction of the traps and the morning visits were accompanied by ceremonies.

The leader of the party directed the action of the hunt, receiving as his share the ribs with the breastbones attached, the lungs, hearts and jaws of all the game killed. The hunter who first reached the pit and jumped on the deer claimed the hide.

The skinning and butchering followed the patterns customarily employed by the individual in his other Way of hunting.

WITCH WAY

The writer can offer no explanation as to the practical application of the following Way of hunting. The informant (Klastci) who gave the account proved reliable when checked on other aspects of Navaho culture and there is no doubt in my own mind but that he fully believed in the efficacy of Witch Way ritual.

The Witch Way ceremony was employed only when a very large deer track was encountered. If a man who knew the ritual was accompanied at the time he would ask his companion if he desired the deer killed. If the companion answered in the affirmative he was told to depart while the ceremony was performed.

The chanter went to a broad leafed yucca and obtained two or three new shoots from the center of the plant. Then he removed some dirt from the deer tracks, backwards, and placed it upon the leaves. Upon this dirt were put four pieces of iron ore. Then he said prayers and sang. "When he finishes he knows that the deer is dead."

Next he called to his companion and told him that the deer had been killed and they started to follow the spoor. When they reached the deer the chanter began to butcher. The other man was sent for the horses as he should not hear the ritual which accompanied the butchering.

SACRED BUCKSKIN

The buckskin used in making masks for ceremonials and for many other ritual purposes had to be obtained from an unwounded deer. The animal could not be shot with an arrow or gun but had to be killed by other means. While there were several recognized ways in which a deer could be killed and qualify as unwounded, the accepted way to procure a "sacred buckskin" was to run the deer down.

Formerly the deer was run down on foot, but more recently horses were used. If someone planned to go hunting for a "sacred buckskin" he made an announcement in the spring and called for volunteers to assist. If the hunt was to be on foot, the men who offered their services trained and practised running throughout the spring and summer. "A man must

be able to run down four jackrabbits in one day before he was considered eligible" (M.L.H.). If horses were to be used, the men set aside their best mounts and conditioned them by chasing rabbits.

When the time for the hunt arrived, usually in early November, the party met at an appointed site. There was no ceremony connected with the first part of the hunt; the men merely said, "We will catch a male and female deer on this hunt."

When a deer was sighted the party gave chase. They sang as they ran. The men worked in relays until the deer was exhausted and could be seized and held, or in later times until it was tired enough to be lassoed with a buckskin rope. "You must be careful, because a cornered deer will fight." Generally the chase covered a distance of about eight miles.

When the deer was caught water and pollen were put in its mouth, its nose tied, and it was choked to death with a rope.

Before the deer was skinned the hide was marked with pollen wherever incisions were to be made. Matthews¹⁰ gives the following account of the skinning:

A bag of pollen was placed over the mouth and nostrils of the deer until it was smothered. The deer was laid on its back. Then lines were marked with pollen, from the center outwards, along the median line of the body and the insides of the limbs. Along these lines incisions were made with a stone knife, from within outwards, until the skin was opened. After that the skinning might be completed with a steel knife. When the skin was removed it was placed east of the carcass, hair side down, and head pointing east. The fibulae and ulnae were cut out and placed on the skin at the place where they belonged, namely each ulna in the skin of its appropriate fore leg and each fibula in its appropriate hind leg. The hide could then be rolled up and taken off. Both ulnae were used as scrapers on the skin. If masks were to be made of the skin the fibulae were used as awls; the right fibula for sewing up the right side of the mask, the left for the left side. Only the ulnae and fibulae belonging to the deer from which the hide was taken could be used in making the masks.

The meat of a deer killed in this manner was thought to be better than ordinary meat and the sinews supposed to possess greater strength. Portions of the meat were kept for use by shamans in the several ceremonies. Each hunter participating got a share of the meat and tanned skin which he traded to a chanter who had to have it for rituals.

Antelope were also hunted in this manner. The unwounded skins from these animals were used in making masks for the Night Chant.¹¹

Beside this generally accepted mode of obtaining unwounded buckskins, the skins of deer that had met death in the following ways were considered sacred. These were bucks whose horns had become entangled in fighting and, unable to free themselves, had died; bucks who died by getting their horns caught in a tree; deer who were gored by other deer and died of the wounds; and deer which ran over cliffs and were killed. In the latter case death was considered accidental because the Navaho never intentionally ran deer over a precipice.

¹⁰ *Navaho Legends*, 214, note 13.

¹¹ Matthews, *The Night Chant*, 83.

The hides of deer killed by mountain lions, wolves or coyotes were considered by some to be unwounded. However, a difference of opinion existed on this point and the ritual efficacy of such skins was subject to doubt.

MINOR CEREMONIES IN RITUAL HUNTING

Beside the ordinary rituals of the hunt the shaman leaders of the parties had at their command a number of lesser ceremonies. These were performed whenever circumstances arose which threatened the success of the party. They dealt specifically with such things as ill fortune caused by a jealous person, or by breach of tabu by one of the members of the party. Others were concerned with the protection of hunters who had been frightened by deer, or who had inhaled the breath of a dying deer.

These ceremonies serve to express very clearly the attitude of the Navaho toward ritual hunting. They show that to the Navaho the essentials of successful hunting lay not in the perfection of the practical hunting technique as such, but were in the hands of the supernatural beings and the game itself. It was, therefore, only by the closest adherence to the hunting ritual that success could be hoped for. The slightest infraction of the ceremonial rules caused bad luck, which only additional ceremonial could remedy.

The following account pertaining to the Wolf Way admirably illustrates the consequences thought to result from the transgression of hunting restrictions and also the belief that the killing of game was supernaturally determined.

It always happened that some one in a large party would disobey the rules. Usually these were young fellows who were good shots. They thought that they could kill any deer. These were the kind of fellows who were always frightened when a deer came toward them. This showed that it was not what a man thought he could do that counted, but showed that unless the rules were obeyed the deer had supernatural power over man. On a trip some of the hunters would be so lucky that you could not hold them down, others felt depressed. Here are things that happen that change the luck.

Once we took two young boys along to watch camp. Someone had to watch camp at all times because the hunters kept their meat and provisions there. Each hunter's belongings were in a separate pile. These watchers kept strangers from coming in and stealing things while the party was hunting. If anything were stolen the luck would change.

The two boys were instructed never to leave camp at the same time. About a mile from our camp was a camp of some Paiute who were hunting. There were some women in the Paiute party. In the evenings the Paiute came over to visit and these women begged for bread and the Navaho gave them some.

One day while the party was out hunting the boys took some bread from each of the hunter's packs and traded it to the Paiute for meat. Also, while the boys were alone they cooked some corn bread on a flat stone. They used flour from the hunter's packs for this. When they had finished cooking they took the stone away and buried it.

The next day a party of ten men went out, but did not kill a single deer, so they knew immediately that something was wrong. The next day the same thing happened. Some of the men just missed deer. For three or four days this went on.

On the fourth day I and another hunter were walking in a canyon and came upon a fresh deer trail. It was a box canyon, so I hid in the brush and my partner went up after the deer. In a short while I heard a call and knew the deer were coming. Soon I saw a large herd of deer coming with a doe in the lead. She was sniffing here and there. The trail passed within eight feet of me. From this distance I shot at the doe, but she jumped over me. I fired three times at that distance and missed each time. I would not fire the fourth time. I showed my partner how close to me the deer had been. He thought it queer that I had not killed the doe. We both decided that things were wrong and went home. A little later the rest of the party arrived, none of whom had had any luck.

The leader said, "Something is wrong." He questioned the hunters, but could find nothing. Then the meat and the packs were checked. The corn bread and the meal was found to be missing and the boys confessed. They tried to blame the Paiute women. They dug up the rock for the leader.

The party asked the leader what they should do. The leader said to put aside all restrictions for that night and the next morning. In the morning some of the hunters were sent to gather yucca, others to build a sweat house, and still others to collect every variety of grass and brush on which the deer fed. Then rocks were heated and everyone took a sweat bath, while the leader sang. As soon as anyone came out of the sweat house he washed his hair in a solution of the yucca and the plants on which the deer fed. After this the hunters fumigated themselves and their weapons in the smoke of a fire made from goldenrod and other bushes.

That evening the restrictions began again. The boys were told to take the flat stone and replace it in the same location and position that they had found it.

The next morning, beside the regular rituals, everyone followed the leader around and out of the brush circle in a clockwise circuit for a certain distance from camp. Here the leader sang. Then he sent four of the best shots into a canyon. The other six men were told to drive the deer toward them. Just at sunrise the deer were flushed and in a short while the men down the canyon were heard shooting. They had built blinds of stone to hide behind.

When we arrived where these men were, there were slaughtered deer all around them. As we came up the canyon we killed a number of wounded ones. We killed so many deer that we spent the rest of the day skinning them (O.W.K.A.M.).

Ill fortune brought about by the machinations of a jealous person was also of common occurrence on hunting expeditions. There were several well-defined actions which would bring bad luck to a hunting party, for each of which the leaders had rituals to counteract the effects. These rituals were of three kinds: preventative, counteractive, and rituals performed to assure the results of the first two.

Various persons might want a hunting party to have bad luck. They might be the less fortunate members of one's own party or, more commonly, members of other parties hunting in other ritual Ways. Usually the most envious persons were those married into the same clan. "It was natural that this should happen, as a man wants to be the only one married into a family. If two men married into the same clan they were always jealous of each other and always ridiculed each other."¹²

¹² This was explained as a direct result of the sororate. The jealousy arose from the fact that once a man married into a family he felt he had a proprietary right, not only over the sisters of his wife, but in some cases also over all females belonging to the same lineage.

Most hunting leaders took precautionary measures against the envious feeling of outside individuals. Even though no specific acts were committed these jealous attitudes were thought to be dangerous and usually during the camp rituals a particular song was sung to avert ill fortune from these sources. The following song from the Stalking Way of hunting is one of these.

He goes out hunting
 Big wolf am I
 With black bow he goes out hunting
 With tail feathered arrow he goes out hunting
 The big male game through its shoulder that I may shoot
 Its death it obeys me

He goes out hunting
 The mountain lion am I
 With the mahogany bow he goes out hunting
 With the yellow tail feathered arrow he goes out hunting
 The finest of female game through the shoulder that I may shoot
 Its death it obeys me

Stanzas 3, 4. Substitute: goes off hunting.

Stanzas 5, 6. Substitute: ends his hunting.

There were many specific acts that a jealous person could perform that brought bad luck to a hunting party. These could all be counteracted by numerous small rituals.

When a hunter killed a deer an envious man tried to steal pinches of the meat, heart and ears to bury. This was thought to make it impossible for him to kill any more deer. "He would not even see one." To remove this spell the hunter went to a piñon tree, deposited a "jewel" and said a prayer. Then he picked buds from the east, south, west and north sides of the tree and deposited them with a torquoise in an old deer track while praying:

Talking God
 Your pet the big dark buck
 A bad young man has taken its heart, its lungs, its nerves, its parts of body, which he has hidden
 from me
 This day cause it to return to me
 So that its death will again obey me

After this prayer was ended the man sang one of the ordinary hunting songs.

Another way to spoil the luck of a party was to turn the boughs on which a deer had been skinned. If this happened the person or persons involved went back to camp, made a sweat house and took a bath. Then two of the stones used in the sweat house were placed on the boughs. A song was then sung as the boughs were put back in their original position.

Game one and all
 Its flesh has returned to me

By means of the rainbow they return to me
 At the tips of my arrow
 Game are strung along
 With its death they are strung along
 Men who may have had evil feeling toward me
 This day it shall not take effect
 This day has be'gočidí placed it [the game] in my hands
 It shall remain so
 From within this woven garment [stalking costume] the game may stream out in my sight
 This day the two of us [deer] shall come my way
 According to your wishes
 This day before the sun moves farther
 The game's blood may be on my body

The fortunes of the hunt were also thought to be periled if a strange hunter came up to a deer that had been killed, cut off some of the meat and threw it on the coals to cook. The man to whom the meat belonged made some corn meal mush and baked it in the hot ashes. This was fed to a dog while a prayer was recited asking the dog for protection. In the prayer the dog was addressed as a nuthatch or tree creeper, because of the ability of these birds to walk up and around the limbs of a tree. The prayer was as follows:

Young man the power by which you go to the game
 The same power I wish to have in walking up to the game
 This day the evil thought which earth man may have toward me
 That shall not come to pass
 Before the sun goes any farther
 May I go up to the biggest buck and have success with it.

Other ways in which an envious person could ruin the fortunes of a hunting party were concerned with the manipulation of the horns deposited at the termination of the hunt.

In the first case a man obtained one of these horns and stuck one of the prongs into the ground. This was thought to make the deer shy and to eventually cause the death of the hunter who had killed that animal (A.M.). According to another version the prong of the horn had to be stuck through the heart of the deer and then into the earth. This, stated the second informant, would keep the game away and bring bodily injury to the hunter (C.).

To avert this disaster a firebrand was offered to the Black God. "You asked him to protect you and not let what a certain person wished come to pass."

In the second case the horn was placed in a tree so that it would blow back and forth in the wind. This brought sickness to the hunter and made the game shy. To counteract this the hunter procured a crow feather and offered it to the crow with a prayer while standing on a dead tree.

Since you travel by means of the black wind, blue wind, white wind and yellow wind
 I ask you to give me the same power

That I may go about in the same way
 Do my hunting in the same way
 That the evil feeling that a certain one had against me shall not have any effect against me with
 your help

Still another method of causing ill fortune was to obtain the intestine of a deer killed by another, turn it inside out, and put it in the ashes. As in the above cases, there were songs to nullify this action.

When a party had had occasion to use any of these ceremonies, a one night Blessing ceremony was held over the first deer that was killed by one of the members. This ceremony was called the Game Way Blessing ceremony (*dini' xóžó'ží*). This ritual might also be used if the previous ones had failed to change the fortunes of the party.

Before the chant began corn meal was ground. Yellow corn meal was used if a doe had been killed, white if a buck.

The deer was laid on a deep pile of piñon boughs within the brush circle. The parts of the butchered animal were reassembled in their original positions, with the head of the deer to the north. "It was as though the deer was going around the fire clockwise." The head was bathed in the corn meal to remove all moisture. Next all the weapons of the party and the knives that had been used in skinning were placed back of the animal to the south.

Beginning in the southeast and going clockwise, each hunter took a pinch of pollen, put some in his mouth, some on his head, and offered some with a prayer. The form of the prayer was not set, but it was customary to make the offering and direct the prayer to the Darkness.

When this was ended "Game Way herb" (*dini'e čil*) was put in a bowl and passed clockwise around the circle of men, beginning in the southeast. Each took a drink from the bowl and rubbed some of the liquid on his body. "This kept the game from scenting the hunters." This was followed by a song.

He is making a home for me where there is no home
 The Talking God [who controls the male deer] he is making a home for me
 Dark piñon boughs with he is making a home for me

He is making a home for me where there is no home
 The Black God [who controls the female deer] he is making a home for me
 Blue piñon boughs with he is making a home for me

He has made a home for me where there was no home
 The Talking God he has made a home for me [brush shelter]
 With dark piñon boughs he has made a home for me¹³

He has made a home for me where there was no home
 The Black God he has made a home for me
 With blue piñon boughs he has made a home for me

¹³ According to the Navaho the "dark piñon boughs" refers to cedar boughs which they were forbidden to use in making brush shelters.

A home he has given me where there was no home
 The Talking God a home he has given me
 A home of dark piñon boughs he has given me

A home he has given me where there was no home
 The Black God a home he has given me
 A home of blue piñon boughs he has given me

He is building a fire for me
 The Black God is building a fire for me
 With a dark stone he is building a fire for me¹⁴

He is building a fire for me
 The Talking God is building a fire for me
 With a blue stone he is building a fire for me¹⁵

He has given me the fire
 The Black God has given me the fire
 Dark stone fire he has given me

He has given me the fire
 The Talking God has given me the fire
 Blue stone fire he has given me

He has given me fuel
 The Rat Man he has give me fuel
 She has given me fuel
 The Rat Woman she has given me fuel¹⁶

He has given me water
 Otter Man has given me water
 She has given me water
 Otter Woman has given me water¹⁷

One is thinking about it
 The Talking One is thinking about it
 The Earth To Be One is thinking about it
 The Male Game One is thinking about it

One is thinking about it
 Black God One is thinking about it

¹⁴ "Dark stone" refers to the fire drill which the Black God always carried.

¹⁵ "Blue stone" also refers to the Black God who was thought to be in control of fire. "The Talking God has nothing to do with it and is merely switched in here to make the song balance."

¹⁶ "Rat Man" and "Rat Woman" are mentioned because of their habit of collecting wood.

¹⁷ "Otter Man" and "Otter Woman" were thought to have been in control of water.

The Mountain Woman To Be One is thinking about it
 The Game Female One is thinking about it¹⁸

One is talking about it
 The Talking God One he is talking about it
 The Darkness To Be One is talking about it
 The Male Game One is talking about it

One is talking about it
 The Black God One is talking about it
 The Evening Twilight One is talking about it
 The Game Female One is talking about it¹⁹

It is placed down
 The Talking God he brought it and it is placed down
 The Sun it is placed down with the young of the game²⁰

It is placed down
 The Black God he brought it and it is placed down
 The Morning Dawn he brought it with the male game

The Talking God
 I being the Talking God I usually come to a holy home
 Home of game of all sorts I usually come to

The Black Ceremonial Bird [mythical]
 I being the Black Ceremonial Bird I usually come to a holy home
 Home of female game of all sorts I usually come to

Lively [happy] home that I usually come to
 I the Talking God usually come to a lively home
 The home of game of all sorts the lively home²¹

Lively home that I usually come to
 I the Black Ceremonial Bird usually come to a lively home
 The home of game of all sorts the lively home

It shall always remain so [a lively home]
 I being the Talking God it shall always remain so
 The home of game of all sorts that shall always remain so

¹⁸ The Talking God was thought to have directed the making of the game. "Mountain Woman" refers to the home of the Black God which was in a mountain. The Black God had little or nothing to do with the making of the game, he enters the song at this point to balance the verses ("just to even things up").

¹⁹ Darkness and evening twilight refer to the fact that the game come out under the cover of darkness and twilight.

²⁰ The sun is mentioned because it was thought to control the food supply of the game. The sun was also believed to protect the young of the game and hide them from coyotes.

²¹ The lively home refers to the homes of hunters who have good luck and plenty of meat. "Their homes are happy."

It shall always remain so
 I being the Black Ceremonial Bird it shall always remain so
 The home of game of all sorts that shall always remain so

This set of songs was sung only once during the ceremony. However, songs of this type were continued at intervals throughout the night. They were always in sets of four, twelve or sixteen verses, and referred to the game.

When this first set of twenty-four verses (regarded as "twelve songs") was ended the hunters lit their pipes. They blew smoke toward the south, west, and north, and then down on the meat of the deer. "This caused the game to bring their minds, which had been wandering away because of the bad luck caused by the jealous person, back to the hunters."

Next, more "Game Way herb" was drunk and applied to the bodies of the men while they prayed.

The dark horn of bica' [of the skeleton?]
 Whoever had evil intentions toward me
 That shall not come to pass
 Because you will protect me
 With your dark horn
 That which the certain one had toward me
 Shall not happen and did not happen
 When you have protected from behind this horn
 I shall have unlimited luck with game
 I shall have good luck with the male game
 From the four directions they shall stream to me
 At the entrance of my home you shall cause the game to stand sideways to me
 Its heart I shall not miss when I shoot
 And its bones I shall not miss
 They shall fall as soon as I hit them
 Its death shall come my way
 Its blood shall be on my body
 It shall obey my wishes

This prayer was repeated a second time mentioning female game instead of male game.

The remainder of the night was spent in singing ordinary Blessing Way or Game songs, of which there are hundreds.

When dawn came the regular Dawn songs were sung. Breakfast was cooked and eaten, and the meat used in the ceremony was put away. This meat could not be eaten until another deer had been killed.

When the party was ready to hunt again each one held his weapons in the air. If a man had a bow and arrow he placed the arrow on the bow string ready to shoot; if he had a gun he held it in one hand and the cartridges in the other. The leader instructed them to be careful not to drop the arrows or cartridges. Then, while still holding the weapons aloft, the following song was sung:

It is placed in
 Now the black bow the tail feathered arrow it is placed in
 I being the wolf
 With this I may shoot a big game in the shoulder
 Its death blood shall come my way
 The games' death all come my way

The party was then ready to continue the hunt. The leader instructed them to be very careful, not to shoot at a running deer, and to be sure of killing before they shot. It was thought that if the first deer shot at was not killed the whole ceremony would be nullified.

Ill fortune might also be caused unintentionally. If a person who had eaten venison vomited, that would spoil the hunting luck of the individual who had procured the meat.

When men returned from hunting they were met by neighbors who expected to be given some of the kill. The hunters always made them presents of meat; but from each piece given away a small pinch was taken to be preserved in a sack. "You must be very careful to observe this rule."

If in a future hunt a man was unlucky, he returned home and inquired if any of these neighbors had vomited the meat. When it was discovered which person had vomited, the hunter gave him some of the pinches of meat he had saved. While the neighbor ate this the hunter sang:

Beautiful flowers he has put into your mouth
 You have eaten
 It lies within you
 With the dews of the beautiful flowers
 It lies within you
 The game of all kinds may string [attach] to you and to me

This was thought to remove the evil effect of the vomiting and the hunter left to continue the hunt.

It was not uncommon for hunters to be frightened by deer. According to the Navaho, this was especially true of young men who scoffed at the hunting rules. To recover from such a scare and to remove its evil effects, each hunter carried, tied to his bow, a sack of "medicinal" herbs.

According to one informant the bundle contained the following plants: an herb which smelled like the gland at the hind leg of the deer; 'atq' coh (wide leaf); leaves of the mountain mahogany and cliff rose; some bark that had been rubbed from a tree by a deer's horn; and six kernels of corn, white, yellow, blue, grey, black and striped. These were ground and mixed together. When a hunter was frightened "he began to sweat and would be on the verge of fainting." If able he returned to camp to put some of this mixture in water, to drink and rub on his body. If he were too frightened to help himself his companions administered it to him in the field. If the herbs did not cure the hunter, "gall medicine"

made of the galls of eagles, wolves, mountain lions and bears was given him, "This was always successful."

Another hunter stated that only the above-mentioned odorous herb and black corn that had been popped were carried by the hunters. If they became "paralyzed with fright" they took some of this and saved themselves. When they began sweating they chewed some of the mixture and sprayed it on themselves. "This stopped the sweating and cooled them off."

A third informant gave another version. According to him an herb (*dini'e' çil*) was carried by the hunter. If frightened he chewed some of this herb and blew it toward the deer four times. Then he rubbed some on his body and either attempted to move down wind of the animal or to shoot it.

Beside the rituals for frightened hunters the leaders had at their command ceremonies for curing men who had inhaled the breath of a deer. These were seldom necessitated, since the hunters were careful not to get near the head of a dying animal.

MISCELLANEOUS BELIEFS CONNECTED WITH DEER HUNTING

There were numerous beliefs and observances connected with deer hunting which were not integrated with the hunting ritual. Many of these were thought to have bearing on the fortunes of the hunter.

Some had to do with the cooking and consumption of venison. Women were cautioned not to burn venison or allow it to boil over on the hot coals. "This would ruin the luck of a hunter. It showed that you were not careful with your meat."

When broiling venison in the field, the meat must always be turned toward, never away, from the individual doing the cooking. Likewise, in cutting up venison, the cutting motion should always be toward the worker.

The Navaho were always careful not to gorge themselves on venison because, should a person vomit from overeating, it indicated that he was careless with meat. "A deer would feel hurt by this and would not want to be killed by such a hunter."

While hunting, venison could only be eaten from cedar boughs, never from a container.

If a man dropped a piece of meat while eating, he picked it up quickly, saying, "It stumbled."

The meat of wild game was never mixed nor cooked with the meat of sheep and goats.

Some hunters sang over the game as they carried it into the hogan. This was thought to protect them from any ill luck caused by those who used the meat.

The bones of deer were never given to the dogs nor scattered around the house. When the meat was removed they were gathered up and hidden. It was thought that if left lying about, a human or sheep might urinate on them and become ill. This same belief applied to the hair scraped from the hides during the dressing process.

There was no penalty attached to the wasting of venison. A man who was traveling, or who had no established residence, was at liberty to kill a deer, eat as much as he wished,

and leave the remainder. However, he was required to carry out the skinning and butchering according to the ritual rules, even though he only desired to eat a single mouthful of meat.

Other beliefs were concerned more directly with the hunt itself. If a hunter saw an albino or "spotted" deer it was thought that he would encounter bad luck.

Misfortune and death were predicted for a hunter if, when he shot a deer, the dying animal gave a "shout." "The deer gave a kind of warning to the hunter." The meat of such an animal was never used; it was left where it fell.

A man never plucked his beard while hunting. It was thought that pulling out the whiskers and throwing them away was like throwing the deer away.

The meat of deer or any other animal killed by a wolf or mountain lion was used. The wolf and mountain lion were looked upon as "clean" animals because they ate nothing that a man would not eat. Game killed by coyotes was sometimes eaten by the Navaho.

Anything killed or touched by a bear was tabu. If a person ate anything killed by a bear it was thought that he would contract an illness which could be cured only by the Mountain Way chant.

One informant told of a hunter who had released a bear caught in a scrub oak. That act had enabled the man always to have good fortune in hunting deer.

Some hunters believed themselves unable to hit a deer while it was standing still or broadside to them. "I was one of these, I had to shoot while the deer were moving; then I could hit them."

Deer hunters did not paint themselves in any way.

If a man saw deer breeding while hunting, or eagles or crows "chasing" each other, it was thought to be a sign that his wife was being unfaithful during his absence. One informant stated that this had only happened to him once (T.L.H.O.). Another said, "This was a reliable sign and was proven time and time again. If a man saw one of these signs, when he got home he would accuse his wife and she would confess" (C.).

UTILIZATION OF THE DEER

The head, liver and intestines of the deer were cooked and eaten during the hunting trip. Whatever other meat was required was eaten either broiled or roasted on the hot coals.

Contrary to the statement that the kidneys were always left for the coyotes, they were known to have been used for food. The pancreas ('ačq'osis) was turned inside out, buried in the ashes, roasted and eaten. The udders of female deer, the marrow ('awul), and the tripe were also eaten. The eyeballs of the deer were not eaten.

When fawns were killed, the curdled milk from their stomachs was saved and used as rennet for making a kind of cheese.

Shamans used parts of the male and female deer in making stews for their patients. Such stews consisted of pinches of meat from the tongue, tips of the ears, tip of the tail, and from every portion of the butchered meat. Such a stew was given to the patients at the

termination of some of the five nights ceremonies and signaled the lifting of the venison tabu.

The remainder of the meat, except that fresh enough to be transported to the home of the hunter, was jerked. The process of making jerky ('ačq?) consisted of cutting the meat in strips, sprinkling salt on it, and hanging it on a line or the limb of a tree to dry.

There were two modes of preparing jerky for storage. The most common procedure was merely to place it in buckskin sacks to be stored in stone storehouses in the cliffs. The second method was to boil or roast the jerky, then pound it until it was well shredded, mix it with tallow, and store it in buckskin sacks.

The leg tendons were used for sinew-backed bows and for tying the feathering and points on arrows. The sinews of the back were used for sewing.

The horns of the deer and the edges of the green hides were boiled together and the resulting glue used to affix the sinew backing to bows. The hoofs were employed in making rattles. The shoulder blades were saved to be used as hoes. The ribs were employed as scrapers in dressing the hides. The ulnae of the front legs were used as scrapers and for making awls.

Calculi found in the paunch of a deer was used in making medicine for sheep. It was thought to make them prolific and immune from disease.

Buckskin was used in making clothing, containers and thongs.

ANTELOPE HUNTING: CORRAL WAY

Antelope comprised the second most important source of meat among the Navaho. As already mentioned, they were hunted in the Wolf Way, Mountain Lion Way and Stalking Way, and were run down by relays of men to obtain "sacred" hides. They were also run down by single individuals in deep snow according to M.M., and were surrounded on horseback according to T. In the latter case, at least twenty men were necessary. The circle was contracted to a diameter of a hundred to a hundred and fifty yards, then the hunters began shooting the antelope with bows and arrows. However, these ritual hunts were incidental; the more common method of securing antelope was by impounding.

Antelope were most numerous in the western portion of the Navaho area. The vicinity of Keam Canyon, White Cone, Chambers, Jeddito, and Dot Klish Canyon were justly famous hunting regions and remains of corrals can still be seen in those localities (Pl. 2, *lower*). Here the antelope supplanted deer as the important game animal. Correlated with this were a surprising number of ritual variations and some localized practical procedures in stalking which appear to be unknown to the central and eastern Navaho.

The Corral Way of impounding antelope conformed in its ceremonial aspects very closely to the ritual pattern exemplified in the several Ways of hunting deer. The personnel of the hunt involved more people and in that sense was more of a communal effort. The practical procedure of the drive was accomplished in either of two ways. The older form was that in which a semicircle of people drove the animals toward the corral. In the second and

later method, two horsemen or more performed the earlier stages of the drive and only after the animals had entered the chute did the chase on foot begin.

According to P.P., the xonáyáhni clan were specialists in corral hunting. However, other informants failed to verify this statement.

Antelope drives were held in February. A group of men of a district discussed the desirability of the hunt and organized the party. Twenty to fifty men were necessary for the accomplishment of a successful drive. The party was composed of the fastest runners and those who owned the swiftest horses. Women were included to cook and attend to the various camp duties according to C. and R.H., but were excluded according to G.H.

As soon as the personnel was decided upon the members began to prepare rations for the hunt. These consisted of corn meal, corn bread and jerky.

Two men were delegated to go to a shaman who knew the Corral Way of hunting. They announced that a party had organized and desired that he should lead them, and that they wished to go to a specified locality where there were a great many antelope.

Theoretically the shaman leader was not supposed to know of the proposed hunt until these men told him of it. Once he had been notified of the desires of the party he could not refuse to lead. "This was one of the rules, because the party was already organized" (R.H.). The leader received no gift or payment at this time. However, others prepared and brought food for him.

When the leader accepted his post he made inquiries as to how far preparations for the hunt had progressed, estimated how long it would take to complete the arrangements, and set a date for the departure. This date was always an odd number of days ahead, three, five, or seven. At this time the leader also named the locality where the party would camp the first night of the journey. This was always close enough to home so that it could be easily reached in one day's travel.

When the time set for departure arrived some of the men went to the home of the leader and started with him. The remainder left from their homes and arrived at the camp location at intervals throughout the day and evening.

If rabbits were seen running away from the party it was considered good luck. However, if a rabbit did not run, the leader would call upon one of the hunters to kill it. The party was not allowed to pass it by. The leader then pronounced that they were assured of good luck, as indicated by the death of the rabbit. Such rabbits were carried along with the party and eaten when camp was made. Each member must eat a piece to insure the party's good fortune.

The leader selected the actual site for the camp, where a brush circle of cedar and piñon, about twenty-four feet in diameter, was erected. The growing tips of the boughs were pointed toward the rear of the circle (R.H., C.), clockwise according to G.H., H.N., H.W.L., and P.P., "This caused the game to draw their minds toward the corral."

When the brush shelter was completed, firewood was gathered and piled in front of the entrance. It was laid without any regard for the direction of the tips and butts.

The equipment of the leader was brought into the circle and placed in the back, while that of the rest of the party was distributed on either side. If the party contained other men who knew the Corral Way or other Ways of hunting, or if there were persons whom the leader was instructing in the Corral Way, these were assigned places next to the leader on the south side. No others of the party had specified places.

The entrance to the shelter was to the east. The fire was at the center of the circle. No one was allowed to pass between the leader and the fire, the fire and the entrance, or the entrance and the woodpile. It was thought that if a hunter did this the luck of the party would be cut off. It was also considered bad luck if, when leaving the circle, one hunter brushed against another.

When those who had arrived first had built the shelter and moved in, they began preparing the evening meal. If, when all had arrived, the first brush shelter proved too small to accommodate the party, a second circle of boughs was built, following the same observances as in the first.

Before everyone went to sleep, the leader took out his pollen and gave it to a man in the southeastern quarter of the brush shelter. This man put some in his mouth, some on his head, and sprinkled some away from himself or across in front of himself, saying, "May we have luck to kill the finest of game." Then, going clockwise, each man in the circle performed the same act. After this the leader sang several sets of songs. Those who were sleeping outside the first circle were not required to come in during the singing (R.H., C.). According to P.P., the leader had a separate brush circle and some individual was delegated to cook for him. This circle was always west of that occupied by the rest of the party.

When the leader finished singing, all prepared to go to sleep. The weapons were laid on the ground with their points toward the rear of the circle, for if they were stood up or leaned against anything it was thought that the game would become shy and elude the hunters.

The young men were warned by the leader not to sing War songs, Yeibitchai songs, or to joke. Everyone was told to keep a serious mien.

Other instructions concerned the sleeping positions. No one was allowed to lie at full length or on his back; all slept on their sides with their knees doubled up. During the night, if a person wished to turn over, he assumed a sitting position and then lay down again. "You had to observe these rules to have luck. If you did not do this the game would find out you were not observing the restrictions and would not allow themselves to be caught." There were no restrictions concerning urination.

In the morning the party broke camp and continued on their journey. The halt for the evening was made well before sundown to allow for making a new camp. The ritual pursued was the same as that on the first night, but with one addition. When the leader was ready to sing he brought out his medicine bundles and spread them before him. Then he called for two volunteers to listen. When the leader had anointed their ears, they went some distance from the camp. During the time they were out all singing ceased.

These men sat and listened. Their objective was to hear the game running and to note the direction from which the sound came. If they were successful the party would know in which direction to build the corral. If they heard nothing, the hunters thought it was a sign that there was no game in that part of the country. "At times these men would only hear their own horses, at others they would hear game running; sometimes they heard nothing." After they had listened they came in and reported to the leader.

If they heard nothing the leader anointed their ears again and they were sent out once more. The same men were never sent out more than twice in an evening.

The proceedings of the third and following days and evenings of the journey paralleled those of the first two, except that different men (occasionally a man and woman) were sent out to listen each night. "The leader had to be very careful about choosing the listeners because many times there were men in the party who would lie about what they had heard. The leader knew from experience what they should hear. He also knew what was reasonable and when to believe the listeners. If these men heard anything it was just as good as seeing it."

It usually took from three to five days' travel to reach the site of the drive. When they arrived they camped and the ritual of the preceding days was once more enacted. The next morning the leader, with the assistance of some of the more experienced, selected the exact location for the corral and decided in which direction the opening should be placed. "These men knew the nature of the game; which way they would run." When possible, the corral entrance and the entrance to the wings of the chute were located just behind a small ridge or rise of ground. This formed a blind and kept the walls of the corral and the chute from sight until the antelope were well within them.

When the corral site had been selected, the remainder of the day was used in building the brush circle which the party would occupy for the duration of the hunt. This was located about three-quarters of a mile back of the corral site. It was built with the same observances as those used on the journey, except that its entrance faced the same direction as the entrance of the corral (not necessarily east). Also, as it was to be used for some time, it was more carefully made and built higher and thicker than the ordinary shelter. On the right side of the entrance a forked stick, "the hooked horn," was placed. This was thought to bring the party good fortune. The leader told the people that this represented the horn of the male antelope and that they should be careful not to touch it as they went in and out of the brush circle, else the game would be frightened away (R.H.).

The next morning the party was divided. Some were sent out to hunt. They considered the situation, attempting to discover, if possible, where the most antelope were.

The remainder of the party were sent out to gather brush for the construction of the corral.²² The leader directed the building. He broke off four small branches of cedar and

²² Once a corral had been built it was repaired and used again repeatedly. On some occasions the old corral was used but a new set of wings were added facing in another direction. In order to participate in the use of an old corral an individual must have assisted at the time it was first built (C., R.H., M.D.W.). According to G.H. and H.W.L., it could only be used during one hunting period.

piñon and, while singing Corral Hunting songs taught by be'gočidí, marked out the outline of the corral. He placed the growing tips of these twigs with their tips pointing toward the rear of the corral "to draw the antelope into the corral" (C., R.H.).

According to G.H., the leader began a song and walked from east to west by way of the south. When this was done, work was begun on the south half of the corral. When it was finished the north side was constructed.

According to P.P., when the site was chosen the leader marked the outline of the corral with pollen. Then he placed a branch of cedar at the southwest corner of the entrance, then one in the west, north, and east. Once the leader marked off the corral area, no one might walk in it or across it. All work of building the walls was done from the outside.

The work of building the corral then proceeded. Whenever possible, cedar and piñon boughs were used in its construction. The boughs were always placed tips toward the rear and the walls built beginning with the entrance and working toward the back (R.H., C.) or clockwise (P.P.). It was made in the form of two semi-circles, with an opening in front and back. If the entrance faced the east, the south side was erected first, but if it faced any other direction the right side (the one facing toward the entrance from within) was always built first.

The walls of the corral were ten to twelve feet high; high enough so that there was no danger of the antelope jumping out. It was thought that if an antelope jumped out of the corral the leader would die. "This was because in his prayers he said the antelope would be killed. If one escapes he had to take its place in death. The gods make him die."

The limbs were piled on one another as high as possible. Then more limbs were leaned from either side against these piles. Before the introduction of axes the trees used in the construction were burned down.

According to one informant (C.) the diameter of the corral was about one hundred yards. Another informant gave the area enclosed as one to two acres (R.H.). Constructing one side of a corral generally took about two days. If the party were large and wood was plentiful, a corral might be completed in three days, but the average time was five days.

Before the corral was constructed and while it was being built, no one was allowed to spit or urinate on the site. This tabu was also in force if an old corral was being repaired. Also, no wood from a corral might be used for firewood at any time. Likewise, it was not permissible to eat any wild food growing in the corral or wings. If any of these rules were broken it was believed that sickness would afflict the individual guilty of the transgression.

When the corral was completed work was begun on the wings or chute. These two wings extended out from the corral four hundred yards to a mile on either side of the entrance. Both might be straight, or the corral might have one straight wing and one built in a huge semicircle.

The right wing of the chute (to one facing away from the circle) was built first. The wings were always constructed from the outside toward the corral entrance (R.H.), from the corral out (M.H.). According to one informant, they were as high as the corral walls (C.); another informant (R.H.) stated that they were somewhat lower. If an antelope

escaped over the chute walls the leader was not endangered, as in an escape from the corral, but it was considered an evil omen for the fortunes of the party. The boughs were laid tips toward the corral. If wood was scarce forked poles with stringers were erected and the chute walls made by hanging boughs, tips downward, on these stringers. If wood was plentiful it took two or three days to complete the wings of the corral. They were called 'adáló·l (a string that you tie on, as on a sack).

From the ends of the wings piles of brush were erected at intervals, extending for one to two miles. These were called ya'díní·lžín ("something black piled up," "scarecrows"). The work was begun on the right series of piles (to one facing out from the entrance of the corral). The pile farthest away from the wings was first made and subsequent piles followed this toward the wings (R.H.). The first were erected about thirty yards apart.

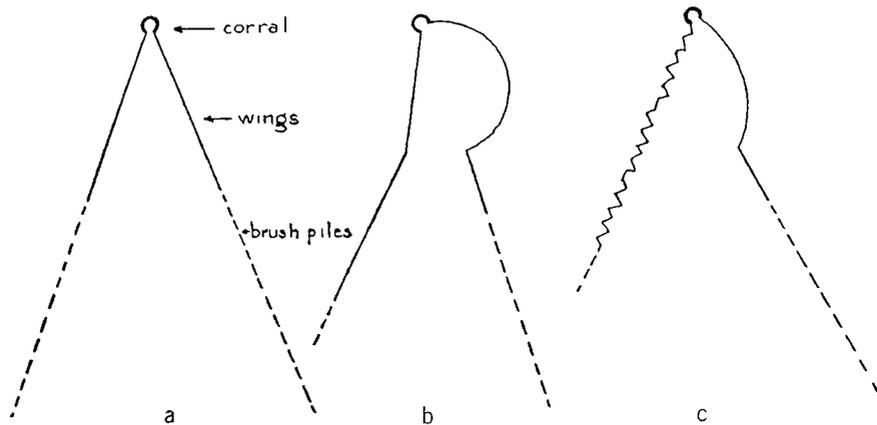


FIG. 7. Antelope corrals. a, after R.H., C., P.P., H.W.L., and G.H.; b, after M.D.W.; c, after T.

This distance was gradually diminished until, within three hundred yards of their juncture with the wings, they were only five yards apart. Care was taken to align the piles so that from the end they appeared to form a continuous wall. Occasionally yucca plants were uprooted, turned upside down, and a sagebrush placed upon them. "It looks like someone sitting" (P.P.). (See Fig. 7 for various types of corrals.)

When the entire corral with its wings was completed, an all night Blessing Ceremony was held during which no one was allowed to sleep. The leader chose the two most successful of the listeners ("these were always men who were handy in everything"), who were given the office of opening the medicine bundle of the leader, unwrapping and wrapping it again.²³ They cleansed themselves by washing their hair in yucca suds.

The bundle contained a male and female bluebird, wrapped in cotton twine which

²³ This is the only ceremony noted where a real bundle analogous to those used in the plains area was employed. In other rituals the ceremonial paraphernalia was kept in a pouch.

had come from the Pueblos. While Hunting or Game songs were sung the two men untied the bundle and each took one of the birds and removed the wrappings. Then, at the direction of the leader or his assistant, the two birds were rewrapped. Each man held one of the bluebirds in his left hand and commenced wrapping. The twine was put on from left to right and from immediately back of the wings up toward the head. About two finger widths of the birds was covered with the twine, which was carried over and away from the wrapper. None of the feathers were allowed to project through the wrapping and the finishing knot on top had to be in a direct line with the knot tied at the beginning. "The feathers must not project through the wrapping because the job must look good" (Fig. 8).

The birds were held close to the ground while being wrapped. "If you lift them too high while wrapping them it makes the game fleetfooted and makes them jump high. You want to keep them [the game] on the ground."

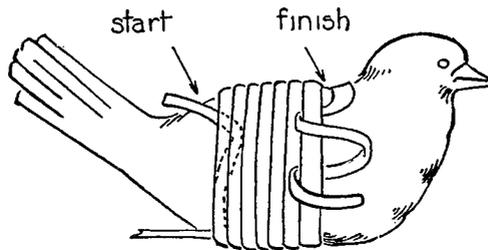


FIG. 8. Method of wrapping bluebird used in antelope hunting.

When wrapped, the two birds were placed on a buckskin in front of the leader, with their heads pointing toward the fire and the entrance to the brush circle. They remained in that position for the duration of the all night ceremony.

At the close of the wrapping ceremony two other young men were chosen to start the preliminaries to the drive on the following day.²⁴

The leader commenced to sing and sang as long as he wished, then any others who knew songs were at liberty to sing them. This singing continued until dawn. Throughout the night no one was allowed to sleep.

Variations of R.H.'s account of the ritual performance of the trip and of the night before the hunt were given by others. According to P.P., the leader had four images of deer cut from turquoise, white shell, abalone, and jet. When the evening ceremony began, these were placed in a row facing west, in the order named above, between the leader and the fire. Then, a "talking prayer stick" was placed in front of each image.²⁵ Next the weapons of the whole party were piled between the images and the fire (see Fig. 9). The chanter then began

²⁴ When drives were held entirely on foot the choosing of the horsemen and the ritual connected with them was of course unnecessary.

²⁵ For description of these talking ketans see Hill, *Navaho Rites for Dispelling Insanity and Delirium*.

the ceremony. When it was finished, all the ceremonial paraphernalia, including the weapons, was placed on a basket in the west of the brush shelter.

According to G.H., at the completion of the corral the leader walked down the center of the wings singing and into the corral at the back carrying a game fetish called *diniščíń*. This was a small antelope made of white shell. It was placed on a blanket in the back of the corral with some "medicines." The leader then faced toward the west and recited a long prayer. This completed the blessing of the corral and the party retired to the brush circle where the all night singing was held.

According to M.H. singing was done over four prayersticks.

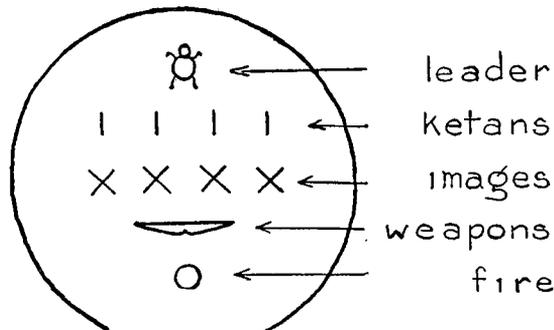


FIG. 9. Arrangement of ceremonial paraphernalia used in antelope hunting.

At dawn the leader instructed everyone to prepare breakfast. The party might eat as they wished during the night, but all must prepare a breakfast. After these instructions the leader began to sing until breakfast was brought to him. He ate with the two bird wrappers and the two men who were to drive the antelope (R.H.). When he finished, he began singing.

Those who were to participate in the hunt rubbed medicine, composed of a plant, *xastúí cí·yé·í* ("an old man's hair bundle"), wild tobacco, sheep tobacco, gray greasewood, and dodgeweed, on themselves. "If you do not do this the antelope will shoot something into you, and you will die immediately" (H.W.L.). This was also applied to the horses which were used.

The men who were to drive in the antelope prepared their horses. Then two cedar branches were brought in and the bark stripped off and shredded. This bark was made into two torches about a foot long, tied in several places with yucca. Care was taken not to shred the bark too fine, as the torches must burn slowly.

Before leaving each hunter was handed his weapons by another. "It is like this when you are hunting. You are not simply killing game for yourself, but also for those at home. That is why the hunters helped one another" (P.P.).

The leader took the torches, chewed an herb, and blew it upon them. Then he proceeded to the side of the fire nearest the entrance, where he lit the torches. Next, going

clockwise around the brush shelter, he lit them in the fire at the other three cardinal points. The torches were then given to the horsemen, who left immediately (R.H.).

The leader then put on his hunting cap and cloak. The buckskin cap fitted snugly over the head and was secured by a chin strap attached to flaps over the ears. A large blackbird was sewed on the top. This cap was made especially for the corral hunt and used only in it. The cloak consisted merely of the buckskin on which the birds had rested during the ceremony. This was also used only in the corral hunt. It was called by the same name as the shirt worn by the stalker. "This costume caused the leader to be like the rest of the game. In this costume they were not afraid of him." When the costume was on, the leader picked up the two birds and left the circle, going clockwise (R.H.).

Next, he instructed the party to enter the circle, walk around it clockwise and take pieces of charcoal from the fire and mark each cheek. "This was done because the antelope have a mark on each cheek like that."

The leader then took up his position at the rear opening of the corral. According to the Navaho this opening was never closed. In reality it was closed by placing a bar across the aperture and leaning boughs against it.²⁶

A log about three inches in diameter and two feet long was set up in the middle of the rear opening and covered with boughs. This log had to be either piñon or cedar and had to be one in which a woodpecker had pecked out a nest. On arriving at his position the leader placed the heads of the two bluebirds in the hole made by the woodpecker. "This was to encourage the antelope to come closer." Every so often during the drive the leader pushed the birds a little farther into the hole. "This was to draw the antelope nearer" (R.H.).

According to H.M., the leader stayed at the rear of the corral and prayed and sang. As the men left for the drive, he placed four prayer sticks either in the middle of the corral or at the entrance and returned to his place after praying over them. "These prayersticks draw the antelope to the corral."

According to P.P., the leader, carrying the four images in a basket, rode down the runway, singing as he went. He dismounted at the corral entrance, then walked to the west of the corral, and placed the images in a place in the wall which had been built to receive them.

Next, the chanter rode out of the wings and hunted for antelope tracks. When he found them, he took dirt from each of the four hoof marks, returned, and placed this in the basket with the images. After this, those who were to drive in the antelope left.

The two bird wrappers took up positions at the juncture of the wings of the chute with the corral (R.H.). With them were stationed the old men and women. They always stood on the side of the chute which was down wind.²⁷

The adult and fleetfooted men of the party were stationed at the juncture of the wings with the brush piles. They also arranged themselves on the down wind side.

²⁶ If the drive was held on foot the leader's station was at the juncture of the wings with the corral. When all the antelope had run into the circle, he stepped into the entrance and kept them from running out.

²⁷ In a drive on foot the leader's position was at this point.

The leader warned everyone not to fall asleep and each member of the party was told to see that the others kept awake. If anyone fell asleep it was thought that the eyesight of the two horsemen would become defective. Also, it was believed to make the antelope lazy, causing them to sleep instead of running toward the corral.

One man of those stationed at the juncture of the wings with the brush piles was sent to a nearby hill to watch for the coming drive. If he saw nothing he was called in. However, should he see a smoke signal from the horsemen he remained, that he might report to his group how the drive was progressing. The horsemen gave the first smoke signal when the drive was eight or ten miles away and followed at intervals with other signals as the animals approached the chute.

In the preliminary stages of the drive great care was taken not to frighten the antelope. When the two men on horseback located a herd they endeavored to keep out of sight and gradually work the antelope toward the chute by lighting with the torches a series of smoky fires behind them. "It takes great patience to get the antelope headed right."

When either of the horsemen thought that the antelope were close enough to the chute he showed himself and the animals began to run. If they ran in the wrong direction, the other horseman built a fire to turn them. When they were headed toward the chute, both horsemen came out in the open and went after the antelope at full speed. As they passed the outermost brush piles each grasped the pile on his side. "This prevented the game from turning back." According to M.H., the brush piles were fired to prevent the antelope from turning.

The watchman on the hill signalled the members of the party stationed at the juncture of the brush with the wings as soon as the antelope entered the enclosed area. The man of this group who had been chosen to block the wing entrance stripped himself of clothes as though to run a race. The remainder of this group sat with heads bowed. They were not allowed to look at the antelope as they came down the chute. It was thought that if anyone but the man who was to block the entrance looked up the antelope would turn back. This man reported the progress of the drive to the people.

When the first antelope entered the wing area he ran forward. By that time the whole herd were in the wings. He ran across the entrance and grasped the boughs on the opposite side, the rest of the group following him, forming a line across the wing entrance.

The antelope were now headed for the corral. Usually they would circle once or twice in the wing area before entering the corral. When they turned, the line of people across the wing entrance squatted down to wait until the antelope were within twenty or thirty yards of them, then they jumped up and turned the herd back toward the corral. "The first time they (the antelope) would come very close to the men in the wing entrance. The next time not so close, and so on. At last they would go into the corral."

As the antelope entered the corral the old men and women blocked that entrance in the same manner as the entrance to the wings had been blocked. If horses had been used in the preliminary stages of the drive, the men began immediately to shoot the antelope with

bows and arrows. If the drive had been held on foot, the runners first rested before the shooting began. The leader gave the command to begin.

For the protection of the leader, when the killing started, some members of the party were stationed outside the corral to guard against the escape of any animal that might jump the wall. No particular individuals were selected for the killing.

Some of the antelope were always spared (C., R.H.): a male and female (T.); four, one which was released from each of the cardinal points (H.W.L.). "The leader tells these antelope that he will depend upon them later" (P.P.). If the drive was very successful several were let loose, but if no great number were caught only one was set free. Before they were freed pollen and an herb (dini'e: ³čil) was put into their mouths. "This was so they would feel all right, so that they would increase in the future for men."

When the antelope were shot, those which were to be the share of the leader were chosen. If the hunt had been successful the two fattest animals were picked out for him; if not, he received only one animal, but always the finest. These were brought to the back of the corral and placed with their heads pointing toward the stake in which the bluebirds, shell antelope, etc., rested. The remainder of the antelope were lined up in a row back of these. When all had been laid out in a line, the stake with the bluebirds in it was pulled up (R.H.), or the "gate" constructed of two uprights with four cedar boughs at the base with tips in alternating directions was opened, (G.H.) and the antelope were taken out. "You did not skin your game in the corral, because that was the place where you had killed it."

Next, a man was appointed to skin the animals belonging to the leader, and the skinning of the game began. The skinner worked on either side of the animal. An incision was made in the hide from the belly toward the head, then from the belly toward the tail. Next he slit the hide on the inside of the fore and hind legs on the side on which he began working. The man then went to the other side, going behind the animal, and made corresponding incisions in the hide of the other two legs. Then a cut was made around the skin of the neck and the hide removed in the most convenient manner. The hoofs were left attached to the hide. The heads were not skinned at this time.

While the skinning was in progress, the head of the antelope had always to be pointed toward the camp. No one was allowed to pass between the head and the camp, else the luck of the party would be cut off. "You had to be careful of this, because if you did not get enough antelope in the first drive another would be held the next day."

When butchering, the joints were first broken. Next the front quarters were cut off, followed by the hind quarters. Then the intestines were taken out and immediately cleaned by the helpers and assistants. Following this the head, lungs, and liver were removed in one piece. Finally the ribs were cut from the backbone to complete the butchering.

If meat was scarce every part of the animal was used except the penis or uterus. These were buried in the contents of the stomach. "If you were careless about this you would later become sick."

Before any of the meat could be brought into the brush shelter, the leader had to replace the bluebirds, prayer sticks, or images, etc. His meat was carried in for him and placed in the back of the shelter on a pile of brush. The meat belonging to the others was carried to various camps outside the circle. It was packed in the green hides of the animals, or in pelts that had been brought along for the purpose.

The leader took pinches of the heart, tallow, and from various other parts of the meat given him. Next he chewed some of the tallow and a piñon bud, went to the east side of the fire and blew some of it into the fire as he stirred it with a pole. Then, going clockwise, he did the same at the three other cardinal points. This was a signal that the rest of the party might roast their meat at the campfire.

Preparations for a feast were begun. The heads were skinned and roasted by the side of the fire, and meat was broiled on the coals. The heads could never be cooked directly on the coals or in the ashes, because, though they must be thoroughly cooked, they must not be burned nor have the teeth damaged. "Everyone understood that though they killed the antelope, the animals all returned to their own country. If one went back with an injured tooth, the one who had injured it would later get a toothache. If you were not careful but burned your meat, you would get sick."

If the party had secured enough meat in the first drive they prepared to leave for home. If not, ceremonies for a drive the next day were held. The next drive had to take place on the following day. Listeners were sent out as before. This time they went to the opening in the back of the corral and listened there. If they heard nothing, another pair was sent out. If necessary, four different pairs would be sent out. "One of the pairs was certain to hear something." As soon as they did so, the ritual and the singing for the evening terminated and all went to bed.

The party arose at dawn and the ceremonies of the preceding day were reenacted, with one exception: the ceremonial paraphernalia were not exposed again. Otherwise the drive on the second day was conducted in the same manner as on the first.

When sufficient meat was obtained the party broke camp and prepared to go home. The meat was formerly packed on the same kind of frame as was used in carrying deer meat (p. 111). "A man could carry three antelope on a frame like that." In later days it was packed on horses.

Just before leaving, the leader, assisted by two listeners and the two horsemen, gathered up the head bones from the brush shelter, took them out and deposited them with a ceremony, the horns in a crotch of a tree, the heads at the base. "This was like turning them loose alive again." After this there were no restrictions and everyone simply packed up his belongings and left for home.

Antelope meat was preserved and used in the same manner as deer meat. The greater part of the kill, unless needed for immediate use, was jerked and stored in stone storehouses in the cliffs.

The hides were dressed and used in making garments. They were not substantial enough for moccasins. The horns were not used for any purpose.

BEAR HUNTING

The bear was generally respected and avoided. If met it was prayed to as a Holy Being and not molested. "In the legends there were cases where there were bears in human form; so it was just like killing a man to kill a bear" (C.). However, if a bear killed a man or cattle, if starvation faced the people, or if a Mountain Way chanter needed a bear paw to complete his equipment, they might be killed.

When a bear attacked, a man was permitted to kill it in self defense. Similarly, when a bear killed men or cattle it forfeited its security and was hunted down. Ritual might or might not be used in a hunt of this type. If not, a party of men merely banded together, trailed the bear, and killed it with guns or arrows.

From a bear killed in this manner only the claws and gall were taken. These, plus the claws of eagles and mountain lions, were made into wristlets to be worn by the patients during the blackening ceremony of the several chants and by the members of war parties. "It gave them power."

After the advent of traders the meat and hides were sold. "No Navaho would eat bear meat under ordinary conditions." It was thought to cause swelling of the limbs.

During the winter, if faced with starvation, a man was permitted to hunt bear. A person who knew the ritual, with one or two assistants, would go to the den of a hibernating bear. The leader stood before the den and explained why they had come. "He told the bear what they had come for, that they were in need and were starving. He said, 'Though you are eaten, you will return whole to your own people and will become chief over your own people.'" Next the leader sang a song, said prayers, and called the bear by its "secret" name. These songs and words were thought to draw the bear out of its den. "The bear would obey these just like a pet dog." If this ritual failed to bring the bear out, a burning brand was thrown into the den, or one of the hunters would go into the den and "jerk" the bear. "The bear would run right out, he would never do anything to the hunter in the den."

The accepted method of killing bears was to club them. The men waiting outside clubbed it on the head with a piñon club about the size and shape of a baseball bat. Since their introduction, guns have sometimes been used.

When the bear was killed pollen was sprinkled on the hide wherever an incision was to be made when skinning it. The first cut was made from the breast up to the throat; then a cut was made from the breast toward the tail.²⁸ Next, incisions were made on the inside of the right front, left front, right hind, and left hind quarters, in that order. The animal was then skinned. According to H.W.L. and P.P. the head was never skinned. If the paws were to be used as medicine bags in the Mountain Way chant, these were skinned separately. Throughout the process the skinner and his assistants uttered the call of the Talking God.

The meat could either be removed from the bones, or left on them, when carried home.

²⁸ See narrative of hunt for variation.

When the party came in sight of the hogan they gave the call of the Talking God. The same call was repeated four times before entering the hogan.

The meat was boiled and eaten off piñon boughs. While eating the call of the Talking God was given at intervals, otherwise it was thought that those who ate the meat would later become afflicted with swelling of the limbs. According to the Franciscan Fathers²⁹ a sacrifice of cannel coal and other precious stones had to be made before the meat could be consumed.

All the bones of the bear were saved and great care was taken not to break them. These bones and the hide were later deposited ritually. Informants gave varying accounts of this. Some said that when a bear was skinned the bones were removed from the meat, covered with the hide, and left. The head of the skin was left extending into the den (C., H.W.L.). Another informant stated that bones and hide were deposited beneath a piñon tree with a prayer (S.C.). According to others, the bones were placed at the entrance of the den and the skin hung on a nearby piñon tree with the head facing the den (R.H.), or with its nose touching the piñon tree (P.P.). Still another informant stated that when the meat was all consumed, the bones were taken some distance from camp to be reassembled in their original positions and beads representing the organs were placed among them. The hide was then placed on top of the bones and the whole covered with spruce boughs, tips pointing in the direction of the bear's head (A.M.).

There are few Navaho alive today who have participated in a bear hunt. Those that have are extremely reticent in recounting the details even to their own relatives. Because of this and because it has been variously reported that the Navaho do not kill or use bears the following account of one type of hunt is given *in toto*. This account also presents several minor individual variations not listed in the general description.³⁰

The information was given by Sam Scott. He explained that an individual "was not supposed to talk about hunting bears." (He had not told his brother of his experience.) "They live in the black, yellow, blue, and white mountains." They can turn themselves into anything, for example, a tree or rock. "That is why you may not talk about them."

Before commencing the narrative the informant took a ceremonial bundle, used in bear hunting, and prayed to the bear for protection and forgiveness. The bundle consisted of a buckskin sack containing "shaken off" pollen of bear, horn toad, and the "big snake." Bound to the sack were three arrowheads of different colors. During the prayer, which lasted ten minutes, the pouch was held over the heart. When the prayer terminated the informant blew toward the sky four times and then announced that he was ready to begin the story.

As I have told you bears can turn themselves to anything like burnt stumps or trees. Another name for the bear is 'alco náʔe·íí(?) ("turning into anything").

²⁹ *An Ethnologic Dictionary*, 476.

³⁰ There are several possible explanations for the informant assigning the death and disappearance of the bear to magical means. Either he preferred to describe the actual facts in ritual terms or due to his distance from the scene of action and the emotional strain which he was under he was not cognizant of the practical procedure.

My father and his uncle used to hunt bears. My father learned the ceremony from his uncle. His uncle's name was "he went ahead of the anger." He got his name during war raids, he was a good fighter. I learned part of the ceremony from my father about fifty years ago. He died forty years ago.

At the time I was taught the ceremony my father performed a ritual over me. He took his saliva and beginning at my feet spread it all over my body. Finally he put saliva in my mouth, four times, and four times I swallowed.

This hunt happened in the Tohatchi Mountains three years after my father died. My father's uncle was still alive. A neighbor was camping near us. I had heard that several times a bear had come and taken sheep from the corral. It had also killed a colt and several horses. We were camped under a leafing oak tree. Two of the branches grew horizontal to the ground. We slept under them and built a platform on them to hold our supplies.

One night the bear came and while we slept ate the supplies from the tree. We did not even notice him. In the morning my father's uncle said the bear had done this. The neighbor had also seen the bear. In the morning they saw the tracks leading to the den.

Uncle asked several men to go with him to hunt the bear. All were afraid to go. My father's uncle asked me, saying, "You are the only one left." He said, "I do not want you to say no as we are going after this bear." He said, "I wish you to go because you know the songs, prayers, and what to do when you see the bear." Then he told me to get my father's pouch with the pollen in it. I said I would go, and went after the pouch.

Uncle placed the two pouches together. Then he told me to cut a piñon limb about two inches in diameter and about a foot-and-a-half long. I did this. Uncle took the bark off the pole. Then he painted the stick with red ochre. Then he took horntoad, bear, and big snake pollen. He took the bear pollen and made the zigzag lightning mark on the club. Then he placed the straight lightning on the club with big snake pollen. Next he took the horntoad pollen put some in his mouth, blew it on the club, on me, and on himself. After this we both placed bear pollen in our mouths.

Uncle went to the summer hut and shouted to the neighbors not to come near. When he came back he said we were going to the bear in the cave. He told me that we would leave at a certain time and go and bring the bear out.

Uncle told everyone to leave the hogan and to stay away until we returned. Then he called me by name and told me to stand up. He placed my pouch over my shoulder and his over his shoulder. Uncle said something would help chase the bear into the cave. The bear was now in the woods.

It was a clear hot day. We started, my uncle carrying the club. We went around the hogan clockwise and then toward the bear's den. We went about a hundred yards and stopped. Uncle started singing. This singing was for rain to drive the bear into the den. I helped with the singing. We sang four songs. Then the clouds began to gather. When we saw this we stopped singing and started for the bear's den which was about a half a mile away. My uncle went ahead; I followed. As we walked along my father's uncle told me what I should do when we reached the den. He said, "All bears' dens are like this. The bears place them there themselves." Before we got to the cave it began to rain heavily. Just before we got to the den Uncle told me to go to the left side of the den and stand by a piñon. When we arrived the water was running all around.

We noticed that the bear had entered the den shortly before. I did as my uncle told me. Then he began to sing. We could see the bear's eyes flashing in the cave. The bear was angry and was growling. Uncle told the bear to quiet down. The bear did. He told me not to be frightened and to

be brave. Now Uncle was ready to go into the cave. He had a knife stuck in his legging. He went into the cave. At the entrance he placed the club. At one end of the stick, which lay flat, he placed an arrowhead pointing east. He sang as he entered the cave. He talked, but I did not understand what he was saying. All the while he was talking to the bear. My uncle said he was going to pull the bear out by the jowl. He tried this, but the bear did not want to come. He went around the bear and grabbed him by the hind leg and pushed him out ahead of him. The bear came out of the entrance by the stick. Uncle went around the right side of the bear to its head. He took his pouch and hit the bear on the nostrils four times. He did not hit him hard. About the third time he hit the bear I noticed the bear was becoming weak. On the fourth stroke it was dead.

Then Uncle began talking to the dead bear. He said, "I am not doing this because I have bad feeling toward you. The reason I am doing this is because you have done a great deal of damage among the people. What you have done the people cannot forgive—such things as stealing sheep and horses from corrals and supplies from me." He told the bear he was not killed. He said "The reason I do this is because I want you to realize what it is to steal." He said, "You are turning to anything [you may turn into anything], and you rule the mountains, and the den is still yours."

Uncle asked me to help him roll the bear on its back. Then he took out his pollen and starting at the end of the tail sprinkled the pollen along the belly up to the mouth, then from the belly to paw of the right foreleg, then from the belly to paw of the right hind leg. Then he did the same on the left legs starting with the fore leg. He skinned the bear cutting along these lines. He cut around the wrist leaving the skin on the paws. He cased the head.

Next he cut down the breastbone through the hip joint. You are not particular about the bladder of a bear. He took out the intestines, leaving the heart, lungs, liver, bladder, and windpipe in place.

Next he put the intestines back. Then he took his *n̄iz* (jewels). He placed white shell at the end of the windpipe. Another white shell was placed where the lungs join. Then he placed a red stone on the diaphragm, then turquoise on the liver, middle of backbone, bladder, and anal aperture. A small cut was made in the flesh to insert the jewels. A turquoise was placed in each paw going from right to left, and in each shoulder and ear. All the while my uncle was singing.

Then we turned the bear on its belly facing toward the cave. We took the hide and placed it on the bear just as it had been before. Pollen was sprinkled from the end of the tail to tip of the nose. Then the club was placed between the ears with the arrowhead pointing toward the den.

Uncle said to the bear, "You will come to life now."

The only thing we took was the gall which is used for various ceremonies. Then we started home. On the way back we washed off the blood. When we arrived home we told that we had killed the bear.

The next morning Uncle said we will go back to the den and see which way the bear went. We went to the den. We saw nothing there but bear tracks leading north. My uncle said the singing and prayer had come true. He told me to live by this in the future. I have always lived according to this and will until my hair becomes grey.

In order to complete his ceremonial equipment a Mountain Way chanter had to have the paw of a bear for a medicine bag. The right front paw was used in the Male Mountain Way chant, and the left front paw in the Female Mountain Way chant.

These bear paws could be obtained in two ways: either from a bear that had been clubbed and killed for food, or from one that had been hunted and killed specifically for the paw. The paw had to be from an unwounded bear: if shot with an arrow or rifle it was not considered sacred. Nor could the paw of a bear that had killed men or cattle be used. "Those bears were notorious and not fit for ceremonial use" (C.).

This type of ceremonial hunt has long been in disuse and only the following semi-legendary account could be obtained.³¹

A man who knew the Mountain Way chant and the songs, prayers, and ceremonies necessary to draw the bear out, would go to a flat, a short distance from the mountains. He chose an isolated cedar tree and there made a deposit of jewels. Then he said a long prayer and began to sing. While he was singing the bear would appear in the distance and begin to come toward him. When the bear arrived, the chanter commanded him to go to the tree and put his paws on it from the four directions, going clockwise. Then the chanter killed the bear and took his claws, put some jewels on him, and commanded him to return to the mountains. Next the chanter took a branch from each of the four cardinal points of the tree and went home. A buffalo skin obtained from the Hopi and a buckskin from Taos were cut and sewed in the shape of a bear's paw to which the claws were attached. This formed the medicine bag of the Mountain Way chanter.

In actual practice, when a novice finished his training in the Mountain Chant Way, a party of hunters were presented with a gift and ordered by a Mountain Way chanter to secure a bear's paw. When the bear was killed, the skin of the fore paws, with claws attached, were cased and tanned. This was used as the medicine bag.

The gall ('a'łiž) of the bear was also preserved. This, plus the galls of wolves, mountain lions, and eagles, was used as an antidote for dizziness, fever and fainting, thought to be caused by witchcraft. "Also, if a witch shot a 'bean' (i.e., the object thought to be used in witchcraft) into you with a bean shooter, this would kill the bean."

EAGLE CATCHING

Ritual catching of eagles in pits for ceremonial purposes, was engaged in from late November until January. The ceremonial pattern of this form of hunting was analogous to those previously described.

According to one mythological account (C.), the first man to trap eagles was tsitasta:

He was more of a Holy Man than a real man. The eagles used to light on the top of his head and he would catch them that way. It was he who instructed man in the pit method of trapping eagles.

Another account of the ritual for catching eagles is contained in mythology of the Bead Way chant. An abstract of this myth (in the author's collection) explains its origin as follows:

There was a young Navaho living in the vicinity of Mount Taylor. He was promised a reward by the Jemez Indians for obtaining eaglets from an aerie. After a consultation with his brother

³¹ Albert Sandoval gave this account which he obtained from a novice in the Mountain Way chant.

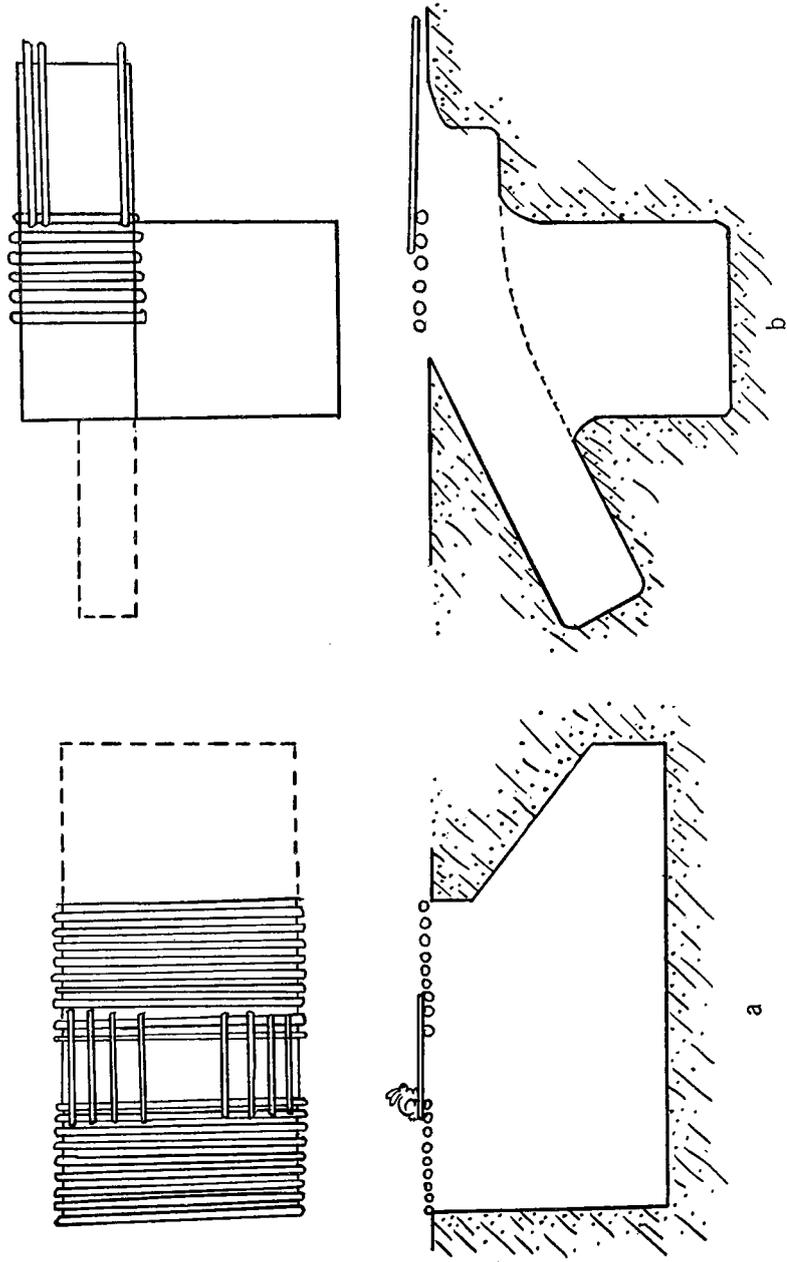


Fig. 10. Two varieties of eagle-catching pits.

he decided to accept the commission. He was lowered to the nest but suspecting the Jemez of foul play refused to throw down the eaglets. He discovered that the eagles were Holy People. They fed him and on the fourth day took him to the sky. Here he was taught the rituals of the Bead Way and Eagle Catching chants. He returned home, instructed his brother in the rituals, and a ceremony was held. At the close of this ceremony the culture hero again returned to the sky. The brother continued to practise the chants and through him they were disseminated among the Navaho.

The eagles themselves were thought of as "holy human beings" and, according to the Navaho, for this reason the observances of the hunt had strictly to be adhered to.

As in other types of hunting the party was under the direction of a leader. According to Klastci the party was limited to the leader and his helper; however, C., M.H., and G.H. stated that it might consist of as many as ten men. A brush circle was built with the entrance to the east and the tips of the boughs pointing either toward the rear of the circle (C.), or clockwise (G.H.).

Pits for the hunters were constructed during the night under the supervision of the leader (C.), or the following morning by the leader (M.H.). They were dug large enough so that the trapper could sit or lie down comfortably: about six feet long, three wide, and four deep. The pit was usually a simple oblong excavation (C., Klastci). However, sometimes a recess was dug at one end in which to place captured eagles (G.H.) (see Fig. 10, a), and occasionally the hunter occupied a supplementary pit in the side of the first (M.H.) (see Fig. 10, b). Dirt from the excavation was carried some distance and concealed. According to G.H. a rock walk was constructed in order that the tracks of the workers might not be seen.

Poles placed across the excavation were covered with bark and earth. This covering was flush with the ground. Grass was then "planted" on top of the pit to give the illusion that the soil had not been disturbed. A small hole was left in the top or at one end just large enough to pull the eagles through and allow the hunter to enter. A variant of the pit covering was given by M.D.W. According to him a stick and earth roof rested on a ridge pole eight to ten inches above the ground level. Great care was taken to remove all signs of the work.

When the pits were finished the hunters returned to the brush shelter to spend the remainder of the night singing Eagle Hunting songs. Just before dawn they went to the pits (C.). According to M.H., P.P., and G.H. only the leader hunted, or the leader and his helper (Klastci); the rest remained in the brush circle.

Each man carried a live rabbit for bait; according to M.M. a rabbit skin stuffed with grass. It was tied to a stake by the side of the pit. Another stake was placed on the opposite side of the pit, to which the first eagle caught would be tied (C.). The naked hunters were painted with white clay and spotted with corn smut. "The hunters were naked because everyone who performs a ceremony is so. They wore white clay because white eagles are the best."

On entering the pits the hunters sang songs and said prayers asking for good luck. While praying each held a bundle of "feathered corn" which had been inherited within his clan. This was an ear of white corn, an ear of yellow, and eagle plumes, wrapped together in buckskin. It was considered very sacred and thought to decoy eagles to the traps. During the hunt it rested in the rear of the pit (C.).

The hunter knew by the squeal of the rabbit when an eagle was about to alight. He made himself ready and grabbed the legs of the eagle as it swooped down and struck at the rabbit. The first eagle caught was drawn into the pit, its legs bound with a cord, then it was tied to the peg outside to act as a decoy. The hunter wrung the necks, clubbed, or tied the legs of subsequent birds and laid their bodies in the pit beside him. The accepted practice appears to have been to wait until nightfall before killing. According to M.D.W. if eagles were killed while the hunt was still in progress no others would come to the pit. If struck by the talons the man thought that it was a sign that his wife was unfaithful during his absence.

Soon eagles of all kinds and different kinds of hawks started coming very fast. Sometimes they were so numerous that they cast a shadow over the pit. As soon as a bald eagle came it was time to stop hunting, because that eagle is so powerful he would pull the hunter from the pit. Even if a bald eagle did not come, but the others came too fast, it was time to stop.³²

When, for either of these reasons, the hunter decided to stop trapping, he lit some shredded cedar bark and gave a smoke signal. This notified his companions that his pit was out of action. However, the man or men were not allowed to leave the pits until night fell.

When night came a white shell or turquoise bead was tied around the leg or neck of the decoy eagle as an offering and it was released. According to G. H. and Klastci this was not done until the last day of the hunt. They stated that first saliva, tears, and parings from the claws were obtained. "These three are mixed with pollen. If you hold these when you pray you will become rich and have many cattle and sheep." As the eagle was freed it was customary to pray saying, "You are going back to your home, your country." Klastci also differed from the rest in that according to him four eagles were released instead of one. He also stated that the rabbit was released after a small ceremony. For a reward a turquoise bead (male) or white shell bead (female) was tied to its leg. The dead eagles were then carried to the brush circle. If one was dropped on the way it was allowed to lie where it fell. "If an eagle swoops down and picks anything up and then drops it, he never goes back for it."

When all had arrived in camp the eagles were skinned and their bodies placed by the side of the fire, roasted and eaten. In skinning an incision was made at the neck and along the breast to the tail. Then cuts meeting this were made on the inside of the legs and wings to the first joint. The skin was then removed, leaving the head and legs attached to the carcass.

³² It is very probable that more hawks than eagles were taken in any one hunt.

Before a man or woman could eat eagles a ceremony had to be performed. Eagle Hunting songs were sung over them; they were painted with white spots of paint "so they would look like eagles;" they were given a special "eagle medicine" (herbs), and some eagle flesh to eat. After this ritual they were eligible to eat eagles; however, this did not make them eagle hunters.

When the party had feasted, the skins, meat, and carcasses were placed outside in the east and an all-night Blessing Ceremony was sung over them. It was believed that the carcasses turned into live eagles again. In the morning the feathers were distributed, the leader receiving an extra share.

The duration of the hunt was twelve days. Those in the pits remained there throughout this period only coming out at night to eat and to deliver the catch to the camp. Those who remained in the brush circle were likewise restricted. Three eagles in a day or thirty for the entire hunt was considered a good catch.

On arrival at their homes the hunters held another one night chant. The eagle skins which had been secured were piled on a "spread" in the west. Those of the community who wished eagle feathers placed buckskins, blankets, etc., underneath. At the termination of the singing they were given some of the feathers in return for their gifts.

Various parts of the eagle were used ceremonially. The gall was used as an antidote for witchcraft.

The eye water was saved to be used in stargazing. A stargazer (sq' yiné l'ini?) might be a shaman or not. His business was to look at the stars for a vision by which he was able to diagnose illness or predict the success of a war party.³³ He ground up some crystal and "mirage stone," mixed this dust with the eye water of an eagle, and rubbed it under his eye. Then he fixed his gaze on a star until the vision came.

The tail feathers were used for feathering arrows and for decorating various medicines of the shamans. The wing feathers were utilized in making wands (ńídi'tj) in the nine night ceremonies. The downy feathers and plumes were placed in prayer sticks as offerings.

Occasionally when eagles were caught, the plumes were plucked and the eagle freed. These plumes were called "live ones' plumes" (xi'na bičos). "Everyone should have one of these, they are very valuable. They insure safety and good health like the badge of St. Christopher." My interpreter always had one in his car. Another way in which these plumes or the feathers might be obtained was to take them from young eagles in the nest or take young eagles and raise them. When they were full grown, the plumes were plucked and the eagle freed. According to Klastci only members of the Coyote Pass clan were eligible to raise eaglets taken from the nest. While this was not verified by other informants it is interesting because of the Pueblo affiliations of that clan.

There was no clan ownership of eagles' nests such as found among the Hopi. Individual rights were also generally denied except by two western informants. These two, G.H. and

³³ For further information on stargazers see Morgan, *Navaho Treatment of Sickness*, 394-95.

M.H., stated that a man proclaimed his ownership on finding the nest. The latter said that if these rights were violated a fine could be collected. It is very possible that this concept might have originated through association with the Hopi.

The eagle flesh left over from the feast was ground up with various herbs to be used as medicine. The claws, with those of the mountain lion and bear, were made into wristlets. The leg and upper wing bones were made into whistles for use in the Bead and Mountain Top Way chants.

SUMMARY

The ceremonial pattern exemplified in ritual hunting was by no means limited to that activity. Its relationship to the various healing ceremonies is obvious. But it was also found in other less-known activities: perhaps the closest parallel was with the ritual of the two types of Navaho warfare, the raid and the formal war party,^{33a} and again in the ceremonies of trading expeditions and trips to procure salt at the lakes south of Zuñi. Basically the procedures of all these differed no more from one another than the ceremonies of any of the Ways of hunting.

^{33a} Hill, *Navaho Warfare*.

NON-RITUAL HUNTING

According to the Navaho, all animals other than deer, antelope, bear, and eagles were merely "killed, not hunted." The distinction was made on the basis of whether or not organized ritual formed an adjunct of the hunt. No formalized ritual accompanied the hunting of the animals and birds named below, and therefore, in the Navaho sense, they were killed, not hunted. This lack of formulated ritual did not mean that non-ritual hunting lacked an established practical procedure, though in most cases game was killed only incidentally as the animals happened to be encountered.

Buffalo (*'ayání*) did not inhabit the Navaho territory and it is doubtful if the Navaho hunted them until their sojourn at Fort Sumner. They knew of the buffalo from the Ute, who hunted them somewhere east of the La Plata Mountains and Santa Fé, and one informant stated that on occasion some Navaho joined in these hunts (L.H.). During their stay at Fort Sumner the Navaho raided into the Comanche country, buffalo being killed in the course of these raids. However, their importance was negligible.

Buffalo were generally hunted from ambush at water holes (M.L.H., K.), or while grazing (H.W.L.). White buffalo were feared and were never killed. The hides were removed in two pieces by making an incision along the back and belly. No particular procedure was followed in butchering.

Curiously enough, references occur to the buffalo in the mythology and chant legends. One legend tells of four buffalo who took one of the culture heroes on a trip. As they passed through Lukachukai, one male and one female buffalo urinated. This was given as the origin of the two springs at that locality: one male spring from the male buffalo, one female spring from the female buffalo. There was also a set of songs in the Flint Way chant which dealt with white buffalo. However, these were among the rarer sets and were seldom sung.

Formerly elk occurred in the Carrizo and La Plata Mountains. According to one informant (L.H.), all disappeared from the Carrizo Mountains around 1850 and went to the La Platas. Elk were killed when encountered during deer hunts in that locality. "They were easy to sneak up on; they could not run like deer, but could trot very well." There is a possibility that elk were hunted in the Wolf and Tiptoe Ways, but no actual accounts could be obtained.

The meat was used as was deer meat. Bows and spoons were made from the horns and the hides were used for sacks in transporting and storing.

Like elk, mountain sheep were killed whenever the opportunity presented itself. If encountered on a mesa, part of the hunters followed the sheep and drove them toward the remaining men who shot from ambush.

If the man knelt or put his legs together when skinning a mountain sheep, it was thought that he would become a cripple or a paralytic. According to M.L.H. if you did this, or

walked in front of the head of the dead animal, lightning would strike you. They were skinned differently from deer. The throat was cut; then an incision was made along the ventral side. The hide on the inside of the legs was slit, the joints broken, and the skin removed with the lower leg bones attached.

When butchering them the belly was opened, the stomach and intestines removed, and the lungs, heart and windpipe taken out in one piece. After this the head was cut off and the sinew of the back removed. Then the fore quarters with the shoulder blades attached, and the hind quarters with the pelvic bones and ribs attached, were cut off. This left only the backbone. The meat was treated and used as deer meat.

The hides of the mountain sheep were tanned in the same manner as buckskin. These were used in making sacks for corn, medicine bags, and bull-roarer strings. They were never used for clothing or thongs, as it was thought that anyone who wore mountain sheep hide would become a cripple.

The horns were used as containers for the tallow mixtures rubbed on the patients in the various chants. Those of the female were used as arrow-straighteners. Spoons were never made of them. If the horn of a mountain sheep was found it was scraped and the scrapings burned with herbs to fumigate sick sheep.

One informant (M.L.H.) had engaged in several planned hunts for mountain sheep. On these occasions he and his companion had used the same songs and butchering technique used for hunting deer. This ritual appears to have been simply a transference rather than a constant association with hunting this animal.

If a man encountered a mountain lion he solicited the help of two or three others, tracked, treed and shot it. Dogs were often used to tree the animal. "It was very risky to go out after bears or mountain lions alone." The first man to reach the mountain lion and jump on it claimed the hide. "There was never any rush about this as the lion might be playing dead." There was no special way of skinning a mountain lion.

The meat was cooked, as was other meat, and eaten. "It has a different flavor." The females were said to be very good food, but the males a little strong. The hides were used in making quivers and caps. Also, at her first menstruation, a girl must wear a hair ribbon of mountain lion skin. The tallow was used by chanters as medicine. The claws were divided among the hunters and made into wristlets. The gall, with the gall of other animals, was used to cure dizziness and fainting.

Wolves were only killed when a shaman needed the sinew of the tail, dew-claws, bladder or the gall for medicine, or when caught killing sheep. "If you hunt a wolf you must have a fast horse."

Coyotes were killed only when they molested the stock or when their skins were needed by the shamans of the Coyote Way chant. They might be shot or trapped.

The traps were deadfalls. The same type used for coyotes was also employed in catching wildcats and foxes. They were usually set at a narrow place in a trail, preferably along a cliff whose base was bordered by an arroyo.

There were several variations in trap mechanisms. One type consisted of a flat rock, about three feet wide by five feet long and four inches thick, held on edge by a stick delicately set (see Fig. 11, a). Blood or tallow was smeared on the trigger stick to attract the animal. Often four or five of these were set at intervals in the trail to increase the probability of success.

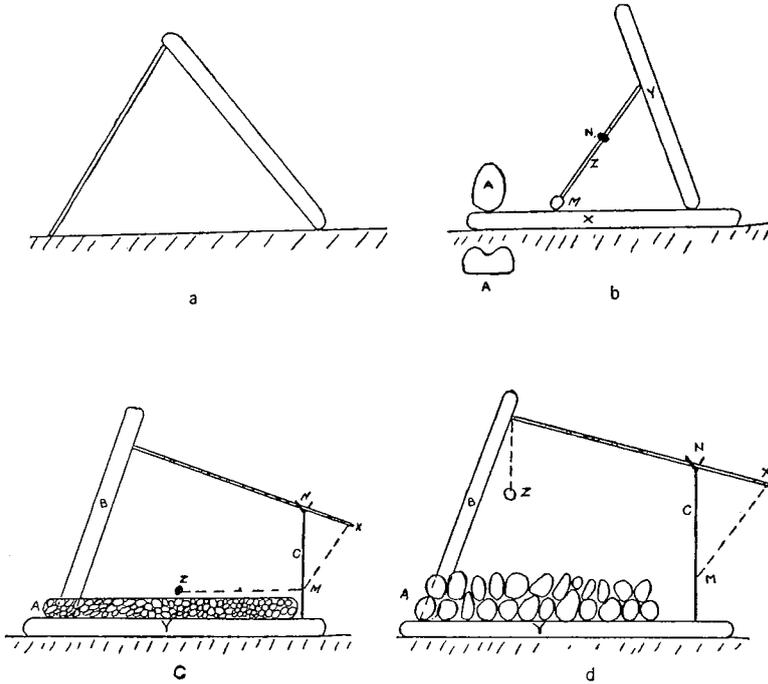


FIG. 11. Types of coyote traps.

Another type (Fig. 11, b), of approximately the same dimensions as the first, consisted of a flat base rock X; the deadfall Y; and a yoke A. The deadfall was set at one end of the base so that as it fell it would cover the depression in the yoke, at the other end. The trigger Z was set on a small round rock M so it would be easily displaced when the animal touched the bait N.

A third type (Fig. 11, c) consisted of a base rock Y on either edge of which was built a low rock wall A. The deadfall B was set at one end so as to fall in the trough formed by the two walls. The trigger consisted of a forked stick C and lever N. This was set by tying a string at the points X and M. The string was then continued to a stick Z laid transversely across the rock wall to which bait was tied. When the animal grabbed the bait the additional tension displaced the deadfall. The dimensions of this trap varied according to the size of the animal which was hunted.

A fourth type (Fig. 11, d) differed from the last in that the trough walls were higher and the bait was suspended. As before the trigger lever N was set in the forked stick C by a string tied at X and M. When the bait Z suspended from the point of the lever is attacked, the lever rebounds and drops the deadfall.

Wildcats were killed when encountered and occasionally trapped or tracked in deep snow, treed by dogs and shot. If they were fat, they were eaten. However, the primary object in killing them was for the hides, from which were made caps, quivers and moccasin soles.

Badgers (*naxašcid*), like wildcats, were killed when met with and tracked in deep snow. Formerly they were eaten. Before the introduction of cattle and rawhide their skins were thought to be the best for moccasin soles. Quivers and caps were also made of the hides. The gall was saved as an antidote against witchcraft. The palms of the paws were made into wristlets and worn in the Mountain Way chant. The "shaken off" pollen was placed on horses to make them powerful. "The badger preceded the Navaho through the place of emergence. They were digging through mud, that is why their arms are black."

Foxes were killed only for their tails, which were worn by the dancers in the Night chant and the shaman in the Coyote Way chant. They were shot or killed in deadfalls of the same type as shown in Figure 11.

Weasels were run down when found in open country, or else shot by waiting hunters as they emerged from their holes. They were killed only for the skins, which were used in the Mountain and Beauty Way chants.

Two species of skunks (*gólízi' coh*, "the big skunk," and *gólízi'kízi'*, "the spotted skunk") were killed for the hides used in making caps. With the advent of traders the hides were sold. The meat was only eaten during an epidemic and was thought to cure the sickness.

Beaver (*ča'*) were found along the San Juan River. Returning raiding parties passing there broke the dams and, when the water drained out, dug the beaver from their holes. The skins were made into head bands for shamans. The beaver castor was used as incense in the Bead Way chant and also burned and inhaled to cure bad colds.

Otter (*tábą:stí'ń*) were killed whenever the opportunity presented itself. Shamans used the skins to make head bands and the tallow for rubbing patients. The gall was thought to be an antidote against witchcraft.

Muskrat (*tábąh ma'i*) were not utilized and appear to have been almost unknown.

Rabbits contributed substantially to the food supply of the Navaho. However, rabbit was not considered a "strong" meat. They were hunted in several different manners and usually killed with clubs.

The clubs were of three types: "the throwing stick" (*cin xał*), "the floating throwing stick" (*cin xał na'lki'i*), and "the wide flattened throwing stick" (*cin xał nte'lí*). These were made of greasewood, cedar, or preferably oak. Hunters practised throwing at targets until they became adept. Experts could kill at forty or fifty yards.

Communal hunts directed by a leader were held to secure jack rabbits. Men and women

encircled a large area, gradually closed the circle and clubbed the rabbits as they sought to escape. According to P.P. the first one to reach a crippled or dead rabbit might claim it. Jack rabbits were also run down on foot, on horseback and with dogs. However, this form of hunt was entered in more in the spirit of sport than seriously.

Two informants (P.P., Naldjei) reported encircling rabbits with fire. Two or more men with cedar torches, started from the same point and ran in semi-circles, lighting the grass to form the circle. The rabbits were clubbed as the fire closed in.

Ceremonial observances were also reported in a few instances of rabbit hunting. According to M.M. before running down jack rabbits on horseback it was customary to place corn in a rabbit burrow and pray. This was believed to prevent the horse from stepping in a rabbit hole and stumbling.

H.W.L. stated that hunters rubbed medicine on themselves before the hunt to prevent the rabbits "shooting" at them. He definitely stated that while the wolf call might be given during the hunt no singing was allowed.

According to M.H. all the participants of a communal hunt gathered together and built a fire of weeds and rabbit dung. The party then walked through and passed their weapons through the smoke. "This smoking was done because you wish to kill many rabbits." This practice was denied by several other informants and is undoubtedly a local diffusion from the Pueblos to the Western Navaho.

Cottontail rabbits, when caught in the drives with jack rabbits, were clubbed. If they sought escape in burrows, they were pulled out with a pointed stick. The end of a stick was worked down to a rough point and the point abraded in order that it would catch in the fur. The operator spat on the point, thrust it down the hole, twisted it in the fur and jerked out the rabbit. If the burrow had two openings, a fire was built in one and the animal smoked out.

Rabbits were never corralled or captured in nets.

Rabbits killed by coyotes were eaten. Those killed by eagles might be eaten by eagle catchers, or by ordinary individuals if dodgeweed was broken over them and a song sung. This was believed to prevent an illness which could only be cured by the Bead or the Mountain Top Way chants. No game killed by a sparrow hawk was ever eaten. Such game was thought to afflict the individual with sores and boils.

Formerly the skins of rabbits were made into robes.

Prairie dogs were also important as food. They were shot, drowned out, or dug out.

Special arrows were used in hunting prairie dogs. These were unfeathered and the points had only one barb. (Formerly when arrow points were found, one barb was broken off, or bone points of this pattern were made. With the introduction of iron, points of the same type were hammered out.)

A hunter procured a piece of mica three or four inches square. This was placed in a split stick before the hole so that it reflected the sunlight as far down as possible. When the prairie dog emerged he was blinded by the light, so the hunter could shoot him and pull

him out with the barbed arrow. It was claimed that a good shot could kill a prairie dog with a bow and arrow at fifty yards.

After heavy rains flood waters were directed into holes to drown out the prairie dogs. The hunter (man or woman) grabbed the animal as it came out. "You must be careful to grab them by the neck or you will get bitten." Water was also carried to the holes for this purpose. The hole was first plugged with manure and grass, and a basin built around it. When the basin was filled, the plug was removed, allowing a large volume of water to descend into the hole at one time.

When a large number of prairie dogs were seen bunched about their holes, the hunter stole up and frightened them. In their hurry to escape several would run down the same hole. The hunter then took a digging stick and dug them out.

Traps were also set at the entrance of prairie dog holes. These consisted of horse hair nooses attached to a stake or rock. The hair was twisted to give it tension. When the noose was set the entrance to the hole was covered with grass.

Prairie dogs were always cooked in the same way. They were cleaned; the liver, lungs and fat put back in the body cavity; salt added, and the opening pinned up with twigs. Then the hair was singed in an open fire and the animal buried in the ashes to roast.

Tree squirrels were shot with bow and arrow, dressed, and cooked on the hot coals. The skins were tanned and hung on cradles for the protection of the babies. "The baby is apt to fall: a squirrel does not hurt himself even if he falls from a high tree." Squirrel skins were also worn by men to prevent them from being injured if their horses fell. Occasionally the skins were made into caps.

Squirrel pollen (corn pollen placed on the head of a squirrel and then shaken off) was used by the Mud Slingers in the Squaw Dance to prevent their being hurt.

Chipmunk (*xazái*) livers were soaked in water and the solution used to cure children's sore mouths.

The stomach and parts of the flesh of gophers were carried for use in case of stomach ache. They were drunk in solution with water.

Kangaroo rat (*nahafe'i*) pollen (corn pollen shaken from the head of a live kangaroo rat) was used when horses were castrated. The pollen was put in the blood vessels when they were tied. "This made the horses prance around in the manner of a kangaroo rat."

The deadfall trap was used in ridding the fields of these rodents. In one type (Fig. 12, a) the deadfall was set on edge by a forked stick and lever held in place by a trigger stick A which fitted into two slots at X, X. When the suspended bait B, was attacked it displaced the stick A and sprang the trap.

In a second type (Fig. 12, b) the lever was held in place by a string tied in a slip knot at A. The end of the string was threaded through a corn kernel or pumpkin seed. When the kangaroo rat attempted to make away with the bait the knot loosened and dropped the trap. Another type of trigger, in which the string is wound around the forked stick at A

and held by a bait stick braced to the deadfall, is described by the Franciscan Fathers.¹

A third type of deadfall (Fig. 12, c) was erected as follows: A base rock A was laid down and covered with a thin layer of dust. This rock prevented the kangaroo rat from digging out from under the deadfall if he failed to die from the impact. When the base had been set the deadfall B and a small rock C against which the trigger rested were placed at either end. A twig D delicately set at the edges of B and C holds the trap open. A forked twig E with its butt at the base of the deadfall and its fork resting on D at X acts as the trigger and bait stick. When the animal attempted to get the bait or hit this twig in any way the fork pushed the twig D outward and dropped the trap.

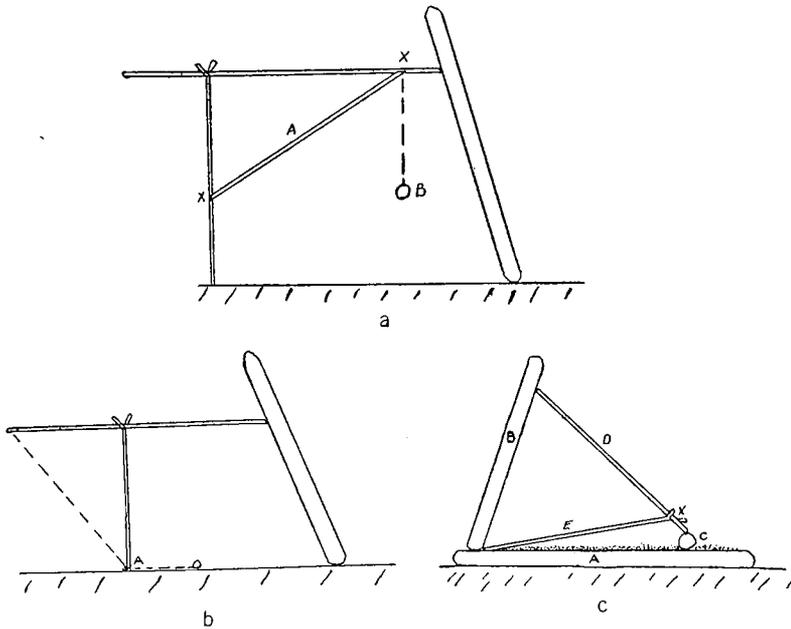


FIG. 12. Types of rodent traps.

The deadfalls used for kangaroo rats were approximately eight to twelve inches in diameter.

Wood rats were eaten and their fur was occasionally used in incense. They were dug from their nests and killed.

Mice were not utilized in any way.

Porcupines were shot or clubbed. The head and tail were cut off, the animal cleaned, and the quills singed and scraped off. A pit was lined with heated flat rocks. These were

¹ An *Ethnologic Dictionary*, 322.

covered with wet mud, the porcupine laid in the pit, and another layer of mud and hot stones added. Then the pit was covered with earth and the meat allowed to cook for about an hour.

The singed quills and the bottoms of the paws were saved and in case of an epidemic were drunk in solution and rubbed on the body. Some of the quills were used in wrapping the handles of the buckskin rattles used in the Shooting and Ghost Way chants.

The following birds were utilized by the Navaho. When their use was to be ceremonial they were usually caught in twitch-up or dead fall traps because, as in the case of the sacred buckskin, nothing that was shot could be used ceremonially.

Turkeys were shot after being approached stealthily or, if the snow was deep, run down. "They will not fly more than twice. You watch where the turkey lights and follow him. Do this twice and you have him" (R.H.). They were skinned and roasted on the hot coals; never boiled. "They lose their flavor when boiled."

According to P.P. if a fire was built under roosting turkeys they would not fly and it would be possible to kill them all.

The tail feathers were used for feathering arrows and for the headdress of the clown in the Night Way chant. The feathers immediately above the tail on top, were used for decorating the "stick" in the Squaw Dance, for making feather wands in the several chants, and for decorating the swallowing arrows of the Mountain Way chant. Arrows were sometimes feathered with the wing feathers. The remaining feathers were employed as offerings in prayer sticks. The eggs were never used. While the young were kept as pets none were known to have bred in captivity.

Grouse (dih) were shot with arrows and roasted on hot coals. Apart from their use as food they were occasionally burned to a charcoal which was drunk in water to relieve heartburn.

Feathers from the red-tailed hawk ('acelcui) and the tail feathers of the yellow-shafted flicker (ci'igai) were used to feather arrows. Feathers of the Cooper hawk (gini) were used for wands and for "medicine stoppers" (feathers which were laid over a bowl during a ceremony). Pollen shaken from a Cooper hawk was used on race horses to make them fleet footed. Feathers of the marsh hawk (čil ta'tagi) were used on arrows. The sparrow hawk (zili) was not utilized.

Formerly the horned owl (né'ěšža') was killed and eaten. Some of the feathers were used for plugging prayer sticks; others were put on the masks used in the Night Way chant. It was thought that if pollen shaken from a burrowing owl (łó'ótah né'ěšžá') was put in the mouth of a puppy he would grow to be a good watch dog.

Buzzard (ci šó' or žehšó') feathers were burned with herbs to make charcoal for blackening the patient in the War Dance. "The buzzard and the crow gave themselves for this in the beginning."

The feathers and bill of the crow (gâ'gi) were used in the War Dance. The tail feathers of the magpie ('a'q'i) were worn by the patient in the Squaw Dance, Mountain and Ghost Way chants. The feathers were also used on wands in various ceremonies.

The flesh of the bluebird (dóli') and the yellow warbler were eaten and their feathers used in plugging prayer sticks. The yellow warbler was also eaten by pregnant women who wished to have children with light skins.

These birds were generally trapped in the type of snare described by the Franciscan Fathers.² Another type was also made from a sunflower stalk about four feet tall. Holes were bored through the stalk near its top, and a cross piece about eight inches long inserted. On this were placed a series of horse hair nooses with their ends secured to the transverse piece. The snares were placed in the fields, and as the birds lit upon it they became entangled and caught.

Beside being trapped these birds were also shot with corn cob tipped arrows and arrows with transverse twigs fixed near the point. According to G.H. a man who killed more than twenty of these birds would have to skin two and eat them to pervert ill luck. The birds were skinned in any convenient manner.

Bluebirds were also captured in the abandoned woodpecker holes in which they nested.

The downy feathers of the chickadee (čiši' béši') and titmouse were ground up with the incense used to fumigate patients. It was believed that if a man was freezing to death that he would imagine he saw a titmouse or snow bird, and that they built a fire for him by which he warmed himself.

Snowbirds were used for food in times of famine. Horse hair nooses were tied to a stick and covered with horse manure. When the snow birds scratched in the manure they were caught in the snare.

The feathers of the woodpecker (c̄i'kahi' coh) were burned to cure earache, and used for fletching the miniature arrows of the Flint and Lightning Way chants.

The dung of the sandhill crane (de:l) was drunk with water to cure diarrhea. The dirt from its track was placed in the patient's moccasin during the Flint Way chant to assist in the cure. Its bill and parts of its flesh and viscera were put in its neck and head to form part of the Flint Way shaman's bundle.

Hunters often hid near water and when the cranes alighted, rushed them on foot or horseback and clubbed them before they could take to the air.

Ocher rubbed from a meadowlark was thought to protect humans and animals from hydrophobia.

The nests of the swallow (táščiži) were ground up and mixed with emetics to make them more powerful. Its shaken off pollen was put on race horses to make them fast.

Hummingbird (dahi'tjhi) feathers were utilized in the several chants. Its pollen was applied to race horses to make them swift. Pollen shaken from the Say phoebe (dibéni'i) was given to race horses to make them swift and to ewes to prevent them from abandoning their lambs. Mockingbird (zah xaláni') pollen was given to little children to make them talk and to cure them of stuttering. Whippoorwill (xošdódi) pollen was put on newborn babies to make them sleep. Rock wren (cé no'lčóši) pollen was given to sheep to make them good climbers. "Many people will not use this because it makes the sheep run around too much."

² *An Ethnologic Dictionary*, 323.

Pollen from the doves (*xasbídí*) and roadrunner (*na·céłózi·*) was used to make both men and animals long winded and fast runners. Roadrunner feathers were also used in the Squaw Dance, Mountain and Snake Way chants.

Feathers of the blackbird (*čági*) were ground with the medicines of the Wind, Flint and Shooting Way chants. Feathers of the yellow-shouldered blackbird (*čagi·coh*) were used on the dough image of the coyote made by the shaman in the Coyote Way chant. The skins of the Stellar Jay were used to cover the medicine cups in the Bead Way chant. Occasionally beads and shells were attached to them and they were rattled while the medicine was being mixed.

The red rump feathers of the nuthatch were ground, mixed with red ocher and salt and drunk by men who had come in contact with menstrual blood.

The mallard (?) duck was called *na·l'ehí* ("floating"). This is a general term applied to all ducks or swimming birds. They were never used in any way.

Bird lime was never used.

The shells of the turtle (*čéh dayáhi*, "slow walker") and the tortoise (*cistel*, "wide-body") were used as ceremonial medicine bowls.

Neither frogs nor snakes were killed. It was thought that a man who killed a frog would become a cripple. Killing a snake was believed to bring aches and pains in the backbone. These could be cured only by offering a carved stick representing a snake or the sand painting of a snake.

SUMMARY

The non-ritually hunted animals and birds, with the exception of the rabbit, prairie dog and turkey, were unimportant in Navaho economy. Their primary uses were for ceremonial purposes. The ordinary man had no use for the wolf, coyote, fox, weasel, otter, beaver, chipmunk, kangaroo rat, squirrel, or most birds, other than to turn them over to a shaman. This lack of utilitarian value may explain the lack of ritual connected with their killing. At least it has been so rationalized by the Navaho. "Only the deer and antelope have ritual connected with their hunting because they alone were important as food" (C.).

CONCLUSION

THE RITUALIZATION OF EVERYDAY BEHAVIOR

One of the characteristics of Navaho culture is the unusual amount of ritual that has been integrated in the affairs of everyday life. So thorough have been the adjustments of the ritual and material sides of the culture that to the Navaho mind they appear indistinguishable.

In the foregoing pages two types of ritual have been described: a personal, simple, folk knowledge, exoteric in character, which forms a part of the agricultural process, and a more complex esoteric type which, while personal in character, is confined to a small part of the population. The latter type is associated with hunting and with ceremonies of the Rain Way chant variety.

Both exoteric and esoteric rituals are basically the same in pattern. They consist of a minor rite, or various minor rites, placed and used in different combinations. The variation in complexity is enormous. The ritual may be a simple act taking only a moment to transact, or it may be a sequence of such acts which take days to perform. However, in every case it is fundamentally a shamanistic performance varying mainly in degree of elaborateness.

While there is a general feeling that certain ceremonies should occur during certain seasons of the year and while particular ones, such as those connected with agriculture, are of necessity performed during the summer, there is actually no fixed order followed. The performance of rituals is dependent on the necessity of the moment and their occurrence is irregular.

It is apparent that, once established, these ritual patterns have spread or included many activities. Wissler¹ has shown this feature, "the following of existing patterns," to be true among the Blackfoot. The simple exoteric type which appears in connection with agriculture is also applied to other everyday pursuits. The following random examples will serve to illustrate the extent to which such ritual observances (prescriptions, tabus, and the like) are integrated in other phases of Navaho culture.

No wood from a grave, from a house in which a person has died, or from a woodpile of a dead person can be used for building fires. Similarly, the wood used in building chutes and pounds, brush shelters for hunters, eagle catching pits, and sweat houses, or wood from trees struck by lightning, touched by a bear, or on which a deer has rubbed its horns is not used for fires because it is thought to cause illness. Once the fire is built no one is allowed to step over it, except during ceremonies.

The implements used to stir food have to be made of more than one element, because only food for ceremonial purposes can be stirred with a single stick. Food must always be stirred in a clockwise direction.

¹ *The Functions of Primitive Ritualistic Ceremonies*, 200-203.

All animals and their products (e.g., milk, cheese) must be cooked before being eaten. This is not necessary in the case of some vegetable foods "because the sun has already cooked them." When bread, pots, or cooking stones are removed from the fire the depressions left by them in the ashes are smoothed over and a prayer is said asking for good fortune. If mush is set out to cool prayers are said for good weather and for riches. At the conclusion of meals the legs are rubbed while asking for good health.

Many individual food tabus exist. Anyone who has had the Shooting Way chant performed over him may not eat heads, feet, lungs, hearts, intestines, or tails, else the ceremony will be nullified. Those over whom the Flint Way chant has been performed must not eat from a metate or with a knife.

Blessing Way songs are sung before retiring and on arising in the morning. If young people are allowed to sleep late it is believed that they will become ill. The ashes from the fireplace are removed as soon as the family arises. If they are taken out before dawn they are thought to act as pollen offerings to the gods. Ashes may not be removed during the day because this is conceived as a gesture of disrespect toward the sun. In removing the ashes, they must not be spilled as this is thought to make a path by which "poverty" may enter the house. The house is swept clean each morning in the belief that a clean home is an invitation to the gods to come and visit.

This type of ritual is employed at the time wild plants and piñon nuts are gathered. On the way to gather seeds the women sing songs which are thought to insure a good harvest. Before leaving to collect the harvest of piñon nuts, a piñon nut is crushed and rubbed on the face while saying, "May I have good luck in getting seeds." No one is allowed to shake the nuts from the trees because the bears employ that method in getting nuts and would be angered if a human used it.

Simple ritual of this type has also been incorporated into the technological processes. When dressing skins, a turquoise or a white shell bead is placed in the pole on which the hide is scraped. This is believed to protect the joints of the worker from becoming stiff. If the tanner leaves his work he must lay the pole on the ground or he will be visited with this affliction. When rubbing the hide the tanner allows no one in the hogan else, it is believed, the hide will dry out.

If visitors arrive when pottery is being made, the potter rubs clay on their faces and arms to prevent the pots from cracking during the process of firing. Designs on pots must never form a completed circle. The potter would become ill if this happened. This also applies to designs occurring on basketry. When weaving, a woman sings songs which are thought to facilitate the work. Songs of the same type are sung to lighten loads that are being carried.

When a hogan is built, the doorway must face to the east and the poles must be placed one after another in a clockwise direction. The same tabus that apply to the wood used for fires apply to the timbers used in building. No one may enter or leave a hogan other than by the doorway and no one may pass anything out of the hogan except through the door

"because only the dead are taken out through the walls." If a crow or an owl alights on a hogan it must be killed or bad luck will result. Before a hogan can be occupied it must have the foundation poles blessed and a Blessing Way ceremony held in it.

When arrows are made they must have on the shafts one straight line and two zigzag lines. These represent the lightning which the Monster Slayer used in hunting. The Navaho make no flint points "because they belong to the Holy People." They believe that the Holy People leave them scattered around in exchange for the prayer sticks which are offered.

Ritual observances are even connected with the more personal activities. As previously mentioned, it is tabu to step over a fire. Nor is one person allowed to step over another. This is believed to bewitch the person, especially if the person who steps over you wears the talisman of some chant that has been performed over him. Women are required to sit with their legs under them and to one side, men with their legs crossed in front of them, because it is said that in the beginning Changing Woman and the Monster Slayer sat in those positions. An individual could not whistle after dark because only "devils" whistled at that time.

It is not permissible to cut the hair, because this is believed to cut off the rainfall. A person over whom a chant has been performed must wear the talisman of that chant in his hair; for example, men who have had the Chiricahua Wind Way chant performed over them wear a turquoise, women a white shell bead. Those who have been treated by the Shooting Way chant wear a turquoise or an olivella shell.

When smoking in a group, the man who lights the pipe takes one puff and passes the pipe clockwise to his neighbor, who follows the same procedure. When the pipe returns to the first man he takes two puffs and passes it around again; the third time three puffs; the fourth time four puffs. The smoking is then at an end.

Particular songs are reserved for use during sweat baths. Before a bath the bather throws fresh dirt on the sweat house. This is believed to prevent poverty. Before entering the sweat house a man must tie the foreskin over the end of the penis to prevent blindness, and must shout an invitation to the Holy People and men to come join him in the bath. No one is allowed to sleep in a sweat house without first poking a hole in the roof.

Rites and observances of this type have also found foothold in the social structure. Many are connected with childbirth. The newborn child is placed with its head toward the fire to make the head round. Songs are often sung over newborn children to make them healthy and strong. A squirrel skin is tied to a cradle to prevent the child from being hurt should the cradle fall.

Death is also surrounded by many simple exoteric rites. An attempt is always made to remove a person from the hogan before death sets in, else the hogan must be abandoned. Mourners must not talk or spit on the way to the grave and must return by a different route than the one they took to it. All participants at a funeral must take sweat baths to cleanse themselves after the proceedings.

When a new local leader is installed, various members of the community secure earth from the tops of four mountains located in the cardinal directions. This earth is dusted into the moccasins of the chosen man to confirm his appointment.

Ritual also plays an important part in sports. Innumerable songs for success in gambling are known and sung at appropriate times. These are believed to bring the gambler good luck, but their use is looked upon as being not quite sportsmanlike. Men and race horses are treated with herbs and pollen to make them fleet footed.

These random examples, taken from varied activities, give an approximation of how often the simple esoteric type of ritual appears in the activities of everyday life. It is impossible to guess as to the activity with which this type of ritual originated. It probably represents a heritage of folk tradition and shamanistic procedure, primarily Great Basin in character, to which have been added embellishments, which I conceive as borrowed from the Pueblos, but given a more generalized form.

The esoteric type of ritual characteristic of hunting has also encompassed other activities. These ceremonies are generally complex and the ritual well stylized. The proceedings are always directed by a shaman leader. This man controls the esoteric knowledge of the ritual, the correct execution of which is believed to insure success to the activity involved. He has entire control of the action of all participants.

Other recurring traits in this ritual pattern include continence, purification, offerings, prayers and songs, restrictions on sleeping and urinating, insistence on a serious demeanor of the participants, and the construction of shelters believed in themselves to possess magical power.

Continence is one of the prerequisites of success in all ritual activities of the Navaho. It is always required during the course of the ceremony and usually goes into effect four days before the ceremony, not to terminate until four days following. This tabu is generally removed by ritual purification.

Ritual purification is accomplished by bathing or burning incense. The bathing consists either of taking sweat baths or washing the hair in yucca suds. The extent to which the cleansing is indulged depends on how intimate a part the individual plays in the ritual. Purification before the ceremony is thought to remove impurities and condition the person for the ritual ordeal; purification after the ceremony lifts all the religious restrictions.

Offerings are made in the form of "jewels," pollen, or prayer sticks. The kind of "jewels" and pollen, and the constituent parts and decoration of the prayer sticks vary with the ceremony. These offerings are given in the spirit of supplication and are not believed to have compulsive effect.

Songs and prayers are sung and said at specified intervals throughout all rituals. The correct rendition of these is believed to be paramount to the success of the ceremony and the slightest mistake will nullify all the results. Each activity has particular sets of songs and prayers which belong to it alone.

Restrictions on sleeping and urination also recur in nearly all esoteric rituals. In hunt-

ing, the sleeping positions are believed to have a positive effect, such as preventing the game from running away. Tabus against urinating in various places, or the insistence on urinating in certain directions, are generally thought to prevent illness, or to insure safety during participation in a given activity.

A serious demeanor during all activities involving ritual is thought essential. It is believed that any levity on the part of any of the participants not only endangers the success of the activity, but is also apt to bring misfortune on the transgressor.

Another constant factor of ritual activity is the construction of shelters according to ritual procedure. They are usually built with reference to the cardinal points, have the entrance in a specified direction, and with the construction following a clockwise or front to back progression. The purpose of these structures varies with the different activities; for example, the brush shelters used in hunting symbolize for the Navaho a corral and are believed to have power to draw the game to the hunters. In the Rain Ceremony the boughs covering the ceremonial hogan point downward and are thought to have the compulsive effect of imitative magic which will bring down the rain.

The ritual pattern characterized by these traits, beside its use in hunting and in the Rain Ceremony, is fundamental to the healing chants, girls' puberty rites, marriage ceremonies, warfare, trading expeditions, and trips to the lakes south of Zuñi in quest of salt. The pattern may have originated with the elaborated shamanistic healing procedures and been transferred to other activities.

It is dangerous to attempt an analysis of the function of ritual among a primitive people. However, among the Navaho, a few possible explanations are suggested by the phases of culture which are ritualized. First, rituals are found integrated into any given complex of practical procedures at points where uncertainties due to environmental factors are neither explained nor controlled, and at points where technical proficiency or scientific knowledge are unequal to the task at hand. It would therefore seem plausible to infer that they offer a mechanism whereby an individual is able to compensate for his inadequacies.

A second rôle of ritual in Navaho culture, and one of which the Navaho is fully aware, is its social aspect. The larger rituals usually occur in periods of comparative economic inactivity and offer, apart from their religious connotations, an opportunity for the coming together of large bodies of people to seek release from economic hardships through the less serious forms of social expression accompanying all ceremonies.

Another possible function of Navaho ritual rests entirely on the psychological principle that man must have release from the specific exactments of his culture. If this be accepted it might be possible to explain on these grounds the complete reversal of common behavior and social usage during the hunt. However, this would seem only to explain the form the ritual takes, rather than the function of the ritual itself.

Irrespective of its functional significance there is no doubt but that a harmonious adjustment has been achieved between the religious and material sides of Navaho life. What is more notable is that, while contacts with modern white culture have altered to some

extent the material side of Navaho life, the religious side has remained intact or, at most, absorbed innovations into the old patterns.

NAVAHO CULTURE IN RELATION TO NEIGHBORING CULTURES

The place of Navaho culture has been obscure and its relation to that of the Pueblos has, I think, been mistakenly appraised. In this section I have gone beyond the immediate problems of the present paper in an attempt to place the Navaho in relation to other cultures of western America.²

Because the search for comparative material demands a disproportionately great amount of time, the comparisons made here are based on a somewhat limited search of the literature, but with cases selected randomly and hence presumably representative.

Reference to publications after 1935 was precluded because the writer was situated where adequate library facilities were lacking. Hence, the inclusion of recent materials as well as subsequent researches will probably modify conclusions drawn at this time.

The literature of the Pueblos contains few detailed statements on their economic and material life, and these quite inadequate for comparative purposes. Therefore a comparison of the conditions of material existence of the Navaho with their nearest neighbors is impossible except in general terms.

The present section attempts to summarize the situation with particular reference to agricultural and hunting methods, and their rituals.

The Navaho, like the Pueblos,³ are primarily dependent on agriculture for subsistence and in this respect are one with the majority of the peoples of western and central Mexico.⁴ Contrasted with this the Havasupai, Papago, Cocopa, Yuma, Pima, Mohave, and Maricopa⁵ are agriculturalists to a lesser degree, though greater than the Jicarilla,⁶ Western Apache, Yavapai (Apache Yuma), Southeastern Yavapai,⁷ Chemehuevi,⁸ Shivwits and Kaibab Paiute, and Walapai.⁹

At least one of the three types of irrigation practised by the Navaho probably forms a part of the agricultural technique of all the tribes engaged in cultivation. Those peoples who depend primarily on inundation by rivers or interception of flood waters are, beside

² Much of the information presented here has already been marshalled by Wissler in *The Material Culture of the Blackfoot*, by Spier in *Havasupai Ethnography*, and by Beals in *A Comparative Ethnology of Northern Mexico Before 1750*.

³ Spier, *Havasupai*, 118.

⁴ Beals, *Comparative Ethnology*, 156-59.

⁵ Spier, *Havasupai*, 118; Kroeber, *Seri*, 48; Beals, *Comparative Ethnology*, 159; Russell, *Pima*, 88-92; Curtis, *North American Indian*, 2: 5; Spier, *Yuman Tribes*, 58.

⁶ Spier, *Havasupai*, 118. According to Curtis (*idem*, 1: 54) the Jicarilla have only become agriculturalists in recent years.

⁷ Spier, *Havasupai*, 118; Kroeber, *Seri*, 48; Gifford, *Southeastern Yavapai*, 214.

⁸ Spier, *Havasupai*, 118. This probably applies to the Chemehuevi only after they joined the Mohave about 1850 (?).

⁹ Spier, *Havasupai*, 118; Kroeber, *Seri*, 48.

the Navaho, the Yuma, Maricopa, Kamia, Mohave, Cocopa, and Qahatika.¹⁰ According to Beals¹¹ all the agricultural peoples of Mexico and the Southwest, except those near the Pueblos or close to the central Mexican cultures, depend on this type of flooding.

Diking and damming to deflect flood waters, as practised by the Navaho, has been noted for the Zuñi, occasionally among the Kamia, and the White Mountain Apache;¹² hand irrigation, as in Canyons del Muerto and de Chelly, for the Pima, Zuñi, and Hopi¹³ (probably general among the Pueblos). This may be of Spanish introduction. Canal irrigation did not reach the Navaho until about 1860. The Tepehuene are reported to have learned it from the Spanish.¹⁴ Other tribes using this form of watering land are: all Pueblos, Havasupai, Pima, Shivwits, Kaibab (?), Cora, Huastec, Jalisco (Zapotitlan), and Tarascans.¹⁵ The Maricopa, after 1847, borrowed it from the Pima on the aboriginal level.¹⁶

The straight digging stick or dibble, with wedge-shaped point, employed by the Navaho in planting, is also used by the Hopi, Havasupai, Pima, Kamia, Yuma, Cocopa, Maricopa, Mohave, and probably Shivwits.¹⁷ A similar type, but provided with a foot-rest at the lower end, which the Navaho claim was introduced from the Jemez about 1860, is also used by the Zuñi.¹⁸

The flat, oar-shaped hoe, resembling a weaving sword, used by the Navaho, occurs among the Pima, Mohave, Havasupai, Hopi, Zuñi, Kamia, Cocopa, Yuma, and in Sinaloa.¹⁹

The Navaho and Zuñi²⁰ also use a wooden blade or elk scapula set transversely at the end of a shaft (like our hoe); and the Havasupai,²¹ like the Navaho, use an unhafted scapula.

Parallels to forms of cultivation practised by the Navaho are noted from the Hopi,²² where weeds are pulled by hand, and from Zuñi,²³ where corn is thinned, worms picked from its roots, and where melon seeds are sprouted in jars before planting.

Some other practices analogous to those found among the Navaho are the use of dirt

¹⁰ Forde, *Ethnography of the Yuma*, 107-109; Gifford, *Kamia*, 21-22; Spier, *Yuman Tribes*, 58-59; Curtis, *North American Indian*, 2: 48, 50; Spier, *Havasupai*, 118; Gifford, *Cocopa*, 263.

¹¹ Beals, *Comparative Ethnology*, 100.

¹² Cushing, *Zuñi Breadstuff*, 157-58; Gifford, *Kamia*, 21; Spier, personal communication.

¹³ Curtis, *North American Indian*, 2: 5; Bunzel, *Introduction to Zuni Ceremonialism*, 474; Forde, *Hopi Agriculture*, 391.

¹⁴ Beals, *Comparative Ethnology*, 158.

¹⁵ Spier, *Havasupai*, 118; Russell, *Pima*, 87; Beals, *Comparative Ethnology*, 158.

¹⁶ Spier, personal communication.

¹⁷ Forde, *Hopi Agriculture*, 389; Spier, *Havasupai* 118; Curtis, *North American Indian* 2: 6, 41-42; Russell, *Pima*, 97; Gifford, *Kamia*, 21; Forde, *Ethnography of the Yuma*, 112; Gifford, *Cocopa*, 263; Spier, *Yuman Tribes*, 62; Kroeber, *Handbook*, 736.

¹⁸ Spier, *Havasupai*, 118.

¹⁹ Russell, *Pima*, 88, 97; Kroeber, *Handbook*, 736; Spier, *Havasupai*, 118; Forde, *Hopi Agriculture*, 389; Gifford, *Kamia*, 22; *Cocopa*, 263; Forde, *Ethnography of the Yuma*, 112; Beals, *Comparative Ethnology*, 163.

²⁰ Franciscan Fathers, *Ethnologic Dictionary*, 265-66; Spier, *Havasupai*, 119.

²¹ Spier, *Havasupai*, 119.

²² Forde, *Hopi Agriculture*, 389; Curtis, *North American Indian*, 12: 41-42.

²³ Cushing, *Zuñi Breadstuff*, 194; Bunzel, *Zuni Texts*, 7.

ridges and rock piles to mark field boundaries by the Zuñi and Hopi, and the use of small mounds for the same purpose by the Yuma.²⁴ The Zuñi also have the custom of pit roasting and drying green corn struck by frost in order to salvage the crop.²⁵ The Yuma and Cocopa, and possibly the Maricopa,²⁶ wrap melons and squash in foliage and store them in underground pits, while the Havasupai²⁷ employed stone storehouses in the cliffs.

Comparative evidence for the exoteric personal ritual practised by the Navaho in connection with agriculture is very scant. Forde indicates its existence among the Hopi;²⁸ rituals probably exist in other Pueblos, but have been overlooked through interest in more impressive ceremonies. However, they do occur in attenuated form outside the Pueblos among the Havasupai, Maricopa, and Pima.²⁹

Rituals, prayers and songs for rain have a wider distribution. They occur among the Navaho and Pueblos and are credited to the Pima, Maricopa, Havasupai, Western Apache, Opata, Acaxee, Cora, Huichol, Tarascans, and Maya.³⁰

The offering of prayer sticks which is a common feature of Navaho ceremonials, has many analogies. Prayer sticks or arrows are offered by the Pueblos, San Carlos Apache and other Western Apache, Havasupai, Papago, Pima, Huichol, Cora, Tepecano, Acaxee, and Lacandone.³¹

While the agricultural practices of the Navaho have their analogies in the Southwest and in Mexico, hunting methods have their closest parallels in the Great Basin and Plains. The Navaho procedure of tracking game and running it to a state of exhaustion is also employed for capturing deer by the Seri, Cocopa, Owens Valley Paiute, Paviotso, Nisenan, Miwok, Washo, Sanpoil, Nespelem, Coeur d'Alène, and Thompson;³² for elk by the Shasta and Lassik (according to tradition);³³ for antelope by the Northern Shoshoni and Paviotso;³⁴ for mountain sheep by the Moapa, and by the Shoshoni for capturing buffalo in the winter.³⁵ The Zuñi employ this method for capturing animals whose skins are to be used for ceremonial purposes. The animal is either smothered with pollen or choked.³⁶ This is a direct

²⁴ Cushing, *Zuñi Breadstuff*, 152-53; Forde, *Hopi Agriculture*, 367; *Ethnography of the Yuma*, 114.

²⁵ Cushing, *Zuñi Breadstuff*, 204-205.

²⁶ Forde, *Ethnography of the Yuma*, 111-12; Gifford, *Cocopa*, 266; Spier, *Yuman Tribes*, 65.

²⁷ Spier, *Havasupai*, 104.

²⁸ Forde, *Hopi Agriculture*, 399.

²⁹ Spier, *Havasupai*, 289; *Yuman Tribes*, 62, 192-93; Russell, *Pima*, 258-60.

³⁰ Russell, *Pima*, 250, 258-60; Spier, *Yuman Tribes*, 251, 260; *Havasupai*, 286-88; Reagan, *Notes on the Indians*, 295; Beals, *Comparative Ethnology*, 219.

³¹ Spier, *Havasupai*, 290; Russell, *Pima*, 82; Beals, *Comparative Ethnology*, 213.

³² McGee, *Seri Indians*, 196; Gifford, *Cocopa*, 269; Steward, *Owens Valley Paiute*, 252-53; Park, *Field Notes*; Beals, *Ethnology of the Nisenan*, 47-49; Barrett and Gifford, *Miwok Material Culture*, 180; Curtis *North American Indian*, 15: 94; Ray, *Sanpoil and Nespelem*, 81; Teit, *Salishan Tribes*, 101.

³³ Kroeber, *Handbook*, 144, 295.

³⁴ Lowie, *Northern Shoshone*, 185; *Notes on Shoshonean Ethnography*, 197.

³⁵ Lowie, *Notes on Shoshonean Ethnography*, 195, 199.

³⁶ Stevenson, *Zuñi Indians*, 439-40.

analogue to the Navaho procedure for obtaining "sacred" buckskins. However, in the Plains, buffalo skins used in the Sun Dance were obtained under somewhat similar ritualistic conditions,³⁷ so that the Zuñi and Navaho cases are by no means unique.

The Navaho custom of using pits for the capture of game appears to be relatively rare. It is noted for the Surprise Valley Paiute (for deer), for the Paviotso (?) (for deer), for the Taos (deer and elk), for the Achomawi (all large game), and for the Kiowa (antelope).³⁸

Another Navaho trait for which there are few comparative data, is the encircling of game by fire. It is credited to the Nisenan, Paviotso, Surprise Valley Paiute, and Owens Valley Paiute³⁹ as a method for capturing deer. The Ute and Kamia⁴⁰ use fire for driving rabbits into the open, but do not encircle them with it. The Zuñi encircle rabbits with fire.⁴¹

Driving game toward ambushed hunters, as practised by the Navaho, occurs among many tribes of the Great Basin and Plateau. It is recorded, in connection with deer hunting, for the Paviotso, Nisenan, Maidu, Pomo, Mono, and Miwok;⁴² elk, antelope, and deer for the Yokuts;⁴³ elk for the Maidu;⁴⁴ deer and antelope for the Surprise Valley Paiute;⁴⁵ antelope and mountain sheep for the Owens Valley Paiute;⁴⁶ mountain sheep for the Southern (?) Paiute;⁴⁷ and for hunting deer and elk among the Sanpoil and Nespelem.⁴⁸ It is also used by the Thompson, Coeur de'Alène, Okanagon and Wailaki.⁴⁹ The Cocopa and Maricopa⁵⁰ shoot from ambush but do not drive the game toward the hunters. According to Park this is also the Paviotso method.⁵¹

Communal drives, like the Navaho rabbit drive, in which the hunters form a circle and gradually converge toward the game, are employed by the Tewa, Hopi, Santo Domingo, Pima, and Shivwits for rabbits.⁵² The same procedure, but with a double circle, is used in killing deer and antelope by the Tewa, Isleta, Jemez, Santo Domingo, San Felipe,

³⁷ Spier, *Sun Dance*, 464-65.

³⁸ Kelly, *Surprise Valley Paiute*, 81-82; Park, *Field Notes*; Curtis, *North American Indian*, 16: 43; Kroeber, *Handbook*, 817; Mooney, *Calendar History*, 309.

³⁹ Beals, *Ethnography of the Nisenan*, 47-49; Park, *Field Notes*; Kelly, *Surprise Valley Paiute*, 82; Steward *Owens Valley Paiute*, 253.

⁴⁰ Lowie, *Notes on Shoshonean Ethnography*, 199; Gifford, *Kamia*, 26-27.

⁴¹ Curtis, *North American Indian*, 17: 149.

⁴² Curtis, *North American Indian*, 4: 188; 15: 62, 72; Beals, *Ethnography of the Nisenan*, 47-49; Kroeber *Handbook*, 409; Barrett and Gifford, *Miwok Material Culture*, 178, 199.

⁴³ Curtis, *North American Indian*, 4: 197.

⁴⁴ *Idem*, 23.

⁴⁵ Kelly, *Surprise Valley Paiute*, 81, 83.

⁴⁶ Steward, *Owens Valley Paiute*, 253.

⁴⁷ Lowie, *Notes on Shoshonean Ethnography*, 196.

⁴⁸ Ray, *Sanpoil and Nespelem*, 79, 82.

⁴⁹ Teit, *Salishan Tribes*, 101, 242; Curtis, *North American Indian*, 4: 23.

⁵⁰ Gifford, *Cocopa*, 269; Spier, *Yuman Tribes*, 69.

⁵¹ Park, *Field Notes*.

⁵² Curtis, *North American Indian*, 12: 45-46; 16: 125; 17: 186; Spier, *Havasupai*, 121.

Santa Ana, Taos, Cochiti, and Hopi.⁵³ It is used to hunt elk and antelope by the Yokuts, and to hunt antelope by the Northern Shoshoni.⁵⁴ This surround is also a common hunting method in Virginia, eastern Carolina, and among the Natchez.⁵⁵ It is lacking among the Coeur d'Alène, Yuma, and Havasupai (?).⁵⁶

Stalking with the aid of a disguise made of a deer, mountain sheep, or antelope head has a wide distribution. It is recorded for Lower California (Cochimi), Yokuts, Luiseño, Wintun, Salinan, Nisenan, Washo, Owens Valley Paiute, Yuki, and Hupa for deer hunting;⁵⁷ for hunting antelope and deer among the Maidu, Surprise Valley Paiute, Paviotso, Maricopa, and Southeastern Yavapai;⁵⁸ the Miwok and Maidu⁵⁹ use it for elk as well, the Pima and Shoshoni in hunting antelope, and the Northern Shoshoni⁶⁰ for antelope and mountain sheep. It is also in general use among the Navaho, Mimbrenos Apache, Zuni, Hopi, Havasupai, Yavapai, Achomawi, Atsugewi, Kombo (Yana or Yahi), Nez Percé, Coeur d'Alène, Okanagon, and Crow, and is universal in southeastern United States.⁶¹ Stalking with disguise is definitely lacking among the Yuma, Kamia, and Cocopa.⁶²

The chute and pound occurs over the Great Basin, Plateau and Plains. The wide distribution of this trait in the old and new world has already been pointed out by Lowie and Wissler.⁶³ Those tribes employing this hunting method are the Navaho, Ute (Fort Duchesne, deer), Paviotso (deer, antelope, mountain sheep), Gosiute (antelope, rabbits), Surprise Valley Paiute (antelope), Owens Valley Paiute (mountain sheep), Maidu (deer, for which only the chute was used), Lassik (deer, according to tradition), Mono (deer), Cheyenne and probably Arapaho, Blackfoot (pit at end of chute), Teton and Mandan (antelope), Hidatsa (antelope), Crow (buffalo, antelope and deer, pit at end of the chute) Assiniboin and Cree (antelope, buffalo), and Kiowa (antelope).⁶⁴ It is definitely lacking for

⁵³ Curtis, *North American Indian*, 12: 45-46; 16: 11-12, 43, 74-76; 17: 186.

⁵⁴ Kroeber, *Handbook*, 528; Lowie, *Northern Shoshone*, 185.

⁵⁵ Swanton, *Aboriginal Culture*, 693.

⁵⁶ Teit, *Salishan Tribes*, 102; Forde, *Ethnography of the Yuma*, 118; Spier, personal communication.

⁵⁷ Kroeber, *Seri*, 44; *Handbook*, 528; Curtis, *North American Indian*, 4: 84, 158, 186; 15: 8, 94; Mason *Ethnology of the Salinan Indians*, 123-24; Beals, *Ethnology of the Nisenan*, 47-49; Steward, *Owens Valley Paiute*, 252; Goddard, *Life and Culture*, 21.

⁵⁸ Curtis, *North American Indian*, 4: 108; Kelly, *Surprise Valley Paiute*, 81-82; Lowie, *Notes on Shoshonean Ethnography*, 197; Spier, *Yuman Tribes*, 69; Gifford, *Southeastern Yavapai*, 215, 216.

⁵⁹ Barrett and Gifford, *Miwok Material Culture*, 180-81; Kroeber, *Handbook*, 410.

⁶⁰ Russell, *Pima*, 81; Lowie, *Notes on Shoshonean Ethnography*, 185, 199.

⁶¹ Spier, *Havasupai*, 120-21; Teit, *Salishan Tribes*, 103, 242; Swanton, *Aboriginal Culture*, 693.

⁶² Forde, *Ethnography of the Yuma*, 118; Gifford, *Kamia*, 26; *Cocopa*, 269.

⁶³ Lowie, *Buffalo Drive*, 280-82; Wissler, *Material Culture*, 48-52.

⁶⁴ Lowie, *Notes on Shoshonean Ethnography*, 197-99, 302-305; Grinnell, *Story of the American Indian*, 60, 62; Park, *Field Notes*; Curtis, *North American Indian*, 15: 72; Kelly, *Surprise Valley Paiute*, 83-86; Steward, *Owens Valley Paiute*, 253; Kroeber, *Handbook*, 144, 409-410; Grinnell, *Cheyenne*, 1: 278-81; Wissler, *Material Culture*, 38, 51; Matthews, *Ethnography and Philology*, 57; Lowie, *Crow Material Culture*, 211; Denig, *Indian Tribes*, 532-34; Mooney, *Calendar History*, 288-89, 309.

the Cocopa, and Havasupai,⁶⁵ and I was unable to find any account of it from the Pueblos. It is undoubtedly lacking among all other Yumans of western Arizona and the lower Colorado River, and among tribes of the Gila River.

The ritual and tabu surrounding the killing of bears by the Navaho is not at all unique. Hallowell⁶⁶ has analyzed this complex in its varying forms and traced its occurrence in Asia and northern and western America. For the California, Great Basin, and Southwest areas, he cites various observances connected with the bear and its killing from the following tribes: Wailaki, Miwok, Ute, Southern Paiute, Jemez and Zuñi.⁶⁷ Other peoples in these areas with related ideas concerning the bear or its killing include most California tribes, the Apache and Papago,⁶⁸ among whom it is tabu to kill a bear or eat one because the bears are thought to have once been human beings; Isleta,⁶⁹ where it is believed that bears possess human attributes; the Paviotso⁷⁰ never boast of what they will do to a bear lest a bear catch and marry them; Surprise Valley Paiute,⁷¹ who are careful never to ridicule a bear; Owens Valley Paiute,⁷² who fear to hunt the animal "because it is too much like a human being;" and the Maidu and Nisenan⁷³ who hunt it with ceremony and magic.

The Navaho customs of pit trapping eagles and keeping young eagles taken from nests are, again, traits of wide distribution. Pit trapping is credited to the Apache, Hopi, Uintah Ute, Nez Percé, Coeur d'Alène and Shuswap, Cheyenne, Arapaho, Blackfoot, (Teton?) Sioux, Mandan, Hidatsa, Arikara and Pawnee.⁷⁴ The Gros Ventre, Seneca, and Cherokee⁷⁵ shoot eagles from ambush as the birds alight at bait;⁷⁶ the Yokuts snare them.⁷⁷

Captive eagles are kept by Navaho, Paviotso,⁷⁸ Havasupai,⁷⁹ Hopi, Zuñi, and probably all other Pueblos, Pima, Kamia, Pima Bajo, in Sinaloa, Piastla, by Tepehuane, and Tarascans.⁸⁰

⁶⁵ Gifford, *The Cocopa*, 269; Spier, *Havasupai*, 120.

⁶⁶ Hallowell, *Bear Ceremonialism*, 1-174.

⁶⁷ *Idem*, 76-79.

⁶⁸ Reagan, *Notes on the Indians*, 295; Curtis, *North American Indian*, 2: 32.

⁶⁹ Parsons, *Isleta*, 338-39.

⁷⁰ Park, *Field Notes*.

⁷¹ Kelly, *Surprise Valley Paiute*, 86-87.

⁷² Steward, *Owens Valley Paiute*, 253.

⁷³ Kroeber, *Handbook*, 410; Beals, *Ethnology of the Nisenan*, 47-49.

⁷⁴ Wissler, in Wilson, *Hidatsa Eagle Trapping*, 105, 105-245; Curtis, *North American Indian*, 12: 33-34; Fewkes, *Property-Rights in Eagles*, 700-701; Lowie, *Notes on Shoshonean Ethnography*, 199; Teit, *Salishan Tribes*, 104; Grinnell, *Cheyenne*, 1: 300-307; *Indian Trap Pits*, 148; Wissler, *Material Culture*, 40; Matthews, *Ethnography and Philology*, 58-60.

⁷⁵ Kroeber, *Ethnology of the Gros Ventre*, 149; Mooney, *Myths of the Cherokee*, 492.

⁷⁶ Note that this is a modification of Wissler's statement in Wilson, *Hidatsa Eagle Trapping*, 105.

⁷⁷ Kroeber, *Handbook*, 529.

⁷⁸ Park, *Field Notes*.

⁷⁹ Spier, *Havasupai*, 152. This is a modification of Wissler's statement in Wilson, *Hidatsa Eagle Trapping*, 105.

⁸⁰ Fewkes, *Property-Rights in Eagles*, 690-707; Curtis, *North American Indian*, 12: 32-33; Russell, *Pima*, 86; Gifford, *Kamia*, 47-50; Beals, *Comparative Ethnology*, 217-18.

The Navaho rituals made prior to the hunt are shared by a number of tribes. The Havasupai meet before the fire and pray to the sun; the Huichol obtain power from a fire the evening before the hunt; the Luiseño stand in the smoke of a fire to free themselves from the effects of any breach of social observance, and the Maidu make use of prayers, magical observances, and tabus.⁸¹ The Nisenan include a shaman in the party to perform ritual,⁸² and the Achomawi and Atsugewi have a ceremony on the evening of the first day of the hunt. The Walapai, Paiute and Pima⁸³ sing and dance before the hunt. Among the Pueblos the ritual of the hunt is performed by various societies: at Zuñi the carcass of the animal is treated before it is skinned.⁸⁴ At Sia offerings to the sun are made before the hunt and a ceremony is held following the return of the hunters,⁸⁵ at Santa Domingo ritual is performed to make the game plentiful and tame,⁸⁶ the Hopi perform before, during and after the hunt, and also, like the Navaho, have men who "listen" for the game.⁸⁷

The belief that continence is a prerequisite to a successful hunt is very widespread in North America. In western America, beside the Navaho, it is held by the Huichol, Sia, Walapai, Kamia, Paiute, Cocopa, Luiseño (probably), Maidu (usually), and the Surprise Valley Paiute, but is not required by the Owens Valley Paiute.⁸⁸

Ritual cleansing has an equally wide distribution. Baths or sweat baths are taken previous to or at the termination of the hunt by the Navaho, Sia, Southeastern Yavapai, Surprise Valley Paiute, and Miwok.⁸⁹

The Zuñi share with the Navaho the common notion that the game do not die when shot but are restored, and the additional belief that they are put on a higher plane of existence by the execution of the proper rituals.⁹⁰

The Southeastern Yavapai parallel the Navaho practice of reversing the hide on the carcass of a deer, patting it, and asking it for good fortune.⁹¹ The Maricopa, like the Navaho, when hunting mountain sheep insist that the hunter preserve a serious mien.⁹²

The Navaho custom of apportioning different parts of the slaughtered animal to various hunters is shared by Taos, the Nisenan,⁹³ and probably most Plains tribes. The observances

⁸¹ Spier, *Havasupai*, 120; Kroeber, *Handbook*, 409-410.

⁸² Beals, *Ethnology of the Nisenan*, 47-49.

⁸³ Spier, *Havasupai*, 120; Russell, *The Pima*, 299.

⁸⁴ Curtis, *North American Indian*, 17: 148.

⁸⁵ Stevenson, *Sia*, 118-21.

⁸⁶ Curtis, *North American Indian*, 16: 125.

⁸⁷ *Idem*, 12: 45-60.

⁸⁸ Spier, *Havasupai*, 120; Stevenson, *Sia*, 118-21; Gifford, *Kamia*, 27; Cocopa, 269; Kelly, *Surprise Valley Paiute*, 80; Steward, *Owens Valley Paiute*, 252.

⁸⁹ Stevenson, *Sia*, 118-21; Gifford, *Southeastern Yavapai*, 214; Kelly, *Surprise Valley Paiute*, 80; Barrett and Gifford, *Miwok Material Culture*, 178.

⁹⁰ Cushing, *Zuñi Breadstuff*, 639, note 34.

⁹¹ Gifford, *Southeastern Yavapai*, 215.

⁹² Spier, *Yuman Tribes*, 69-71.

⁹³ Curtis, *North American Indian*, 16: 42; Beals, *Ethnology of the Nisenan*, 47-49.

practised during the skinning of game by the Isleta⁹⁴ are similar to those of the Navaho.

The ceremony connected with the Navaho antelope drive is essentially the "buffalo calling" of the Plains. Similar ceremonies have been noted for the Surprise Valley Paiute, Paviotso, presumably Isleta, and for example, among the Plains tribes, Cheyenne, Arikara, Assiniboin, Cree, and Kiowa.⁹⁵

It has been the popular conception that the whole of Navaho culture forms an attenuated adjunct to that of the Pueblos. I believe that this assumption is false, so far as material existence and its ritual accompaniments are concerned, and is based on superficial similarities. If the traits which have been listed are examined, the following relationships may be observed.

The greatest similarity existing between the Navaho and Pueblos is their primary dependence on agriculture for subsistence, and it is quite probable that the Pueblos are responsible in a large part for this phase of Navaho life. The practical procedure of Navaho agriculture has many Pueblo analogues which undoubtedly connect the two. However, the same analogies are found widely distributed, from the Navaho and Pueblos, who represent the most northern extension of agriculture in western America, southward into central Mexico. In such a specific trait as the type of irrigation, the Navaho are allied with western Mexico rather than with the Pueblos.

If the ceremonial aspects of the two cultures are examined, the alleged similarity is less apparent. As has already been pointed out by Haeberlin in expressing the relationship between the Navaho and the Pueblos: "The diffusion of the material substratum, so to say, of a cultural phenomenon, by no means implies the simultaneous diffusion of associated ideas."⁹⁶ Thus while both peoples hold rain ceremonies, use prayer sticks, offer pollen, corn meal and "jewels," and while both possess the belief that all ceremonies, irrespective of the avowed purpose, are indirectly concerned with the successful culmination of the agricultural process, here the analogy ends. The parallels are general, not specific, and each people has rephrased their ritual in terms of their own culture. While the Navaho rituals occur at irregular intervals, being dependent on the necessity of the moment, the majority of those of the Pueblos tend to be fixed calendrically. Likewise, Pueblo rituals relating specifically to agriculture are highly formalized and are in the hands of recognized organized groups who perform them for the general welfare. Among the Navaho such rituals are almost entirely exoteric and performed by each individual for his own benefit. Even in the case of the two esoteric ceremonies of the Navaho, the Lightning ceremony and the Rain chant, no direct analogy exists. The Navaho chants are personal, highly elaborated, shamanistic procedures, while the ceremonies of the Pueblos are communalized actions under the direction of a group.

⁹⁴ Parsons, *Isleta*, 337-38.

⁹⁵ Kelly, *Surprise Valley Paiute*, 83-86; Lowie, *Notes on Shoshonean Ethnography*, 197, 302-305; Park, *Field Notes*; Parsons, *Isleta*, 337; Denig, *Indian Tribes*, 532-34; Mooney, *Calendar History*, 288-89.

⁹⁶ Haeberlin, *The Idea of Fertilization*, 10.

It seems probable to me that the agricultural ritual of the Navaho is more closely related to those personal forms found among the Pima, Papago and Yuma.⁹⁷ However, in regard to the exoteric folk ritual of the Navaho and its relation to the Pueblos, further research is necessary. According to Navaho testimony, certain of these rites, like the rain ceremonies and the ceremonies for ridding the corn of worms, are of Pueblo derivation, but a search of the literature has failed to produce any parallels to these. This may be due to a neglect in recording minor ritual among the Pueblos.

A comparison of the hunting methods of the Navaho with those of other regions gives a different cast to the cultural affiliations of this people. Tracking and running down game, driving game toward ambushed hunters, and stalking with disguise are primarily methods of the Great Basin and Plateau, rather than Southwest. Encircling by fire and using pitfalls are principally Great Basin traits. The pit trapping of eagles is widespread in the Plains. The communal surround is an almost universal method; ritual bear hunting has practically a universal distribution in western and northern North America and extends into Siberia. The practice of keeping captive eagles is widespread through western North America. On the side of practical procedure alone, Navaho hunting methods are those of the Great Basin, Plateau, and Plains. Similarities between Navaho and Pueblo hunting occur only at points which have a wide or universal distribution.

What is true of agricultural ritual of the Navaho and Pueblos, is true of hunting ritual. The Navaho hunting ritual is a personal, shamanistic performance, while that of the Pueblos is a communalized group function. Again, as in the case of practical hunting procedure, the correspondences are only in traits which have wide distribution, such as continence, ritual purification, definite rules for the disposal of the kill, and ceremonies preceding the hunt. The Navaho ceremonies of eagle catching and antelope "calling" show definite affiliation with the Plains. However, the basic behavior alone is similar, as each people have rephrased the ritual in terms of their own culture.

To sum up, Navaho hunting resembles that of the Great Basin and Plains. Affiliations to these areas are also found in other phases of culture: the seed gathering methods, basketry technique, and shamanistic performances of the Navaho, which are Great Basin in type, and in some hunting rituals and the type of clothing, which are Plains. The closest Pueblo resemblances are in the agricultural and pottery techniques (although pottery forms are not similar). It appears that the material and economic culture of the Navaho is fundamentally that of the Great Basin, but shows a definite influence from Plains culture in some past time. Upon this fundamental Great Basin culture generalized Pueblo traits form a superficial layer.

⁹⁷ Russell, *Pima*, 258-60; Mason, *Papago Harvest Festival*, 13-25; Davis, *Papago Ceremony of Vikiita*, 157-77; Forde, *Ethnography of the Yuma*, 118.

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 AMNH-AP American Museum of Natural History, Anthropological Papers
 BAE-B Bureau of American Ethnology, Bulletin
 BAE-R Bureau of American Ethnology, Annual Report
 UC-PAAE University of California Publications in American Archaeology and Ethnology

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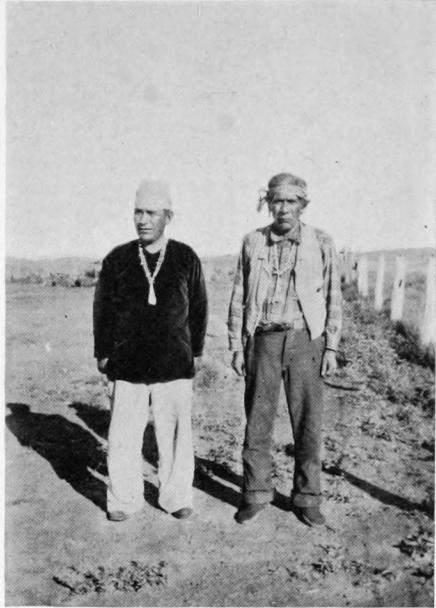
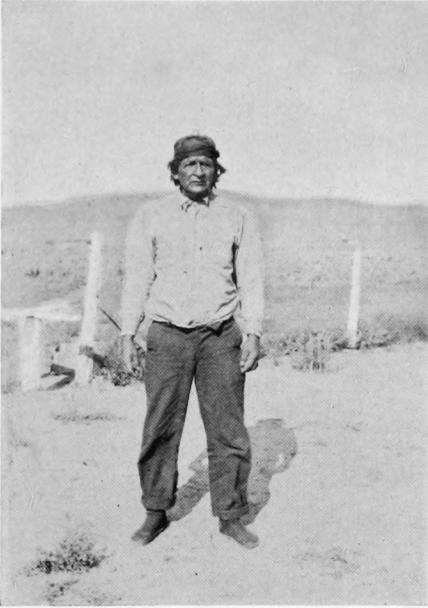
EXPLANATION OF PLATES

1. NAVAHO INFORMANTS. *Upper left*, One Who Killed a Man; *upper right*, Albert G. Sandoval and Slim Curly; *lower left*, Miles Tso; *lower right*, Salt Water.

2. PLANTING METHODS AND ANTELOPE CORRAL. *Upper left*, M. H. using digging stick; *upper right*, S. G. using shoulder blade hoe; *lower*, remains of antelope corral, White Cone, Arizona.

3. NAVAHO FIELDS. *Upper left*, corn field at Lukachukai with "scarecrow"; *upper right*, corn and squash at Lukachukai; *lower left*, peach orchard in Canyon del Muerto; *lower right*, winter scene at Fort Defiance.

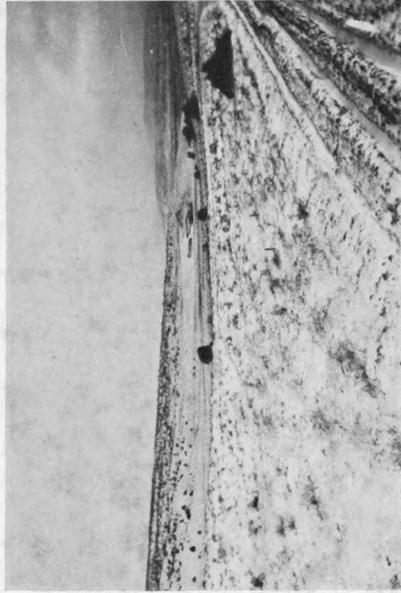
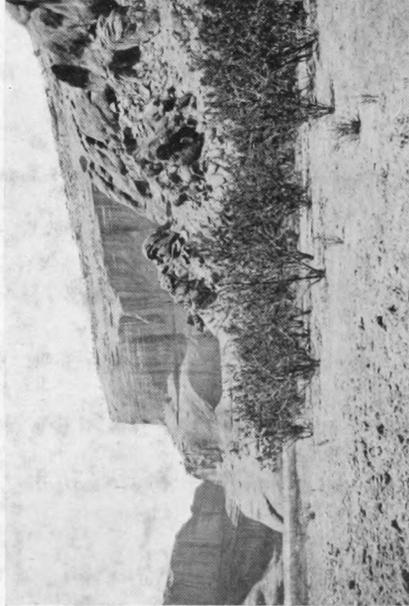
4. HARVESTING, THRESHING, AND STORING CORN. *Upper left and right*, harvested corn being husked and dried, Chaco Canyon; *lower left*, circular hogan now used for threshing corn, Place of the Standing Cow, Canyon del Muerto; *lower right*, sealed storage pit half above and half below ground, Canyon del Muerto.

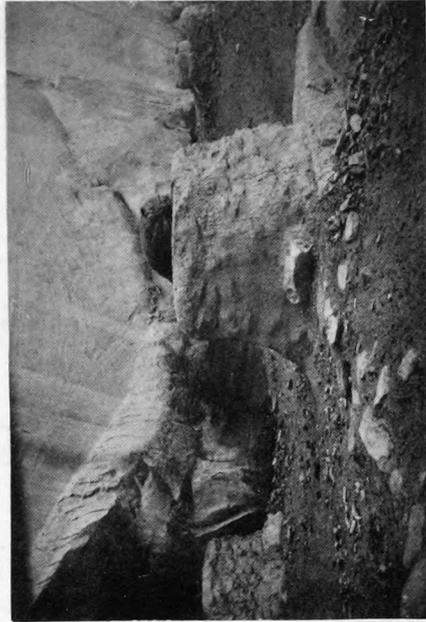
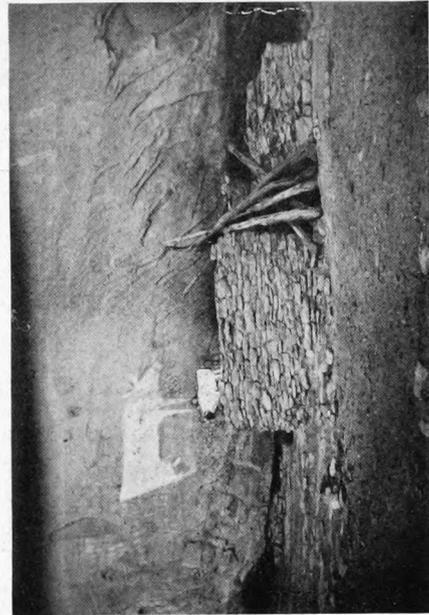
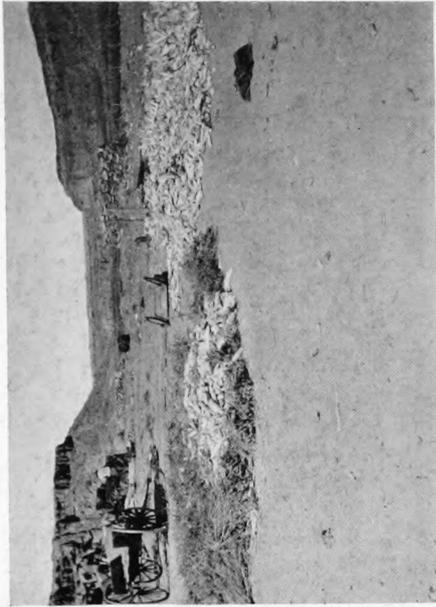


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