

Culture Element Distributions: XIII - Nevada Shoshone

by Julian H. Steward

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Citation

[Steward 1941a] Julian H. Steward. Culture Element Distributions: XIII - Nevada Shoshone, Anthropological Records, Volume 4, Number 2, published by the University of California Press, Berkeley and Los Angeles, California, April 3, 1941, pages 209-360.



ANTHROPOLOGICAL RECORDS

4:2

CULTURE ELEMENT DISTRIBUTIONS: XIII NEVADA SHOSHONE

BY
JULIAN H. STEWARD

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY AND LOS ANGELES
1941

ANTHROPOLOGICAL RECORDS

EDITORS: A. L. KROEBER, R. H. LOWIE, R. L. OLSON, E. W. GIFFORD

Volume 4, No. 2, pp. 209-259, 1 map, 14 figures in text

Transmitted November 15, 1938

Issued April 3, 1941

Price, \$1.50

UNIVERSITY OF CALIFORNIA PRESS

BERKELEY, CALIFORNIA

CAMBRIDGE UNIVERSITY PRESS

LONDON, ENGLAND

The University of California publications dealing with anthropological subjects are now issued in two series.

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MANUFACTURED IN THE UNITED STATES OF AMERICA

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PREFACE
BY
A. L. KROEBER

Dr. Steward's Shoshoni data presented herein represent the first extension of the element survey to the Great Basin area. His list was based on that of Dr. Driver for the southern Sierra Nevada and adjacent regions. Beginning in southern Nevada, he modified his list to suit local conditions as he traveled north. A second season in the field enabled him to fill a similar list among a smaller number of Shoshoni groups farther north and east. This second block of data will be presented separately later. Then, Dr. Omer Stewart undertook similar studies, first among the Northern Paiute or Paviotso, and later among the Southern Paiute and Ute, using a questionnaire based on Dr. Julian Steward's. These four field inquiries, together with Dr. Driver's Shoshonean inclusions in his already published report (CED:VI), will provide element-list data on a fairly adequate representation—some sixty—of the bands or local groups or subtribes of the Shoshoneans of all three "Plateau" speech divisions living in and near the Great Basin.

Dr. Steward's element work for the University was done in conjunction with a socio-economic study of the Shoshoni under a Social Science Research Council grant-in-aid. Perhaps partly as a result of this broadened scope of interest, he has prefaced his lists with an Ethnographic Discussion which both comments on his list data and synthesizes them. This Discussion is first of all a general commentary on western Shoshoni culture, and secondly an analysis of the meaning and weight of most the elements recorded in his lists. He points out the relations of traits and considers which of the formal elements are more and less significant, and why. With his particular findings on this latter score I find myself in constant agreement, and with his evaluations of the specific merits and limitations of the element approach as a field technique I am in equal and enthusiastic agreement.

The portions of the monograph following the Ethnographic Discussion are those usual in reports in the Culture Element Distributions series: the element lists themselves, notes on the list, and elements universally lacking.

[Assistance in the preparation of these materials was furnished by the personnel of Works Projects Administration Official Project No. 665-08-3-30, Unit A-15.]

CULTURE ELEMENT DISTRIBUTIONS: XIII NEVADA SHOSHONI

BY
JULIAN H. STEWARD

INTRODUCTION

The element lists presented here were procured during six months in 1935 on a trip financed by the University of California and a grant-in-aid from the Social Science Research Council.¹

I wish to express gratitude to Deep Springs, California, for accommodations for Mrs. Steward and myself; to Superintendent McNeilly of Western Shoshoni Reservation for accommodations and for coöperation in assisting my researches; to Mr. and Mrs. Neff for their hospitality in Ruby Valley; and to Dr. Harold Driver for the original element list from which this one was adapted.

Objectives of the Element List

Two seasons of field work with element lists—the results of the first only are presented here—have demonstrated their value to me. Although they were first conceived in connection with the need for data amenable to quantitative treatment, I heartily concur with Kroeber² they are a real advance as a technique for field work and for presentation of data. Whether these data are ultimately used for functional studies, for historical reconstructions, for statistical comparisons, or for some other purpose does not bear upon the question of the intrinsic merits of the lists.

As a method of procuring and presenting data, the distinctive feature of the element list is the extensive use of tabulation. This device is

¹Orthography.—The phonetics of Shoshonean languages are unfixed. There is a noticeable difference in pronunciation between the older and younger generations as well as among individuals. In fact, a single individual may pronounce very differently at separate times, especially the whispered syllables. The accent in practically all Shoshoni words falls on the first syllable and consequently has been omitted.

The orthography used is as follows: a, e, i, o, and u have their continental values; a:, u:, etc., are prolonged; á, as in ball; â, as in hat; ë, as in bet; ý, as in hit; ü, ö, imperfect umlaut; ø, obscure vowel, as u in up; ~, nasalized; ', glottal stop; elevated letters are whispered; ŋ, as ng in sing; c, as sh; f, occurs only as bilabial—it is really the bilabial v, which, rarely, is unvocalized; k:, p:, etc., long consonant, released somewhat explosively, producing a whispered vowel after it, which, however, is rarely written in; x, as in forward German ch; r, made with a flick of the tongue against the palate, as with Spanish r; v, always bilabial. All other consonants are used individually as in English.

²1935:1-11.

not new, having been used widely in archaeology and in ethnology, especially in comparative studies of tribal groups.³ In fact, the principle of enumeration of culture traits is implicit in most comparative studies, though the elements are not always tabulated. The element list is unique solely in carrying this method to its logical end, namely, in listing all the components of a culture which can be broken down for tabulation.

The list as a descriptive device need not, of course, make final judgment of what is and what is not an "element." Traits may be subdivided to greater or less degree according to whether it facilitates recording and publishing the information. The weighting and selection of elements will be done by persons making comparative or other studies. The list is, however, somewhat distinctive in providing unselected and reasonably complete information, including trait absences, that is, information truly comparable with information from elsewhere. Most comparative studies, on the other hand, are based either upon elements selected for their presumed importance or for which information happens to be available, and rarely embrace more than 100 items.

It is not assumed that the list covers the totality of culture. Language cannot feasibly be included. Myths, which could no doubt be broken down for some tabulation, are omitted. There are other aspects of human behavior of interest to some ethnologists which are also omitted. Moreover, all departments of culture are not equally amenable to tabulation. Material objects, many economic activities, and most features of games, rites, and dances may readily be tabulated, though notes are necessary to explain them and to set them in their contextual relationships. Social organization and religion, on the other hand, are almost impossible to tabulate, and require extensive explanatory texts. In short, an element list has the advantage of fullness in many things ordinarily omitted and of compactness but is not a substitute for other descriptive devices. The objection, therefore, that it might merely enumerate elements torn from their context and omit configurations, functional aspects of behavior, and so forth, is beside the point. There never has been a description which

³To the examples given by Kroeber (1935:1) of ethnological use of elements could be added most archaeological studies.

did not enumerate; that the list does so concisely is not an inherent fault. It may be annotated and explained *ad lib.*, according to the interest of the investigator. Any objection that the list implies a somewhat atomistic view of culture cannot be taken seriously, for traits are known to diffuse individually and in complexes whether or not some persons are interested.

As a field technique, the element lists have advantages and dangers. They provide an organized list of questions including details that otherwise are frequently overlooked and a form on which to set down simply and rapidly those facts which may categorically be entered as yes or no. This makes it possible to procure an enormous amount of information in a very short time. The correlated danger of hurrying through a list and asking leading questions is, of course, inherent in any ethnographic field work.

The early lists here presented have an inordinate number of blanks. These result partly from attempting at first to use a list designed for southern California, partly from the discovery of new elements as the work progressed. No doubt most of these new elements were not present in the first groups, else they should have been discovered sooner; others may have been present, but were not sought.

These lists do not purport to be an exhaustive ethnographic description of the area. They were procured somewhat incidentally on a trip devoted primarily to an ecological study of Shoshoni society and should consequently be viewed as a reconnaissance of an area previously unknown ethnographically.

Informants and Field Work

At first, less time was spent upon each list than subsequently. The NP-FSp and NP-FLk lists were both taken in about one and one-half days, the culture having been previously described.⁴ Later lists were taken in an area which had never before been studied by an ethnologist. Three to six days were spent with each principal informant, but, as the lists were not the sole objective of the trip, only two or three days were devoted to each. At S-Ely, the informant's meager information was procured in one day, the deficiencies showing as many blanks in the list. No less than three days with a good informant is needed in this area. Where the culture is more complex, no doubt a greater time would be required.

Several facts prevent any one list from being truly complete or entirely representative of a single locality. First, as the culture was not wholly standardized, each informant described those specific events and objects which, having been part of his own experience, he remembered. Another informant might have remembered a somewhat different hunting device, use of the sweat

house, clothing material, and so forth. For this reason, trait presences are more reliable than absences. In many instances, when lack of knowledge did not prove an absence, the space was left blank. Three days with an old and reasonably intelligent informant would probably yield positive information on not over 80 per cent of the elements actually occurring in the culture, a variable portion of which would be subject to error. Two good informants from a single locality would perhaps increase the information to 90 per cent or more. In these lists, a single principal informant was used for each locality. Notes are added where that informant's statements were supplemented by other persons.

Second, though each informant was asked to distinguish between the practices of his own locality and those of neighboring localities, this was never entirely possible. Even in pre-Caucasian times, people neither belonged to a single band nor remained always in one locality. They often shifted residence from year to year to regions where food was abundant, there allying themselves temporarily with various neighboring peoples. Shoshoni society was consequently not divided into a series of distinct ethnic units. Furthermore, most Indians living today left their native villages in childhood to assemble with people from far and wide on reservations or in colonies attached to the towns in the area. Because much of an informant's knowledge is hearsay, the sources of information are thus often confused.

These facts do not entirely prevent securing regional differences. The differences between widely separated localities are unquestionably valid. But too much stress should not be placed upon the differences between such neighboring localities as Death Valley, Beatty, and Lida, as Smith Creek, Reese River, and Great Smoky Valley, as Hamilton and Morey, as Ruby Valley, Egan Canyon, and Elko, as Elko and Battle Mountain, and so on. It would, in fact, be justifiable for some purposes to make a composite list from such adjoining localities. This would compensate for the use of but a single informant from each. Also, incongruous and therefore probably incorrect information is fairly conspicuous when several such neighboring localities are compared.

Conditions in the area on the whole favor field work. Few explorers, trappers, or miners penetrated it prior to 1850. Settlement, first by miners, later by ranchers, began about 1850. There are, consequently, a few old Indians still living who, as children, actually observed native life when it was relatively unaffected by civilization. Though most of the culture has broken down today, fragments of it survive—mainly, shamanism, pine-nut and some general seed gathering, rabbit-blanket and basket weaving, language, mythology, and some family life. Most informants were friendly, communicative, cooperative, and able to speak fair English. In two

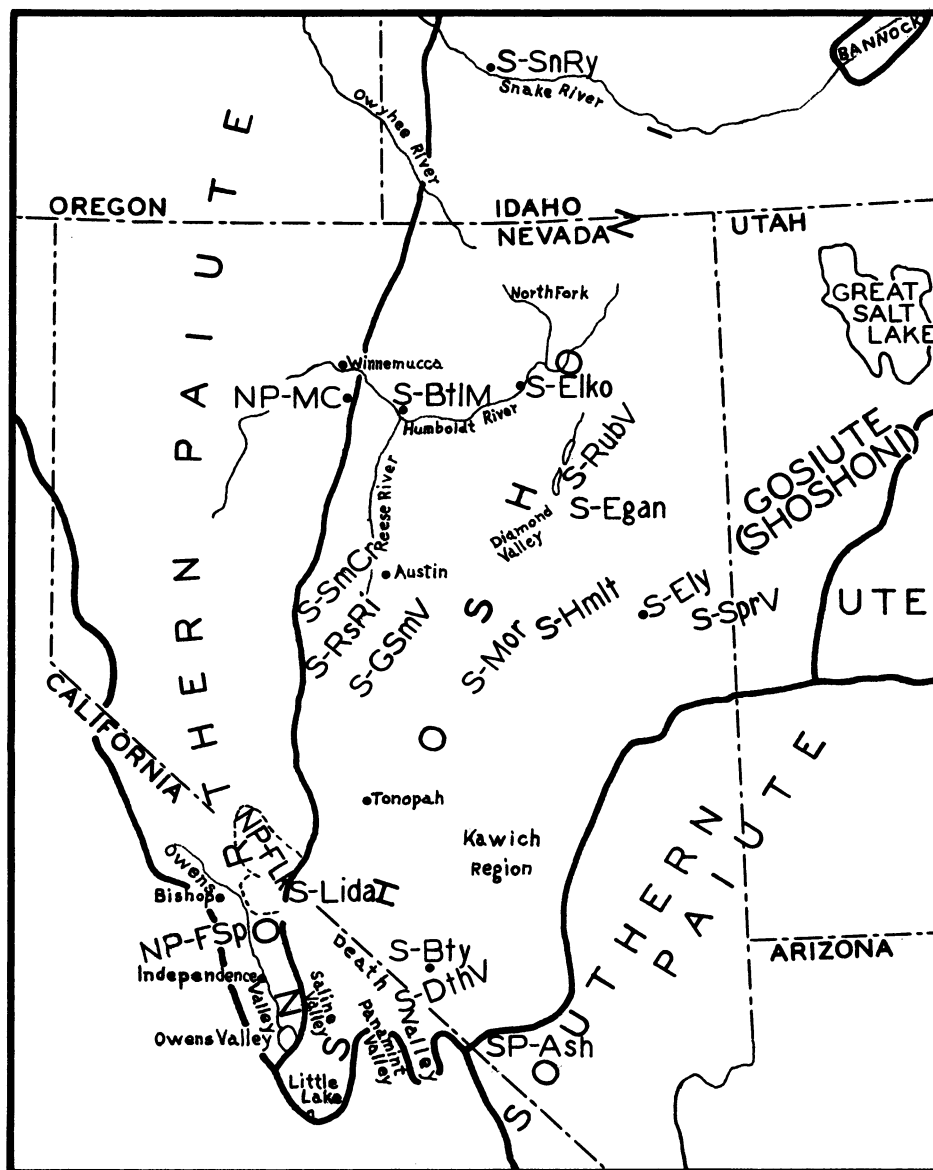
⁴Steward, 1933.

instances, when one interpreter was used for informants from separate localities, the resemblance between those localities was greater than ordinary. This may have been in part because fuller information inevitably produced greater similarity, in part because the interpreter unconsciously transmuted facts into a form familiar to himself.

If ethnographic material is procured and presented in such a manner that the writer feels compelled to indicate its deficiencies, this may be regarded as a merit of the method, for too often

the reliability of ultimate sources of information is not known to the reader. The inadequacies of informants and unreliability of certain lists is indicated below. Some informants were even deemed unfit to supply lists.

The localities from which information was procured are shown on the map. The linguistic identity of each was established by a 100-word test vocabulary. Each locality was a native village, not a band or political group of any sort, except as villages were independent.



Map 1. Shoshoni and neighboring groups, showing localities from which lists were obtained. The local groups are designated by the abbreviations used in the text, as follows: NP-FSp, Northern Paiute of Fish Springs; NP-FLk, Northern Paiute of Fish Lake Valley; SP-Ash, Southern Paiute of Ash Meadows; S-DthV, Shoshoni of Death Valley; S-Bty, Shoshoni of Beatty; S-LidaI, Shoshoni of Lida; S-GSmV, Shoshoni of Great Smoky Valley;

S-SmCr, Shoshoni of Smith Creek Valley; S-RsRi, Shoshoni on the upper portion of the Reese River and in Ione Valley; S-Mor, Shoshoni of Morey; S-Hmlt, Shoshoni of Hamilton; S-Ely, Shoshoni of Ely; S-SprV, Shoshoni of Spring Valley (and Antelope and Snake valleys); S-Elko, Shoshoni of Elko; S-Egan, Shoshoni of Egan Canyon; S-RubV, Shoshoni of Ruby Valley; S-SnRv, Shoshoni of Snake River; S-BtLM, Shoshoni of Battle Mountain; NP-MC, Northern Paiute of Mill City.

The localities are as follows:

NP-FSp, Northern Paiute of Fish Springs, headquarters of a band in Owens Valley, California. It was previously described in Ethnography of the Owens Valley Paiute,⁵ but local differences were not specified. Informant: TS.

NP-FLk, Northern Paiute of Fish Lake Valley, lying northeast of the last, partly in California, partly in Nevada where it adjoined Shoshoni territory. This is a large, arid, sparsely populated valley having several native villages and including a few Shoshoni and part-Shoshoni individuals in the population. Contacts were with both Shoshoni and Owens Valley Paiute. Informant: MH; interpreter: TS.

SP-Ash, Southern Paiute of Ash Meadows, California, members of the Ute-Chemehuevi division of Shoshonean. This group occupied also Pahrump, Nevada. Though included by Kelly⁶ as part of the Las Vegas band, the people of this locality claimed political and social independence of Las Vegas. Today and probably formerly many Shoshoni are intermixed with the Paiute. Informants: AH and MHO.

S-DthV, Shoshoni of Death Valley, California, especially the upper portion near Surveyor's Wells and Grapevine Springs. Southern Death Valley was probably inhabited by Southern Paiute and possibly some Kawaiisu. Information here is from the northern end of the valley which had contacts with Shoshoni of northern Panamint Valley, Saline Valley, Beatty, and Lida. Informant: BD. Some notes on Panamint Valley Shoshoni, who were somewhat mixed with Kawaiisu who lived in the southern portion of the valley, are included. Informant: GH.

S-Bty, Shoshoni of Beatty, Nevada. This group ranged from the Grapevine Mountains, bordering Death Valley on the east, to the Belted Mountains to the northeast. Contacts with Death Valley, Lida, and Kawich region Shoshoni; also, somewhat with Southern Paiute of Ash Meadows. Informant: TSt.

S-Lida, Shoshoni of Lida, Nevada, one of many independent villages scattered in the deserts north of Death Valley. It included a few Northern Paiute in its population. Contacts with Fish Lake Valley Paiute and Death Valley and Beatty Shoshoni. Informant: JS.

S-GSmV, Shoshoni of Great (or Big) Smoky Valley, a large arid valley south of Austin, Nevada. Contacts largely with Reese River and Austin. A large, almost uninhabited desert separates this locality from those to the south, though some information on this area could be had from the Shoshoni colony at Round Mountain, Nevada. Informant: JK.

S-SmCr, Shoshoni of Smith Creek Valley, west of Austin adjoining Northern Paiute territory. Contacts with Reese River, Austin, and Northern Paiute. Informant: TH.

S-RsRi, Shoshoni on the upper (southern) portion of the Reese River, that is, south of Austin; also of Ione Valley to the west. Informants: MJ,

from Ione Valley; JF, from Reese River; interpreter: GJ.

S-Mor, Shoshoni of Morey, a former stage station on the road which ran from Hot Creek north to Eureka. Information applicable to Little Smoky Valley and somewhat to Duckwater to the east, where there is now a Shoshoni colony. Informant: BH.

S-Hmlt, Shoshoni of Hamilton in the White Pine Mountains, west of Ely. Information generally applicable to Jake's Valley, White Sage Valley, Butte Valley, and Newark Valley. Informants: HJ and JW, HJ interpreting. Some notes are added on Shoshoni of Diamond Valley to the north, SF informant.

S-Ely, Shoshoni of Ely, Nevada. Information applicable to southern end of Steptoe Valley. Informant: AR.

S-SprV, Shoshoni of Spring Valley and the neighboring Antelope Valley and Snake Valley. Contacts with Steptoe Valley Shoshoni, with Gosiute of Deep Creek and vicinity, and somewhat with Ute of the Sevier Desert, Utah, and with Southern Paiute to the south. There was no sharp distinction between S-SprV and neighboring Gosiute who are also Shoshoni. (The latter will be described in a future list.)

S-Elko, Shoshoni of Elko, on the Humboldt River. Information probably also applicable to Dixie Valley, South Fork Valley, and communities along the Humboldt River for forty or fifty miles in each direction. Informant: BG.

S-Egan, Shoshoni of Egan Canyon, adjoining Steptoe Valley on the west, near Cherry Creek. Information claimed by BM to be applicable to northern portion of Steptoe Valley, Butte Valley, Long Valley, and Ruby Valley.

S-RubV, Shoshoni of Ruby Valley, a well-watered and densely populated region lying east of the Ruby Mountains and southeast of Elko. Informant: RVJ.

S-SnRv, Shoshoni of Snake River, southern Idaho. Information applicable to the stretch of river below Twin Falls, in the vicinity of Bruneau. Contacts with some North Fork and Humboldt River Shoshoni during the summer in the highlands near the present Western Shoshoni Reservation; also with Boise Shoshoni and with Fort Hall Shoshoni and Bannock who, a century ago, were traveling down the Snake River on horseback. Informant: CT; interpreter: TP.

S-BtlM, Shoshoni of Battle Mountain, on the Humboldt River, Nevada. Contacts with neighboring Shoshoni and with Northern Paiute of Winnemucca and vicinity. Informant: JP; interpreter: TP.

NP-MC, Northern Paiute of Mill City, on the Humboldt River a few miles southwest of Winnemucca. Informant: CTh. This group was probably closely connected with Paiute of Humboldt Lake, where Sarah Winnemucca Hopkins was born. Though romantic and imaginative, some of her statements seem reasonably reliable and have been included in notes for comparative purposes.

Informants were as follows:

AC, full-blood Shoshoni woman, born ca. 1865 at Duckwater, now living at Ely; reasonably good

⁵Steward, 1933.

⁶1934.

informant but used only a short time for information on Duckwater and Railroad Valley.

AH, half-Negro, half-Southern Paiute man; born ca. 1875 at Las Vegas; has lived mostly at Pah-rump, Ash Meadows, and Las Vegas; now at Ash Meadows; intelligent, coöperative, speaks English well. Most facts for the SP-Ash list, however, were supplied by his wife, MHo.

AG, half-blood (?) Northern Paiute man, born ca. 1885 at Lone Pine, Owens Valley, California, where he now lives; knowledge limited; supplied supplementary information on Owens Valley.

AR, half-blood (?) Shoshoni woman, born ca. 1870 or 1875 at Ely, Nevada; now lives at Ely. English fair; knowledge limited; some guessing was evident. The list S-Ely is not only incomplete but somewhat unreliable.

BD, full-blood Shoshoni man, born ca. 1865 at Grapevine Springs in northern Death Valley; coöperative, well-informed on Death Valley groups; English poor; supplied list S-DthV, which is one of the best.

BG, full-blood Shoshoni man, born ca. 1875 near Elko; went to school when child at Elko; information on Elko region fairly extensive and probably fairly reliable, though possibly colored a little by imagination; has been a blood-letting doctor; supplied list S-Elko.

BH, full-blood Shoshoni man, born ca. 1875 at Morey in Little Smoky Valley; now lives at Duckwater, but has lived at Fallon. Fairly well informed and extremely conscientious; English fair. Supplied list S-Mor, which is reliable.

BM, full-blood Shoshoni man, born ca. 1855 in Egan Canyon; has lived for some time in Ruby Valley; coöperative and well informed but his information undoubtedly came from both Egan Canyon and Ruby Valley, which he claims were identical; supplied list S-Egan, which is not identical with list S-RubV supplied by RVJ.

CT, full-blood Shoshoni man, born ca. 1874 at Bliss on the Snake River, Idaho; went to Owyhee (Western Shoshoni Reservation) at the age of 26; well informed, coöperative, very conscientious and one of the best informants but needs interpreter (TP was interpreter); supplied list S-SnRv, attempting to distinguish what he knew to exist on the Snake River from what he had subsequently seen or heard at Owyhee.

CTH, full-blood Northern Paiute man, born ca. 1850 near Mill City and raised in vicinity of Buena Vista Valley, mostly among white people; served as army scout for some years; went to Owyhee in 1889 where he has remained since. Very coöperative; English good; knowledge limited. Supplied list NP-MC, which is incomplete but probably reliable so far as it goes, though long contact with Shoshoni may have confused him on some matters.*

ES, full-blood Shoshoni woman; S-Lida; daughter of JS; basket weaver.

FSm, full-blood Shoshoni man, born ca. 1855 in Grass Valley, south of Battle Mountain; lived as a child at Austin, then went to Carlin, Echo Canyon, and finally to Owyhee when the reservation was founded. Information somewhat limited, English poor; was used only for supplementary material.

GH, full-blood Shoshoni man, born ca. 1845 at Grapevine Springs, Death Valley; remembers the first arrival of white people when he was a small boy; has subsequently lived in or near Death Valley and now is at Indian Springs, Panamint Valley, where he has had a ranch for many years. He is well informed and coöperative, but needs an interpreter. As none was available, he gave only odds and ends of information which apply to Death Valley and to Shoshoni of the northern end of Panamint Valley.

GG, full-blood Shoshoni man, born ca. 1860 at Little Lake, California, and has subsequently lived at Little Lake, Koso Springs, Darwin, and Olancho. Coöperative, well informed, and speaks sufficient English. A list was not procured from him, but many facts are added to the lists as comparative notes.

GJ, full-blood Shoshoni man, born ca. 1900 probably at Fallon; son of MJ and stepson of JF for whom he interpreted; excellent interpreter.

GM, full-blood (?) Shoshoni man, born ca. 1890 near Eureka; added a few points of comparative interest as noted.

GR, full-blood Northern Paiute man, born ca. 1870 at George's Creek, near Independence, Owens Valley, California. Intelligent, well informed, and English good. Gave a few points of comparative interest on George's Creek band, as noted.

HJ, full-blood Shoshoni man, born ca. 1870 or 1875 at Hamilton; information fairly extensive but English poor; is very mercenary, though reasonably reliable.

JA, full-blood Northern Paiute man, born ca. 1865 in Deep Springs Valley, which lies between Owens Valley and Fish Lake Valley, California. Supplied a few points of comparative interest.

JF, full-blood Shoshoni man, born ca. 1870 or 1875 in Ione Valley and subsequently moved to Fallon, where he now lives with his wife, MJ, and stepson, GJ (latter interpreted for him). Information fairly extensive and reliable except where affected by his association on the reservation with Northern Paiute and with Shoshoni from other localities. With MJ, he supplied list S-RsRi.

JH, full-blood Shoshoni man, born ca. 1885 in Saline Valley and has subsequently lived there and in Death Valley, Darwin, and Owens Valley. Supplied a few supplementary facts concerning Saline Valley Shoshoni and made several specimens of games.

JK, full-blood Shoshoni woman, born ca. 1875 at Hot Springs in Great Smoky Valley, married a man from the Kawich region to the east, but spent most of her life among white people and has lived for some time at Fallon. Very amiable and coöperative but information is poor and much was sheer guess. Supplied list S-GSmV, which is very unreliable.

JP, full-blood Shoshoni man, born ca. 1850 or 1855 at Battle Mountain; has lived at Owyhee many years. Is well informed, coöperative, and one of the best informants, but needs interpreter (TP interpreted); gave the S-BtlM list, which is unusually full and reliable and, being a shaman himself, particularly good on shamanism.

JR, full-blood (?) Shoshoni man, born ca. 1880 in Spring Valley and has lived there, at Baker,

*According to Dr. O. C. Stewart, CTH was a Makuha-dökado Northern Paiute. See map 1 in UC-AR 2 (no. 3), 1939.—A.L.K.

and at Ely since; information fair; coöperation poor; English good; possibly unreliable and prone to guess concerning matters not known to him. Gave list S-SprV, which is probably reliable except as indicated.

JS, full-blood Shoshoni man, born ca. 1850 at Lida, Nevada, but was raised at Belmont in Ralston Valley north of Tonopah, returning to Lida at the age of 15; now lives at Cow Camp near Silver Peak, Nevada. Coöperative, intelligent, speaks fair English, knowledge extensive but probably involves much confusion between practices at Lida and Belmont, though list purports to apply only to Lida.

JW, full-blood Shoshoni woman, born ca. 1850 near Hamilton. Largely incompetent as an informant due to embarrassment rather than ill-will, but supplied some information on S-Hmlt through HJ, interpreting.

MBM, full-blood Shoshoni woman, S-RubV, BM's wife.

MH, full-blood Northern Paiute woman, born ca. 1850 near Hamil, north of Bishop, Owens Valley, California, but raised in Fish Lake Valley, living there until recently; married polygynously to a half-Paiute, half-Shoshoni from Lida. Very coöperative; information fair but somewhat difficult to extract; English poor. TS interpreted, which probably made some elements unduly resemble NP-FSp. Supplied entire list for NP-FLk.

MHa, full-blood Shoshoni woman, S-DthV; GH's niece; basket weaver.

MHo, full-blood Southern Paiute woman, born ca. 1875 and raised at Pahump, subsequently marrying AH and living at Ash Meadows. Speaks little English and alone she would be uncoöperative but seems well informed and supplied most of AH's information in the list SP-Ash, which is fairly complete and reliable.

MJ, full-blood Shoshoni woman, born ca. 1870 or 1875 in Lone Valley; fairly coöperative and well informed; with her husband, JF, and her son GJ interpreting, she supplied information for the list S-RsRi, which actually is a joint list for Lone Valley and Reese River.

MJa, Shoshoni woman, S-RsRi; basket weaver.

MS, three-quarters Southern Paiute, one-quarter Shoshoni, born ca. 1865 at Ash Meadows where she still lives. Friendly and coöperative, but knowledge limited on many matters and English very poor. Supplied a few points of comparative interest.

MM, full-blood Shoshoni woman, born ca. 1885 at Ruby Valley (?); is RVJ's daughter, for whom she did some interpreting; supplied information on birth and menstrual customs in list S-RubV.

PH, full-blood Shoshoni man, born ca. 1870 or 1875 at Morey in Little Smoky Valley; is older brother of BH; unwilling informant; extent of information unknown; English poor; supplied only a few supplementary facts.

PW, full-blood Shoshoni woman, born ca. 1870 near Elko; not used as informant, but is willing and well informed and would probably be excellent; made many specimens (as noted throughout) now in Peabody Museum of Harvard University.

RVJ, full-blood Shoshoni man, born ca. 1840 or 1845 in Ruby Valley; early life spent near Overland in Ruby Valley and near Medicine Springs in

the Cedar Mountains. Extremely well informed, coöperative, and reliable; but English poor and is very feeble. Supplied list S-RubV, his daughter MM interpreting on some parts when necessary.

SF, full-blood Shoshoni man, born ca. 1865 at Mineral Hill, northwest of Eureka in Pine Creek Valley; willing and has some information but unable to formulate it; with HJ interpreting, he supplied facts of comparative interest on Pine Creek and Diamond valleys, which are added as notes.

SS, full-blood Shoshoni woman, born ca. 1880 in Saline Valley, California; supplied only a small amount of information; excellent weaver, supplying several baskets collected for the Peabody Museum of Harvard University.

TD, full-blood Shoshoni woman, daughter of BD, S-DthV; expert basket weaver.

TH, full-blood Shoshoni man, born ca. 1870 or 1875 near Alpine in Smith Creek Valley, west of Austin; fairly well informed; passable English; intelligent, conscientious, and exceptionally amiable; supplied all of list S-SmCr, which is not complete but is fairly reliable.

TP, full-blood Shoshoni man, born ca. 1890 at Owyhee on Western Shoshoni Reservation; went through seven grades at Carlisle and returned to Owyhee; is exceptional interpreter, serving for CT and JP; also supplied some information concerning North Fork (of the Humboldt) Shoshoni learned from his mother who was born there (his father, an Elko Shoshoni).

TS, Northern Paiute man, born 1887 at Fish Springs, Owens Valley. Has an extraordinary memory of information from his grandfather; intelligent, coöperative, and reliable, being excellent both as informant and interpreter. Supplied list NP-FSp and interpreted for MH on list NP-FLk.

TSp, one-quarter Shoshoni, one-quarter Kawaiisu, born ca. 1885 in Panamint Valley; supplied a vocabulary of Panamint Kawaiisu, establishing the fact that these people had occupied most of Panamint Valley and mixed, in the northern portion of it, with Shoshoni.

TSt, full-blood Shoshoni man, born ca. 1865 near Beatty, at or near which he has subsequently lived; coöperative, well informed, intelligent, and careful; one of the best informants; English fair. Provided list S-Bty.

WP, full-blood Shoshoni man, born ca. 1900 in Saline Valley; coöperated with JH, his uncle, in making several specimens for Peabody Museum of Harvard University.

The Great Basin Environment

Shoshoneans dwelled in an exceptionally infertile area, which necessarily had an important determining effect upon many of their activities.

With the exception of the Snake River which cuts through the Columbia lava plateau and drains into the Columbia River, the entire area treated here falls within the Great Basin. It is a region from which no streams find egress to the sea, flowing instead into alkaline lakes or dwindling into salt playas which occur in most of the aggraded valley plains. Large-game animals were relatively scarce, sustenance being drawn instead

from rodents and especially from seeds which grew widely scattered. The specific components of plant assemblages vary with altitude and somewhat with latitude, but everywhere the valleys and much of the mountains are covered with only highly xerophytic shrubs, most of which are inedible for human beings. Of the various species, the most common are sage, especially *Artemisia tridentata* and rabbit brush, which grow throughout the area. In the low altitudes in the south, creosote brush and greasewood are common and there is some mesquite, tree yucca or Joshua tree, and screw bean, the last three edible. Elsewhere, the common shadscales, greasewood, and sage were largely useless except for fuel or bark, which was used for some manufacturing.

Arboreal growth in the valleys is restricted to willows and cottonwoods, which fringe the few streams. Mountains, favored with greater rainfall, support junipers (*Juniperus utahensis*), which locally are called cedars, pine-nut or piñon trees (*Pinus monophylla*), which grew as far north approximately as the Humboldt River and were the most important single food plant, mountain mahogany in the northern part of the area, and a few aspens, firs, pines, and spruces in the higher ranges.

The geographical features of certain regions had a pronounced effect upon population density and distribution and consequently upon the nature and organization of communities.

Owens Valley, classed as the Outer Great Basin,⁷ lay at an altitude of 4000 feet at the foot of the Sierra Nevada Mountains which, surpassing altitudes of 14,000 feet, provided varied zones of natural resources ranging up to the Alpine and gave rise to many streams which increased the fertility of the otherwise arid valley. Population was dense (1 person to 2 sq. mi.), comparatively stable, and, though the Sierra constituted a formidable barrier, in frequent contact with the cultures to the west.

Death Valley is notable for its extreme geographical variation. It ranges from a lower Sonoran zone, several hundred feet below sea level, where the summers are unbearably hot and water is not only scarce but often poisonous, to a Hudsonian zone in summits of more than 11,000 feet elevation in the Panamint Mountains, where the summers are comparatively cool. Food resources were largely in the mountains, but so vast a portion of the region is arid valley that the population was not one-fifteenth as dense as Owens Valley. Panamint Valley, Saline Valley and the Little Lake region are also low and arid, so that foods were sought in the mountains.

⁷These general classifications are those given by the Bureau of Agricultural Economics, U.S. Dept. of Agr., on the map of Natural Land-Use Areas of the United States, 1933. See also, "Land Classification Report for Utah," compiled by John F. Deeds and Depue Falck, U.S. Geol. Survey, 1932, and the map, 1931. Also, Chamberlin, 1911.

A vast area lying just east of the Nevada-California boundary is relatively low and arid intermontane semidesert and includes the Amargosa Desert. Vast valleys devoid of water and supporting few edible seeds were virtually uninhabited. These are interspersed with low mountain ranges which contain little water and had a few inhabitants.

Farther north, in central and eastern Nevada, the land mass rises so that valley floors are 4000 to 6000 feet elevation and mountain summits attain 9000 to 12,000 feet. Greater rainfall—10 to 15 inches annually—produced slightly greater abundance of edible seeds and roots and, in the zones of mountain brush, edible berries, especially serviceberry. Population density varied greatly in separate localities, but averaged about 1 person to 35 square miles. Greatest density was where unusually high ranges gave rise to comparatively large streams, notably, the Humboldt River where fishing was of some importance, Ruby Valley, and Reese River Valley. Most of this region has intense winter cold, uncomfortable summer heat, and, as with the entire area, extreme diurnal temperature range.

North of the Humboldt River the land rises to the southern Idaho highlands near the Idaho-Nevada boundary. This mountain mass, which separates the Great Basin from the Snake River drainage, was too cold for winter habitation but was visited in summer by Shoshoni from the north and south and by some Northern Paiute living immediately to the west.

The Snake River plains of southern Idaho consist largely of lava plains, through which the river flows in a deep gorge. Lying at an altitude of only 2500-3500 feet, this plain has comparatively mild winters, hot summers. Salmon, running up the Snake River to Twin Falls and up various tributaries below Twin Falls, helped support settlements on these watercourses. Other foods, however, were uncommonly scarce as the desert plains enjoyed less than 5 inches of rain annually and supported few edible seeds. Vegetable foods required long treks either to the highlands to the south or to the camass prairies on the headwaters of the Boise River to the north. Large game could be had only in the distant mountains and the scarcity of skins forced people to use sage bark for many purposes.

Shoshonean or Great Basin Culture

A characterization of the distinctive features of the Great Basin Shoshonean culture has heretofore been impossible because of lack of information from large portions of the area. Wissler,⁸ having available only a portion of Lowie's pioneering researches,⁹ divided it between the

⁸Pp. 218-242.

⁹1909, 1923, 1924. Kroeber, 1925:589-592, included a little information on the Koso or Panamint, here called Panamint Valley Shoshoni.

Plains, Plateau, California, and Southwest. Partial justification for this is the fact that marginal portions of the Basin are strongly stamped with traits from neighboring areas. Northern Paiute of eastern California and western Nevada resemble California in many positive traits. Wyoming Shoshoni are a thoroughgoing Plains people and even eastern Idaho Shoshoni and Utah Ute possess such Plains traits as horse travel, the tipi, travois, roving bands under strong chiefs, importance of warfare, and others. Many southern Shoshoneans, especially some Southern Paiute and Ute, possess a little horticulture and a few other features relating them to some Southwestern tribes, though their true position is at present unknown.

The present survey has covered peripheral parts of the Basin only in the south and west, where some California influence is manifest. Its importance, however, lies in the information coming from the Shoshoni of central Nevada, who had no direct contact with neighboring areas and who consequently possessed a culture which was little affected by influences from other areas.

The culture of central and northern Nevada had few distinctive, positive traits. Most of the characteristic elements are of material culture. They are general in the Shoshonean area, many having their roots in the Basket Maker cultures of the Colorado plateau, many being shared by present cultures to the north and the south in similar arid environments. These elements include: in basketry, conical (as against rectangular, cylindrical, or rounded) burden and seed baskets, seed beaters, parching trays, pitch-covered water jug or olla, general use of twining in eastern Nevada; rodent skewer; antelope shamanism; long rabbit net; combination net and noose for rabbits; probably cradles having the rod rim filled with either horizontal or vertical rods; woman's twined bark hat or helmet; bark-bundle slow match; compound fire drill; possibly the dome-shaped, willow house; some local modifications of widely distributed traits, such as 8 as the usual number of dice. In nonmaterial traits, the village communities and their interrelations through communal endeavors achieved distinctive forms in accordance with local ecology. The circle dance is probably to be accredited to Shoshoneans, as is the Bear dance, which, until recently, was restricted to the Ute. The myth pattern is in some respects distinctive.

All other traits are either general or ancient in America or were clearly borrowed from neighboring areas and attained only partial distribution in the Great Basin. The Gosiute and Nevada Shoshoni to their west were least affected by borrowing, though by no means devoid of outside influence. Passing from this center of the Basin area, the effect of borrowing is cumulative in any direction.

Besides the numerical paucity of elements, a characteristic of Basin culture is its lack of a strong, readily definable pattern. Borrowed traits, though often modified in minor detail,

were not remodeled to fit a rigid, local scheme. Few activities, in fact, were set in contexts of supporting beliefs and practices that would give them stability and direction. Instead, each tended to be isolated, carried on for its own sake, serving only direct needs and lacking intricate functional connections with other activities. Thus, economic life, difficult because of the environment and limited in material aids, was almost totally devoid of ritual, of connection with social groups other than the family, or of such social concepts as band or other property rights. It was essentially concerned with the survival of the individual family. The related political and social life, which will be described fully in a future paper, was simple, having few political controls, virtually no social forms outside the family, even the village being somewhat unstable. Games were played, myths were told, dances were danced largely for immediate satisfaction; they served few or no ritual or other purposes. Birth, puberty, and death rites involved only the person concerned and his immediate family; there was virtually no participation by persons outside the family. Shamanism and the acquisition of guardian spirits was simple, without great specialization, and was the concern only of individuals.

In short, Basin culture, whether overlaid with borrowings or remaining relatively impoverished, is essentially practical. Native resourcefulness is manifest today in the ability to utilize the discarded materials of the various town dumps for dwellings and other purposes. And native individualism lingers in the tendency of many families to live alone or in small groups attached to towns or ranches or even in isolated mountain canyons.

Element Variability

There has been some disposition in ethnographic studies to assume, at one extreme, that the elements comprising any complex are fortuitously associated as the result of historical accident and are, therefore, united only by the bond of locality, and, at the other extreme, that they are so completely integrated by a prevailing pattern as to constitute an organic whole. An intermediate view assumes that there is a varying degree to which elements of different kinds are integrated and consequently are susceptible to change or to diffusion and that this may only be established by analysis and comparisons. The problem may be formulated in two ways.

First, when the culture history of any group is known through documentation or other reliable evidence, the question is one of the manner in which the different parts of the culture change with reference to one another. In spite of the extreme view that culture is an organic whole, it is self-evident when history is known that the total culture does not change as an integrated unit; instead, its components obviously

have a varied and incomplete dependence upon one another. Thus, in European culture, Christianity has changed slowly as compared with economic development, while certain games have been suddenly adopted and as quickly abandoned as transient fads. Examining the history of each class of elements in a changing culture, it should be possible to establish those which are so organically related that change in one necessarily affects others and those which stand so relatively independent of the remainder that change in one will have little or no effect upon the others. From another angle, the problem is one of the influence of the "great man" in history. Although the view that the great man is the product rather than the cause of culture change is gaining ascendancy, the question remains of stating which portions of culture a great personality coupled with propaganda may affect most readily.

Second, as documented history is available only for the post-Caucasian period of the Great Basin, during which time the cultures have been overwhelmed rather than changed in an orderly manner, and as the pre-Caucasian history of only a portion of the elements can be reconstructed with reasonable certainty, it is necessary to establish the comparative susceptibility to change of the various classes of elements by other means. This may be accomplished by: comparative distributions, which in many instances show elements which have and have not been adopted from neighboring areas into the Basin culture; by analyses of the interrelations of the elements to one another; and by relating all the elements to the basic ecology.

Fortunately in the area under consideration the physical environment, which is the one unalterable fact to which cultures had to adjust themselves, is relatively homogeneous and the economic traits connected with it comparatively uniform. Examining each type of element, it is seen that some, for example social forms, bore so intimate a re-

lationship to human ecology that they were largely predetermined and in turn predetermined other elements. Other kinds of elements had such wide appeal that they were part of many unlike cultures in other areas. Whether such elements were vitally important, such as fire-making apparatus, whether they had deep emotional appeal, such as shamanism, or whether they had the fascination of fashion, such as styles of hair dressing, changes in the fundamental ecology or in other traits would not greatly affect them. Conversely, change or substitution in them would not greatly affect other traits. Still other traits are shown to be little integrated with the total cultures by the fact that they have only a partial distribution in this area and cut across other areas without respect to type cultures.

The results of the comparisons and analysis, which are contained in the Ethnographic Discussion, are summarized and synthesized in Summary and Conclusions. The conclusions apply only to the area in question, though some might have wider applicability if tested for other areas. The simplicity of the Great Basin culture, however, obviates many complexities, such as ritual, status, elaborate social divisions, and so forth, which elsewhere adhere to some traits in a manner to reinforce them and give them stability and direction.

From the conclusion, it should be apparent: first, that as all elements cannot be considered as equally susceptible to change by invention or diffusion, a purely age-area method of historical reconstruction must be inaccurate to the extent to which it ignores the individuality of traits. Second, that different kinds of culture elements are differently and unequally integrated into a "pattern," "configuration," or "organic whole." Third, that some areas will be very similar if certain kinds of traits are considered and very different if others are chosen for comparison.

ETHNOGRAPHIC DISCUSSION

[Figures 1-10 are in text of this section; figures 11-14 are in text in the section, "Ethnographic Notes on the Element List."]

Notes mentioned herein refer to the section "Ethnographic Notes on the Element List." Parenthetical numbers in the headings relate to element-list numbered traits.]

SUBSISTENCE (1-577)

As large game was relatively scarce, there was usually a shortage of meat, especially for storage, and of skins. Most persons subsisted to a very large extent and old persons who could not hunt subsisted entirely upon rodents, reptiles, insects, and seeds. At Willow Creek in eastern Nevada, Simpson met an old man who liked his country because "it had a great many rats."¹⁰

Hunting (1-409)

Hunting depended upon the natural environment, the nature and habits of game species, and the number of men available for hunting as well as upon the specific devices introduced into the area.

Deer (1-27)

Deer inhabited rugged mountains more often than flat valleys. They were probably the most important game in most of the area except in the vicinity of S-DthV and S-RsRi, where they were said to have been scarce.

That deer were scattered and groups of hunters small made communal hunts rare and unimportant. Concerted drives were seldom possible. Deer were considered to be too agile and swift to be driven into corrals or over cliffs, though a few informants claimed both methods. One device was to drive or entice them into brush wings which converged to a brush hurdle over which they jumped into a pit concealed behind the hurdle, a method which, in its general plan, was derived from the north.¹¹ Surrounds were accomplished by men converging on a locality rather than as herding, which was practicable in this area only with antelope. But large surrounds were seldom possible because people were too scattered.

S-Hm1t sometimes hunted coöperatively, several men making brush wings converging to a hurdle which concealed a hole, placed on a trail where deer traveled south in the fall, north in the spring. They were frightened (or attracted?) by a fire, jumped over the barrier and were killed in the hole by a man watching it. The fences were called *duhuyu* (deer) *gwep* (fence).

¹⁰P. 77.

¹¹E.g., the Nez Percé (Spinden, 214).

Deer charming, which was evidently a transfer from antelope charming (see below), was sometimes accomplished by the antelope shaman, sometimes by a person with a special power, the deer in either case being attracted by singing.¹² As with antelope shamanizing, deer charming involved some collective effort.

Eureka Shoshoni made a device similar to that at S-Hm1t, the pit being 5 feet wide, 20 feet long, 8 feet deep. Deer were attracted to it by a shaman, who also directed the hunt (PH). S-Egan men built brush wings on Cedar Mountain, near Steptoe Valley, on a trail where deer went south in the fall, and hunted 10 nights or longer, the antelope shaman singing to attract deer. S-Elko made a corral with a fence 8 feet high; a shaman drew deer into it, then shot them. NP-MC, CTh's grandfather, a deer shaman, sang and danced one night to capture deers' souls, then drove them next day into a corral made of poles supporting brush at intervals, where they were shot.

Dogs were generally regarded as unsuited for hunting deer, though used in northern California. Most Shoshoni, moreover, said that formerly dogs were rare. (See note 10.)

Deer hunting was usually the task of one or a very few men and involved stalking, trailing, and ambushing (note 14), all of which were simple and fairly effective methods. Most commonly a single hunter tracked a deer, shot it when he could with a poisoned arrow, and continued to track it until it died (see note 18).

The slight use of traps, nets, snares, and disguises may relate partly to their ineffectiveness in lightly wooded country, partly to the purely historical factor of time which prevented their diffusing farther. Disguises are northern, including northern California,¹³ but are known somewhat in the Southwest.¹⁴ Traps, nets, and snares are uncommon outside the Great Basin, except to the north, and within the Great Basin were used principally for small species. Lack of hunting ritual accords with the general lack of ritual in the Basin. (See notes 23, 27.)

Antelope (28-75)

Antelope, living in valleys and foothills, were fairly numerous in the central and northern parts of the area where they were hunted communally. At NP-FSp, NP-FLk, SP-Ash, S-DthV, S-Bty, and S-Lida, they were either lacking or were too rare to warrant communal hunts.

¹²Among Humboldt Lake Paiute, an application of this power to other species is indicated by Sarah Hopkins' statement that her brother could charm horses in the manner that her grandfather charmed antelope (p. 57).

¹³Kroeber, 1925:528, 817.

¹⁴Spier, 1928:120-121.

Living in open country in large herds, they could not be stalked, trailed, or ambushed as readily as deer. The most effective method for individual hunting was stalking with an antelope disguise.

Most antelope hunting was communal, large numbers of persons assembling from considerable distances once or twice a year for that purpose. The complex included practical and magico-religious measures and social features, and closely resembled the Plains¹⁵ and northern impounding of various species, from whence it was probably derived. The practical elements were: a leader (who was also shaman); a drive to the corral by several hunters (in some localities the antelope were said to have been attracted to the corral by the shaman's power, driving being unnecessary); a corral with wings converging to its opening (often, the corral was of poles supporting brush to resemble people and spaced from 10 to 20 feet apart, with people stationed in between them; in this case, it approximates a surround rather than true corral; notes 27a, 29, 30, 31); shooting with arrows as the animals mill around inside the corral; an equal division of the kill.

The magico-religious measures were based upon the assumption that a man with special supernatural power (the shaman-leader, who dreamed his power) could capture the antelopes' souls (the soul-loss theory of disease is important among Shoshoneans), rendering them subservient to his will, and thus bring them into the corral from which they were powerless to escape unless some person had broken a taboo during its construction. This assumption capitalized upon antelope herd behavior and would have been less effective with other species in this area. Shamanizing comprised other ritual elements which were accessory to the central concept and partly depended upon the shaman's vision. These were consequently somewhat variable: dances, songs, musical instruments, ritual paraphernalia, shaman's assistant, taboos (note 50), and the special archer. Some of these elements had been taken from the generalized Basin shaman's complex—songs, smoking, pipe passing.

Social features were dancing, singing, gambling, feasting, courting, and visiting with people rarely seen during the remainder of the year. These large gatherings could be fed only by the temporarily increased food supply produced by a large hunt.

The following descriptions give detailed pictures of antelope drives:

S-BtLM. The drive was held at pü:wünük: (plain against the foothills) near Iron Point. The shaman-leader was a Northern Paiute named musuwitsüm. First, he sent a scout to locate antelope. Next, the people built a long, roofless, oblong, sagebrush enclosure, puha (shaman's power) gahni (house), with an open end toward the east. For warmth, a fire was built near the opening, another

near the western end where the shaman sat. People sat along both sides, smoking. Each passed the pipe with his right hand to the person on his left. After dark, when the scout was due to return, they extinguished the fires. The scout reported to the shaman in a whisper and the shaman's assistant, tegwowap (literally, "chief's agent" or speaker), announced his findings to the people, telling where the antelope had settled for the night. They always lie down facing the same direction. The shaman rubbed a notched stick tied to the back of a tanned antelope hide (see note 38), which was stuffed with a grass (watsip) to resemble an antelope, and sang for about two hours. His song was of a kind of brush (sisovi) that antelope eat and about young antelope and their food. People near the shaman also sang. Meanwhile, a line of boys, the tallest near the shaman, the shortest near the opening, danced in imitation of antelope. They finally pretended to be very tired, indicating that the shaman had captured the antelopes' souls. After the dancing, the shaman, if powerful, fell down and bled through his nose (apparently like other shamans, the most powerful of whom go into a trance), proving that he had taken the antelopes' souls. Upon getting to his feet, he told his dream: "I saw a crow flying around at a bloody spot. I do not know whether I have the antelopes' souls, but this is a good sign. Their souls are gone." Early next morning, the people made a corral of a series of piles of brush or stone. Men, women, and children (recently on horseback) drove the antelope to the corral. The shaman stood at the opening and "closed" the gate with a fire when they were inside. As the animals milled around, an expert archer shot their leader. If he missed, the spell was broken and they escaped. If he killed the first, the others could not escape and were shot by all the hunters, though it is said that they would have died nevertheless. All the antelope, including females and young, were killed. They were placed in a pile and divided among the families present, the shaman receiving the same share as the others. It was said that among Indians to the south, a man always died because of the shaman's power, but that this never happened at S-BtLM. Some antelope shamans, JP said, are quacks.

S-RsRi. The corral was built of sage piled on bushes to make a crude, circular fence one mile in diameter. Wings led to an opening about one-half mile wide, which was closed with brush when the antelope were inside. The shaman, whose power came from dreaming of an antelope hunt, sang all night by a fire, accompanied by a notched stick, ceasing at dawn. People joined him in singing. In the morning, the shaman lay in the center of the corral to attract the antelope, while some people drove them and others surrounded the corral. The antelope milled around until tired, when a good archer shot one. To miss the first broke the spell and the antelope escaped. After the first was killed, anyone might shoot. The kill was divided equally among those present, but the shaman received the two largest. JF and GJ heard that at Eureka some man was always bewitched by the shaman, apparently inadvertently, and died at the end of the hunt. This never happened at S-RsRi.

¹⁵ Cf. Lowie, 1935:72-74.

S-Mor and Eureka Shoshoni, according to PH, hunted antelope in the spring before seeds ripened. The shaman sang for one month, while a corral 2 feet high, one-half mile in diameter, was built of brush called nadunsanabits. Each day a different man went out to observe the animals and reported their whereabouts. While singing, the shaman's soul departed to bring in the antelope. They entered the corral so charmed that a person could walk up to them and cut their throats, but a good archer had to kill one with his first shot or the charm would have failed. Then everyone shot. The shaman's power was so great that once a woman and child, who were standing near the wings of the corral, were killed.

S-Egan. A shaman sang all night for 5 nights. Men drove the antelope to the corral, where the shaman and old men remained singing by a fire on one side of the opening. Other men were stationed along the wings.

Railroad Valley Shoshoni. HJ said his great-uncle sang without any musical instrument for 5 nights in the village, accompanied by the people. He also walked around, charming the antelope and instructing the people about the hunt. Young women, who were painted, meanwhile danced. At intervals a pipe, 18 inches long, was passed around the audience. On the last night, two or three men went out to drive in the animals which were met by the shaman a short distance from the corral and "led in."

S-Hmlt. JW thought the shaman's power came from dreaming of himself. He captured antelope's souls (süep:, breath) so that they were already "dead" when they entered the corral and could not be frightened. Hence, a special archer was unnecessary. HJ and JW heard that elsewhere the shaman's power always killed an Indian but denied this of Railroad Valley and S-Hmlt.

NP-MC. CTh's grandfather, an antelope shaman, captured antelopes' souls somehow by sucking (not the antelope, of course), then spat them into his hand where they moved around like miniature antelope. After the antelope were corralled, the first killed was eaten by everyone to insure success in subsequent hunts.

S-RubV. Figure 1,f shows the plan of the corral. There is one like this near Mud Springs, another east of Wells.

TSt described from hearsay the following antelope hunt of the Kawich region north of Beatty. An antelope shaman, with power from a bird, directed the hunt. During several days he built a corral a mile in circumference, made of poles covered with brush and placed at intervals. When complete, the shaman sat in the corral by a fire all night rubbing a notched stick and singing of a spirit which he sent out to bring in the antelope. During the night, the antelope were drawn into the corral. In the morning, hunters stationed themselves between the corral posts, surrounding the antelope. Two expert archers chosen by the shaman stood on each side of the opening and shot first. If each killed an antelope with his first shot, the fence became invulnerable so that escape was impossible. To miss broke the spell and the antelope fled through the fence. After the first two were killed, other hunters shot. At the end of the day, the antelope were

butchered and the hunt was concluded. TSt said that after the hunt, the shaman always bewitched one good, handsome man, who died—a fact that he deplored. Thus, each hunt cost the life of one man.

Shoshoni of Little Lake hunted antelope communally under the direction of a man who was not a shaman. Aided by fire, they drove antelope into a circular corral, without wings, made of posts placed at intervals. Archers, standing between the posts, shot the animals as they circled (GG).

See also notes 27a-60.

Northern Paiute, of George's Creek, Owens Valley, hunted antelope similarly, but the corral had wings (GR).

The most important technique for antelope hunting by individuals was with a disguise (see "Disguises," below, and note 74), used everywhere except in the southern portion of the area. The hunter wore a skin and a mask made of a male antelope head with horns, and held his bow in one hand and a stick in the other to resemble front legs. He stalked the herd until he was within shooting distance.

Among S-SnRv, only young males were impersonated because an old male would charge a hunter who resembled a full-grown male. Among S-BtLM, the disguised hunter stood near bushes, perhaps all day, and, when a male saw him and charged, he stepped behind the bush and shot.

Mountain Sheep (76-91)

Except along the Snake River, mountain sheep were formerly everywhere numerous, but, living among precipitous mountain summits, they were difficult to hunt. Ambushing, stalking, or driving onto cliffs were most effective. For the last, dogs, which were little used for other hunting, were employed.

A special device to attract rams to the ambush was thumping logs together. The animals, thinking other rams were fighting, came to investigate and were shot by the concealed hunter. (Note 85.)

Enclosures (note 81), traps, nets, and snares were believed to be ineffective. Disguises, though used elsewhere,¹⁶ were rare, S-BtLM stating that a sheep's head with horns was too heavy. S-Hmlt, however, said that a headgear with short horns, like those of the ewe, was used to attract rams.

Communal Rabbit Hunt (92-99)

Rabbits, which were numerous in the wide, flat valleys, were, like antelope, hunted communally but without shamanism. Because a major purpose of the hunt was to provide skins for woven blankets (see below), hunts were usually held in the fall when the furs were in good condition. The meat

¹⁶Spier, 1928:120-121.

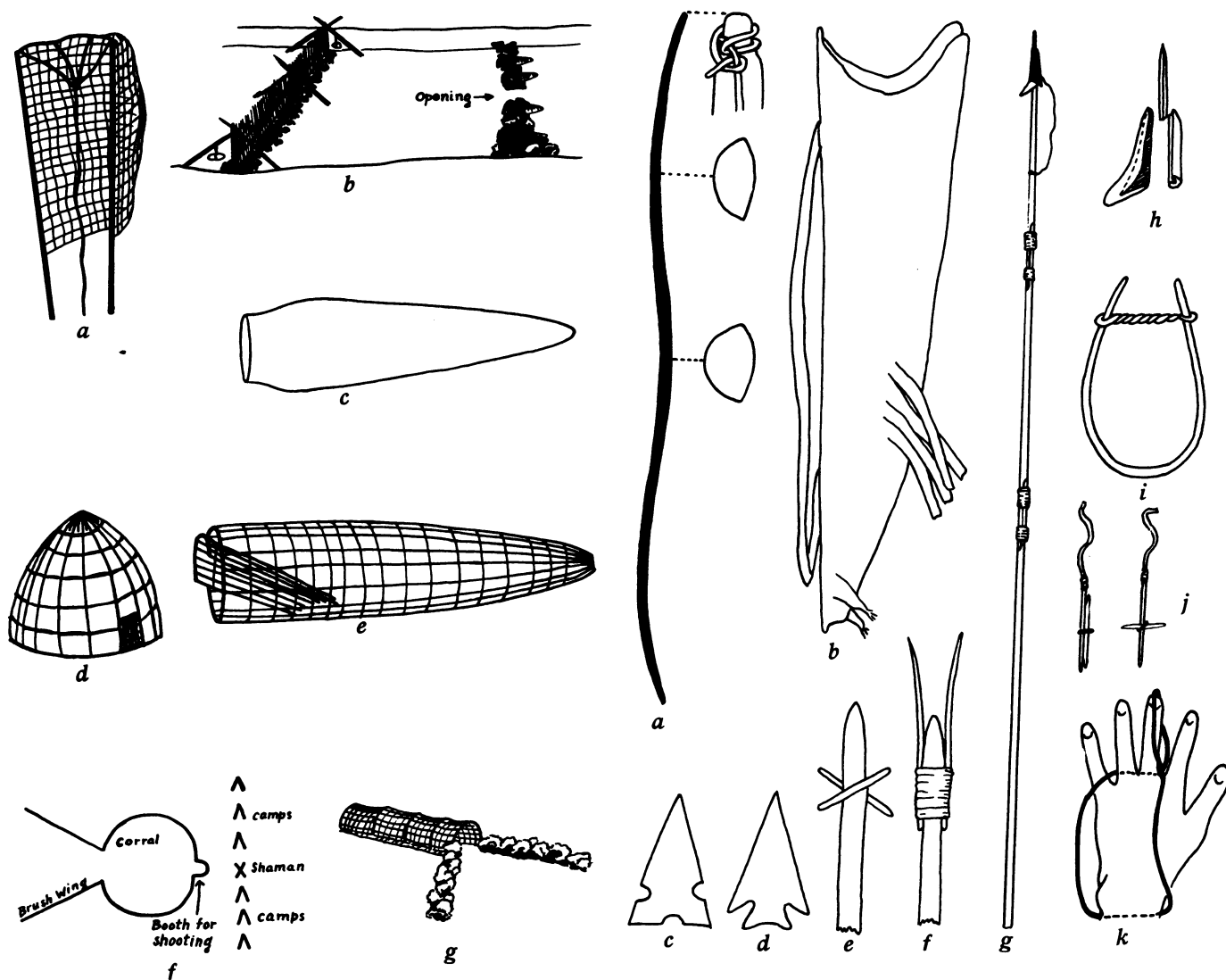


Fig. 1. a, fish net, S-SnRv. b, fish dams with baskets, S-BtlM. c, type of twined basket used in "b." d, bird cage, S-DthV. e, twined fish basket, S-SnRv. f, plan of antelope corral, S-RubV. g, sage-hen net and brush wings, S-Egan and S-BtlM.

Fig. 2. a, self bow, S-SnRv. b, wildcat-fur quiver, S-SnRv. c, side-notched arrow point. d, corner-notched arrow point. e, wooden arrow point with cross sticks for small birds. f, 2-prong fish arrow. g, harpoon, S-SnRv. h, 3-piece bone head for arrow. i, mush stirrer, S-SnRv. j, bone fishhook, S-SnRv. k, method of measuring shell money, S-DthV.

procured helped to support the large temporary gathering of people, but was not preserved for subsequent use, informants stating that it would not keep. Generally the drive was held at pine-nut time by persons assembled in the regions of abundant nuts. Men hunted while women gathered pine nuts.

S-BtLM held drives along the Humboldt River at intervals during the winter. Some men made blankets to barter. NP-FSp and NP-FLk hunted in October or November and held a circle dance at the same time. S-SmCr hunted after the annual fall dance and festival. S-Elko hunted in December. S-Egan, S-RubV, and NP-MC, and probably others hunted after pine-nut harvesting. Gambling, dancing, and courting but no religious rites accompanied most hunts.

The drives, lasting several days to a month or six weeks (note 99), required a leader. Each day groups of men armed with clubs and bows and arrows drove rabbits across a stretch of country designated by the leader to long nets which were placed end to end (note 92). Each net was owned by an individual. Rabbit arrows had sharp wooden foreshafts but never stone points. Clubs had no standard form.

Among S-Mor, the club was any stick, 2 or 3 feet long. Among S-Egan, a mountain mahogany stick, 1-2 feet long, slightly curved but not flattened as in the Southwest. Clubs were sometimes thrown.

Though rabbit drives were common wherever rabbits were abundant and the country largely unforsted throughout the Plateau, Great Basin, Southwest, and southern California, the net was used only on the western fringe of the Southwest, in southern California, and among other California tribes bordering the Basin.¹⁷ This limited distribution of the net might be interpreted as indicating its recency, but identical nets have been found in Basket Maker II sites in northeastern Arizona.¹⁸

The specially shaped Southwestern form of rabbit club seems not to have penetrated the Basin.

Snares, Nets, Traps, Etc. (100-191)

Many of the absences for snares, nets, traps, etc., are undoubtedly only informants' ignorance, not true absences. In fact, data on traps in general and bird nets in particular are somewhat unreliable, because it was rarely possible to obtain more than poor oral descriptions from informants who had not seen these devices for many years. It is certain, however, that they were used predominantly for small game and birds.

¹⁷Spier, 1928:121. Nez Percé used a seine-like net combined with a corral (Spinden, 214).

¹⁸Guernsey and Kidder, 1921:77-79.

"Spring-pole traps" are bent-over poles, having a string and noose so affixed that a trigger releases the pole which straightens up, pulling the noose around the animal. The noose may be placed over a hole covered with grass, in a fence opening, or on a game trail. It was for small mammals and birds only and was often set near a spring. It is probable that deer were too scarce and the brush too sparse to allow well-defined game trails upon which it could be used, as in northern California; it should be noted, however, that the Luiseño used it.¹⁹

Bird nets seem most often to have been used for sage hens, which were caught early in the morning when the roosters "danced." Antelope disguises were often used to herd the birds. Apparently three kinds of nets were used. One, dome-shaped, 15-20 feet in diameter, had its opening preferably by a stream. Rabbits or quail might also run into this.

S-BtLM described this type as placed over water, one edge staked to the ground, the other propped so as to fall easily. When sage hens were under it, the hunter threw a stick which frightened them so that they knocked down the net. A cord placed in some manner around its lower edge tightened so that they could not escape.

A second type is tunnel-shaped and was placed over a series of willow arches or wickets about 3 feet high, made by placing pairs of willows in the ground and bending their ends over and tying them together.

The third, used at S-BtLM, is probably like the last but employed a rabbit net (fig. 1,g).

A hunter in antelope disguise drove the birds into brush wings, 1 foot high and up to 100 feet long, which converged to the net opening. Upon trying to escape, the birds were ensnared or made the net drop by loosening a key prop. Sometimes, a concealed hunter collapsed the net by pulling a string; this is designated the "pull-over type."

The "sack type" of net is placed vertically across a game trail and is constructed so that an animal, upon running into it, tightens a drawstring around its edge, making it like a sack or bag from which escape is impossible. This is probably very similar to that from a Basket Maker II site in southern Utah.²⁰

See also notes 100-134.

Nooses on pegs, in trails, or in other arrangements are fairly old, being found in Basket Maker II sites²¹ and known from other areas.

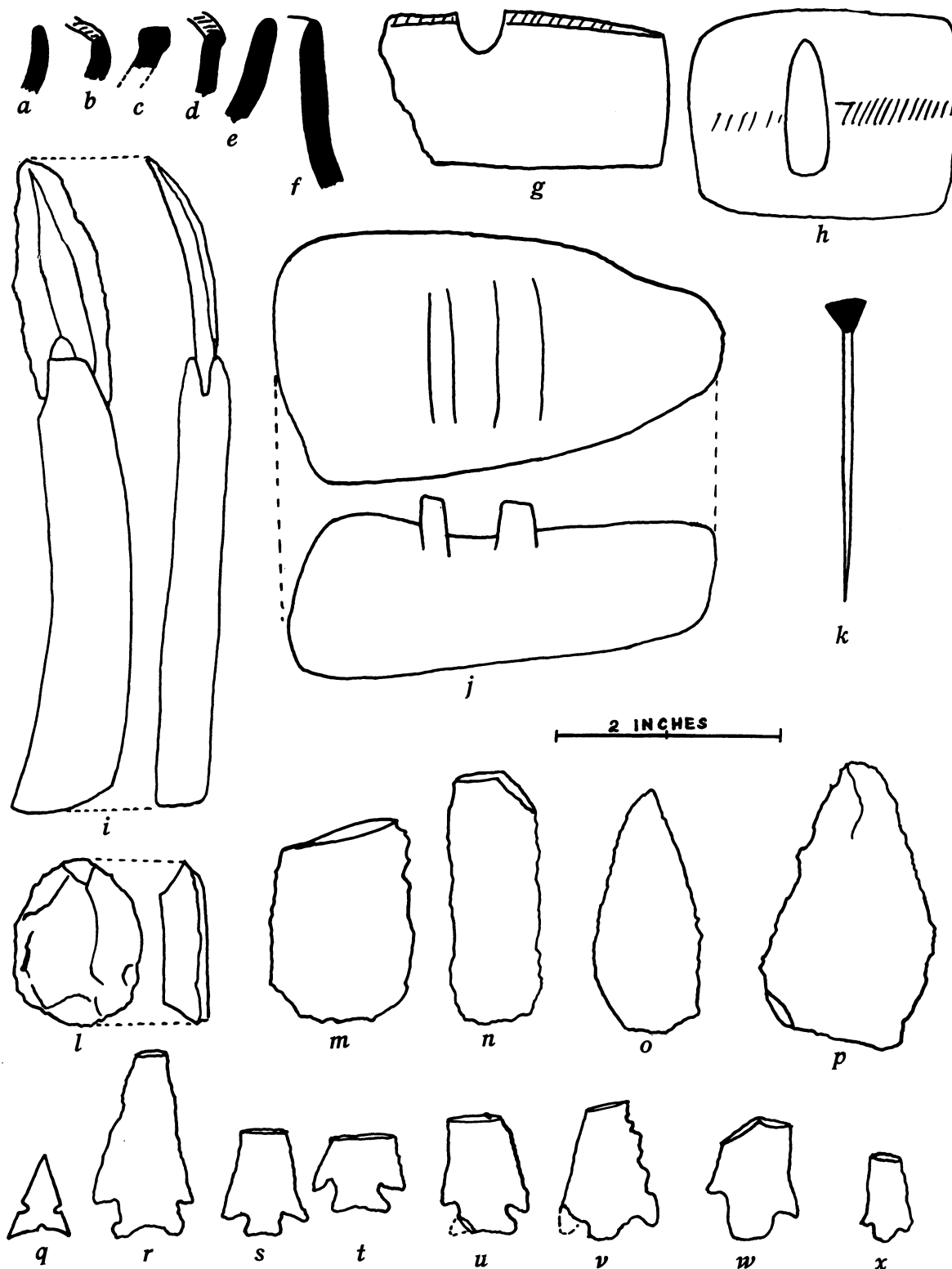
Probably the usual Paiute and Shoshoni dead-fall was supported by the figure-4 type²² trigger. The "2-stick type" (fig. 6,n, p. 229) had a

¹⁹Kroeber, 1925:86, 213, 295, 528, 652.

²⁰Kidder and Guernsey, 1922:145-147.

²¹Kidder and Guernsey, op. cit. Also found in Basket Maker-Puebloan sites in Utah (Morss, 1931).

²²Steward, 1933, fig. 2.



2 INCHES

Fig. 3. a-c, pot rims from Owens Valley. d-f, pot rims from Nevada. g, h, side and top views of grooved arrow straightener, found in Death Valley. i, flint knife in wooden handle, found in Death Valley. j, grooved arrow straightener, found in Death Valley. k, cactus needle awl with pitch handle, found in Death Valley. l-x, flints from archaeological site in Great Smoky Valley, 10 miles east of Austin, Nevada.

tilted rock supported by a small vertical stick which rested precariously on bait placed on a horizontal stick lying on the ground.²³ S-BtLM thought that the first was used without bait, the second with bait. Deadfalls were usually placed at the holes of such burrowing animals as gophers and ground hogs.

Pitfalls have a northern distribution, where, also, blinds are often pits and where deer chutes are equipped with pits.

Ducks were rare in most parts of Shoshoni territory. Stuffed decoys were used occasionally. The "birdskin over head" is a complete duckskin mask worn by the hunter who swims among ducks, seizes their legs and pulls them under water.

Waterfowl Drives (192-200)

Communal waterfowl drives and use of animal disguises for stalking fowl are probably more widespread than recorded. S-BtLM said drives were for young mud hens and ducks, many people driving them away from water while other persons who were stationed at intervals helped surround them and prevented their hiding in the grass. Fowl were killed with clubs or by wringing their necks.

Miscellaneous (201-221)

The rodent skewer is a stick usually having a short fork at one end. It is thrust into a rodent's burrow and twisted into the animal's skin to draw him out. It was of much importance because of the great reliance upon rodents. Related forms of rodent sticks are known in the Southwest.²⁴

The reptile hook is used in Death Valley region for pulling chuckwallas from cracks in rocks.

A reptile hook in the Eastern California Museum at Independence, California, obtained in Death Valley, is a wooden stick, about 18 inches long, with a single bone barb about 1 inch long affixed to one end.

Smoking rodents out of dens and burrows and flooding them out of holes by diverting streams were common.

Rodents were usually carried by thrusting their heads under the belt encircling the hunter's waist.

Eagle Catching (223-245)

Aeries appear to have been owned by individuals in most localities,²⁵ S-Egan even stating

²³ This is evidently the Nez Percé "T-trap." Spinden (p. 214) suspects the figure-4 type of being post-Caucasian among Nez Percé.

²⁴ Spier, 1928:121.

²⁵ This is an unexplainable exception to the general absence of private property in natural resources. Aeries were sometimes privately owned in southern California (Kroeber, 1925:608, 676); here and among Havasupai, eagles were brought to the village and reared (Spier, 1928:151-152).

that a thief would have been killed. S-BtLM was unusual in claiming that anyone who could climb cliffs was at liberty to take eagles, but that few men could climb.

In most of the area, young eagles were taken from the nest. The dangers attending climbing usually restricted the undertaking to men possessing special climbing power (see p. 264).

Among S-SmCr, a man once climbed to an aerie and was stranded there for two weeks, eating some of the rabbits brought by the adult eagles for their young. When the young were nearly grown, the man, who was now thin, seized two of them by their legs and they carried him slowly to the ground. Among S-SnRv, the hunter climbed up the cliff carrying a cage, put the young eagles in it and continued up the cliff to the top. Among S-SprV, there were twenty nests in the rocks at a certain place near Cleveland. A hunter removed his moccasins, climbed to the nest, killed the adult eagles for their feathers but did not molest the young. S-SmCr recently frightened young eagles from the nest by lowering a coal-oil can on a rope from the cliff above.

Unusual eagle-catching methods were: S-Bty, use of a net by a spring (note 127); S-DthV, catching of adult eagles in a spring-pole trap, according to GH, who denied that young were taken from the nest and reared; S-SprV and S-Elko, occasional use of the deadfall which, however, was intended for other animals and caught eagles inadvertently.

The Plains method of catching eagles from a pit was little used. S-RubV made a small, dome-shaped house with a hole in the top beside which meat was placed as bait. When an eagle, especially a young one, lighted on the house, the hunter seized him by the feet and dragged him down, plucked his feathers and released him.²⁶

Eagles reared at the village were kept in cages or merely tied up. Their feathers were used for arrows, sometimes for dances, for barter, or by shamans; down was also used by shamans.

S-BtLM. JP's father kept eagles tied to a rock near his home. Young eagles would remain near by, untied, if older ones were secured. They were fed gophers and young ground hogs, the entire animal including the bones being ground in a mortar and placed on the end of a long stick when given them. When full grown, the eagles' tail feathers and sometimes secondary wing feathers were plucked. The birds were taken to the cliff and released. JP's father saying, "Your mother and father will see you flying in the sky. They will take care of you. You will live."

Raising Other Birds (246-251)

Various birds, taken from the nest when young, were raised, usually in cages, as household pets.

²⁶ Taking young from the nest and catching eagles from pits were both known to Nez Percé (Spinden, 215).

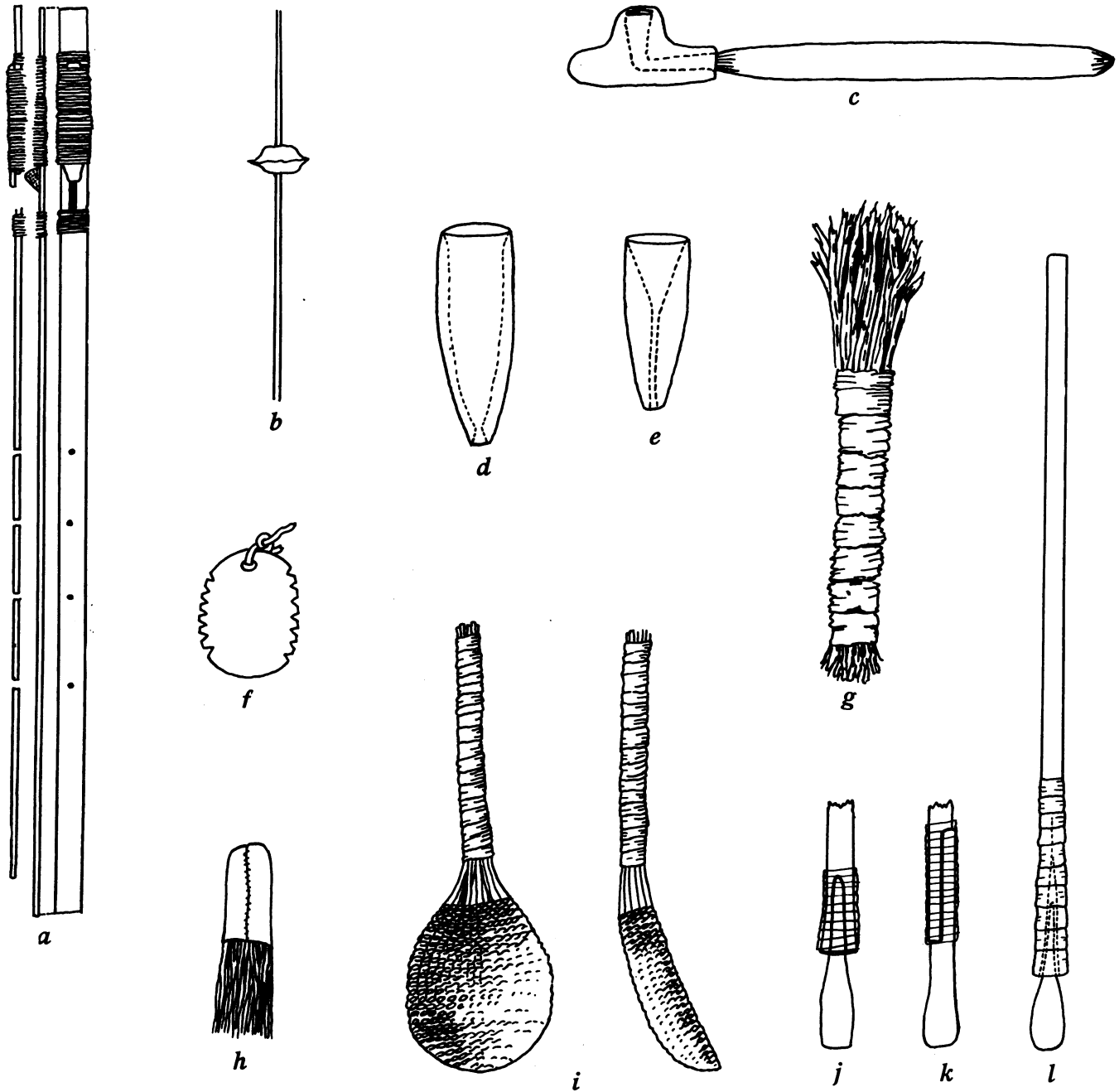


Fig. 4. a, flute, S-SnRv. b, skin rattle on stick, found in Death Valley. c, stone pipe, wooden handle, Diamond Valley Shoshoni. d, stone tubular pipe, found near Elko. e, tubular pottery pipe, S-DthV. f, wooden whirrer for bull-roarer, Saline Valley Shoshoni. g, slow match of sage bark, S-Elko. h, grass-root brush, S-SnRv. i, twined ladle, S-Elko. j, tip of fire drill, point set in socket. k, tip of fire drill, point spliced. l, tip of fire drill, point in split.

The mockingbird, favored because of its songs and antics, and the magpie were most commonly kept.

Figure 1,d is a cage observed at S-DthV for the mockingbird and magpie. It is 2 feet high; of willow splints twined together with cloth; the bottom is of canvas (in former days of basketry); the door is twined willows, tied in place.

Fishing (252-296)

As the Great Basin is extremely arid and nearly all lakes are alkaline, fish were large enough to be useful only in a few streams and rivers. In most regions they were very small or were absent. They were, however, seldom taboo.

The main occurrence of fish was in Owens River, the Humboldt River, and the Snake River. Salmon occurred only in the last. The distribution of fishing methods is undoubtedly somewhat incomplete, as many details seem to have been forgotten by informants, especially those of the Humboldt River which, because of irrigation, was reduced to a small trickle many years ago. Snake River Shoshoni, however, still use some ancient methods. It is evident that the specialized nets, weirs, harpoons, and hooks of the Snake River were borrowed from the north²⁷ and diffused only so far as environment justified their use.

Nets were uncommon, though a special form (element 255) was used on the Snake and Humboldt rivers.

This special form was made of cord, angawana; a specimen (fig. 1,a) was collected for the Peabody Museum of Harvard University. On the Humboldt River, it was used by Shoshoni and possibly by Northern Paiute as follows: in summer, by a swimmer in deep water; in the fall, from a raft when fish were going downstream; in winter, through a hole in the ice, when an assistant drove fish toward it with a long pole thrust through a second hole. S-SnRv used it in the tributaries of the Snake River, though the Snake River itself was too large and deep. When the net was full, the cord, held in the teeth, was pulled up and the two poles, held in each hand, were rolled together to make the net into a bag.

Twined conical carrying or seed baskets were widely used to dip fish out of small streams by hand or were placed in dams and weirs. Special, long, narrow, twined fishing baskets were sometimes made (fig. 1,c,e; also, note 265).

The long baskets, like figure 1,c, S-BtlM, were 6-7 ft. long, expanding just below the mouth. In the spring and fall, they were placed in the Humboldt River (position as in fig. 1,b). Fish swimming upstream entered an opening in the rock dam, were prevented from continuing upstream by the rock and willow fence, and, attempting to turn back, entered the baskets. The remains of a rock dam are in the Humboldt River, 13 miles

west of Elko. A basket, 2 feet in diameter, 20 feet long, was placed at the junction of the two arms of the dam.

Dams and weirs could be used in few places in the Snake River, which is too wide and deep, but were placed in its tributaries for the March run of salmon. A twined basket (fig. 1,e), having sticks arranged in its mouth to permit the fish to swim in but not out, was placed in the apex of a V-dam, which had an opening next to the shore. Fish swam upstream through the opening, were barred by a willow fence above, and turned back into the basket.

Among Snake River Shoshoni, Bonneville²⁸ observed that in early spring many persons went to the mountains for deer, elk, and mountain sheep; others fished with traps. Below the Port Neuf River (probably below Twin Falls, above which salmon did not go) at the first spring-salmon run they made a "fence of poles interwoven with wythes and forming an angle in the middle of the current, where a small opening is left for the salmon to pass.... [Here] they station themselves on small rafts and ply their spears with great success."²⁹ In a wide part of the river they barricaded channels between islands for spearing fish. They also spear at falls.³⁰

A two-pronged fish spear (like fig. 2,f) was reported only by NP-FLk. It had a shaft of birch, prongs of potonovii (greasewood?). The single-prong spear reported at S-Ely is doubtful. The great size of the Salmon River would have made it impossible, in the absence of canoes, to retrieve fish killed with spears or arrows. In other localities, fish were too small to spear. The harpoon, however, was practicable in both the Humboldt and Snake rivers and its presence, therefore, is a function of local conditions as well as opportunity for borrowing.

The harpoon, figure 2,g,h, is a model of the S-SnRv type, made by Ben Boney for the Peabody Museum of Harvard University. Full-size harpoons are 12-14 feet long. The length is achieved by splicing sections of anga (red) suhuvi (willow) wrapped with native cord, anga wana; foreshaft is serviceberry; the three-piece bone head, disassembled in figure 2,h, is wrapped with cord, set in pitch, and is detachable, being held to the shaft by a three-ply braided cord.³¹ TP said a similar harpoon with 7-foot shafts were used by North Fork Shoshoni in the Owyhee River headwaters. S-BtlM may have made similar harpoons, but JP described a "harpoon" (or spear?) having

²⁸ Irving, 2:80.

²⁹ Irving, 2:163.

³⁰ Irving, 2:164.

³¹ This apparently is identical with the Lemhi Shoshoni harpoon head (Lowie, 1909:185-187, fig. 8).

²⁷ Cf. Spinden, 208-211; Lowie, 1909:185-187.

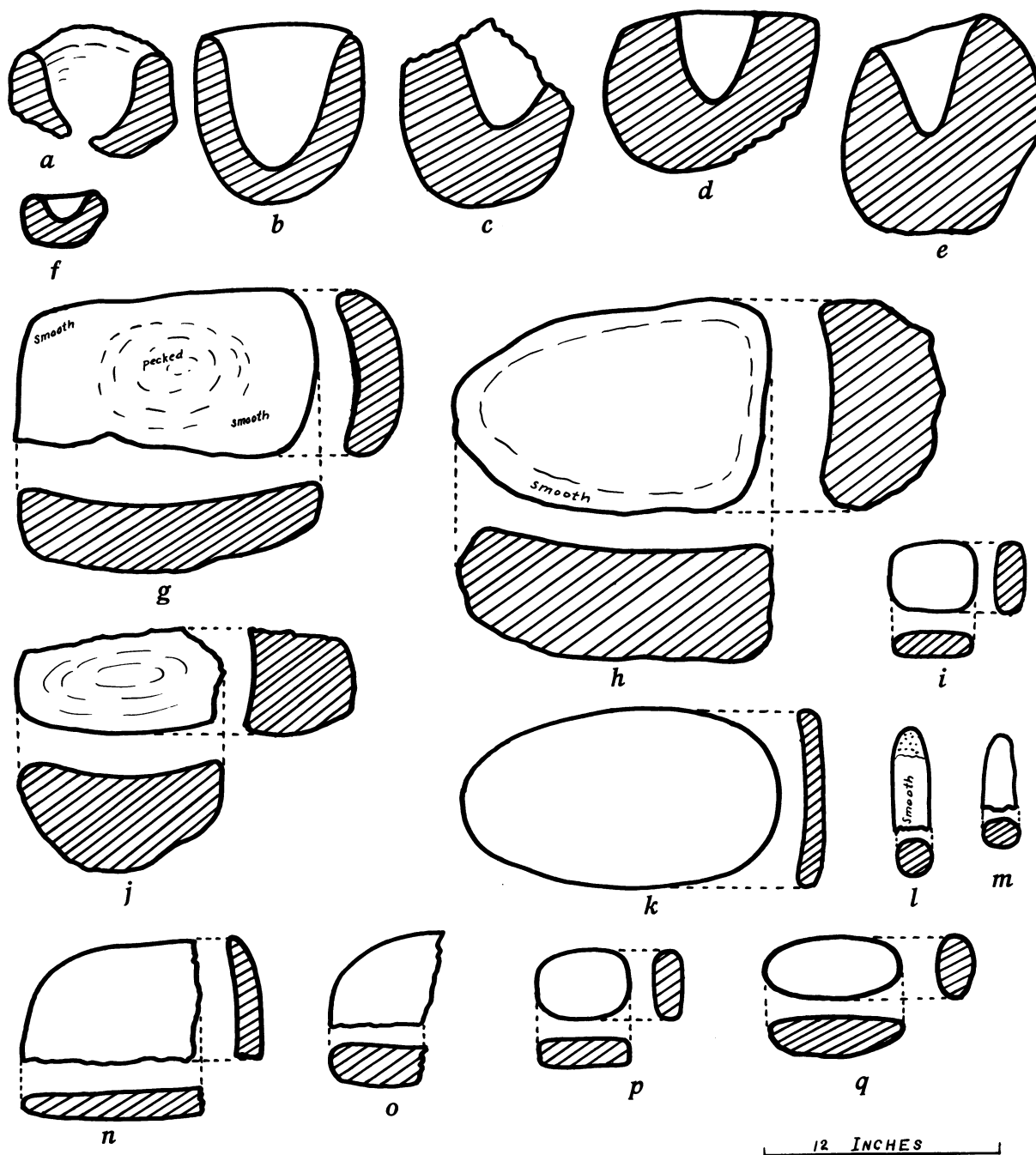


Fig. 5. a-f, stone mortars from Eureka Valley, California. g, h, stone metates. j, n, o, fragments of stone metates from Eureka Valley. l, m, fragments of stone pestles, Eureka Valley. i, p, stone mullers, Eureka Valley. k, stone metate. q, stone muller, used by JW, S-Hmlt.

three bone points held to the shaft by means of a cord 3 feet long.⁵²

Data on hooks are somewhat unreliable, probably because iron was used from an early date. The main forms seem to have been: single barb, double barb, and cross stick, all of bone. Gorge hooks were not reported. (See notes 280-291.)

S-RubV hooks had a single bar, of antelope bone, forming an acute angle with the shank. This type at George's Creek, Owens Valley, was of mountain-sheep jaw (GR) (see note 282). S-SnRv claimed a double-barb form, consisting of a detachable V-shaped piece tied by a cord to the end of a straight shank. S-SnRv also described a cross-stick type, probably like figure 2,j; the cross stick is tied parallel to the shank but turns at right angles to it when swallowed by the fish; this was fastened to a string, having a stone sinker, and tied to a pole; used primarily for winter fishing.

Fishing with poison was uncommon because there were few places suitable for it. (Note 293.)

Diversion of creeks so as to leave fish stranded was practicable in these small streams and was fairly common.

Fishing, as with other economic activities, was almost totally devoid of ritual or magic, even on the Snake River.

Animals Eaten (297-387)

Paucity of food taboos have a twofold significance. First, the culture is unritualized, having few taboos of any kind. Second, foods were always scarce and famine not infrequent, so that most edible species were utilized. Chief among foods which might have been eaten but were not are dogs, which were scarce, and rattlesnakes. Many unpalatable species, such as coyotes, foxes, skunks, lizards and young ravens, crows, owls, and hawks were eaten in emergencies. But S-SnRv and S-BtLM said that coyote meat tastes as the animal smells and that even starving people were often unable to keep it down. When lizards were not eaten, it was because they were too small, not because of a taboo or genuine reluctance, as in the Southwest or California,⁵³ though dogs seem definitely to have been avoided in many places (note 297). (See also notes 296a-334.)

In the vicinity of Owyhee, a clay resembling talc was eaten during famine. Potter's clay, though less suitable, was sometimes also eaten. (TP.)

Cannibalism during famine was reported from many Shoshoni groups, but was repugnant to most people. The following accounts give some idea of the attitudes toward it.

TH's grandfather, a S-SmCr, said that one winter with deep snow, people having no food killed an old man and his son who had come to dance. The flesh was relished. S-Ely told of a man who ate first his stepdaughter, then his fat wife. S-Elko and S-Egan said only children were eaten during famines. One spring, however, some Indians who were fat from eating pine nuts came west from the Cedar Mountains and were waylaid at Harrison Pass by a S-Egan man who killed and ate two of them. During a famine at Ruby Valley station, the people with the consent of the chief killed a fat Indian who had come to visit. The chief ordered that he be boiled and a portion given to every person. Near Owyhee, a man once looked over a cliff and saw another man fanning smoke into a ground-hog hole to get the animal. Human feet protruded from a bag near him. The first man killed him with a stone. Another case of cannibalism was reported to have occurred a little north of Owyhee. TP said cannibals were always killed, for these were persons who were too lazy to store enough food to last through the winter. Ogden, visiting Malheur Lake, Oregon, in 1826-1827, found "Snake" Indians (perhaps Northern Paiute) starving after a severe year and "subsisting on the bodies of relations and children. [An old woman] herself had not killed anyone but had fed on two of her own children who died through weakness."⁵⁴

Most rodents and birds, other than birds of prey, were important foods. Ants (note 339), ant eggs, larvae (notes 337, 338), crickets, and locusts, if large enough to be eaten, were delicacies. The large, black "Mormon cricket" which comes occasionally in incredibly large swarms in eastern Nevada, creeping on the ground unable to fly, was an important food when plentiful (note 348).

Certain foods were frequently (perhaps more frequently than indicated in the lists) taboo to young persons because of concepts based on sympathetic magic, not in order to award old people dietetic favors. Thus, deer heart was thought to make young persons' hearts weak. The taboo on the first kill of large game to the youth perhaps foreshadowed the subsequent requirement that hunters share their kill with all village members. (See notes 362-378.)

Miscellaneous Concepts (388-409)

Data on the supernatural aspects of hunting are indefinite and unreliable, partly at least because ritual and magic played no important rôle in the culture. As the practical affairs of hunting may obviously be carried on with as great success without ritual or magic, supernatural observances must be considered as dispensable or functionally unnecessary in this case. Hunting devices and methods may be borrowed, but their ritual concomitants need not accompany them. Group magic and hunting ceremonies were largely precluded in the Basin by

⁵² Possibly this resembles the Nez Percé double-barbed harpoon heads (Spinden, fig. 5).

⁵³ Kroeber, 1925:814; Spier, 1928:123.

⁵⁴ 11:208.

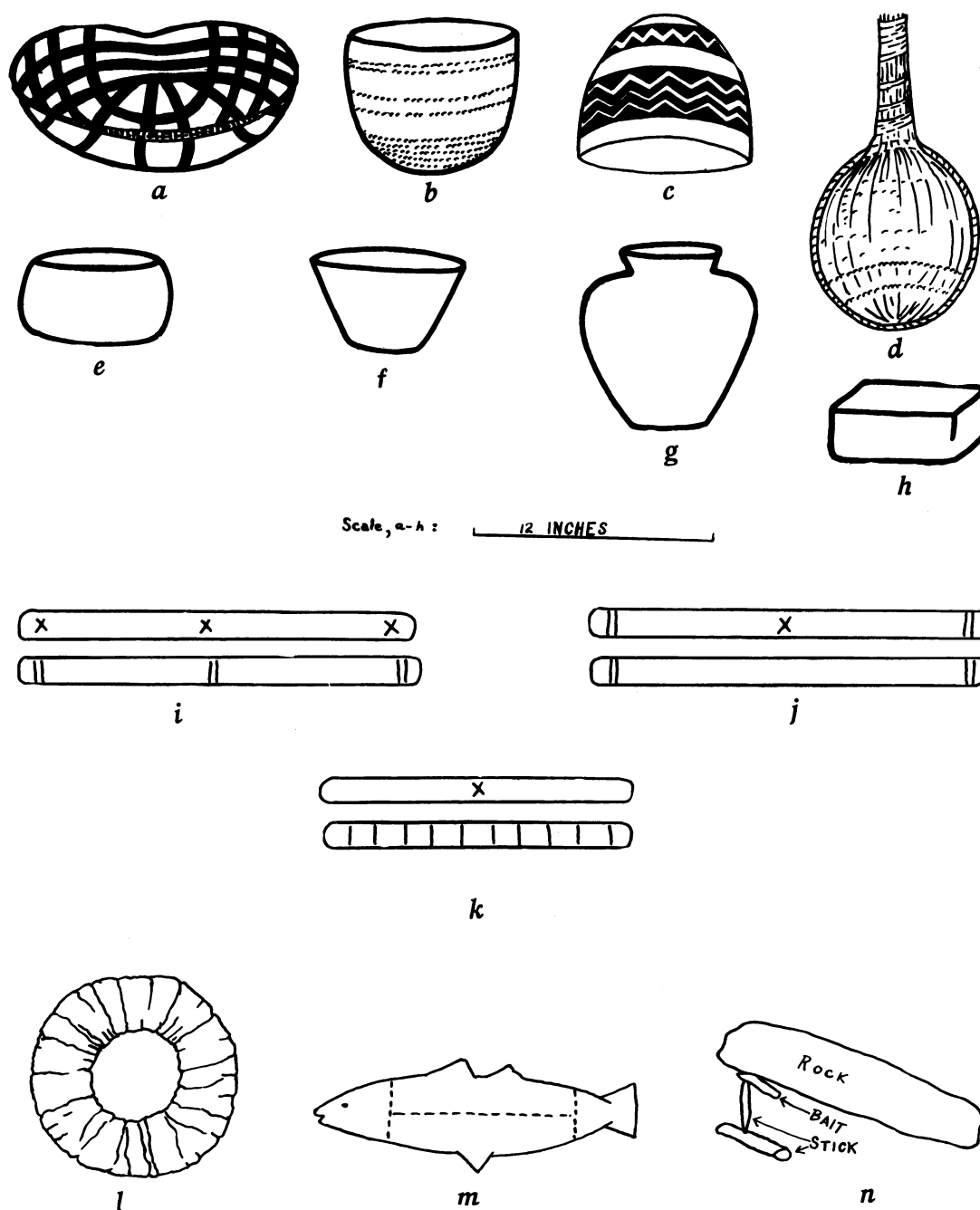


Fig. 6. a, twined basketry sifter, S-DthV (dark bands are ornamental). b, twined mush bowl, S-Elko. c, twined hat, SP-Ash. d, twined seed beater, S-RubV. e-h, shapes of finely woven coiled bowls, S-DthV region. i, 4-stick dice, S-RsRi (length, 8 in.). j, 4-stick dice, S-SmCr and S-GSmV (length, 8 in.). k, 4-stick dice, S-Egan, S-BtlM, S-RubV (length, 6 in.). l, mesquite-bark hoop for hoop-and-pole game, Saline Valley Shoshoni (diam., 4 in.). m, method of cutting fish for drying, S-SnRv. n, 2-stick type of deadfall.

the infrequency of group gatherings. Only a few practices relating to the supernatural were recorded: individual dreamed hunting powers, some plant placed in the spoor (note 27), some ingredients of arrow poisoning (see "Arrow" under "Weapons," this section), occasional offerings of game, and the interference of a supernatural spirit with hunting. Not one of these practices seems to have been universal in the area.

Whether a hunter actually avoided intercourse with his wife or avoided only a menstruating woman before hunting is uncertain. Positive measures to insure the success of the hunt, such as smoking, bathing, and other ritual, were generally unknown to informants.

S-Elko thought that a bath previous to hunting served merely to remove human odors. S-SnRv said some men dreamed of painting their faces red (no special patterns) and of killing game at a certain place. When hunting near that place, the man heard a shout, went to the spot and found the deer lying dead but unwounded. It had been killed from "the inside." Other examples of hunting powers from Owens Valley have been recorded.³⁵ Some dreams gave skills accessory to hunting, such as fleetness, endurance, and ability to climb cliffs.

A more important type of dreamed power is that of antelope shamans. The same kind of power sometimes applied to other species. S-Hmlt and S-Egan thought that some shamans could, by singing, capture the souls of any animals, making them "crazy" and easily killed.

Immortality of game was a matter of doubt and indifference.

Control of game by spirits was reported once: S-Lida said an "evil coyote" called tcoavungo, tsoavite, or witsoavite (elsewhere identified with the whirlwind or described vaguely as a spirit) chases game away. These "coyotes" bark on opposite sides of the camp at night and cry womanlike, but leave coyote tracks.

A supernatural control of game is implied in leaving an offering at the time of the kill (also when gathering seeds), but this seems not to have been taken very seriously and the object of the offering was seldom defined more clearly than "nature" or the "country." The offering often seemed somewhat to placate evil forces or to insure future hunting and gathering success. There may be a connection between the offering of gall in several localities and the common Shoshonean folk tale in which the sun, after having been killed by Cottontail, was created anew from the gall of the old sun; and also that gall had no use and would generally have been discarded in any event. (See also note 23.)

Among S-SprV, S-RubV, S-Elko, and S-Egan, the hunter threw gall, called umbüi, into the brush and said, to insure future hunting luck, "I'll kill you [the animal] next time I come to hunt."

³⁵ Steward, 1934.

S-Btlm hunters put gall inside the contents of the paunch and left it at the site of the kill for no one in particular; coyotes and crows finally ate it. S-SnRv made gall offerings called pu'i (gall) tawin (throw away); they also offered liver and, more often, the entire heart to nature at the spot of the kill. NP-MC disclaimed offerings, saying that hunters threw away gall and horns because they did not wish to carry them home; all the remainder of the animal was utilized. Thus, the distinction throughout the area between discarding and offering gall was not great. S-Lida cut the tip of the heart into fine pieces and sometimes offered it to some spirit with a song: "Here. This is for you. Don't bother me."

Gathering (410-503)

Native exploration of the food possibilities of plants seems thorough, though it is at present impossible to estimate its exhaustiveness. Grinding or pounding and roasting, parching, and boiling are the only processes to render foods edible except leaching, which was limited to the acorn. Whether other seeds could have been profitably leached is unknown. Treatment of seeds varied slightly with the species, but, except in the south, where special plants occur, it is relatively uniform everywhere, as most seeds are small and hard shelled. Roots and berries, however, increase in importance toward the north.

Acorns occur in important quantities only in the mountains near Owens Valley and Death Valley, mesquite only in and near Death Valley, Joshua trees in certain valleys in the general vicinity of Owens Valley and Death Valley, and mescal (note 442) only in Southern Paiute territory near the Charleston Mountains. The acorn and mesquite complexes are largely those developed in adjoining California areas (notes 410, 415) and employ the mortar (notes 809 ff.) for pounding to remove acorn shells and mesquite beans. The metate (note 829) is used throughout the Great Basin for all other seeds, including pine nuts, because it is better adapted to grinding small, hard seeds when the shell as well as the kernel is utilized. When pine-nut shells are broken for removal or chokecherry seeds crushed, pounding is done on the back of the metate.³⁶

The pine or piñon nut (*Pinus monophylla* Torr.

³⁶ It should be noted, however, that the pre-Paiute inhabitants of the Lovelock, Nevada, region used mortars (note 809) though metates were used by the Paviotso Northern Paiute (Lowie, 1924:204, 215) and the mortar seems also to have been replaced by the metate in the Surprise Valley region (Kelly, 1932:139). Nez Percé, in an area predominantly of roots and berries, used only mortars (Spinden, 185-187, 202-205). Mortars, however, never penetrated beyond the western and northern fringe of the Shoshonean area. Metates only have been found at archaeological sites in the remainder of the area, including Basket Maker-Puebloan sites which, perhaps, marked their introduction to the area.

and Frem.) was the most important single food,³⁷ except on the Snake River, which is north of its habitat.

For most seeds, the general gathering complex was remarkably uniform in all localities. It involved gathering and transporting in conical carrying baskets (element 1082). For gathering pine nuts, a hooked pole was used to pull down cones (element 444); for small seeds, either a twined basketry seed beater (element 1067) was used, which sometimes had a sharp wooden or bone rim, to knock them from the plant into the basket; or a seed knife (element 499) made of a sharpened piece of wood or bone or the ordinary chipped-stone knife, to cut off seed heads (for example, for sunflower seeds). Seeds were burned (for example, pine nuts) or threshed by beating with sticks (for example, sand grass) from the husks; then they were winnowed and parched with coals in fan-shaped, twined basketry trays (element 1071), ground on metates, boiled in pottery vessels, eaten from pottery or basketry bowls, or stored in grass or brush-lined pits (element 521). Roots, more common in the northern part of the area, were dug with a simple digging stick (note 485), boiled in pots or roasted in earth ovens (element 560), and sometimes dried and stored in pits.

Certain details of this complex were subject to variation without changing the functions of the whole, for example: occasional coiling of carrying baskets, as among Southern Ute and Southern Paiute; coiling of the winnowing basket, as among S-DthV; size, shape, and weave of the seed beater; shape and decoration of the parching tray (Yuman-speaking tribes of the Colorado used pottery trays); use of wood, bone, or stone for the seed knife; boiling in baskets with hot stones as among Northern Paiute north of Owens Valley; twining or coiling of basketry bowls; and use of a basketry or horn ladle. In fact, boiling of foods was not essential, as parching in baskets may serve for all seeds and earth ovens for roots. Indeed, pottery seems to have been lacking among most N Paiute and, though hard-shell seeds could have been boiled in baskets, the process is longer and more difficult than parching.

The pitched basketry water jug or olla was indispensable, as seed gathering required that entire families remain many days in places far from water. The woman's basketry hat, which is of western origin, had not, however, spread throughout the area (see under "Basketry") in spite of its usefulness in protecting the hair from pitch while gathering pine nuts and in protecting the

head from the carrying strap. Seed storage was probably necessarily restricted to pits, for it is doubtful that Shoshoneans, who often stored seeds, especially pine nuts, many miles from their habitations, would have exposed them to theft (note 521) or the inroads of animals by using large storage baskets or elevated granaries as in California. Bags of buckskin or bark, pots, and baskets served for storage only in the village.

The main outline of the seed- and root-gathering complex is a closely knit, functioning whole, requiring the historically introduced elements of basketry, pottery, knowledge of parching, broiling and boiling, the metate, and several simple elements. Utilization of vegetable foods could, no doubt, have been accomplished with less adequate materials and devices. But gathering is the main source of food throughout the Shoshonean area and, though species vary somewhat, the same complex serves equally well for all. The uniformity of the complex, consequently, need not indicate great antiquity for the whole nor equal antiquity for all its elements. Rapid borrowing of extremely useful elements would produce uniformity; in fact, there is little doubt that the elements came from different sources at different times. Digging sticks, earth ovens, and caches are widespread and probably old; metates and pottery are from the south; basketry techniques are from the west, though conical seed baskets, basketry ollas, and perhaps parching trays were derived from the Basket Maker culture, while seed beaters may be a local invention (see "Basketry").

Cultivation (504-528)

True horticulture occurred in pre-Caucasian times only among SP-Ash and possibly S-Ely and S-SprV, both localities being peripheral to the Southwestern distribution of horticulture. S-Ely thought it was introduced from Indians to the south (probably Southern Paiute) just before the arrival of the white man. S-SprV's claim that corn, called korn, and wheat were native points to its recent introduction in this region. NP-Flk, S-DthV, and S-Bty borrowed it in early post-Caucasian times. Many others have since acquired it. In native times, however, horticulture was never more than a minor supplement to wild-seed gathering and only one or two families at each locality practiced it.

SP-Ash. Native plants were recorded as:

Corn: squaw or speckled, called hau'wiv.

Pumpkins or squash: 1, a crooked-neck squash occurring in all colors, padan'a; 2, a round, deeply furrowed, greenish or brownish variety, hama'tats; 3, a large, round, green variety, tuwunt'.

Beans: 1, quail or black-eyed beans, kaka'-damudi; 2, brown beans, wa'samudi.

³⁷ See accounts of pine-nut gathering in Owens Valley (Steward, 1933) and in the Panamint-Death Valley region by Coville and Dutcher. *Pinus monophylla* has a more abundant yield and larger nuts than *Pinus edulis*, which occurs in eastern Utah and in Arizona, New Mexico, and Colorado.

Small gardens, cultivated by both men and women, were made wherever there was water. Moist ground near a stream was preferred; otherwise land was irrigated. Weeds, of which AH said there were formerly few, were pulled by hand or by means of the digging stick; mesquite might be burned off. Seeds were dropped into holes punched with the digging stick. Corn was shelled and kept in a flat-bottom pot, about 12 inches in diameter, 18 inches deep. Pumpkins and squash were cut into long strips, which were tied together, dried and stored in dome-shaped brush houses. Beans were kept in buckskin bags or pots.

S-DthV horticulture, introduced in early, post-Caucasian times, seems partly to have come from the white man, partly from SP-Ash. Plants grown were:

Corn: variegated, called maic.

Pumpkins and squash: probably several kinds, all called padanada, including the long, crooked-neck squash, more specifically called kukudaganda, and another large, round variety.

Muskmelons, called kamitu (same as that of SP-Ash).

Sunflowers, called a:kü (also native name of sunflower; not grown by SP-Ash).

Beans: a white variety, perhaps Lima beans, and the quail or black-eyed bean, both called piholes.

Also, watermelons, called pavonokutc (SP-Ash called these by same name), tomatoes, and wheat.

BD thought corn, crooked-neck squash, pumpkins, beans, and tomatoes were procured from the white man at the time of the Lida mining boom, and that native crops, procured from SP-Ash, were striped squash, watermelons, sunflowers, and wheat. Plant names suggest that corn, though the same variety as that grown by SP-Ash, beans, and tomatoes were procured directly from the white man and that at least some varieties of squash and pumpkins came from SP-Ash.

Wild seeds were sown broadcast in central Nevada but neither irrigated nor cultivated. This probably added to the food supply only to a minor degree. The main species sown were uap: (*Chenopodium album*, goosefoot or lambs-quarters) and kuha or kuhwa (*Mentzelia dispersa*) (note 504).

All groups burned brush to facilitate growth of wild tobacco and sometimes of other wild-seed plants. Owens V. irrigation has been discussed elsewhere;³⁸ it was also adopted by NP-Flk.

Food Preparation and Storage (529-577)

Salt was readily available in the many playas of dried salt lakes and salt deposits (notes 529-532).

Meat was ordinarily consumed at once, either because there was no surplus or because small game was deemed unsuitable for preservation. Rodents and reptiles were often roasted, uneviscerated, and eaten, entrails and all (note 532). Large-game meat was cut into strips, hung in the shade to dry where flies would not molest it.

³⁸ Steward, 1930;1933:247-250.

Smoking meat, though reported at three localities, is doubtful. S-Ely said it was dried in smoke merely to keep flies off. Though dried meat was sometimes pulverized, and, according to a few informants, mixed with fat or berries, there was no general use of pemmican. Tripe, which certainly was used more widely than indicated, was also dried. Fish was dried and stored, especially in the Snake River region where salmon were taken in large numbers.

S-SnRv. Figure 6,m shows the cutting of salmon for drying. Fins are removed and discarded; head and tail are each split open; belly and back cut; each piece is hung in a domed willow house but not smoked (smoking was claimed by CT for Nez Percé); dried fish were tied in bundles, placed in a pit or covered with grass in a willow house for storage. Among S-BtLM, fish is split along the belly; cleaned; held open with a stick; strung along a pole to dry; stored in sage-bark bags. North Fork Shoshoni: TP said salmon taken in the Owyhee River were opened, cleaned, and laid on a domed or conical willow frame with a fire beneath to smoke them; stored in a twined bag or folded in a twined sage-bark mat (note 548).

Most parts of animals were utilized in some manner. Soft bones, especially joints and vertebrae, were ground and cooked; feet were dried for subsequent use in stews, the hoofs being removed perhaps for glue; blood was collected from a freshly killed animal in its paunch in which it was cooked. S-BtLM, and probably elsewhere, mashed liver, kidneys, and blood together, put them in a large piece of intestine about 2 feet long, and buried it in hot ashes to cook; also boiled kidneys in blood and drank the broth. Bones were broken for marrow. Ribs of large animals were sometimes left attached to the backbone, the neck closed with the lung, the whole inverted and filled with hot stones to cook (element 562). Roasting over the fire and probably in the earth oven (note 561) were common. Pots were made everywhere for boiling, though boiling in baskets with stones might serve in the absence of a pot.

HOUSES (578-770)

Dwellings (578-687)

Impermanency of Shoshoni residence, lack of transportation facilities, and abandonment of houses at the death of an occupant produced temporary and unambitious houses.³⁹ Data concerning the general house types are more reliable than details of construction such as materials for coverings, door type, fireplace, and others.

³⁹ Remy and Brenchley, traversing Humboldt R. in 1861, thought that Shoshoni roving life prevented their building huts and that they consequently lived in caves during winter (p. 129).

Winter houses had to be warm, and sufficiently commodious for one family, averaging about 6 persons. The lack of implements for chopping or splitting wood required the use of dead timbers in construction. Three types of houses, in addition to temporary windbreaks (note 578), shelters, and caves, were used in the area. These were gabled, conical, and domed types.

The gabled house of S-Lida, S-DthV, SP-Ash, and some Owens Valley Paiute consists of two vertical posts supporting a ridgepole against which sloping roof poles are leaned, giving an elliptical or circular ground plan⁴⁰ (see illustration below).



Northern Paiute gabled house among pine-nut trees in White Mountains near Owens Valley. (Photo by Professor George Anderson.)

The most common winter dwelling (used also sometimes as a summer dwelling and as a sweat house) was the conical pole lodge which was sometimes semisubterranean and sometimes partly earth covered. Its foundation is two, three, or four interlocking poles, supporting additional poles arranged with a circular ground plan. Covered with bark, brush, or grass, and earth, it is the type found in parts of California, among Uintah Ute (prior to the introduction of the tipi [John Duncan, informant]), Southern Ute, Navaho, Moapa, Shivwits and Kaibab Southern Paiute,⁴¹ much of Canada, and some Eskimo. With a covering of mats or thatch, it is common in the Plateau, where it preceded the tipi, and in the western Great Basin. Covered with skin, it is a tipi. (Notes 615-644.)

The domed willow house is easily constructed and is an effective shelter, especially from the sun. It is generally distinguished from the conical lodge by its name. Logically and functionally

distinct from the conical lodge, it appears that, so far as the Shoshonean area is concerned, this type cannot be considered as merely a variant of the conical lodge, as Spier suggests.⁴² It is built of large willows, planted in a circle (or a portion of a circle); the willows are bent over and tied to others from the opposite side to form a dome or portion of a dome. The covering may be grass, brush, mats, recently canvas, sheets of tin, and odds and ends; even an earth covering in rare instances. It is most common in the western part of the Shoshoni area and among adjoining Northern Paiute. Structurally, it is similar to the sweat house of the northern part of the area. (See notes 587-610.)

S-SnRv and S-BtlM lodges, formed of willows bent over to form a peak or cone instead of a dome, are, perhaps, a combination of the last two types. Generally, however, the second and third types are distinct.

Sweat House (688-759)

Sweat-house types depend both upon local conditions and historical contacts. Owens Valley Paiute, NP-Flk, and S-Lida built a large, gabled, earth-covered, semisubterranean house,⁴³ which served for a men's club and dormitory as well as for sweating. The construction and use were derived from California; its acceptance depended upon relatively large and permanent villages. Nevada Shoshoni, having small and shifting villages, had houses for sweating only. In southern Nevada these were like small dwellings (notes 704, 705); farther north, they were willow frame domes, the "wickiup type," covered with various temporary materials (note 688). Although the use of small houses is mainly dependent upon local conditions, the difference in construction is historical.

There is some question as to the antiquity of the sweat house in the northern part of the area. S-GSmV disclaimed any sweat house. BM said it was not native to Steptoe Valley and probably not to S-RubV (though RVJ claimed it for the latter). CTh denied that it was native either among NP-MC or adjoining Shoshoni, whereas JP's account of it among the latter points to its recency. Lowie reports it to have been lacking among Shivwits Southern Paiute.⁴⁴ CTh thought it had been introduced only recently from Nez Percé and Warm Springs Indians to both Northern Paiute and Shoshoni. Its presence, however, among Idaho Shoshoni, Ute, and Fallon and Pyramid Lake Northern Paiute⁴⁵ strengthens the claim for its native use

⁴⁰ Professor George H. Anderson, of California Institute of Technology, observed that houses in the White Mts., E of Owens V., seemed to have had ridgepoles supported at each end by two crossed poles and that no timber exceeded 7 or 8 feet in length. Many house ruins and rings of stone marking former house sites were between 10,000 and 13,000 ft. elev. (See note 653.)

⁴¹ Lowie, 1924:218-220.

⁴² 1928:180-181.

⁴³ See Stewart, 1933, pl. 6, a. Kroeber, 1925, pl. 56.

⁴⁴ 1924.

⁴⁵ Lowie, 1924:307-309.

elsewhere in the area. Because a useful trait, which is not functionally incongruent to a culture, may spread rapidly, however, the possibility of a wide recent diffusion of the sweat house through the northern part of Nevada should be considered.

The presence of the sweat house does not presuppose the entire complex of its use. Heating is partly functional: it necessitated a fire in the large, communal house; hot stones would suffice in the small house. As indicated, the dormitory-clubhouse uses of the large house were introduced from the west and depended somewhat upon local population distribution and activities. Other uses of the house—making steam by pouring water on rocks, praying, ritual, curative sweating, shamanistic treatment (see "Shamanism"), smoking, and the cold bath after sweating—are not essential to the main practice and, in fact, varied considerably. The bather's attendant was probably more common than is recorded because there seems to have been a real danger of being overcome by the heat. (See also notes 729-752.)

Miscellaneous Houses (760-770)

The menstrual house was general among Shoshoni. Records of the dog house and special grinding house are incomplete, though one of the former was observed at Owyhee. Shoshoni had few activities requiring special structures. Exceptions are circular dance enclosures for communal gatherings and doctors' enclosures.

Houses were placed at random, usually some distance apart, in winter villages, but camps of temporary shelters (which recently are domed willow houses throughout the area) were arranged in a circle around the dance ground.

NAVIGATION (771-783)

Many localities had no navigable water. Rafts, if made, were always tule balsas; timbers for log rafts were rarely available in the vicinity of water. (See notes 773-783.)

FIRE MAKING (784-808)

Fire was probably kept burning when possible to avoid using the drill to make new fires.⁴⁶

The compound fire drill is distinctive of the Shoshonean area.⁴⁷ This varied in the secondary feature of attaching the foreshaft to the main shaft. The foreshaft may be inserted into a socket in the main shaft (fig. 4,j); both foreshaft and

main shaft may be beveled on one side and spliced together (fig. 4,k); or the foreshaft may be set in a split in the main shaft (fig. 4,l). The joint is always wrapped with sinew. The first type of joining is most common with a cane shaft; the last two with wooden shafts. The foreshaft and hearth were usually of sage, *Artemisia tridentata*, and tinder was usually bark of the same plant. The bow drill was unknown. Sometimes sand or charcoal was placed in the hearth pit, apparently to enable the drill to grind a little powder from the hearth.⁴⁸ (See notes 784-794.)

New fires made with the drill were said to require such strength that only men could make them, but Hough reports that Southern Paiute women had this task.⁴⁹

A drill made by RB, S-Elko, for the Peabody Museum, of Harvard University, has a total length of 19½ inches. The main shaft, ⅝-inch in diameter, is of wiyumbi wood; the foreshaft, set in a split in the main shaft and wrapped with a buckskin thong, is 5 inches long; a third piece, the tip, is of sage, 1¼ inches long.

Fire making by striking together two pieces of flint or obsidian, though reported sporadically, was affirmed sufficiently often to leave no doubt of its presence. But there is some doubt as to how efficacious two pieces of flint would be. If pyrites were used, there is the question of the relationship of this to the white man's flint and steel or to the flint and pyrite method of the Eskimo and their neighbors. For strike-a-lights, cottonwood punk served as tinder.

The bark-bundle slow match (fig. 4,g) and the bark-bundle torch were common. The former, a useful device considering the difficulty of making a fire and the frequency of travel, occurs also in the Plateau to the north and in the Southwest.⁵⁰ (See also note 804.)

MISCELLANEOUS IMPLEMENTS (809-911)

The absence among Great Basin tribes of such useful implements as axes,⁵¹ wedges, adzes, and others is partly intelligible in the light of the delimiting effect of transportation facilities. Peoples moving frequently and carrying not only their possessions but foods procured in different places enormous distances on their backs necessarily restricted their baggage. This, how-

⁴⁶ Hoffman thought Shoshoni at Belmont, Nevada, had no knowledge of fire making and kept a perpetual fire (p. 467).

⁴⁷ Hough (1890:538-543) reports the compound drill only from this area and the Navaho and Klamath, to which Spier (1928:158) adds Modoc, Snohomish, Snuqualmi, and Wind River Salish. Kidder and Guernsey (1919:120-121) found the spliced type in early Pueblo sites.

⁴⁸ Hough (1890:537) records use of sand among Washo, Zuñi, and Navaho.

⁴⁹ 1890:539.

⁵⁰ Spier, 1928:158.

⁵¹ Curtis, 15:60, states that Mono Lake bows were made of juniper which was cut with a serpentine ax. If so, this is an isolated occurrence of the ax in the midst of an area which entirely lacked it.

ever, is probably not a sufficient explanation of the poverty of material culture, for the number of kinds of material objects and the range of types was extraordinarily small. A further explanation may be that devices used in neighboring areas were often not borrowed because the Great Basin area either lacked the materials or the activities upon which those devices depended.

Information on such objects as spoons, dippers, knives, scrapers, awls (notes 884-892), drills (notes 894-896), weapons, pottery, carrying devices and others is unreliable because these things were quickly supplanted by objects procured from the white man. Mortars, metates, baskets, blankets, dressed skins, and cradles, however, are still in use and the data in the lists are often based upon actual field observation of specimens.

The mortar and pestle, adapted to seeds requiring pounding, had spread little beyond the acorn and mesquite area in the south (see "Gathering"). Mortars in S-DthV are either spherical and of stone or cylindrical of tree sections; these have been described elsewhere.⁵²

S-DthV. GH's mortar is an old mesquite stump, 18 inches tall, 12 inches in diameter, the hole being 9 inches in diameter and worn through the bottom. The mortar is called paha.

A site among sand dunes, many miles from water, in the southern end of Eureka Valley (north of Death Valley) yielded several mortars and pestles (fig. 5, a-f) of vesicular lava. The outsides of "b" and "c," a fragment, are well rounded; the others are natural boulders; "l" and "m" are two broken pestles of limestone from the same site.

See also notes 809-825.

A few small mortars, adopted by S-SnRv from the Plateau or Northwest, were used only by toothless old people to grind their food.

The metate is adapted to seeds requiring grinding by rubbing. Throughout the area it is small and light, especially as compared with Basket Maker and Pueblo types, oval in outline and usually roughly shaped, but sometimes pecked to a symmetrical form.

Surface specimens from the site in Eureka Valley: figure 5, g and h, complete metates; j, n, and o, fragments of metates; all of vesicular lava; all associated with the mortars. Excepting figure 5, n and o, which are typical Shoshonean forms, the others resemble Basket Maker metates in being very thick. Figure 5, i and p are limestone mullers from the same site.

S-DthV. GH's metate is an oval slab, 1½ inches thick, 14 inches long, 12 inches wide. S-Hmlt. A specimen (fig. 5, k) collected from JW for the Peabody Museum of Harvard University is of granite, heavily coated with grease, 16 inches long, 8 inches wide, 1 inch thick; back used to grind

potter's clay, break pine-nut shells, rub stone pipes, etc. The accompanying muller (fig. 5, q) is 7¼ inches long, 3¼ inches wide, 2 inches thick; has opposite faces pecked rough for grinding. Mullers observed elsewhere are generally like the last, sometimes being a little shorter and more rectangular.

That mush stirrers were used is certain; shapes are less certain (note 847). Spoons and dippers were also used, but their forms and whether they were used for conveying food to the mouth are doubtful. The fingers were ordinarily used for eating, CT calling the index finger kwini (mush) nump: (finger). Probably bones, slabs of wood, and other things of suitable shape and requiring little working were often used. Horn (note 852) and basketry spoons (note 855) were at least sometimes manufactured but their distribution is incompletely known. Besides eating directly out of the family pot or basket, each person had an individual basketry cup (note 856) or other form of dish, the distribution of which is also unknown.

S-Elko. An individual cup (fig. 6, b), from which mush was eaten with the index and middle finger, made by RB for the Peabody Museum of Harvard University, is hemispherical; of twined willow; 4½ in. in diameter, 3 in. deep; decorated with horizontal bands of 3-ply twining.

Information about shapes of knives and scrapers and the hafting of knives is unreliable (note 870). Several Shoshonean archaeological sites, identified by the pottery type, yielded flints used for cutting: small, unretouched flakes; flakes retouched from one surface only; blades of various shapes flaked from both surfaces.

A site, undoubtedly Northern Paiute, on the eastern bank of Owens River where the Lone Pine-Keeler highway crosses the river, yielded several unretouched obsidian flakes used for cutting; flakes retouched from one surface only; one roughly leaf-shape blade, 2 inches long, chipped from both surfaces.

Figure 3, i, found in the sand dunes a few miles north of Stovepipe Wells, Death Valley, associated with Shoshoni pottery, has an unretouched blade of white flint set in a wooden handle 4 inches long. GH said Panamint Valley and S-DthV knives were of chipped flint, 4-5 inches long, hafted in wood.

A site in Great Smoky Valley, east of Austin, covering many acres among pine-nut trees, yielded Shoshoni pottery. Four styles of cutting implements of flint were: nonretouched flakes; blades chipped on both surfaces, having blunt and sometimes squarish ends (fig. 3, m, n; 7 specimens); thin blades chipped from both surfaces, pointed at one end, rounded or squarish at the other end (fig. 3, o, p; 4 specimens; this type was also claimed at S-BtLM, the blade being of white flint, 8 inches long); short, thick, ovoid blades (fig. 3, l; 2 specimens).

⁵² Stewart, 1933:240.

For flint flaking, see notes 903-908.

SKIN DRESSING (912-931)

Skin dressing is notable for the practice of smoking the tanned hide, a process borrowed from the north and distributed throughout most of the area, but lacking in the Southwest and in California. Smoking serves to prevent the skin from hardening when wet and also colors it a soft yellow or tan. It was applied to one side only, except for moccasin skins, which were often smoked on both sides.⁵³

See also notes 912-930.

S-BtLM. Brain and spinal cord were heated between two thin rocks until they turned yellowish brown, then kept in a piece of intestine until needed for use. The hide was soaked for several days, scraped, smeared with brain, rolled up, and put away again for several days. When taken out, it was worked and the spinal cord, which was ground and mixed with water, was smeared on. The hide was then dried, rolled up, and put away for several weeks or months; then soaked, washed, stretched to soften it while drying, and finally smoked.

WEAPONS (933-1031)

The bow and arrow were for hunting, not war. The absence of spears, daggers, armor,⁵⁴ and shields (the last doubtfully present in two localities) is explainable by the infrequency of warfare, which occurred only occasionally between the Shoshoni and neighboring stocks. As opportunity to borrow these war weapons from various areas was present, it is a clear case in which the culture is unreceptive to certain kinds of traits.

Bow

Three bow types were self, sinew-backed wood, and sinew-backed horn. The first is undoubtedly oldest. Present data on the second merely fill a gap in its general distribution from Alaska to northern Mexico. The third, predominantly a northern Plains and Plateau type,⁵⁵ is now seen to extend into the northern portion of the Great Basin, with a spotty distribution elsewhere including the Kaibab Southern Paiute. This would seem to indicate that it was borrowed from the north, though its ultimate origin was probably in some portion of the general region of scarcity of good bow wood. As mountain sheep were formerly abundant throughout the area, its limited distribution may indicate recency.

The self bow was of willow or juniper, used

⁵³ Cf. Mason, 1891:572.

⁵⁴ Tunic armor occurs on all sides of the Great Basin except in central and southern California (Spier, 1928:257).

⁵⁵ Spier, 1928, fig. 28. Spinden, 211-212. Mason, 1894.

mainly by boys as toys or for shooting small game. (Notes 933, 935.)

The sinew-backed bow was generally of juniper (*Juniperus utahensis*), the best material in most of the territory, but sometimes of serviceberry in the northern region where it grew. It was never of willow. (Notes 938-946.)

The sheephorn bow was made of a strip cut from each horn and joined in the middle at the grip. Most were sinew backed, as with wooden bows. (Notes 949, 951.)

Details of bow dimensions, grip, position when shooting, knocking, bracing, wristguards, designs, and so on, are unreliable, as bows have not been made for a long time, but seemingly varied significantly.

Figure 2,a was made by Dave Humpy, S-SnRv, and is now in the Peabody Museum of Harvard University. It is of wild cherry, length 3 feet, 5 inches; cross section at grip, $1\frac{3}{8}$ by $\frac{7}{8}$ inches (sinew-backed bows were thinner and flatter, CT); belly painted red; string, two-ply cord. The double curve was probably used widely throughout the Basin but data substantiating its exact distribution are not available, informants' descriptions being unreliable on this point.

Panamint Valley bows observed by Coville⁵⁶ were of juniper (*Juniperus californica* utahensis), the wood being taken from a dead tree and therefore already seasoned; seldom exceeded 3 feet in length; backed with strips of deer sinew; bowstring of twisted sinew or of *Apocynum cannabinum* (Indian hemp). GH said S-DthV and Panamint Valley bows were of juniper, 4 feet long, backed and wrapped with mountain-sheep sinew which is stuck on with glue made from deerhorn boiled slowly for two or three days.

Arrow (961-996)

Arrows depended somewhat upon local materials. Hardwood arrows without foreshafts were sometimes made (notes 961-966). Cane, *Phragmites vulgaris* (or *Phragmites communis* Trin.), seems to have been used where available, especially in the western part of the area where there are large swamps.⁵⁷ Being light and easily split, cane arrows required a hardwood foreshaft, which was usually made of greasewood. The foreshaft and point varied in form according to its purpose. A plain wooden point⁵⁸ was suitable for small game, especially rabbits

⁵⁶ 1892:360-361.

⁵⁷ Cane arrows are restricted to the southern United States, including the Southwest and southern California (Spier, 1928:161; Mason, 1894: 660-661), and northern Mexico (Beals, 1932:194). Cane is lacking to the north, but other pithy woods requiring a foreshaft on the arrow were used in this region (Mason, 1894). Cane, however, grows as far north as British Columbia (Hitchcock, 191-193), far beyond the area of its use for arrows.

⁵⁸ Like Steward's (1933) fig. 3,a.

and, at S-BtLM, for ducks. For waterfowl, some localities wrapped the plain foreshaft midway with string to make it skip on the water if the bird were missed.⁵⁹ For small birds, the plain foreshaft had short, crossed sticks (fig. 2,e).⁶⁰ The manner of notching stone points for both cane and wooden arrows is primarily of historical significance. Two styles were like figure 2,c and d, the former being more common and, in the neighboring area of Utah, being first found in Basket Maker-Puebloan sites.⁶¹ (Also, notes 967-978.)

In Panamint Valley, Coville (1892:360-361) observed arrows of cane $3\frac{1}{2}$ feet long, having each joint decorated with a ring of burned, diagonal lines. The foreshaft, 5 inches long, of hardwood (Atriplex ?), tapered to a blunt point and formerly bore a stone point for war. Hardwood arrows were of willow, $3\frac{1}{2}$ feet long.

S-SnRv. Four arrows of hardwood collected from Dave Humpy for the Peabody Museum of Harvard University were: two of rosewood, two of wild currant; all $\frac{5}{16}$ -inch in diameter; lengths are, one 26 inches, two 27 inches, one 31 inches; heads are, three of iron, one of white flint, all bound with sinew; all have three, nonspiraling feathers, each feather 4 inches long; the shaftments are all painted red; two are red along 6 inches of the point.

Flint points found at an archaeological site in Great Smoky Valley are: three specimens side notched like figure 3,d, averaging $\frac{3}{4}$ -inch in length; nine specimens corner and base notched, like figure 3,r-x, averaging in length, if complete, $1\frac{1}{2}$ - $1\frac{3}{4}$ inches.

Arrow poison usually contained an effective ingredient made from decayed heart, liver, or gall of some large mammal, which probably produced septicemia in the victim,⁶² and a large number of purely magical and extremely variable materials (notes 989-994).

Arrow Straightener (997-1009)

Arrow straighteners and smoothers depended upon arrow material. The "one-piece stone" straightener⁶³ was generally of steatite (element 997a) and served for cane arrows. It was heated and the cane shaft pressed in one of its transverse grooves (note 997a). The "two-piece stone" smoother was of rough stone and was used, like sandpaper, in pairs (notes 1001, 1002). The hardwood shaft was fitted into the grooves between the two and drawn back and forth. The perforated horn arrow wrench was for straightening hardwood

arrows (notes 1004, 1005). Similarly in California, the transverse-grooved, stone straightener occurred in the south for cane arrows, the wooden or horn wrench occurred in the north for wooden arrows⁶⁴ and is also known among Eskimo, Plains, the west coast, and somewhat in the Southwest.⁶⁵ A mountain-sheep-horn wrench with graduated holes like those of some Shoshoni was used by Ute.⁶⁶ Both grooved stones and horn wrenches seem to extend back to the Basket Maker.⁶⁷

Quiver (1010-1021)

There were two styles of quivers: one, the animal skin is cut down the belly, then sewed into sack form; two, the skin is peeled over the animal's head so as to require sewing only to close the holes of the head. In the lists, informants' recollection of using only certain animal species does not negate use of others; probably all groups used many different animal furs. (Also, notes 1010, 1012.)

Miscellaneous (1022-1031)

General absence of warfare and war weapons has been noted. S-SprV, adjoining Ute and Southern Paiute, with whom they sometimes fought, had acquired weapons known also among Utah and some Idaho Shoshoni. These were:

"Thrusting spear" (element 1022), called oguzüp. A stick about 6 feet long, having a sharpened wooden point. (S-SnRv recently adopted a spear with a steel head.) Shield, called tãp;; had a rim of serviceberry about 2 feet in diameter, covered with buckskin dried hard after soaking in water; four feathers on top edge; no paint; JR's grandfather had one. Shields were probably adopted from Ute or Deep Creek Shoshoni (Gosiute).⁶⁸ BM thought Steptoe Valley used none. S-SnRv disclaimed them, but knew of them among Bannock. S-SmCr, far from the area of shields, claimed a round shield, probably of hardened rawhide, called to:pü. The source of this is unknown, but it may have been adopted by recent contacts with people from the east.

Clubs, where used, were probably no more than rough sticks. The sling was universally a toy (note 1031), except in Owens Valley, where it was sometimes used in disputes over pine-nut groves.

BASKETRY (1032-1136)

Because informants' descriptions were indefinite or unreliable, most entries in the lists are based upon specimens collected or examined in the field. Often, it was necessary to leave the lists blank.

⁵⁹Like Steward's (1933) fig. 3,d.

⁶⁰Or like Steward's (1933) fig. 3,c.

⁶¹Steward, 1936b:34-37.

⁶²These same effective ingredients seem fairly widespread in America (Mason, 1894, and J. W. Hoffman).

⁶³Like Steward's (1933) pl. 4,f,g.

⁶⁴Kroeber, 1925:530-531

⁶⁵Spier, 1928:161.

⁶⁶Mason, 1894:660.

⁶⁷Guernsey and Kidder, 1921:123-124, 126.

⁶⁸Lowie, 1924, records Wyoming Shoshoni shields as tserop.

Basketry, being easily transported, not readily broken, and well adapted to various uses, was extremely valuable to a nomadic, seed-gathering people. Forms have functional significance, while weaves, decoration and minor details of form are more the result of historical contacts. Both twined and coiled ware were made, but the latter seems to have been lacking in the northern part of the area. Twilling was used only on the bottoms of water ollas.

As coiling was common in all surrounding areas, has a much wider distribution than twining, and was virtually the only Basket Maker weave, it must once have been general in the area. It is still the main weave of the Ute, Southern Paiute, and Southwestern tribes. Among Shoshoni of northern Nevada, substitution of twining for the older coiling in all baskets may have occurred because the former is much easier to make and is equally serviceable for a utilitarian basket. The elaborate coiling complex of the Basket Maker declined in the hands of the Pueblo who gave their attention to pottery. Elsewhere, coiling, unless it be the only technique, is often employed only for fine products, especially for decorated bowls and trays. Shoshoni, except those in the Death Valley-Little Lake region, who have made coiled basketry an exceptionally fine art, were not producers of art objects and took little pride in the aesthetic merits of their wares.

Basketry materials are limited to willow, except in the Death Valley and Owens Valley regions, where the technically superior weaves and more elaborate designs employed several materials of different colors (notes 1034-1039). Aniline dyes, however, have to some extent recently supplanted native colors. (Also notes 1044, 1048.)

Utility baskets were generally twined everywhere. Certain of the main forms, though not restricted to the Great Basin, are so emphasized and their distribution so centers there, that Shoshoneans or their predecessors in the general area must probably be accredited with their origin. The whole complex is different from that of the Plateau as illustrated by the Nez Percé.⁶⁶ First known in the coiled ware of the Basket Makers, many of these forms are still coiled in the deserts of the Colorado plateau and Southwest, but have been adapted in twining in Nevada. These forms are: water ollas, conical seed and burden baskets, bowls, trays, and perhaps winnowing baskets. The seed beater seems to have originated subsequent to Basket Maker times.

Forms (1067-1136)

Seed beater.—Though details of construction were seldom available, seed beaters seem usually to have resembled that in Steward, 1933, plate 9, c,d.

⁶⁶Spinden, 190-195.

Names of the seed beater are: *tanā'ku*, NP-FSp; *tanik'*, SP-Ash; *tsingu* (same name is given to the snowshoe), S-GSmV, S-SmCr, S-RsRi, S-SprV, S-Elko, S-Egan; *zingu*, S-Mor; *dzingu*, S-Hmlt; *tanihu* (?), S-Ely; *tsingu* or *dzingu*, S-RubV; *tzing*, S-SnRv; *tzigu*, NP-MC.

S-RubV. Figure 6,d, specimen made by BM's wife, now in the Peabody Museum of Harvard University; 17½ inches long; bowl, 9½ inches wide, 4 inches deep; bowl has six warps per inch, diagonally twined together, three times per inch; warp elements brought together into wrapped bundle to form handle; rim is rod of serviceberry, sewed to edge of bowl; decoration, two bands of twining elements with brown willow inner bark remaining.

Seed beaters are shared with California and tribes bordering the Great Basin—southern Oregon, Klamath, and Modoc.⁷⁰ But the twined form, occurring in parts of California, is emphasized in the Great Basin. Many California seed beaters have bowls with radial warps. Idaho and Utah Shoshoni use a small, twined tray without the projecting handle.

Winnowing and parching trays.—Twined winnowing trays (fig. 7) were observed in the field. Dimensions and weave are tabulated below. The twining is tight for fine seeds, coarse for large seeds, especially pine nuts.

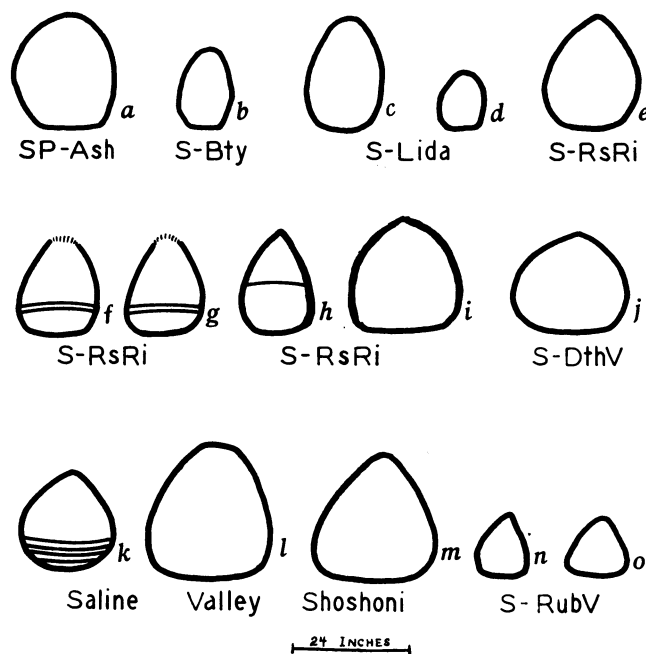


Fig. 7. Winnowing baskets.

Figure 7,a,b,c,g,h, and l were twined over each rod; figure 7,d,n, and o, over two rods, diagonally. Some trays have a single-rod rim

⁷⁰Spier, 1928:120.

against which the ends of the warps are bent and held by coiling or wrapping (fig. 7,a,b,c,d,f,i,j,o). Figure 7,e and m have a heavy rod and bundle of smaller rods. Figure 7,g and h have a double-rod rim. Figure 7,k,l, and n have a single-rod rim but a bundle of smaller rods at the lower end. Figure 7,m has also a transverse reinforcing rod. Figure 7,d is decorated with two bands of brown; 7,f, which is otherwise open twined, has three ornamental bands, each 1 inch wide, of close twining; 7,k and l have 2 brownish bands of willow with the inner bark remaining.

In following tabulation, under "Use," P is parching, W is winnowing; but each basket served both purposes to some extent.

Fig.	Use	Maker	Group	Warps per in.	Wefts per in.	Depth (in.)	Length (in.)	Breadth (in.)
a...	P	MHo	SP-Ash	4	2	7	24	24
...	P	MHo	SP-Ash	5	10	?	19	18 $\frac{1}{2}$
b...	W	TD	S-Bty	7	2	?	16	11
c...	W	ES	S-Lida	6	1 $\frac{1}{2}$	7 $\frac{1}{2}$	24	16 $\frac{1}{2}$
d...	W?	ES	S-Lida	10	12	2 $\frac{1}{2}$	13 $\frac{1}{2}$	11 $\frac{1}{2}$
e...	P	MJ	S-RsRi	6	10	2	24	19
f...	W	MJ	S-RsRi	8	1 $\frac{1}{2}$	3	18 $\frac{1}{2}$	17
g...	W	MJ	S-RsRi	4	1 $\frac{1}{2}$	5	28	21
h...	P	MJ	S-RsRi	7	1 $\frac{1}{2}$?	26 $\frac{1}{2}$	20
i...	W	MJa	S-RsRi	10	10	3	14	11 $\frac{1}{2}$
j...	W	MHa	S-DthV	6	2	4 $\frac{1}{2}$	12	11 $\frac{1}{2}$
k...	P	SS	Saline V.	9	9	5	18	17
l...	W	SS	Saline V.	10	2 $\frac{1}{2}$	6	17 $\frac{1}{2}$	14
m...	W	SS	Saline V.	6	1 $\frac{1}{2}$	7 $\frac{1}{2}$	20 $\frac{1}{2}$	18 $\frac{1}{2}$
n...	?	MBM	S-RubV	5	2	3	25 $\frac{1}{2}$	22
o...	?	MBM	S-RubV	7	8	5	20	22

Native terminology seems to have distinguished these trays according to fineness of weave rather than function, though names recorded are inconsistent.

They were called: takó'lo, SP-Ash, both kinds; patsa', NP-FSp, both kinds; nuvituma, Mono Lake Paiute, both kinds; tuma or duma, close twined, and yadá, open twined, NP-MC; yandu, parching trays regardless of weave, duma, winnowing baskets, S-RsRi; yandu, close twined, tuma, open twined, S-Elko. The open-twined tray was also called: yando, S-Bty; yandu'u, S-GSmV, S-SmCr; yondu, S-Mor; yand:, S-Egan; yand'u, S-SnRv. The close-twined tray was also called: duma, S-Egan, S-RubV; dum:a, S-SnRv.

The coiled, circular winnowing tray was reported only by S-DthV and Owens Valley Paiute, who were in contact with California tribes making such trays. This was called, S-Bty, toda.

S-DthV and Panamint Shoshoni. A circular, coiled parching tray, made by GH's niece, is 12 inches in diameter, 1 inch deep; 9 stitches per

linear inch or 54 per square inch; ornamented with black designs; upper surface much burned. Another tray is 17 inches in diameter, 2 $\frac{1}{2}$ inches deep, 8 stitches per linear inch or 48 per square inch. A tray observed in Beatty is 14 $\frac{1}{2}$ inches in diameter, 2 inches deep; 13 stitches per linear inch or 65 per square inch; ornamented with three concentric bands, each band a zigzag line.

It is possible that some Basket Maker coiled trays are, like those of S-DthV and of the Nez Percé,⁷¹ winnowing baskets and therefore the oldest in the area.

Conical carrying and seed baskets.—Throughout the area, these were large, with pointed bottoms.⁷² They were used both for seed gathering and for general transportation. The rim has a heavy rod, below which is a bundle into which the vertical warp rods are bent. The warps cross at the bottom to turn up on the opposite sides (except that in note 1089). The bottom is today usually covered with canvas.

The earliest known conical carrying baskets are from Basket Maker II sites.⁷³ All Shoshoni and most Shoshonean forms, however, are twined. Though conical carrying baskets are distributed also in northern California and in Arizona,⁷⁴ the twined form must probably be accredited the Great Basin.

These baskets are distinguished mainly by tightness of weave, which varies with use. But terminology as given in separate localities was not consistent.

It was called, when large and open twined: kudu'si, NP-FSp; toda, S-Lida; oqu, S-Bty; kaka-dutsi'i, S-GSmV; wá:sa or kadutsi, S-RsRi; wá:sa S-Mor, S-Ely; osa, S-SprV; wosa or wos:, S-Elko; wos, S-Egan, S-SnRv; wosa or kaküdu, S-RubV; wosa, S-Hmlt; wos:, S-BtlM; kudus:, NP-MC. When tightly woven, it was called: wohno or wanü or kavo'nu, NP-FSp; kavon', SP-Ash; wá:sa, S-GSmV (also, note 1085); kudutsi, S-RsRi; duwa'a, S-Mor; kavon, a smaller basket, S-Hmlt; bawos or kaküdu, S-Elko; wono', NP-MC.

A SP-Ash specimen of small basket, for picking up pine nuts (kavon'), is 17 inches in diameter, 16 inches deep; has 6 warps per inch twined every $\frac{3}{4}$ -inch; rod and bundle are sewed to top edge; bottom is leather covered; leather carrying strap. A S-RubV specimen made by BM's wife is called kaküdu; 18 $\frac{1}{2}$ inches in diameter, 20 inches deep; 6 warps per inch; 1 weft per inch; diagonal twine; rim has rod of service-berry and bundle of small rods sewed to it; bot-

⁷¹Spinden, 194.

⁷²This form is illustrated in Steward's (1933) pl. 10,a,b,c.

⁷³Guernsey and Kidder, 1921.

⁷⁴Spier, 1928, fig. 27. Some Southwestern forms are rectangular. The Nez Percé is cylindrical (Spinden, 192-193).

tom canvas covered. A specimen made by Annie Charlie, S-RubV, and sent to the Peabody Museum of Harvard University, is for carrying pine nuts; 30 inches in diameter; 24 inches deep; 4 warps per inch; twined every 1-1½ inches; single twine; large rod and rod bundle sewed to rim; a rod, ¾-inch in diameter, reinforces the basket by encircling it on the inside 12 inches from the bottom; buckskin carrying strap passes through the basket, each end being fastened inside to a rod 2-4 inches long.

Basketry hats.—These are no longer made but probably resembled Owens V. types.⁷⁵

They were called: tsopá'nu, NP-FSp; sigai'-coah, SP-Ash; didoai¹, S-GSmV; tsopá'a, S-SmCr; su:di²zoai¹, S-RsRi; tsopo or kutsopo, S-Mor; su:düzoo¹, S-Hmlt; sunadidoi, S-Ely.

SP-Ash. Figure 6,c, made by MHo; twined, 8 warps per inch; ornament is brown inner bark remaining on willow weft.

The distribution of the hat is erratic in the Great Basin, where it is lacking among Shoshoni and Northern Paiute⁷⁶ of northern Nevada but present in the twined form in the southern part of the area included here and also Moapa,⁷⁷ Lemhi,⁷⁸ and Gosiute.⁷⁹ It is also twined in the Northwest and inland to the Nez Percé⁸⁰ and in northern California, but is usually coiled in southern California.⁸¹ It would appear that the Shoshonean hat therefore was either borrowed in its twined form from the Northwest or borrowed from the coiled form of the south but converted to twining. In either event, its apparent usefulness for pine-nut gathering and carrying did not make it so readily and universally adopted as other basket forms.

Fishing baskets.—See "Fishing" under "Hunting," this section, and element 265.

Water jugs or ollas.—These are all diagonally twined in this area, but vary somewhat in shape. Even five specimens from S-Bty (fig. 8,b-f) range from narrow to wide mouths and from rounded to pointed bottoms.⁸² It is probable that many, if not all, had twilled bottoms, but canvas or buckskin concealed most of them. This is the only recorded use of twilling in the area.

⁷⁵See Steward, 1933: pl. 10,g,h.

⁷⁶Including Surprise Valley Paiute (Kelly, 1932:114).

⁷⁷Lowie, 1924:237.

⁷⁸Lowie, 1909:178.

⁷⁹Erroneously called Ute (Mason, 1904:490-491)

⁸⁰Spinden, 193.

⁸¹Kroeber, 1925:807-808.

⁸²For Owens V. forms, see Steward's (1933) pl. 9,i.

In figure 8,d,e, and f, the warp strands had been laid out in two groups, one twilled through

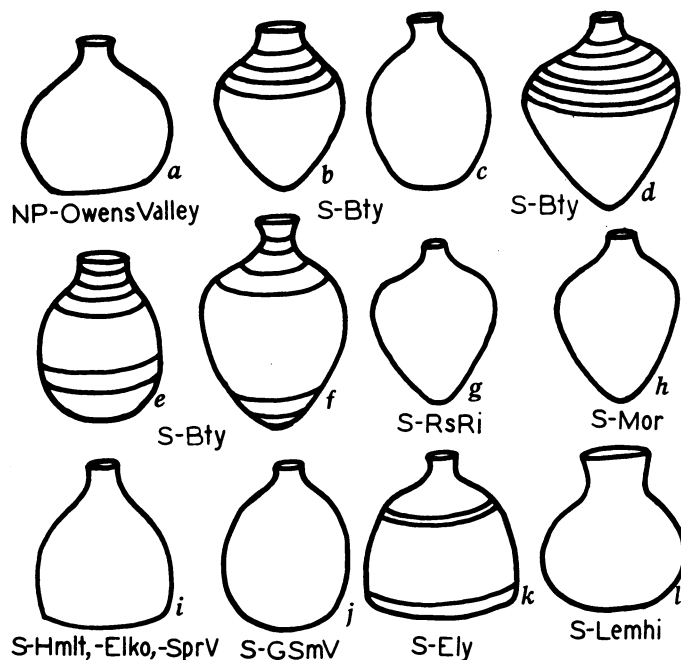


Fig. 8. Basketry ollas or water jugs. Encircling lines indicate decorative bands.

the other to form the bottom. These were over-2, under-2, or over-3, under-3. The warp rods were then bent upward and a pair of twined elements run round and round, holding the warp rods in place. New warp elements were added as the body expanded. Occasionally, a third twining strand was added or the twining was made more diagonal, that is, over-4 instead of over-2, for ornamental bands. The rim on all S-Bty specimens is finished with coarse coiling. Figure 8,d, S-Bty, is 13½ inches tall, 11 inches in maximum diameter, 3 inches in mouth diameter; upper half decorated with eight bands of over-4 twining instead of over-2. Figure 8,e is 9 inches tall, 8 inches in maximum diameter; top half ornamented with four bands of over-4 twining, the bottom half with two such bands. Figure 8,k, S-Ely, is 12½ inches tall, 11 inches in diameter at the shoulder; the spout 2 inches tall, 2½ inches in diameter; olla has 8 warp, 10 weft per inch, all of over-2 diagonal twining except for ornamental bands of over-4 twining. Figure 8,j, S-GSmV, owned by JK, is 9 inches tall, 7½ inches in maximum diameter; neck, 1½ inches tall, 1 inch in diameter, widening to 2¼ inches at the mouth; body has 8 warp, 12 weft per inch; decoration is four bands of three-ply twining; pitch covered inside and outside; handle is four-ply braided cord, attached with leather to the sides. Several of the S-Bty ollas were also decorated with three-ply twining.

Pitch, necessary to make ollas watertight, is

smeared on the outside with a stick and on the inside by shaking lumps of pitch with hot pebbles.

Names of the olla were: kadu ("no," i.e., probably "will not stand," because of the bottom) osa, NP-FSp; o:sa, S-Bty, S-SmCr; osa', NP-MC; o'sa'a, S-GSmV; otsa or su: (willow) otsa, S-RsRi, S-Mor, S-Hmlt, S-Ely, S-Egan, S-RubV; suhu (willow) osa, S-Elko; suhu os:, S-BtlM.

The basketry olla, like the conical burden basket, is first known in Basket Maker II sites in the Southwest, where it is coiled.⁸⁸ It has spread throughout the deserts of the Southwest, southern California, Great Basin, and Plateau⁸⁴ where its advantages are obvious. It is still coiled by Lemhi Shoshoni, Moapa, and Northern and Southern Ute,⁸⁵ but is twined by Nevada Shoshoni and Northern Paiute, whereas some groups with an intermediate location use both twining and coiling.⁸⁶

Basketry bowls.—These are of undetermined distribution. In the south they were coiled, in the north twined.

Bowls were called: awu, S-Bty; bohno' or awü'ü, S-GSmV; awö'ö, S-SmCr; awü, S-Hmlt; suh (willow) awü, S-RubV; suhuwitüa (witüa also used for pottery bowl), S-Elko.

Coiled bowls, the weaves and forms of which were borrowed from California, have recently effloresced in the region of S-Bty, S-DthV, Panamint Valley, Owens Valley and Little Lake, Shoshoni making baskets superior to those of the Paiute. They usually have a 3-rod foundation (but see note 1050) and are either flat bottom with rounded sides (fig. 6,e), or expanding and straight sided (fig. 6,f), or tall, vaselike with constricted neck and short collar, that is, bottleneck (fig. 6,g), or rectangular (fig. 6,h). The extraordinarily fine weaving, having 80-300 stitches per square inch, is accomplished with precision, which is partly explained by the recent introduction of a method of trimming the weft to almost threadlike fineness. The strand is drawn through progressively smaller holes punched in the top of a tin can, the protruding sharp edges of which trim it to uniform thickness. The occasional use of woven-in feathers and of several colors come also from California. A strong recent trend toward naturalistic designs, including lizards, birds, butterflies, and various animals as well as conventionalized floral forms, has evidently been stimulated by tourist trade. Five baskets pictured by Mason⁸⁷ and both

old and recent Owens Valley Paiute baskets are entirely geometric in decoration. There are up to four colors on a single basket—red, brown, yellow, and black on a white background.

The old, probably pre-Caucasian type of coiled bowl is represented by one found near White Rock Springs in the Belted Mountains, northeast of Beatty. It has a 3-rod foundation, noninterlocking stitches, 13 per inch or 78 per square inch; outside covered with pitch; bottom is flat, 5 inches in diameter; sides straight, sloping outward, top diameter being $9\frac{1}{2}$ inches; depth, 3 inches.

Coiling has recently been introduced at Wells, Nevada, the workmanship, as with that of the Northern Ute, being extraordinarily poor. (Specimens of the latter in the Museum of Anthropology, University of Utah.) Two specimens of bowls observed were: more or less spherical; 5-6 in. in diameter; had lids each with a knob in the center; foundation, single rod; one had 40 stitches, the other 72 stitches per square inch, sewed irregularly and always splitting the adjoining stitch on the inside; both decorated with aniline dyes.

Twined bowls. The only specimen seen was S-Elko specimen (fig. 6,b), made by one RB for the Peabody Museum of Harvard University. It is $9\frac{1}{2}$ inches diameter, 7 inches deep; hemispherical; decorated with horizontal bands of 3-ply twining; used for stirring mush made of previously roasted and ground pine-nut meal; mush clogs openings and prevents leaking. A similar but smaller bowl was used for serving mush to each person.

Mesquite sifter.—Fig. 6,a, S-DthV, is shown somewhat foreshortened. It resembles a winnowing tray; $14\frac{1}{4}$ inches long, 15 inches wide, $4\frac{1}{2}$ inches deep; double twined with 9 warps per inch, the twining spaced 1 inch apart; ornamental bands made by leaving the brown inner bark on both warp and weft elements cross one another.

Basketry ladle.—Distribution undetermined. Figure 4,i, a miniature twined ladle, made by the same RB of Elko for the Peabody Museum of Harvard University. The warp strands are brought together in a wrapped bundle to form the handle.

Caterpillar basket.—A special, round-bottom, twined basket was used by NP-FSp.⁸⁸ Idaho and Utah Shoshoni use a similar basket for gathering chokecherries. Nevada Shoshoni lack this special form, using instead the conical basket for all gathering.

Twined bags.—Though a fine art among Basket Makers in the Southwest and more recently among the Northwestern and some Plateau tribes, Shoshoneans either lacked bag weaving or made extremely crude products of bark. That these

⁸⁸ Kidder and Guernsey, 1919, pl. 78.

⁸⁴ Spier, 1928: fig. 27.

⁸⁵ Lowie, 1924:237; 1909:178-179. Spier, 1928: 155.

⁸⁶ Lowie, 1924:237. ⁸⁷ 1904:470-473, pl. 183.

⁸⁸ Like Steward's (1933) pl. 10,f.

were recorded in the north only may relate them to the Northwest. Although juniper, which was favored by Basket Makers for many products, was abundant throughout the area, Shoshoni preferred sage bark (*Artemisia tridentata*).

WEAVING (1137-1194)

Everywhere, blanket weaving followed a uniform and almost irreducibly simple technique. The loom was two horizontal bars, placed on or near the ground, though a vertical loom was claimed in the south, perhaps being recent there and elsewhere. (S-DthV uniquely had a horizontal bar near the ground for one end of the warps and individual pegs in the ground for the other end of each warp strand. Note 1146.) The warp was wrapped around the two bars, and adjoining strands were twined together with cord, the fingers only being employed.

The most common blanket material was twisted strips of rabbit fur, but the fur of other animals, birdskins, juniper or sage bark, and sometimes a green, stringy material growing in the water (*spirogyra* ?; note 1168) was used. The last was soft but lacked warmth and durability. Rabbit-skins are still used. Other materials were abandoned so long ago that their frequency was probably greater than is shown in the lists.

Fur and feather blankets, common in Basket Maker sites, are widely made through the Southwest and on the west coast,⁹⁰ and employ a loom which, in its relationship to the more complex Southwestern looms, appears to be the oldest type.

Nets (for rabbit drives, sage hens, fishing, and carrying) were made nearly everywhere, but data on their weaving are too unreliable to warrant discussion. The carrying net was a southern introduction which did not penetrate far into the area. The fishing net was probably derived from the north or west. Sage-hen or rabbit nets had spread throughout.

POTTERY (1195-1227)

As pottery (note 1195) was made by all Shoshoni, including the Lemhi and all others of Idaho and Utah, and as the Northern Paiute of Mono Lake and NP-MC are known to have lacked it, it may be suspected that its western distribution was but little beyond Shoshoni territory. Its ultimate origin is probably from the north, but the ware does not specifically relate to any prehistoric or modern wares of the Southwest or Great Basin.

Although the existence of pottery among the Shoshoni cannot be doubted, the manufacture, shapes, and decoration are open to question. Use of temper in clay was improbable. Mixing of vegetable juice in clay (notes 1199, 1200) was pre-

viously verified in Owens Valley.⁹⁰ Construction was always by building up the vessel, though it is uncertain whether this was by actual coils or by rings of clay. Southern Paiute definitely used the paddle-and-anvil, but that S-Elko did so is doubtful. Decoration with a series of indentations made with the thumbnail or by incising with a stick is probable in view of archaeological sherds so decorated from a number of sites in the southern part of the area (note 1219). Use of painted decoration (notes 1215-1217) is improbable, though fugitive red may have been used on pots after firing as on basketry water ollas. Shapes (fig. 11, note 1221) seem often to have been informants' guesses, though flat-bottom, straight-walled vessels have been found in the S-DthV and Owens Valley region, and pointed-bottom vessels in the S-DthV and SP-Ash territory. Bowls from near Austin, Nevada, were probably round-bottom.

S-RubV and S-SnRv described unbaked clay animal and human effigies with straw legs, made for toys. These were probably made more widely than is indicated in the lists. A boy at S-Lida was observed making them. Idaho and Utah Shoshoni also made them and Sarah Hopkins describes them among Humboldt Lake Paiute.⁹¹

Archaeological sherds, all very similar to the Owens Valley Paiute ware⁹² previously described, have been found as follows:

East bank of Owens River, on the Lone Pine-Keeler highway; ware is $\frac{1}{2}$ -1 cm. thick; gray to brownish; contains quartz sand; includes rims of bowls (fig. 3,a-c), one bearing "fingernail" incisions and having a thickened lip. One sherd seemingly of an olla. (Specimens are at the University of California Museum of Anthropology and the Peabody Museum of Harvard University.)

West bank of Owens River, 2 miles north of Lone Pine; a similar ware.

Mouth of Wyman Canyon, Deep Springs Valley, a similar ware.

Rock shelter at Deep Springs ranch, a similar ware.

Rock shelter in which Tule George, Shoshoni man, was born, about 10 miles south of Lida; similar ware (fig. 3,d).

Camp sites among piñons in Great Smoky Valley; forty sherds, very similar to the others; paste is dense, brownish-gray, and includes mica and quartz sand; 5-7 mm. thick; surfaces uneven, apparently smoothed with a stick and the fingers; shapes indicate bowls (fig. 3,e) and possibly jars or ollas (fig. 3,f).

The first four sites are undoubtedly Northern Paiute, the last two Shoshoni.

BURDENS AND CRADLES (1228-1270)

Burdens.—The twined, conical basket (element 1082) was the common carrying device for women

⁹⁰ Steward, 1933:266-269.

⁹¹ P. 57.

⁹² Steward, 1933:266-269.

⁹⁰ Spier, 1928:204-205.

and sometimes for men. Used also for seed gathering, it had a twofold importance. The shape, however, seems somewhat arbitrary, for rectangular, square, cylindrical, and spherical baskets are used for burdens in various parts of North America. Deerskins could have and sometimes did serve for gathering and transporting seeds, but skins were at a premium. Bark bags were a poor substitute. Consequently, the conical basket ordinarily served the woman for all objects transported.

Men used pack straps, which were probably more often skin than braided cord, for such objects as game. For miscellaneous smaller objects, the special hammock-shaped carrying net was used near California,⁹³ though its precise shape and distribution are open to doubt. Beyond the limits of the special carrying net, which was derived from southern California, pieces of rabbit nets were used. Beyond that, in the northern part of the area, no nets were used, deerskin bags being employed by men for burdens. (For parfleche, see note 1240.)

Women's carrying straps generally passed over the forehead; men's across chest. (Notes 1229-39.)

Cradles.—Probably no human need among peoples who travel much on foot is as unvarying as some means of transporting infants. Throughout the area (and, in fact, throughout most of North America) the infant is lashed to a fairly rigid frame which is carried on the back. Variation was greatest in features nonessential to the main device, producing four subtypes of cradles. These, as the distributions noted below show, cut across the Great Basin and neighboring areas in a manner so unrelated to the cultures of these areas that they must be regarded as independent variables. Cradle style, in fact, has often changed within historic times.

The elliptical ladder (fig. 12,b,c, p. 341), used by Shoshoni in the regions of Little Lake, S-DthV, and S-Bty, is related to the various types of "ladder" cradle to the south, though in southern California it is usually an inverted U,⁹⁴ not a complete ellipse. (See note 1244.)

Figure 12,b (most cradles in fig. 12 are shown without the hoods, which were everywhere of basketry, probably like figs. 12,f,j; exact data on hoods were sometimes impossible to procure) owned by GG, Little Lake Shoshoni; 18 in. long; 12 in. wide; frame joined on each side; 8 horizontal cross rods; tules run vertically over the cross rods and are sewed together with cord. Fig. 12,c, similar type formerly used at S-DthV and S-Bty.

The lattice type, which lacks the reinforcing rod rim, was used throughout Owens Valley⁹⁵ and

shared by some Western Mono and Yokuts in California.⁹⁶ It was recently introduced to S-DthV and S-Bty. This type has one set of small rods running vertically and twined together, and another set, lattice-like, running horizontally in front of or behind the first.

Figure 12,a: this type made by TD, S-DthV; length, 34 inches; width, 19 inches; horizontal rods, 6 per inch, twined in diagonal pattern with blue calico; edges bound with calico; vertical rods, 3-4 per in., behind horizontal rods, twined every $1\frac{1}{2}$ inches; top edge has rim of wrapped bundle of rods; bottom edge covered with cloth.

The third type, like the first, has a stiff rod frame, but the backing is small, closely spaced willows which are placed vertically and twined together (fig. 12,h,j). The frame may be oval, elliptical, or somewhat rectangular; it is sometimes covered partly or entirely with buckskin. This type is not found throughout the area.⁹⁷ From the Shivwits and Moapa Southern Paiute⁹⁸ and probably some Ute,⁹⁹ it extends northward through northern Utah and eastern Idaho to Lemhi Shoshoni, and also westward across central Nevada to Surprise Valley Paiute¹⁰⁰ and to some Maidu and Miwok.¹⁰¹

Figure 12,j, S-Elko, is the sole occurrence of this type outside the area just described. This, a model made by RB for the Peabody Museum of Harvard University, has a heavy rod rim filled with vertical willows, twined together at intervals of $1\frac{1}{2}$ inches; a small, twined hood is affixed; infant wrapped in twined, sagebark blanket into which tufts of rabbit fur are woven.

The fourth type differs from the preceding in that the frame is filled with horizontal instead of vertical rods. Sometimes one vertical reinforcing rod is placed in the middle. This type occurs throughout the northern part of Nevada, western Idaho, and is known also to Lemhi Shoshoni.¹⁰² In the south, it is found among Walapai, Havasupai, San Carlos Apache, Western Apache,¹⁰³ where, however, it tends to resemble the "ladder" type of southern California.

Figure 12,d-g, representing this type, have closely spaced, small horizontal rods which are twined together. Figure 12,d was formerly used at S-BtlM, S-Hmlt, and S-SprV, but the type shown in figure 12,f has recently been introduced at S-BtlM, perhaps having been acquired on the Western Shoshoni Reservation. Figure 12,f, S-SnRv, has two vertical rods left unattached at their

⁹⁶ Kroeber, 1925:534-537.

⁹⁷ Inadequate information led Spier (1928:318) to this conclusion.

⁹⁸ Lowie, 1924, figs. 33, 34.

⁹⁹ Mason, 1889.

¹⁰⁰ Kelly, 1932, pls. 28-31.

¹⁰¹ Kroeber, 1925:534-539.

¹⁰² Lowie, 1924, fig. 10.

¹⁰³ Spier, 1928: fig. 56.

⁹³ Probably like Kroeber's (1925:827-828) figs. 53, 59, which include one from the Koso, probably Panamint Valley Shoshoni. Mason (1889, fig. 15) shows a similar net from southern Utah.

⁹⁴ Kroeber, 1925:534-537.

⁹⁵ See Stewart's (1933) pl. 9, a, b.

upper ends to afford some spring behind the infant's head; encircling rim is doubled at top; hood supported by five rods, wrapped together; the whole is buckskin covered, except where infant rests; lower end has separate cover; back has buckskin fringe near top. (Also, note 1247.)

A novel construction, fig. 12,i, is described in note 1246.

Of the four types, the third and fourth are perhaps among the few traits of Shoshonean origin. These may once have extended beyond the area and been supplanted by boards when the introduction of axes made their manufacture feasible. Present information, however, indicates that they are almost restricted to the Shoshonean area. Moreover, they may be regarded as adaptations of the twining basketry technique which is prevalent in the area.

Lesser details of the cradle are even more variable than the rod arrangement, that is, the outline, hood construction, decoration, including indication of sex by a hood design (a trait acquired in the south from central California),¹⁰⁴ and fringes, rattles, and other trimmings.

MUTILATIONS (1271-1321)

The aboriginal infrequency and present disuse of mutilations made them difficult to ascertain. They were not connected with rites, societies, or status in any way that would standardize and fix them. Whether ears were bored and what was worn in them was a matter of individual taste. Boring of the nasal septum was noted only among a few groups near southern California and the Colorado River. Tattooing, sparingly indulged in, was also a matter of individual taste. (Notes 1271-1321.)

DRESS AND ADORNMENT (1322-1431)

Ornaments and paint.—Necklaces (notes 1322-1336), pendants, and paints were also variable and without social significance. There was probably some standardization of paint and dress for the circle dance, but details of it could not be procured. One practical purpose of rouge, however, was to prevent the face and body from darkening during the summer. (Also, notes 1343-1365.)

NP-MC. CTh said that people are darker now than formerly because they no longer wear rouge (though many women at Owyhee still use face rouge), but in the fall they acquire their lighter "winter color." CTh's wife chides him for being dark skinned. This preference for light skin is probably more widespread than was recorded.

Hairdressing.—This, also, was solely a question of style. The potentialities for variation

in hairdressing, irrespective of culture, are shown by its great variation in the Southwest.¹⁰⁵ The common use of two braids in the Shoshoni area may have been a recent diffusion from the Plains. (Also, notes 1371-1384.)

Paints, hair nets, bands, pins and other things applied to the hair, and depilation were, like coiffure, a question of personal taste. (Also, notes 1390-1401.)

Headgear.—The woman's twined basketry hat (see "Basketry") had two functions: it protected the head against the tumpline and from pine-nut gum. Where it was lacking, the woman's carrying strap passed over a bark head pad or across the chest.

Men's fur caps seem largely ornamental (notes 1411-1422), though S-RubV and S-SnRv said men placed rabbit or badger fur over the head and tied it under the chin in cold weather (note 1409). Men always held the carrying strap across the chest.

The twined bark hat or helmet (fig. 9; note 1408) was worn in winter. It probably had wider distribution than is recorded.

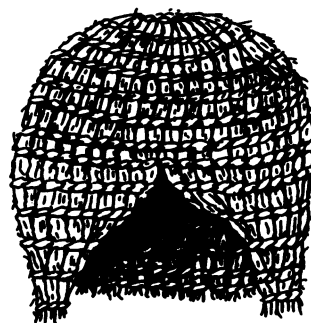


Fig. 9. Twined sage-bark hat or helmet. (Made by RB, S-Elko.)

The hair net, a California trait, had limited distribution (note 1423).

Men's buckskin or fur headbands (notes 1425-1430) have an incompletely known distribution.

GARMENTS (1432-1576)

As native garments were abandoned long ago, the lists provide a general idea of styles prevalent in the area rather than exact information for each locality. No doubt more complete data would reveal important local differences not now apparent.

Clothing was always scarce and many persons necessarily went nude or wore merely a woven or sewed fur robe. As various styles of garments were known throughout the area, the choice in any individual instance depended somewhat upon the

¹⁰⁴ See Kroeber, 1925:536.

¹⁰⁵ Spier, 1928:205-206.

quantity of skin available and the person's size. This prevented standardization of garments which might otherwise have developed.

NP-Flk and NP-FSp. Boys went nude and girls wore only a front apron. S-SnRv people often went nude except for a genital covering. Leonard found Shoshoni on Mary's River (north of Elko) who were "entirely naked and very filthy."¹⁰⁶ Remy and Brenchley observed¹⁰⁷ that Humboldt River Shoshoni went nude until puberty, except in cold weather when they gird an antelope skin around their bodies. In Ruby Valley, Simpson met a naked squaw carrying a baby. Bonneville observed "Shoshokoes"¹⁰⁸ [Northern Paiute?] on the lower Snake River who were destitute, especially of clothing. "One old dame had absolutely nothing on her person but a thread around her neck from which was pendent a solitary bead."¹⁰⁹ Ogden, visiting the Humboldt River in November, 1827-1828, described the people as "miserable-looking wretches with scarcely any covering."¹¹⁰

As subzero winter temperatures were not uncommon in the area, except in the low Death Valley and Snake River regions, clothing was of some practical as well as ornamental importance.

Robes and capes.—The simplest device for protecting the body and no doubt one of the oldest in this and other areas is a robe of dressed fur, consisting of one or several skins. Often, persons wore not more than this. The species used varied considerably, as shown in the lists, because of their local availability or ease in taking them. Rodents, especially ground hogs in the northern part of the area, were more easily trapped or caught than such carnivores as coyotes, wolves, foxes, and wildcats. No social or religious beliefs favored or prevented use of any species, excepting possibly the coyote. (Also, notes 1431a, 1436.)

The woven robe (see under "Weaving" in this section), requiring a more complex process of manufacture but obviating the need of tanning the skins, was very warm and seems to have been preferred. It was made of bark when fur could not be had, but JP insisted that bark was usually avoided because it chafes the skin too badly. The fur of rabbits, which were numerous in most of the area, was definitely favored and often provided the sole garment worn.

Simpson observed rabbitskin robes worn in Butte Valley, on the South Fork of the Humboldt River and in Pah-hun-upe Valley, near the Humboldt River.¹¹¹ Five Shoshoni in Butte Valley clad in rabbitskin blankets also wore leggings. Bonneville

saw Shoshoni on the Snake River below Twin Falls wearing rabbitskin blankets 4 feet square.¹¹²

Tailored skin shirts, dresses, and leggings not only provided more adequate bodily covering than robes but were, in some measure, an advertisement of the man's industry and skill as a hunter, thus affording slight prestige value. Garments from two historical sources, the Plains and California, seem to have been used throughout the area, the choice between them depending primarily upon the season and the quantity of skins available. The general preference, however, seems to have been the more complete garments of Plains origin, which gives the area an apparently greater connection in these elements with the Plains. There is little evidence of influence from the Southwestern styles of woven garments.

Shirts, dresses, and skirts.—The most pretentious woman's garment was a long gown made of two skins, one in front and one behind, which was perhaps pieced on the sides, at the bottom, and in the sleeves if necessary (notes 1444-1452). This style, which represented affluence and was preferred in winter, is a northern or eastern (Plains) importation.¹¹³ Lacking sufficient skin for this, the woman followed Pacific coast styles and made a skirt of one large or two small skins or, rarely, of bark, or wore a front and back apron of skin, bark, or grass. (Also, notes 1475-1506.)

The man's shirt, leggings (notes 1515-1524), and breechclout were derived from the same source as women's dresses. The shirt was either a skin front and back sewed down the sides, or a single skin, cut poncho style with a hole for the head and sewed down the sides. As with the woman's dress, it capitalized on the natural shape of the skin and required a minimum of tailoring, though details of cut could seldom be procured. Sleeves were added, even being wrist length if sufficient material could be had. (Also, notes 1461-1471.) Woven bark is an unsatisfactory substitute for skin in shirts or dresses but seems occasionally to have been used. Poor or unlucky hunters wore only the breechclout, which was of northern or eastern origin, but kept warm with robes. Sometimes even the breechclout was of twined bark. (Also, notes 1508-1513.)

At least two historical sources of these garments have been indicated. Had game been more plentiful, it is probable that the more complete clothes of the northern and eastern styles would have replaced the simpler west coast styles, as among eastern Idaho and Wyoming Shoshoni, thus

¹⁰⁶P. 157.

¹⁰⁷P. 127.

¹⁰⁸In 1859, p. 66.

¹⁰⁹Irving, 1:338.

¹¹⁰11:384-385.

¹¹¹Pp. 61, 67, 72.

¹¹²1:329-330.

¹¹³Plains styles, similar to those in this area, were known to the Nez Percé (Spinden, 217-221), who had some contact with the Snake R. and from whom some of them may have been derived.

weakening the connection of Shoshoni with the west coast. This demonstrates that cultural similarities of areas are not wholly intelligible in terms only of contacts, but involve also the possibility of a borrowed trait flourishing under local geographical as well as cultural conditions.

Footgear.—(Figs. 13, 14, pp. 343, 344.) Though many persons went barefoot, the rough terrain and great distances traveled favored substantial and preferably hard-soled moccasins. Thus, the Plains type with the separate hard sole was readily adopted, and seems recently to have gained ascendancy. It is probable, however, that the Plains type, called "2-piece" (note 1527) and the soft-soled western style, which lacked a separate sole and is called "1-piece" (note 1539) (both may have uppers and tongues added), were both used in some localities according to season or need. The latter, however, sometimes had added another hard sole. For cold weather, moccasins were made with fur remaining on the skin and turned inside or were stuffed with bark, fur, or grass. (For materials, see notes 1551, 1552.)

When skin was not available, woven bark (note 1555) had to suffice for moccasins (fig. 10);



Fig. 10. Twined sage-bark moccasin. (Made by RB, S-Elko.)

though in warm weather persons went barefoot. Although the occurrence of fiber sandals in the Southwest and among Paviotso Northern Paiute and in northern California¹¹⁴ would suggest a former use of them in this area, there is no evidence of it, except from a cave in Owens Valley.¹¹⁵

Snowshoes, like those in California and the Plateau,¹¹⁶ were always circular or oval (note 1565).

¹¹⁴Spier, 1928: fig. 49. Lowie, 1924:218.

¹¹⁵Steward, 1933:274.

¹¹⁶Kroeber, 1925:807; Kelly, 1932:149-150. Spinden, 223-224. The tennis-racquet shape, previously reported from Owens Valley Paiute (Steward, 1933:276), is incorrect. It was claimed also at S-SprV, but probably represents informant's misinformation or observation of white men's snowshoes. S-Elko claimed that this style was post-Caucasian, from an unknown source.

GAMES (1577-1887)

The Great Basin cultural matrix contained few features which exercised control over games. Games were purely lay pursuits, done for sheer amusement, and having no religious or social features to integrate them with other phases of culture. Their sole dependence upon the social group was that some, e.g., shinny, required substantial numbers of persons for their performance. From spring to fall, when the population was broken up into family groups which were preoccupied with food seeking, was unpropitious for gambling. Consequently, the temporary gatherings for communal hunts and dances were as much occasions for gambling as for other activities. It appears that in such games as shinny, hand game, the ball race, and others, opponents were most often though not necessarily villages or groups of villages from various localities.

Probably few games in the west were predetermined or affected in any important degree by the peculiarities of a special physical environment.

It seems to be as true of the country generally as of the Great Basin that the diffusion of the generalized types of games was neither favored nor hindered as much as other kinds of culture elements by the peculiarities of local cultures. Such games as hoop-and-pole, shinny, ring-and-pin, and the hand game are distributed across culture areas of the United States in such a manner as to indicate little functional dependence upon the total culture of each area. It does not matter that subsequent to acceptance in the area, games became variously interrelated to each local socio-religious complex; their initial appeal must have been much the same everywhere. The wide distribution of some games, therefore, could as well be interpreted as rapid diffusion facilitated by their general acceptability—like the rapid acceptance by Indians in post-Caucasian times of cards—as of great antiquity. The general proposition, therefore, that in proportion as a trait is functionally independent of the total culture, it may spread rapidly or, conversely, may persist in a changing culture, is illustrated in the case of Great Basin games.

As for the relative antiquity of games, it is impossible to compare them with one another or with other culture elements. It is clear only that specialized forms are more recent than generalized forms of the same game.

A relevant observation is that in this area many localities have several, very similar games which serve approximately the same purpose—the hand game and 4-stick game, the foot race and the ball race, the 4-stick, 8-stick and 12-stick dice. This contrasts with economic devices wherein a single element or complex serves a particular need and is fairly well established and unvarying. Each locality has only one type of winnowing basket, of conical carrying basket,

of water jug, etc. An overlap of two devices serving the same purpose occurs only where culture areas adjoin and the devices have been borrowed from various sources. The very multiplicity of games suggests that there are attitudes toward games which facilitate their acceptance and indicate great potential variability in type and in number. Similarly, gambling songs, as well as other songs, are accepted eagerly from new sources and do not conflict with established repertoires.

The association of certain sedentary games with one sex only cannot have other than purely historical significance.

Most adult games entailed inordinate gambling. Gambling under the present-day economy often has disastrous effects upon an individual. Under native conditions, his capital was limited at any one time and could be replenished by a reasonable amount of hard work.

Ball race.—This is a man's game. Opposing sides race, kicking a stuffed-skin ball which they attempt to drive first across a line at the end of the course. (Also, notes 1577-1595.) This is general in the eastern portion of the area, but was lacking in the W. Previously it was erroneously ascribed to Owens Valley Paiute,¹¹⁷ who recounted it in myths but did not actually play it. Although it was known to San Joaquin Valley tribes in California,¹¹⁸ its introduction to the Great Basin was probably by way of Utah. In fact, stone balls, which are very similar to those used by certain Arizona tribes for the ball race, are common in puebloan sites in Utah,¹¹⁹ though they may have served some very different purpose.

Names of the ball race are: su:tako'in, S-GSmV; su:toin, S-Mor, S-Hmlt, S-Ely, S-SprV; nāzatoin, S-Elko, S-Egan, S-SnRv, S-BtlM; nacitoin, S-RubV.

Shinny.—Practically universal in the United States,¹²⁰ this occurs in most localities in the Great Basin. But the main form was the woman's game, often called "double ball," employing a short, braided-skin cord which was thrown by means of a straight stick. Men only occasionally participated in this form of the game. The man's game, employing a stuffed-skin ball which was kicked on a field like that used for the woman's game and found in the Death Valley-Owens Valley region and in the extreme north, might be interpreted as an adaptation of the ball race to shinny. (Also, notes 1596-1620.)

Names of shinny are: natsitoip:¹, S-Bty; pitako'o, S-GSmV; wütūmo'i, S-SmCr; nūzitako'¹ or su:tako'in (the latter may be a name heard elsewhere for the ball race), S-RsRi; nazitoin, S-Mor; nadzoiⁿ, S-Hmlt; naditoin^{dua}, S-Ely; dai-

toi, S-SprV; nuzitoin, S-Elko, S-Egan, S-RubV. The last three lists have men's and women's shinny. The first, in which the puck is kicked, is called by a name similar to that used elsewhere for the men's ball race: nasūtoi (na, with; sū, the foot; toin, send into the air), S-SnRv, S-BtlM; also, nasūsimoin, S-BtlM; wüt-simā^{wi}, NP-MC. Woman's shinny, in which the puck is thrown with a stick, is called: nadzitoin (na, with; dzi, stick; toin, to send into the air), S-SnRv, S-BtlM; natzizak, NP-MC.

Hoop-and-pole.—This game occurs in two forms, to which a third, the ring-and-dart (element 1811) might be added. The first, occurring throughout the southern and western portions of the area, differs only in minor details from the form which is general throughout America and occurs on all sides of the Great Basin.¹²¹ In this, scores are reckoned by the position in which the pole falls relative to the hoop.¹²² (Also, notes 1626-1651.) The second depends upon elimination of contestants instead of scores for each cast, and was described as follows:

S-SnRv men and S-BtlM boys formed two sides, standing about 30 feet apart. Side A rolled the ring; all members of side B cast their poles simultaneously (a good marksman might cast from a greater distance than the others to make it more difficult subsequently for his opponents). If all the poles missed, side B rolled the ring and side A cast. If, however, a member of side B had penetrated the hoop so that his pole stuck up, a member of side A stood at the place from which this pole had been thrown and cast. If he knocked the pole out, the hoop was rolled again. If he missed, he yielded his pole to side B. A member of the latter then threw it and if he penetrated the hoop, side B kept the pole and the owner on side A was eliminated. If he missed, however, an opponent took the same pole and cast. If he missed, the pole was passed back to the other side. In this manner, the pole was passed back and forth until a member of one side penetrated the hoop with it, thus eliminating the last member of the opposing side to throw. The hoop was then rolled again. When all of one side were eliminated (that is, had lost all their poles) the other side won. If one side had an expert, they might risk all their poles on his one cast. When played by S-BtlM, boys did not bet.

CTh thought this form of the game had been played by Lovelock Paiute but not by Winnemucca or NP-MC Paiute. Kelly reports it among Surprise Valley Paiute,¹²³ to whom it seems to have come from the east. All Idaho Shoshoni played it; also the Crow.¹²⁴

¹¹⁷ Steward, 1933:287.

¹¹⁸ Culin, 665-697.

¹¹⁹ Steward, 1936b:38.

¹²⁰ Culin, 616; Kroeber, 1925:847-848.

¹²¹ Culin, 420-537; Kroeber, 1925:846.

¹²² See Steward, 1933:287.

¹²³ 1932:171.

¹²⁴ Lowie, 1935:101.

The southern or orthodox hoop-and-pole game was called: *pacidü*, S-DthV; *pas*, S-Bty; *navasin*, S-GSmV, S-RsRi, S-Hmlt; *pai:ciin*, S-SmCr; *pasin*, S-Mor. The northern form was called *mudzivoin*.

Ring-and-pin.—The early abandonment of this game may account partly for its apparent spotty distribution, though it was unknown to all Idaho Shoshoni except S-SnRv. It is, however, very general throughout the United States,¹²⁵ its main variable being the ring which to some extent depends upon environmental materials. It is perhaps no accident, therefore, that rabbit skulls predominated among Shoshoni.¹²⁶ This game among SP-Ash is not played in summer for fear of rattlesnake bites, one of the rare supernatural associations with a game. (Also, note 1656.)

It is called: *totsokiin*, S-Lida; *tonsokoin*, S-Mor; *totokoin*, S-Hmlt; *totokoin^{dui}*, S-Ely; *totokoi*, S-SprV; *tosokoin*, S-SnRv.

Hand game and 4-stick guessing game.—Of the various guessing games prevalent in the west, only these two were known to the Shoshoni, among whom they had general distribution. The hidden ball probably occurred among SP-Ash, where the ball was hidden in 4 sand piles, but was definitely lacking elsewhere.

The hand game was well standardized, unvarying in the use of 4 sticks hidden in the hands without grass, in singing, in guessing by motions, and in keeping score by means of counters, and varying only in such details as shape and materials of the sticks, number and kind of counters, etc. (See also notes 1666-1689.)

The 4-stick guessing game was like the hand game in manner of play and usually in materials, though sometimes long and short sticks instead of ordinary hand-game sticks were used. They were hidden under a basket instead of in the hand. (See also notes 1692-1712.) As this game is confined to northern California, Washington, Oregon and Basin tribes,¹²⁷ it seems legitimate to infer that it is an adaptation of the hand game which, in spreading into the Basin, was assigned specially to men. Thus, two games, which are nearly identical and serve the same purpose, coexisted in a large area. The only important difference in them seems to be that, as all sticks were hidden under a basket in the latter, it was better adapted to playing with only one person to a side.

The hand-game is called: *matsogo'o*, S-Bty; *naiyawin*: or *naiyawina*, S-GSmV, S-SmCr, S-Mor, S-Hmlt, S-Ely, S-Elko, S-Egan, S-RubV, S-SnRv,

S-BtlM; *naiyawit*: , S-RsRi; *naya'k^{wi}*, NP-MC; *naiü'gua*, NP-FSp.

The four-stick game is called: *nüpo''ñinu*, NP-FSp; *tuxanuip*, S-Bty; *du'wa'a* or *du'wano'in* (from *duma*, the winnowing basket used in the play), S-GSmV; *düwino:ip*, S-RsRi; *duwundugi*, S-Mor; *tuwandugi* or *wotatsoi*, S-Elko; *wütatsiin*, S-SmCr, S-SnRv; *tuwudugi*, S-Hmlt; *wütatsi*, NP-MC.

Dice.—Shoshonean variants of dice games, which are common throughout the United States, fall into two major classes: long sticks of cane or wood and short sticks of wood.

There are two types of long-stick dice. The first, "8-stick dice," was predominantly a man's game. The dice, usually made of cane, were all red on one side, white on the other, and the manner of play was comparatively uniform everywhere. (Also notes 1765-1788.) This game occurs in all localities but is lacking among Idaho Shoshoni except S-SnRv. Use of 8 sticks is largely distinctive of the Great Basin area and has been reported from Pyramid Lake and Surprise Valley Northern Paiute,¹²⁸ Southern Paiute of Utah and, outside the Great Basin, from Yokuts and Gabrielino.¹²⁹ Long dice elsewhere usually number from 3 to 6.

The other long dice or "4-stick dice" is a woman's game. Two dice are similarly marked and called "little ones," two are distinctively marked and called "mother" and "father" (fig. 6,i-k; see also notes 1716-1731). Though not sought there, this was probably lacking among the first five groups in the lists. It seems to have been the same as the Surprise Valley Northern Paiute "squaw game" *tupi'du*,¹³⁰ and the Wyoming, Lemhi,¹³¹ and Idaho Shoshoni game *topedu*.

The short stick or "many dice" or "basket dice" was also a woman's game. The dice were short, generally oval and all painted alike. They were tossed on a basket. (See also notes 1734-1757.) Though confined to the central part of the Nevada area and lacking in Idaho and Utah, this game was undoubtedly derived from the widespread "basket dice" which elsewhere are of bone, walnut shells, teeth, or miscellaneous other small objects and which also commonly employ pebbles or earth piles for counters.¹³² The Shoshoni number of dice is exceptional, for it varies from 8 to 13 (30 reported by S-Ely is doubtful), whereas, with the exception of the Apache, who used 13, the number in most surrounding areas is from 4 to 6; Surprise Valley Paiute used 8.¹³³ The large number in Nevada, therefore, appears to be a local development.

¹²⁵ Culin, 527-561. Kroeber, 1925:846-847.

¹²⁶ Culin, 554, reports a rabbit skull used by Southern Paiute in Utah, and Lowie, 1924:257, reports it from Moapa Southern Paiute.

¹²⁷ Culin, 327-328; Kroeber, 1925:56; Kelly, 1932:173-174.

¹²⁸ Culin, 166-167. Kelly, 1932:174-175.

¹²⁹ Spier, 1928:346-351.

¹³⁰ Kelly, 1932:175-176.

¹³¹ Culin, 169; Lowie, 1909:196.

¹³² Culin, 44-225.

¹³³ Kelly, 1932:176-177.

Names of the four-stick dice are: topaidu, S-GSmV, S-SmCr, S-RsRi (but see note 1765), S-Hmlt, S-Ely, S-SprV; topaidi, S-Egan; topedi, S-RubV, S-SnRv, S-BtlM; navogwoi, NP-MC.

The name of "many dice" everywhere is wūsū'u.

The Shoshoni name of eight-stick dice is everywhere danzahnī or danza^hni, which, according to JP, is the name of the painted side of the dice and of a throw of all red sides when playing. Other names are: tajahnī'imu, NP-FSp; tatsa^{wi}, NP-MC.

Archery.—Two main games are entered here: one of shooting, the other of throwing arrows. For shooting, the target is a brush bundle, a stick, or an arrow previously shot or thrown.

Arrow shooting was called: nahwatakoin, S-GSmV; pa:sin (this name elsewhere was for the hoop-and-pole game), S-Hmlt; nadinwutkūnt (from wut, shoot), S-Elko, S-Egan, S-RubV, S-SnRv; nadinwutkūnt, S-BtlM. In the S-BtlM list, B is shooting arrows at a brush bundle, to which the scoring given applies; in the S-SnRv list, B is shooting arrows at a stick.

Arrow throwing, entered in the lists as A, employed long arrows or darts. S-SnRv called it nadawūkin; and described it as follows: four men play, two to a side. Each has two feathered darts about 4 feet long. One of two specially marked darts, called tundahai, is thrown to serve as target and each contestant throws one arrow at it. The other tundahai is thrown and each contestant throws his other arrow.¹³⁴ Scoring was not known.

Another game (element 1810) is called by NP-MC tudo'kwine. Each contestant throws one arrow for distance, the winner of each throw getting one counter, 5 counters winning. S-Bty shot arrows for distance.

Ring and dart.—This game, which is probably related to hoop-and-pole, was first encountered at S-Elko, so that its absence in the south is uncertain. It differs from hoop-and-pole in that one contestant holds a small, netted hoop in his hand and attempts to catch small, feathered darts thrown by his opponent.

Among S-Elko and S-RubV, each dart caught gave one point. Among S-Egan, the darts caught were kept; darts missed were thrown back and the opponent attempted to catch them.

Data on the distribution of this game are scarce, but Culin figures a similar ring and dart from Southern Paiute¹³⁵ and the writer excavated similar equipment in Promontory Cave in northern Utah (Steward, 1937). Owens Valley

Paiute caught an arrow shot or thrown somewhat similarly.¹³⁶

This game was called: wūnzivu, S-Elko. S-Egan and S-RubV called the game wodjoin and the ring winzodovi.

Quoits.—Contestants throw a rock at a stick target. S-SnRv rocks are rounded, 2 inches in diameter.¹³⁷ The game is called tumbi (rock) diida (throw) wūko (shoot). It has been reported also from the Northwest, Southwest, and Micmac,¹³⁸ and was known to all Idaho Shoshoni and Bannock.

Snow snake.—This name is perhaps not justified as the game usually consisted of hurling a pole through the air instead of sliding it on the ground. Children played it. Lacking in the north and south, it occurred only in the central part of the area.

It was called: wūko, S-Egan; wūkoⁱⁿ, S-RubV.

Juggling.—This was a woman's game. Rocks were juggled. Walking or running toward a goal while juggling was perhaps more common than is recorded.

It was called: nawatapi, S-Egan; nadapein, S-BtlM (but see note 1855, "Jacks").

Foot race.—Races, varying from short dashes to long, cross-country runs, were undoubtedly more widespread than indicated on the lists.

Wrestling.—This, also, was probably more common than reported. S-SnRv claimed that it was very popular. (Also, note 1847.)

Shot putting.—Any heavy rock was thrown. This was not an important game and involved little if any betting.

Stilts.—The absence of these in the southern part of the area is uncertain. In three localities they were declared to be of recent introduction; in four, to have been native. All Idaho Shoshoni also claimed that they were native. Culin reports them from the Maya, Wichita, Hopi, Wind River Shoshoni, and Zuffi.¹³⁹ There may be some question that they were native to America.

Names were: hu:nambe or huá, S-Hmlt, S-Egan, S-SprV, S-RubV, S-BtlM; humia, S-SnRv.

Jacks.—This was described as similar to the game played by white children, but pebbles were used. It was called madape:in, S-RubV and S-SnRv.

¹³⁶ Steward, 1933:287-288.

¹³⁷ Probably like Culin's fig. 954.

¹³⁸ Culin, 722-728.

¹³⁹ Pp. 731-732.

¹³⁴ Culin, p. 383, reports a similar game from the Eskimo and the Southwest.

¹³⁵ P. 498.

Tops.—Two types of tops were: one, a simple stick with a pitch whirl, spun with the fingers or a string;¹⁴⁰ the other, a pecked stone, spun with a string or lashed with a whip on ice. (See also notes 1859-1863.)

Tops were called: *dūnguhno'* (spin), S-GSmV; *dūngohnu*, S-RsRi; *sāna* (sānap:, pitch) *tūnguhno'o*, S-Mor; *tumbi* (stone) *tūnguhno'o*, S-SnRv; *tuhnú:i*, NP-MC.

Sling.—This was a boy's toy everywhere except among NP-FSp, who sometimes used it in minor fights caused by trespass on pine-nut lands.

It was called *witingübü'ü*, S-SmCr and S-SnRv, but MM, S-RubV, thought the bull-roarer was called *witingübü'ü*.

Bull-roarer.—Whereas the bull-roarer was used in the Southwest in rain ceremonies and in southern California for summoning people, the southern portion of the Great Basin, like the Gros Ventre, Northern Maidu, and Shivwits Southern Paiute¹⁴¹, used it as a toy. The northern portion of the Basin, like the Klamath, Arapaho,¹⁴² and Surprise Valley Paiute,¹⁴³ used it to make wind blow. (See also note 1874.)

(See also "Buzzers," elements 1981 ff.)

Figure 4,f: a wooden whirrer made by WP, Saline Valley Shoshoni, for the Peabody Museum of Harvard University. It is tied with a buckskin thong, 15 inches long, to a plain stick 10 inches long which serves as handle; called *wumuitü*.

It was also called: *wünzivu*, S-SprV (but S-Elko called the ring-and-dart game *wünzivu*); *nui*, S-Elko. S-BtlM used an antelope patella whirrer attached to a string on a stick, called *tsahanunu*.

Cat's cradles.—Information on these is incomplete because time was not available for demonstrations. Some of the figures made, however, are listed in note 1875.

Dolls.—These were probably more widespread than indicated in the lists and were no doubt often made of unbaked clay. S-RubV and S-SnRv called unbaked-clay dolls *nui* (play) *dua* (child).

Water pistol.—This is a hollowed section of elderberry stem into one end of which a stick is inserted as a plunger. Water is sucked into the other end by pulling back the plunger, then squirted out again. Its distribution is incompletely known. It is called *ba* (water) *woina* (flute), S-RubV.

¹⁴⁰None was seen but descriptions indicated that the stick was about 6 in. long and the entire whirl built up of pitch. Culin (fig. 992) shows a Southern Paiute top from Utah with a clay whirl cemented with gum.

¹⁴¹Spier, 1928: 290-291.

¹⁴²Ibid.

¹⁴³Kelly, 1932:177.

Popgun.—This is a section of stem (of *angawana*) 12 in. long, the pith removed. A wad of chewed grass is pushed inside to about the middle and the tube moistened with the breath. A second wad of grass is then pushed in with a stick until the compressed air forces the first wad to pop out of the other end. Culin has listed this from the Plains.¹⁴⁴

It was called: *tzi* (push) *toke* (popping sound), S-Mor.

MONEY (1888-1893)

True money is a west coast phenomenon which spread to the Death Valley-Owens Valley region from California. Even many of the shells used were traded from the coast. (See note 1888.) Elsewhere, exchange involved mainly direct barter and few objects had standard value. Strips of rabbit hide at S-Mor and deer hides at S-SnRv perhaps served as currency in a minor way.

Although it cannot be asserted that there was anything in Shoshonean culture, except relative unimportance of commerce and lack of stress on gifts, which barred the diffusion of money, it appears that the strings of shell beads which were occasionally traded far beyond the California area lost their monetary significance and became mere ornaments.

TOBACCO AND SMOKING (1894-1943)

Pipes.—The use of the tubular pipe of stone, and sometimes of pottery, links this area mainly with the south and west, though the trait extends back to the Basket Maker and was part of the Puebloan culture of the Northern Periphery. The occasional use of an L-shaped bowl and, in northern Nevada, of the monitor or platform pipe, links it with the east. The bowl, usually called *toi* or *doi*, was provided with a stem, called *pitcimu*, which was longer for the monitor pipe. (See also notes 1894-1906.)

Filling cane or elderberry with tobacco was an expedient when no pipe was available; it was not a custom.

Chewing.—This west coast practice, indulged by women, occurred only in the southern part of the area which was in contact with California. (Note 1919.)

Smoking.—Smoking formerly was restricted to men, who partook only occasionally, especially at bedtime. Old men today smoke sparingly. (Notes 1919a, 1922.) Shamans invariably smoked when doctoring and individuals may have made some smoke offerings. There was no other religious

¹⁴⁴Pp. 758-759.

use of tobacco (except note 1928). There is some evidence that smoking attended social gatherings, the pipe, especially the large monitor pipe, being passed according to some routine. Such smoking occurs in northern Nevada, which probably acquired it from the Plains through Shoshoni in Nevada and Idaho.

Tobacco.—Throughout the area, the species was probably *Nicotiana attenuata*, which was collected in several localities. This was gathered wild; never cultivated. It was generally called pahu in the south (bia, big, bahu, S-Hmlt) and puwi pahu, S-SprV, S-Elko; bui baho, S-RubV. Gosiute called it pu-i-ba-u.¹⁴⁵

In northern Nevada, tobacco was usually mixed with some leaf or bark, a practice of eastern or northern origin.¹⁴⁶ Some confusion attends the species mixed with tobacco because they were not consistently named and it was impossible to collect specimens.

Kinikini, possibly a term recently introduced, seems to have been applied to various species. Gosiute, according to Chamberlin,¹⁴⁷ used the term for dogwood (*Cornus stolonifera*), which was also called āñka-koi-nūp or āñka-kwi-nūp. A leaf called kinkini seen at Ely resembled manzanita. S-RsRi and S-Mor used only the term kinikini. Among S-SmCr, kinikini was also called pahu (tobacco) tuwūya¹⁴⁸. Among S-SprV, S-Elko, and S-Egan, kinikini was also called dūmayū, S-SprV also calling it adum, which is apparently the same term as S-Ely adumbi. S-RubV and S-SnRv, however, used kinikini as the equivalent of ba-hundūmayū or biadūmayū, S-SnRv claiming that the second term was used more toward the south and that a small variety of the same plant was called naicudūmayū. S-Egan, however, distinguished kinikini or dūmayū from biadūmayū and naicudūmayū, three separate plants. S-Bty mixed tobacco with bark from buhu, an unidentified plant, and SP-Ash with bark from sugūwiūv. Remy and Brenchley¹⁴⁹ record three plants used for "kinikinik" among Humboldt River Shoshoni: a *Cornus*, the epidermic cuticle of which is detached, then the bark scraped off and dried; dried leaves of a *Vaccinium* with red berries; dried leaves of a small shrub which "resembles a certain species of *Daphnads*."

MUSICAL INSTRUMENTS (1944-2017)

There were few instruments in pre-Caucasian times. Several were introduced into the area in special associations within the historic period.

Of percussion instruments, striking together two sticks when singing for the hand game is probably native. So also may be hoof rattles (note 1965), used to an undetermined extent by the shaman. Rawhide rattles made of a rabbit's ear,

deer's ear, deer's testicle, or of other hide (fig. 4,b) are scattered through the area but were so long ago abandoned that their distribution is incompletely known (note 1957). The coocon rattle, a California shaman's instrument, penetrated only the region in contact with California (note 1948).

In post-Caucasian times, the split-stick rattle¹⁴⁹ spread with the "South dance" from the Owens Valley or Death Valley region to many localities. The musical rasp similarly spread from the east with the Back-and-forth dance which was adapted from the Ute Bear dance.¹⁵⁰ (Notes 1973, 1977.) Other dances in the area had only singing, unaccompanied by musical instruments.

The large, double-headed drum and the tambourine both had penetrated only the eastern margin of the area, whence they had probably been derived comparatively recently from the Plains through the Ute.¹⁵¹ (Note 1985.)

The buzzer, actually a child's toy, consisted of hoofs or bones strung in the center of a thong, one end of which is held in each hand. The thong is twisted and untwisted so as to make the hoofs whir. Similar devices employing disks are reported from the Eskimo, Plains, and Southwest.¹⁵²

The buzzer was called: gūvūngūvu, S-SmCr; tasinūgi, S-Egan; tsahumugi, S-SnRv.

The musical bow occurs only in the region near California, probably employing only the archer's bow.

Whistles, other than willow toy whistles, doubtfully occurred. Bird wing-bone whistles were introduced temporarily to a few localities as part of the Sun dance.

The flute (fig. 4,a), usually of elderberry and having 4 holes, is the only instrument that would produce a melody. (Notes 2004-2010.) It had no important place in the culture, being used for casual music or as a toy.¹⁵³ For courting, it was used only in the north.

The flute was called: woiyo, S-DthV; wāyo, S-Bty; mudzido', S-GSmV, S-Ely; woino', S-SmCr; woina, S-RsRi, S-Mor, S-Hmlt, S-SprV, S-Egan, S-BtlM, S-SnRv; wo:in, S-Elko.

Thus, all instruments except the flute supplied rhythm in complexes involving song and

¹⁴⁹Common in California (Roberts, 1936:21).

¹⁵⁰Steward, 1932.

¹⁵¹The Mono Lake and Walker Lake Northern Paiute drums (Steward, 1933:278) and the Paviotso drum mentioned by Curtis (p. 71) cannot natively have been the true, skin-covered drum.

¹⁵²Culin, pp. 751-757.

¹⁵³But a Mono Lake Paiute shaman used a flute in his doctoring performance (Steward, 1933:277). Some S-Bty doctors also used flutes.

¹⁴⁵Chamberlin, 1911:34.

¹⁴⁶Nez Percé mixed tobacco with leaves (Spinden).

¹⁴⁷1911:35.

¹⁴⁸Pp. 129-130.

dance. In pre-Caucasian times, the circle dance employed no instrument; shamanism had varied rattles. New dance complexes brought specific instruments with them. Only the flute, which was independent of any complex, occurred throughout.

MARRIAGE (2018-2052)

Social institutions are less amenable to tabulation than the parts of culture previously described. Moreover, as an analysis of Shoshonean society with the inclusion of data on population distribution, settlements, genealogies, kinship terms and systems, and other related features has been presented in a previous paper,^{153a} a few salient facts must suffice here.

Society in this area was structurally simple, lacking clans, moieties, or other institutions to regulate marriage. Where true bands occurred, they were composite, that is, consisted of unrelated families who could intermarry within the band. But most localities lacked even bands and had only scattered, independent villages which, by reason of lack of consistent postmarital residence rules, comprised unrelated and therefore intermarriageable families, as the genealogies show.

Choice of spouses was governed by bilateral relationship, all persons up to the second or third degree of relationship being taboo, except in the north. Here, some groups preferred true cross-cousin marriage, between a man and his father's sister's daughter, while others, though prohibiting true cross-cousin marriage, preferred what may be called pseudo-cross-cousin marriage, between a man and his father's sister's step-daughter.

The sororate and levirate were observed throughout the area but were enforced only in a few localities (note 2030). Both polygyny, which was correlated with the sororate and was usually sororal, and polyandry, which was correlated with the levirate and was usually fraternal, occurred.¹⁵⁴ The latter may be more widespread than the lists show; Cth denied it at NP-MC.¹⁵⁵

There was no true bride price. Presents to the bride's family, prior to marriage, were reciprocated by presents of about equal value. Residence following a marriage consummated through present exchange tended to be matrilocal at first, in some cases even being preceded by a kind of bride service of some months (note 2021), but was subse-

quently variable. Permanent residence depended upon food supply, location of other relatives, and various matters of individual preference.

Instead of acquiring a wife in the orthodox manner just mentioned, a man sometimes abducted a married or unmarried woman by carrying her from her home. He was aided by his friends if necessary. Sometimes, also, he fought a woman's husband in a kind of duel for possession of her; he might be aided in this, too, by his friends. Though vehement and sometimes injurious to the woman, these fights involved no weapons nor intent to kill.

Marriage bonds, as these facts suggest, were loose. Little was done about premarital relations, for the fact of marriage consisted largely of the couple living together. Infidelity seldom entailed serious punishment.

KINSHIP RELATIONS (2053-2089)

Parent-in-law avoidances occurred only among NP-FSp and NP-Flk and have been described.¹⁵⁶ NP-MC merely had "respect" for parents-in-law but no formal avoidance. Among Shoshoni, the lack of avoidances is at least partly correlated with cross-cousin marriage, where aunts and uncles frequently become parents-in-law. Thus, JP, S-BtLM, insisted that because a man's mother-in-law was usually his father's sister, who, previous to his marriage, was one of his closest and most esteemed relatives, to avoid her would have been ridiculous.

There was no true joking relationship, but, probably in only the northern part of the area, coupled with cross-cousin and pseudo-cross-cousin marriage, a man's brother-in-law, who was also his father's sister's son, was his main companion. CT, S-SnRv, said that a man called upon his brother-in-law when in trouble, played jokes on him, could say anything to him and, among peoples north of the Snake River, could even appropriate his property.

Adoption was nowhere common, being limited to orphans who had no close relatives to care for them.

Kinship terms are reserved for a future work.

BERDACHES (2090-2110)

Berdaches or transvestites were known to most informants, but appear not to have been common. Probably several of the cases described below refer to the same individual in Elko.

From present data, it is certain that men impersonated women more frequently than the reverse. Transvestitism, however, was unstandardized, varying with the individual. Some persons

^{153a} Steward, 1938.

¹⁵⁴ Steward, 1936a.

¹⁵⁵ However, Steward recorded polyandry among neighboring Winnemucca Northern Paiute and also at Burns, Oregon; McDermitt; Owyhee; and Pyramid Lake. It was apparently never fraternal. Park (1937) was told that at Walker R. and Pyramid Lake it was fraternal.

¹⁵⁶ Steward, 1933:302-303.

manifested slight, others great tendency to be—have like the opposite sex. Nothing was done about such persons, in sharp contrast to the ceremonies connected with them among some Yuman tribes on the Colorado River. People regarded them only with mild interest and with no disapproval. Two cases in the northern part of the area were also shamans, but, while this association of sex change and shamanism is very strong on the Northwest Coast and in Siberia, the connection here seems to have been fortuitous. Native thought did not connect the two phenomena.

The following cases are of male berdaches:

NP-FSp. MH saw a Lida Shoshoni man who had neither beard nor breasts, and who dressed like a woman, wove baskets, and gathered seed, but did not marry. Such persons called tuyayap.

S-GSmV. JK's great-grandfather had lived with a man who kept house for him. The man appeared to be normal physically. Another man made baskets as a youth. When both men were young, they had been placed inside a circle of sagebrush with a bow and a basket. The brush was set on fire and the young man was required to seize either the bow or basket and run out. The object seized determined his sex. JK's great-grandfather had seized the basket and subsequently lived as a woman (but must have changed later to become a parent). The other youth had seized the bow and henceforth lived as a man.

S-SmCr. Th heard of a case at Alpine; called such persons tubasa'a (half).

S-Mor knew of a present-day case at S-Elko, the person having a man's body and a man's clothing but keeping house for white people. Such are called "half man, half woman."

S-RsRi heard of a case in Smoky Valley.

S-Hmlt called such persons tanwu (man) waip (woman).

S-Ely. AR heard of one in Cedar City, Utah (probably Southern Paiute) and said there had been many men who cooked, made baskets, and did not marry.

S-SprV. JR knew of a transvestite at Kanosh, Utah (Ute?) and of one now living at Elko who was raised in Eureka. They are called tangowaip (man-woman).

S-Elko. A man who lived near Elko was feminine in unspecified characteristics, but had a wife and children. Another man, from Eureka, who moved to Elko, then to Fort Hall, had breasts and male genitals, dressed like a man and did man's work, but did not marry.

S-RubV. A man seen at Elko dressed like a man, but had a feminine voice and did woman's work.

S-SnRv. A man seen at Bruneau, Idaho, lacked breasts but possessed both male and female genitals. He was a good doctor but lost his power in old age. Transvestites are called waip: (woman) siqwa (half).

Among S-BtLM, there was a man who was physically normal but who had an abnormally small penis. He ordinarily associated with men, but did woman's work. He was a doctor.

The following are instances of predominantly female persons tending to masculine behavior:

S-Hmlt. A woman hunted but married a man. Called: nuwüdüka (?).

S-SprV. A woman west of Duckwater dressed like a man. Called: tangowaip.

S-RubV. There was a woman at Montello who wore men's clothes and did man's work. Called tangowaipü.

DIVISION OF LABOR (2111-2140)

Heavy tasks were assigned to men, lighter and more routine tasks to women. Women gathered seeds, while men hunted; but pine-nut gathering required men's assistance in knocking nuts from trees and transporting them. Large-game hunting was not sufficiently important to occupy all of a man's time, hence he also helped procure small game and insects.

There was little arbitrary sex specialization in manufacturing. Instead, each sex made objects used in its activities; thus, women made baskets, pots, and so forth, while men made bows, rabbit nets, and similar equipment. Objects used by both were generally made by both. Thus, skin preparation and making of clothing, fur blankets, etc., seem to have been accomplished about equally by either or both sexes throughout the area.

Certain games, however, were arbitrarily played by one or the other sex, for which there is no obvious reason except that it was generally so throughout the west.

There was little individual specialization in manufacturing. Each person made his own objects, though an unusually skilled worker might have some demand for his wares, as the makers of pots and bows in S-RubV.

See also notes 2110a-2137.

POLITICAL ORGANIZATION (2141-2164)

Political groups.—Social and political organization has been fully described in a past paper.^{156a} It suffices at present to indicate two types of political units in this area, both of which spring directly from local ecology.

One type is true, localized, land-owning bands which are bilateral or composite. These occur among Owens Valley Paiute¹⁵⁷ and, with less cohesion, among some of their neighbors. This is an area of dense population and of varied food resources within comparatively small divisions of the territory, which permitted less nomadic existence than in Nevada.

The other type is the village group, which comprised two to twenty families who lived together during the winter, generally under a vil-

^{156a}Steward, 1938. The present material has been superseded by this monograph and other works cited therein published in recent years.

¹⁵⁷This type has been described in Steward, 1936c.

lage chief, but foraged for food in small groups of relatives during the remainder of the year. Even village stability was incomplete, however, because the component families frequently wintered in separate regions, depending upon where the food quest during summer and fall had taken them. Family or village groups associated in larger aggregates for temporary activities, such as dances, rabbit hunts, antelope hunts, duck drives, and so on. But, as the same people did not always assemble on these occasions, Shoshoni society was given slight cohesion over a vast area rather than strong cohesion within limited, well-defined areas.

Chiefs.—The authority of chiefs is commensurate with the kind of political group. Owens Valley chiefs controlled bands in their cooperative affairs, especially the comparatively frequent communal festivals. But special men—in a sense, lesser chiefs—usually had charge of dances, rabbit drives, and other activities. Chiefs here had assistants but probably not announcers. Succession of chiefs was patrilineal with community approval.

Shoshoni village chiefs had little authority, serving merely to keep villagers informed about important matters, such as dances, visitors, the ripening of seeds and location of other foods. The title was actually "talker" (S-Bty, taghwani, talker), and the chief's wife was merely taghwani (talker) huvit¹ (old woman), S-Bty. SP-Ash called the chief towin'dum. S-SnRv and, in lesser degree, other northern groups had uncommonly strong village chiefs, thanks partly to the greater stability of winter villages along the salmon streams. They also had special chiefs' assistants, which, being functionally dispensable in these small communities, probably is a formality borrowed from neighboring areas. Here also chieftainship tended to follow patrilineal succession.

TP said North Fork Shoshoni had the following offices: general village chief, te'gwani (from te'gwu, talk), who directed dances and announced each fall where pine nuts might be found; chief's announcer, tegwewep (from tegwep, word; wep, doing; used today for interpreter); kwini (mush) de'gwani, director of camp and of feasting during dances, who might or might not be the same man as the general chief; hunt chiefs, tugu (hunt) te'gwani, who led different hunts according to their visionary powers.

When various villages or members of different villages came together in the Shoshoni area for dances, hunts, or other activities, appropriate leaders had temporary authority. Though these men obtained authority primarily through personal qualifications, as skill in hunting, a vision for antelope shamanizing, or knowledge of dances, they tended to function from year to year and thus be semiofficial.

PROPERTY (2165-2173a)

Land, among Owens Valley Paiute (NP-FSp and others) and, to a lesser extent, among Saline Valley Shoshoni, was band-owned and defended against trespass.¹⁵⁸ SP-Ash claimed family ownership of pine-nut, mesquite, and screw-bean groves and of a few wild-seed patches. This concept may have been borrowed from southern California or Owens Valley, where land was band-owned; or it may have been extended to wild seeds from the family ownership of cultivated plots. Elsewhere, there was no kind of ownership of food areas or other natural resources with the sole exception of eagle aeries, which everywhere except SP-Ash (note 2173) were claimed by individuals.

Among the Nevada Shoshoni, the principle of property rights was simple: things to which human effort had been applied were owned by the person or persons who had worked on them. Thus:

Wild-seed plots which had been sown were owned by the families which had sown them; other seed plots were free to anyone.

Places where fish dams and weirs were constructed were owned by the groups who had built them, S-SnRv and Humboldt River Shoshoni.

Antelope, deer, rabbits, and other game caught communally were divided among all who had participated in the hunt.

Game taken by an individual belonged to him. However, he was obliged to distribute meat throughout the village, keeping the best portion and the hide for himself.

Gathered seeds belonged to the woman or family which had collected them. Caches were often robbed, but the robber was killed if caught.

All manufactured objects belonged to the persons who made and used them.

Incorporeal things were generally community property: viz., songs, myths, and dances. But songs and dances acquired in visions belonged to individuals; they would not have been efficacious for other persons.

WARFARE (2174-2177)

The greater part of this area comprised small groups, each linked with its neighbors through marriage and association in various economic activities and therefore lacking motives for

¹⁵⁸ Ownership of food areas, especially of pine-nut groves, may have been prevalent among some Northern Paiute of Nevada, though the owning group has not been defined. Several Shoshoni informants near Paiute territory disclaimed Shoshoni ownership of seed lands, but said that Paiute drove off trespassers. GJ and JF, S-RsRi, which is near Paiute territory, thought all localities with wild seeds in their own region were owned by villages; but Gus Thomas thought only pine-nut groves and plots of sowed wild seeds were so owned. Park, 1937, mentions Paviotso family ownership of pine-nut groves.

warfare. There was some friction, but seldom organized strife, where different linguistic groups were in contact, namely, in the Owens Valley region¹⁵⁹ and to some extent along the western portion of the Shoshoni area, where Shoshoni adjoined Northern Paiute, and along the eastern portion, near Ely and Baker, where they were near Ute and Southern Paiute.

In pre-Caucasian days, causes of strife seem most often to have been woman-stealing. Thus, S-RsRi once fought Paiute who had stolen two girls. Panamint Valley Shoshoni fought Kawaiisu for the same reason. SP-Ash, however, sometimes fought defensively against Mohave, who occasionally invaded their country on military expeditions.

Between approximately 1855 and 1880, intermittent fights with neighboring tribes and with white men were caused by the arrival of the latter. These usually entailed cooperation of many formerly independent bands, who, thanks to the horse, were able to travel widely so that formerly independent villages and bands were united under a high command.

BIRTH CUSTOMS (2178-2303)

Birth, girl's puberty, and death entailed more ritual than any other activities, thus revealing the Basin as an extension of the mountainous portions of California where individual crisis rites are, in lieu of group ritual, conspicuously important. Both ritual and practical elements of childbirth were very similar to those of the girl's adolescence observances.

Isolation is based on the implicit fear of contamination of the home (notes 2178-2181). The period of isolation and restrictions when given as "5 days" might often have been stated as "until the umbilical cord detached" had the number of days not been asked. At least, it suggests that 5 days may have begun with this natural period. It is entered in the lists as "30 days" when "one month" was given. It may be suggested that this extended period came about through the fact that the woman's postnatal flow is usually about one month. The heated ground, drinking warm water, and abstention from meats and fats are conceived as for physiological welfare (notes 2182-2185, 2210-2212).

The most obvious supernatural elements are: occasional use of midwife with shamanistic power; hiding afterbirth; special disposal of umbilical cord; use of scratching stick (note 2214); wearing new clothes and painting afterward.

The semicouvade of California¹⁶⁰ is not strongly present, but ritual restrictions on the father are: requirements of running, bathing, building a new fire, using a scratching stick, and some confinement, taboos on food, gambling and hunting,

getting new clothes. (Notes 2246-2278.) The father's requirements seem to have held in greater force in the northern portion of the area. Their purpose, however, was more to insure the health, strength, and good fortune of the father than to protect the infant. (But see S-BtLM, note 2246.)

There is remarkable uniformity throughout the area in even those features which are not a necessary part of childbirth, indicating either a rapid diffusion or some antiquity and strong adhesion of the complex. As against great antiquity, however, is the fact pointed out by Lowie¹⁶¹ that these rites are connected with those of the non-Shoshonean tribes of northern California rather than with those of the Shoshonean tribes of southern California. The main variables in the practices were minor details, such as the specific disposition of the umbilical cord.

Twins were regarded as no different from other children except that the death of one was believed to cause the death of the other. (Notes 2284-2286.) No one had an explanation of the cause of twins, but S-Egan suggested excessive intercourse.

GIRL'S PUBERTY (2305-2378)

Girl's puberty rites were always for individuals. Group rites, like those of some Southwestern and California tribes, were generally impossible because of the sparse and scattered population. The first menstrual observances definitely signalized her changed sociological and physiological status—her reaching adulthood—and entailed longer confinement and a larger number of requirements than subsequent menses, as the lists show.

Throughout the greater part of the area, the treatment of the girl resembled northern rather than southern California,¹⁶² emphasizing her future conduct in the requirements that she arise early, work hard, and be restrained in talking and laughing. Isolation was to prevent her contamination of men, but there was little if any idea that she would contaminate nature, as believed in northern California. Where confinement is entered as 30 days in the lists, informants had given "one month." Physiological measures were her lying on heated ground and her taboo on meat and cold water. More purely ritual elements were: use of the scratching stick,¹⁶³ getting new clothes, being painted and deloused.

¹⁶¹ 1923:147-148.

¹⁶² See also, Kroeber, 1922:311-313; Lowie, 1922:145-147.

¹⁶³ The scratching stick is connected with birth and puberty in the Great Basin, Plateau, and California. Though Havasupai and Eastern Yavapai used it in girl's puberty also, Maricopa and Yuma warriors used it during purification after contact with the dead and Navaho patients used it during the "war dance."

¹⁵⁹ Stewart, 1933:306.

¹⁶⁰ Kroeber, 1925:840.

In the southern part of the area, on the other hand, the girl is not isolated and, somewhat like southern California, her physical well-being is more stressed, especially in her being "roasted" in a pit.¹⁶⁴

See also notes 2304-2377.

BOY'S PUBERTY OBSERVANCES (2381-2386)

The initiation of adolescent boys into a men's tribal society is so widespread in America and elsewhere that some persons have assumed that it was once universal among primitive peoples and should still be found where elaborate cults have not absorbed it or crowded it out.¹⁶⁵ The Nevada Shoshoni, who are totally without cult religion, should, upon this assumption, possess it.¹⁶⁶ There is, however, no trace of it. The few boys' puberty observances can in no way be interpreted as survivals of tribal initiations. Moreover, as the Shoshoni had temporary large gatherings, like those which provided Australians, Fuegians, and others opportunities for boys' initiations, there is no obvious obstacle in the local society to such an institution.

Adolescence brought only intensification of instruction, which had begun in childhood, concerning conduct and hunting (note 2381). The only event to mark the young man's changed status was his first large game kill (deer, antelope, sheep), the meat of which was taboo to him and sometimes to his parents. Confinement was dubiously reported only on the North Fork of the Humboldt River:

TP's uncle, living near Cortez, was isolated, when his voice changed, in a sagebrush house built by his mother. He was fed mush, required to use the head scratcher, and told not to be lazy. He remained in the house one day, then ran away, contrary to instructions. JP had heard of nothing comparable to this at S-BtLM.

The isolated NP-FSp instance of placing the loop of deer's intestines over the boy¹⁶⁷ is slightly paralleled in an account of the Humboldt Lake Paiute by Sarah Hopkins, who states that induction to manhood consists of boys hunting big game for the first time, using a sinew-backed bow. The boy "brings home the hide and his father cuts it into a long coil, which is wound into a loop, and the boy takes his quiver and throws it on his back as if he was going on a hunt, and takes his bow and arrows in his hand. Then his father throws the loop over him, and he jumps through it. This he does five times. Now for the first time he eats the flesh of the animal he has killed and from that time he eats whatever he kills." He may also go to war.¹⁶⁸

This area also lacked the more or less formal vision quest that, especially in the Plains, normally began at puberty.¹⁶⁹

DEATH CUSTOMS (2387-2468)

Kroeber has shown that despite its emotional concomitants, methods of disposing of the dead are extremely variable.¹⁷⁰ In this area, circumstances often determined whether a given group abandoned the corpse in a house, buried it in a rock slide or in the earth, or even cremated it. Always, however, grief of the bereaved was the conspicuous feature of the funeral, for there was considerable indifference to the afterworld and little interest in ghosts. Funerals, though attended by people within convenient distance, were community affairs only in the south.

Cremation.—In and near S-DthV and Owens Valley, cremation was most common. At SP-Ash and, to some extent, S-DthV, it was associated with the annual mourning ceremony derived from southern California, though in Owens Valley this ceremony is connected with burial. In some places, if a person died far from mountains so that no wood for cremation could be had, he was buried.

Hoffman records cremations among Southern Paiute of Spring Mountain¹⁷¹ (adjoining the Pah-rump group). S-DthV always cremated at Surveyor's Well (S-Bty verified this), but at Grapevine Canyon, where wood could not be procured, practiced burial for all children and for adults, except those who died away from home. S-Lida and S-GSmV thought cremation was pre-Caucasian. S-GSmV, however, only practiced it occasionally, for reasons unknown to JK. S-Mor cremated only people who had no families to bury them. S-Elko previously cremated but began burial about seventy years ago after acquiring shovels. S-Egan either cremated or merely covered with brush shamans who were killed for witchcraft or for declining a case.

Burial.—This was the most common method of disposing of the dead, but it was sometimes necessary to abandon the corpse without interment. Though there was no parenticide, the aged and infirm were sometimes abandoned when the camp had to be moved to seek food. Thus, S-Egan and S-SnRv said that, especially in the spring when, after a hard winter, the food supply was exhausted, old and feeble persons were given food and water and left to their fate. When, for some reason, camp had to be moved at once after a death, the corpse might merely be left in the house, which was al-

¹⁶⁴Kroeber, 1922:311-313. Steward, 1933:293-294.

¹⁶⁵See e.g., Loeb, 1929.

¹⁶⁶The lack of initiation among Owens Valley Paiute was previously shown to be contrary to this assumption (Steward, 1933:293-294).

¹⁶⁷Steward, 1933:294.

¹⁶⁸Pp. 50-51.

¹⁶⁹Something comparable to the Plains vision quest has been reported from northeastern California (Kroeber, 1922:314). Adjoining Surprise Valley Paiute transferred some features of the girl's observances to boy's (Kelly, 1932:162).

¹⁷⁰1927.

¹⁷¹Pp. 471-472.

ways abandoned at death, or was covered with brush.

In Independence Valley, northwest of S-Elko, Hoffman¹⁷² found a shriveled corpse of a twelve-year-old boy which had been left six weeks earlier in a demolished hut. Corpses, he states, were simply covered with rubbish and abandoned; there was no cremation. S-Egan left the corpse in the house and covered it with sticks; if found years later, it might be burned.

Burial was preferably in rock slides or talus slopes, which are common on most mountains, as it required no digging. But burial in soft earth was also practiced. (Also, notes 2406, 2408.)

A house in which death occurred was usually burned, but sometimes only abandoned. Except in the north, where valued items might be spared, all the deceased's possessions (which were nowhere numerous) were burned or buried (note 2425) because "to leave them around would cause unhappiness to his relatives." For sentiment's sake, also, property to be burned or buried was often contributed by relatives and others at the funeral (note 2423).

A true annual mourning ceremony occurred only in the south, where it is probably pre-Caucasian.

Several early writers have mentioned human sacrifice in Utah and eastern Nevada.

Thus, Remy and Branchley, writing apparently of the Shoshoni of eastern Nevada¹⁷³ say that they saw a young chief die. The prettiest wife was selected and "after two horses had been sacrificed, the unfortunate young woman stepped without flinching on the tomb of her husband, whose brother forthwith cut off her hair, and then shot her through the heart. We shuddered at the spectacle, but the Indians remained unmoved. Earth was heaped over the two bodies, the horses were buried beside them, and, after hiding the victim's hair at some little distance, all was over." The mother, who was most grieved, wept and chanted at the grave each evening.

Inquiry about human sacrifice elicited no knowledge of it from informants except at S-Egan, where BM told of the death of a man thirty or forty years old. Three days later, the cousin killed the wife, evidently against her will, by striking her on the head with a rock, then buried her outside the house in which her husband's corpse had been left. The reason for this was unknown.

Mourning (2432-2468)

The primary mourning observance was cutting the hair (notes 2432, 2437). In the south, the California practice that the widow should not wash her face for a year was observed (note

2440).¹⁷⁴ Also, there was usually a taboo on remarriage for a year, which is more rigorous in the south but was mitigated in the case of the levirate and sororate.

Though everywhere there was a theoretical taboo on the name of the dead, no informant hesitated to name dead persons, even his own relatives. (Also, notes 2450, 2451.)

RELIGION (2469-2613)

Shoshonean relationship to the supernatural is simple and direct, requiring no true priests and involving little more than visionary or dream experiences and a small amount of imitative magic. There is virtually no ritual, little prayer except that in the "Father dance" and Ghost dance, and few fetishes or other objective equipment except that used by shamans.

Persons possessing supernatural powers and spirits acquired in dreams are here classed in three groups. One, general practitioners or shamans of general curing ability. Two, specialists, or shamans able to cure only specific ailments. Three, individuals whose powers are solely for their own benefit.

There are also two kinds of dreamed powers, which a broad, comparative study might demonstrate to have historical significance. First, spirits, which are doctors' helpers or individuals' guardian spirits. These are usually animals or birds but sometimes are natural objects. Second, dreamed capabilities, which involve no spirits whatever. In these, a dream of doing something gives the person power to do that thing; for example, a dream of curing a rattlesnake bite enables one to cure a bite. The principle of imitative magic which somewhat underlies the second is not, however, wholly lacking in the first, for often, though not always, the characteristic of the spirit relates to the power or capability granted; for example, a dream of a lizard gives the power to climb cliffs.

Though logically distinct, these two kinds of powers do not wholly coincide with the threefold classification above. General practitioners always have a spirit helper, but may also have dreamed capabilities. Specialists and individuals with private powers may have either.

Shamanism (2469-2499)

The shaman is called by most Shoshoni *puha* (power) *günt* (one who possesses or uses), though S-SmCr called him *puhadandü*. Still practiced throughout the area, shamanism well merits further study of problems which are little more than outlined here.

As individual shamans differed in their dream powers, equipment, and curing methods, the lists

¹⁷² P. 471.

¹⁷³ Pp. 131-132.

¹⁷⁴ Kroeber, 1925:839-840.

undoubtedly show greater local differences than actually existed. If many shamans could have been described in each locality, powers, curing methods, etc., not used by the particular individuals who happened to be known to the informants would doubtless have been included. Moreover, as shamans were often called from a great distance, the examples given were frequently not local ones. From a broad point of view, however, certain regional differences are evident.

To the classes of general practitioners and specialists (who were not distinguished in native terminology) might be added witches or sorcerers,¹⁷⁵ at least in some localities, though the last were usually only doctors with evil intent. The general practitioners were often said to derive their power from "good" birds and animals, the witches from "evil" ones, but it was impossible to procure any real lists of good and evil creatures. Only coyote was generally classed with the latter.

The general practitioners had spirit helpers acquired in dreams starting during childhood¹⁷⁶ and frequently repeated with great intensity. These granted songs, procedure, and paraphernalia. Such doctors were presumed to be competent to cure all diseases, whether from soul loss, intrusion of a foreign object into the invalid, or witchcraft. They were public functionaries, always subject to call. In most localities, they also cured ills for which some men had special powers, such as snake bites or wounds. Among these general practitioners, singing and sucking doctors were not distinguished, as in California,¹⁷⁷ with the possible exception of NP-FSp and NP-FLk.

Perhaps a significant regional difference is that, in the south, there was less idea of the shaman's soul leaving his body in pursuit of the patient's soul and a corresponding importance of sucking out disease objects.

S-DthV thought only a few doctors could leave their bodies. S-Bty, NP-FLk, and NP-FSp knew of none who could, though this ability was previously recorded among Owens Valley Paiute.¹⁷⁸

The specialist's dream gave him power to doctor only a certain kind of ill or to accomplish only a special objective, though one man might

have several different powers at once and a general practitioner might have special powers in addition to his general power.¹⁷⁹

Some of the special powers are:¹⁸⁰ curing rattlesnake bites, closing wounds, letting blood, using the fire drill in curing, aiding childbirth, weather making, and capturing antelopes. Most often, the special power was granted by a dream of doing that thing, for example, a dream of actually curing rattlesnake bites. But sometimes an animal was arbitrarily associated with the power, for example, in the south the buzzard, farther north the eagle, with curing rattlesnake bites. Or the dream spirit was fortuitously associated with the particular power in the individual dream. S-RsRi and S-Mor thought there were few specialists.

Though the shaman may everywhere be a woman, it is usually a man. S-Mor thought that women were more often doctors in the south.

Predisposition to dream but not a specific dream or power tended to be inherited, especially from the father. Thus, BG's 12-year-old son is now dreaming, but his dreams do not resemble BG's. There was no case in which a deceased shaman ancestor appeared in a dream, as among Paviotso Northern Paiute.¹⁸¹

Doctors' powers were rarely sought. SP-Ash use of jimsonweed for this is unique; jimsonweed does not grow north of S-DthV and Owens Valley. Sleeping in caves or on mountains for visions was rare.¹⁸²

S-SmCr. Sleeping at certain places where there is water gave dreams of a "water baby," pawōhwa (pa, water; ōhwa, small baby), which did not give curing power but made the possessor bullet-proof.

S-Mor. Sleeping in a certain cave near Dayton gave visions of various "frightening" things, such as bears and snakes, but the powers granted by them were unknown to BH.

S-SnRv. A mountain where grown men stayed alone one night and fasted, having bathed and painted themselves. Various spirits appeared giving power for curing, war, gambling, and other purposes.

¹⁷⁹In contrast to Paviotso, among whom a shaman gets but one power (Park, 100).

¹⁸⁰The outstanding specialists in California were rain, rattlesnake, and bear doctors (Kroeber, 1922:302-303). The last, who are said to be able to change themselves into bears, were known only in Owens Valley. Various Southern Paiute specialists were: rattlesnake, "arrow," horse, "rock," and weather shamans.

¹⁸¹Park, 101-102. Among Chemehuevi, specific supernatural spirits and songs were inherited (Kelly, 1936:130-131).

¹⁸²Park (pp. 102-104) reports this among Paviotso. Some Utah and Idaho Shoshoni often saw a kind of dwarf when sleeping in caves or near certain springs. Chemehuevi also procured spirits by sleeping in caves (Kelly, 1936:129).

¹⁷⁵Most of California, as with the Great Basin, failed to distinguish doctors and witches (Kroeber, 1922:302). Apparently Chemehuevi Southern Paiute made little more distinction than Shoshoni (Kelly, 1936). This question, however, needs further study.

¹⁷⁶In contrast to Paviotso Northern Paiute shamans, whose dreams always came during adulthood (Park, 99).

¹⁷⁷Kroeber, 1922:303-304.

¹⁷⁸Steward, 1933:314 ff. Chemehuevi shamans were also unable to leave their bodies, though they might send the spirit powers (Kelly, 1936:133).

Throughout the area, refusal to accept and cultivate a doctor's power, especially if it were inherited according to JP, brought the person's death.

Some informants thought that a youth called an experienced doctor to interpret his dream. Thus, among Lone Pine Northern Paiute, AG said an experienced doctor trained the novice in the use of his songs. JP, however, declared that it was dangerous to call another doctor for such assistance because he might steal the power.

Visions gave not only spirit helpers, but songs (which were the most potent element in the power), equipment, and often food taboos and prescribed behavior.

New doctors probably gave a free demonstration when ready to practice. S-SmCr: a new doctor's readiness to practice is announced by his father. SP-Ash: other doctors know by means of their own powers whether a young man is a good doctor and vouch for him.

As it is impossible to tabulate data on visionary powers, the following accounts are offered:

S-Elko. BG, who is not considered a powerful doctor, dreamed of the mountain swallow and hummingbird, which used to follow him. He also dreamed songs; of making trips accompanied by a mountain lion; and of curing by laying on hands, sucking "through" a long stick, and bloodletting. He did not receive power to recover lost souls. When doctoring, a dream (trance?) often instructed him how to cure. He first visited the patient and sang; the next day at least one animal spirit told him of the patient's fate, which he announced. When his wife had pneumonia, he dreamed that he should bathe and dress her. He did so and she recovered. BG cured principally by laying on hands and bloodletting, specializing in the latter. His own arms and hands (and those of several neighbors) bear many small scars where blood was let. He has never used his sucking power. He largely lost his power through two episodes. Once, he saw a Caesarean section performed on his wife, which harmed his power. Another time, he dreamed that his patient would give him a two-dollar handkerchief, beads, and a fawnskin. When the patient failed to give him these things, he lost his power. BG's son is now dreaming of otters and other good animals.

NP-MC. CTh's grandfather had three kinds of power: antelope shamanizing; bringing wind to remove snow and causing rain; curing pneumonia.

NP-FLk said doctors' powers were dreams of "good" animals and objects, for example, clouds, frogs, and whistles.

The only suggestion of "pains" which possess some California doctors¹⁸³ was BD's remark that seemed to indicate that a person becoming a doctor sometimes got a pain inside him when dreaming.

S-Bty doctors dreamed of birds, for example, eagles, hummingbirds, probably buzzards, also of

mountain sheep which gave power to suck out and blow away disease. Men who dreamed of ice used a flute in curing. Men who dreamed that a rock burned up as if it were brush used a heated fire drill, which they applied to the pain. TSt said a certain doctor from Lida dreamed of bear, mountain sheep, and other animals, but as he only sings when doctoring, he is not very good. This possibly indicates also a distinction between singing and sucking doctors.

S-BtLM. JP, who is a sweat-house doctor, said each of a doctor's spirits comes in a separate dream and gives him instructions. Some spirits are of little use to him; others are very powerful. The doctor keeps his assistant, degwopap, informed about his spirits, telling him when a new one comes. Some spirits possessed by doctors are: flicker and bear, each giving strength; magpie, enabling him to see hidden objects; coyote, giving intelligence; woodpecker, giving power to discover disease by tapping, as the woodpecker discovers worms and insects by tapping; also, deer, eagle, and other birds and animals. The most powerful spirit will tell the doctor to use the sweat house (see "Curing Performances") but all do not have this power. Two doctors having the same spirit, for example, bear, may sleep together in the hills. One may see part of the dream of the other, but gets the power in less degree. Two men having the same animal spirit, however, receive unlike methods, equipment, and general instructions in their dreams. Doctors can usually see part of other doctors' dreams and a powerful doctor may see all of them. When several men doctor one patient, it is to bring a greater variety of powers against the disease. White doctors are now more effective than Indian doctors.

S-SnRv. Doctors had many different spirits, some men having several, especially birds, at once.

Curing Performances (2500-2544)

Doctoring depended upon the theory of disease. Excepting minor cuts, bruises, injuries, and mild internal disorders, which may be treated with herbs and simple home remedies, disease is believed to be of supernatural cause. This accounts for the opinion of H, S-Mor, that white doctors are good for surgery but that medicines are less effective than the sucking of the old-time Indian doctor. The shaman or doctor is called when the patient does not respond to home treatment or when the ailment is serious or prolonged, thus proving that the cause is supernatural.

Ailments requiring shamanistic treatment are: 1, intrusion of a foreign object,¹⁸⁴ which is usually, but by no means always, indicated by an acute pain; 2, loss of the soul, which is usually

¹⁸³ This was the main source of doctors' powers in northern California (Kroeber, 1922:300-301).

¹⁸⁴ This is the prevalent disease theory in California, except among the Colorado River tribes, where the soul-loss theory was held (Kroeber, 1922:299). Among Chemehuevi, belief in intrusion of objects and ghosts predominates; the soul-loss theory was weak (Kelly, 1936).

indicated by unconsciousness; 3, witchcraft, which is usually shown by depression, by incidents making someone suspect, or by the shaman's diagnosis, which in most places often and in some places always casts blame on someone. Witchcraft, however, may be accomplished through either the first or second. Shamans seem not to have specialized in these three types of disease, any general practitioner treating all of them, except as sucking and attributing disease to witchcraft is more important in the south.

Intrusion of a foreign object is remedied by sucking. The object sucked out, which is often exhibited to the spectators, is usually a stone, stick, worm, blood, poison, or something else more or less appropriate to the illness. Soul loss is cured by bringing back and restoring the soul. The doctor goes into a trance, during which his own soul departs in pursuit of that of the invad-
lid.

S-RsRi and NP-MC thought the doctor's spirits accompanied his soul. The doctor may exhibit and clean the patient's soul before restoring it, usually in the head. S-Hmlt said the soul looks like a hailstone; if it is black, the patient will die; it is cleaned and restored to the patient's chest. S-Mor doctors also cleaned the soul before restoring it. S-Elko thought that on the way to the land of the dead there is a stick, mugua (soul) bodo (stick). If the patient's soul has passed beyond it, it cannot be brought back.¹⁸⁵

Witchcraft was cured by sucking out disease stuff intruded by the witch, by counteracting the spell produced by the witch's thought or wish, by apprehending the witch and having the spell withdrawn, or, NP-MC, by killing the witch.

Curing performances are semisocial affairs, a considerable audience assembling when possible and joining the doctor in singing and smoking. Most doctors sing, walk around, smoke, and use some equipment, especially a stick and eagle feather.

Other methods and objects which informants have seen used by various doctors are:

Among S-Hmlt, a stick, sometimes placed under the patient; the doctor may "suck" through it. S-SnRv sometimes heated a stick and applied it to the pain,¹⁸⁶ or "lifted out" the disease by means of the stick; the stick is of a wood called gunigwip. Use of a drinking tube was denied everywhere except among S-SnRv, where CT thought some doctors might have used it.

Eagle feathers were always used whether or not the doctor had eagle power.

S-SmCr doctors did not use the feathers when curing but kept them put away. HJ said Sally, a

present doctor from Austin (?), had eagle feathers tied on a stick. Among NP-Flk, MH had seen a feathered staff. NP-FSp, SP-Ash, S-DthV, and S-Bty had not seen a feather staff but S-Bty said they were used farther north.

Among S-SnRv, clay (evi), which was variously used for purification, was sometimes put on both the doctor and patient.

S-Bty doctor who dreamed of ice used a flute when curing.

Each doctor had an assistant who lit his pipe, helped him in other ways, and usually interpreted his diagnosis when his words would otherwise have been unintelligible to the audience. JP, S-BtlM, said this assistant was kept informed of all the details of the doctor's powers, was familiar with his methods, and might cause him harm by making mistakes.

The following illustrate the function of the assistant at S-SnRv:

The assistant was called tegwowep (same term used for chief's speaker or assistant). A doctor always used the same man and paid him. A doctor was engaged through his assistant, who arranged the time and place of the doctoring, and set rules for the performances, for example, requiring that people be barefoot, that no latecomers be admitted, etc. When the doctor performed, his assistant lit his pipe and interpreted his singing, thereby increasing its power. Later, the doctor also told what he had been saying. Each morning of the doctoring, the assistant stood facing the rising sun, saying, "ye:kundundu," meaning, "the disease will rise and fall with the sun."

Among NP-MC, the assistant also lights the doctor's pipe.

Other methods in curing depend upon the individuality of the doctor and the circumstances of the case. The doctor's power diagnoses each ailment and tells him what cure to use. The following illustrate doctors' curing methods:

S-Elko. BG said that the doctor's soul pursues that of the patient and may bring it back if it has not passed the soul stick. Before restoring it to the patient's head, he may clean it.

S-BtlM. JP said that the doctor announces that he will go into a trance and asks that the people prevent his touching the ground. Four or five young men catch him as he begins to fall and lay him by the patient. Everyone is silent. Soon, the doctor cries that his soul has reached the land of the dead and will look for the patient's soul, as the dead people have hidden it. Having found the soul, he commences his return trip, his voice becoming louder as he approaches the living. He has asked that one of the audience answer him when he calls. When he has arrived with the patient's soul, the people prop up both the patient and the doctor. Then the doctor arises and dances with the patient's soul in his hand. After this, he blows on the patient's head and endeavors to rub the soul in. If he

¹⁸⁵ This idea was reported only by one Owens Valley Paiute (Steward, 1934:427).

¹⁸⁶ Any doctor might do this. But Owens Valley fire-drill doctors dreamed a special power.

succeeds in replacing it, the patient recovers. It is only while recovering souls that the doctor goes into a trance. A doctor using a large enclosure with several fires in it shakes a rattle with dewclaws and eagle down when his power comes to him.

S-SmCr. TH's uncle once went in pursuit of a woman's lost soul. Early in the morning he brought it back, exhibited it—it resembled a downy feather—and restored it in the back of her head. She then regained consciousness. A girl in Austin lost her soul and went crazy.

S-Egan. BM told of a Paiute (probably Southern Paiute) boy who lost his soul. The doctor was unconscious while his soul pursued that of the boy. He brought it back, exhibited it—it was a small, white object—cleaned it, and, after trying for some time, restored it through the boy's forehead. He said he doubted that it would remain in the boy's head, but some time later the boy recovered.

S-Bty. Doctors' souls could not leave their bodies. If a patient's soul strayed a short distance into the brush, the doctor walked over and brought it back; if it went too far, he could not recover it. TSt, however, heard of a shaman in the Kawich Mountains who had dreamed of a goose and could leave his body.

NP-FSp and NP-FLk thought that the doctor's spirits, but not the doctor's own soul, pursued lost souls.

S-Hmlt. JW said people were sometimes sick because their breath, süep:, was lost; the shaman rubbed a white stone on the chest to restore it.

S-BtlM. JP said the sweat house was "given when the world was made" to a certain man in a dream, which told him to use it for healing. Formerly, when a man was sick or "did not feel right" his friends built him a one-man-size sweat house, heated with hot rocks which were placed in a hole covered with grass but were not sprinkled with water. No shaman was involved in such treatment. Today, the sweat house is larger, accommodating several persons. When used by one man, the rocks are placed on one side; when used by several men, they are placed in the center. The rocks are heated outside and carried in. Today also a shaman may use the sweat house. When a shaman accompanies a patient (or two patients) he employs one of several special ways to drop water on the rocks as they are cooling, and a special way of counting for each drop or splash of water, his numbers being "little one," "little two," etc. Some shamans only drop two handfuls of water; others drop a splash or handful for each part of the patient's body. However, anyone may drop water on the rocks. The main performance involves the doctor's spirits. The doctor's teg-wowep: or assistant fills and hands him his pipe. The doctor smokes, then sings, while his assistant, who knows the spirits well, calls upon them to come to the doctor and fight the disease. As the doctor sings, the patient's sickness appears upon him and is visible to the doctor. The doctor, now strengthened by his spirits, sucks out the disease and holds it in his hand for the spectators to see, watching it carefully, however. He then holds it to his mouth and blows his breath on it, thus killing it, for he is now stronger

than the disease. He then rubs it between his hands and blows it away toward the north. If the disease is the result of witchcraft, called duijüpu^u, he treats it as just described or buries it under the hot rocks. If he has treated the patient outside the sweat house, he thrusts his bare hand up to the wrist in the ashes under a hot fire to bury the duijüpu^u. (See also fire handling in note 2535.)

CTh, NP-MC, said once a man had eaten poisonous parsnip. The doctor held the patient on his back and vomited the poison, whereupon the patient recovered. Another time, the doctor chewed the parsnip and spat it on the patient's chest. The patient vomited and recovered.

S-Mor. Sometimes the illness was so virulent that the practicing doctor was "knocked down" by it.¹⁸⁷ In this case, the spectators would pick him up and face him toward the north.

NP-FSp said disease objects resembled white hailstones. NP-FLk, S-DthV, and S-Bty did not know what they were like. S-SmCr called the object tü'owoivi.

Witches.—These were doctors who were ill-disposed toward certain individuals or, in Owens Valley, whose power had turned bad, or, rarely, who had special dreamed power. Some of the dreams were:

NP-FLk and NP-FSp, dreams of coyote. SP-Ash, dreams which were never revealed. S-DthV, probably of coyote, snake, and tsoavite (from tsoap, ghost). S-Bty, of coyote or tsoavite (translated "devil"); tsoavite looks like a man or woman and wears usual clothes, but instead of talking, whistles; it may disappear or turn into a bird and fly away. S-SmCr, of snakes, coyotes, and bad animals. S-SnRv, the nature of the power unknown. S-BtlM, the power came in a dream and was inherited from one's father; the dream became worse as the person grew older; as a witch never performed publicly, the nature of the dream and identity of the spirits could not be known. S-RsRi thought witches had dreamed of killing birds.

Sickness produced by witchcraft was generally the power of a wish and rarely involved objective magic. None "shot pains" into their victims. The following gives some idea of sickness caused by witchcraft:

S-SmCr witches cast a spell but apparently could not cause soul-loss. S-BtlM witches, called düjü (unwanted or bad) pu^{ha} (power), caused sickness by a mere wish when someone angered them. S-Elko said all Kawich Mountains Shoshoni were witches; they avoid looking at a person and make him sick. S-Mor witch would grind a dead man's bones, telling them to go

¹⁸⁷ This and the S-BtlM case suggest that in this area, the disease object had a potency with which the doctor had to contend, somewhat resembling the "pains" causing disease and giving doctors power in northern California.

into a certain person and make him sick. An Indian so poisoned would die in a few months; white men were invulnerable to this. S-Bty said sometimes old persons dream in a way to bewitch themselves. Possibly such dreams, like dreams of impending death at S-Elko, are really omens. SP-Ash, certain men of unknown qualifications but who did not dream put some material in the tracks of their enemies or elsewhere to kill them. Game was rendered helpless in a similar manner in some places.

Curing of witchcraft is illustrated by AG, Owens Valley Paiute of Lone Pine, as follows:

Paiute are today often afraid of witches. A man once had a chest ailment. He went to a famous woman doctor near Lake Tahoe, who told him that his mother-in-law was trying to kill him. The doctor said that one day while he was working in a field, the mother-in-law sat in the sun near her sunshade and blew smoke at him, forcing the dryness of the smoke into his chest. The doctor instructed him to remain away from her for more than one month. He returned to his work in a week but failed to recover. AG did not think that curing ills caused by witchcraft differed from other doctoring. The doctor's main power is in his song. All night, he sings, sucks, perhaps extracting stringy blood, and lays on hands, thus discovering the identity of the witch. Witches, even those whose skulls have been crushed with a rock, are said to return to life, at least for brief periods, and walk around. Possibly such a belief accounts for cremating witches in some regions.

When MH, NP-FLk, was a young woman living at Oasis, she called a doctor to cure a pain in her breast and back. He said that a certain man had bewitched her, then found this man and asked him if it were so. The man did not answer, but commenced to sing, then got an arrow which he pointed at her as he walked around the fire. Her pains began to disappear at once and soon she was well and hungry again. The accused had procured the arrow from another man. This is the only time MH was really sick.

Special Shamans' Powers (2545-2566)

Rattlesnake bites.—These were cured variously.

SP-Ash: The doctor, who probably had a special power, cured by singing, sucking, and laying on hands. S-DthV: If a man dreamed of the rattlesnake in the fall, he could cure bites in the spring. S-RsRi: The power came from a dream of the eagle, which is perhaps connected with its derivation from the buzzard farther south. S-Elko: The power came from lizards and horned toads; if a man with this power attempted to cure anything other than snake bites, he would make the patient sicker. S-Mor: Thought there was some special power. S-Egan: Probably a special power. BM told of a doctor in Steptoe Valley who sucked and blew on the patient when curing snake bites, and of Jack Eagle, a doctor in White River Valley, who sang a rattlesnake song. NP-MC snake doctors can also cure horses and

other animals bitten by snakes; they suck and rub the bitten leg toward the foot. S-Bty: A dream of killing a mountain sheep gives power to doctor rattlesnake bites; the doctor "sucks blood from the patient's heart" and spits it out.

Only S-SnRv claimed specialists for closing wounds. The doctor dreams that he is closing a wound. This also has some connection with the bear. The doctor cures by first sucking out the bullet. He cannot cure wounds from poison arrows.

Usually antelope shamans and deer shamans possess different powers. But S-Hmlt described a man (HJ's great-uncle) who charmed antelope for communal drives and deer for his own individual hunting; he also doctored sick men and talked at dances (the last probably being a lay occupation).

S-SnRv thought possibly the otter instructed a doctor how to let blood.

Weather control power.—This is illustrated by the following:

NP-FSp and S-GSmV: The shaman dreams of thunder. PH heard of a man near Bishop, Owens Valley, who was paid shell money each spring to bring rain to make plants grow. Another man could make hail fall. S-SnRv: A weather doctor dreams of rain or snow. S-SmCr: Old "Wagon Jack" at Smith Creek probably dreamed rain or snow. He "prays to the old man above" for rain. He offered in 1935 to produce rain to end the recent drought for \$500.00. He says there is less rain now than formerly because the people seldom do the round dance. S-RsRi: The brother of Totoi, a chief, made a heavy rain and hail to drive away people who were gathering seeds on his land. He accomplished this by washing his face and hair in cold water, a practice also used at S-Mor and by JW's uncle at S-Hmlt. S-BtlM: JP said the weather doctor does not make rain but removes snow in winter when the people are starving. He makes a pile of snow, something like a man, and puts a goose head in it. He sings, then removes a piece of ice from it, saying, "This is the essential part of the snow. If we have worked well tonight you will see black clouds in the south. You will know that we have done well. A warm wind will remove the snow." Doctors were not concerned with stopping rain in this arid country. As TH said, "We just let it stop itself." See also, "Bull-roarer," which was used in some localities to produce a warm wind that would dispel snow. Round dances were often believed to bring rain and general fertility.

Childbirth power.—S-SnRv: This power came from a dream of bauwoha, "water babies," that live in springs. They are very strong and may "pull the baby out." The doctor merely touches the baby and rubs it and the mother; he calls upon the bauwoha to bring the baby out. S-Bty: The doctor has dreamed of falling in a hole and climbing out

again; also, of being frightened by a bear, so that he can frighten the baby out.

Some miscellaneous powers.—S-SnRv said that leaders of the ghost dance and probably of the circle dance, who sang prayer-songs during these dances, had dreamed their power to do so when young. Rabbit-hunt and fishing leaders did not receive powers through dreams. (For prognostication, see note 2566.)

Miscellaneous (2567-2590)

Doctors were not killed for the mere loss of patients. Because, however, a doctor's power was similar to that of a witch and doctors were believed to be capable of witchcraft, if a man lost too many patients or if his behavior were abnormal, he was suspect. Everywhere, witchcraft was one of the few crimes against the community, punishable by death.

SP-Ash doctors always diagnosed illness as witchcraft and identified the witch, who was apprehended and killed. S-Bty always put witches to death. CT, S-SnRv, said that if a doctor lost too many patients or was wont to remove too many disease objects from a single patient, he was suspected of being a fraud and perhaps killed. Also, a doctor's power might turn bad if his assistant did not perform properly.

In the southern part of the area, shamans could decline with impunity to accept a case. Farther north, they were obliged to accept, some informants saying that they were killed for declining, others, for example, S-SmCr, that they always accepted. JP, S-BtLM, said that a doctor would accept, but if he knew he could not effect a cure, he would suggest calling another doctor.

Old age, according to S-Hmlt and S-Elko informants, brought a natural decline of the doctor's power, but he was not killed for this reason.

There were no permanent associations of doctors, but JP, S-BtLM, said that men with the same spirit, for example, bear, might sometimes sleep together in the mountains and to some extent share each other's power, though the reason for this is not clear. At S-RsRi and NP-MC several doctors might simultaneously perform on a single patient. SP-Ash had no public competitions, though sometimes doctors saw each other in dreams when they might compete a little.

Supernatural beings.—Besides myth personages and shamanistic and guardian spirits, there were few supernatural beings of general interest. Myth characters were, with few exceptions, animals and were not objects of supplication; they remained largely outside the world of daily affairs.

Coyote, besides being the trickster of mythology, was sometimes regarded as an evil being who might cause trouble or motivate people to

bad deeds. His brother, Wolf, who was a benevolent being, was rarely heeded outside of mythology, though S-SmCr claimed that he presided over the afterworld for Indians. At S-SnRv, wolf, called by his usual name, ija, was also called ap:ə, father.

In the north, ap:ə, usually not identified with any animal and possibly derived from early missionary influence in northern Idaho, was the object of prayers and a dance which was led by a kind of priest-shaman (see "Father dance").

A more common being with generally evil qualities was a kind of personified ghost, tsoavite (probably from tsoəp, ghost, vitc, personal ending). Often prayers and offerings were made to prevent his ill will but not to procure his blessings. Ghosts, tsoəp, were slightly feared but not taken seriously. Following are some ideas about tsoavite:

S-DthV made offerings of game killed or of food during a meal to tsoavite, so that he would not cause trouble. BD called him a "devil" and said that he had dreamed during his youth of fighting him but did not kill him. S-Bty: One "talks" to prevent sickness when making the offering to tsoavite when game is killed or the first seeds gathered. S-Lida identified tsoavungo, tsoavite, or witsoavite as a kind of were-coyote, which made the game run away. S-RsRi said that the tsoavite were the original people, who lived in caves and were cannibals, but who disappeared long ago; they now have nothing to do with game.

The "water baby" is probably more common than indicated here. He is a myth character in Owens Valley; a guardian spirit making a person bullet-proof at S-SmCr and giving childbirth power at S-SnRv.

Offerings.—Offerings of game killed and seeds gathered were often, though not always, made to an ill-defined object. When not to tsoavite, they were usually to "nature," which was animatistic, to use Marrett's term, rather than truly personified. Sometimes, however, "nature," the sun, or sky was substituted. Prayers, however, were semi-magical; one "talked" rather than asked for good luck or good harvest.

Charms and fetishes, besides the equipment required by shamanistic and guardian spirits, seem to have been used very little, except in gambling. NP-MC said that gambling medicine used incorrectly might kill its owner.

Of objective magic, there are a few traces: a root used to kill people or animals, SP-Ash and S-Bty; association of gophers with female fertility (element 313); washing the face for rain-making; swinging the bull-roarer for wind; taking ice out of a snow man to make the snow melt, S-BtLM.

Purification after a burial or bad dreams was accomplished by taking a cold bath, painting, or, in the north, applying white clay.

Guardian Spirits (2591-2593)

The possession of a dreamed capability or a guardian spirit usually accounted for a person's success in some particular thing. Unlike the shaman, however, he did not use his power to help other persons. The varieties of these powers are legion, involving all kinds of activities. The examples which follow, having been procured at random, are mere samples of the general area and do not necessarily illustrate local differences.¹⁸⁸

Climbing power.—JP's father at S-BtLM dreamed of a rat which can run on a cliff and of eagle down which is light. Only men with such power could climb cliffs. When catching eagles, he stripped, tied a rope around his waist, climbed up to the nest, tied the eagles' feet, and climbed down his rope. Once he was caught midway on a cliff in a bad wind; he thought of his power, made a noise like an eagle (because of having dreamed of eagle down), and clung safely until the wind subsided.

H, now at Fallon, described a man at Lone Mountain, west of Tonopah, who had power to climb cliffs "like a lizard" when hunting mountain sheep. While scaling cliffs to get wounded sheep—a feat his companions would not dare to do—he sang of the butterfly. Another man dreamed of mountain sheep and rocks in his youth; he could walk up the side of a sheer cliff by merely placing the palms of his hands and the soles of his feet flat against the rock. Once a man became stranded in the middle of a cliff while climbing to an eagle aerie; the man with climbing power went to his assistance and carried him down on his shoulders.

Bullet-proof men.—Though comparatively widespread recently, there may be doubt about the antiquity of the idea of invulnerability, as it was rarely associated with arrows and as warfare was infrequent in native times.

H said that Reveille George, a bullet-proof Kawich Mountains Shoshoni, once accidentally discharged a shotgun against his chest and was only burned. He described two arrow-proof men, who competed by shooting arrows at each other and dodging. One was struck full in the chest but not injured. S-SmCr: If a man dreams of the water baby, he and his horse wear eagle feathers in war and both are bullet-proof. S-RsRi said that a man dreams that someone is shooting at him and that it feels like hail. S-Mor denied bullet-proof men, but had heard of them among people to the east. S-Elko: Tūmok, who became war leader among certain Humboldt River peoples during warfare against the whites, dreamed that he was bullet-proof. His dream told him that he must wear his hair with a long braid on one side with feathers in it and that he must never get food from the kettle by reaching under the tripod, but must have it handed to him by someone who carried it around one leg of the tripod and set it on the opposite side. When his wife carried his food di-

rectly out from under the tripod, his charm was lost and he was killed in 1891 by a relative. Bullet-proof men were also reported among: NP-FSp; S-DthV, where the power was possessed by a doctor; S-Lida; NP-MC; and possibly SP-Ash and S-SnRv.

Control of wild game.—The conspicuous instance of this is the antelope shaman (see "Antelope Hunt"). Few other men had either shamanistic or magical control over game. NP-FSp, SP-Ash, and S-Elko thought there were some men with control of game. S-DthV said that some men dreamed that they had power over game. NP-FLk said men called kanuka got power from dreams to drive deer away from certain localities so that hunters could not find them.

Dreams of hunting power were known among: NP-FSp and S-DthV; SP-Ash, who dreamed of mountains and game and of meeting game which approached without fear; S-Bty, who dreamed of hunting successfully; North Fork Shoshoni, who acquired guardian spirits and instructions for hunting in unsought visions during youth.

Gambling luck.—NP-FSp, S-Lida, S-SmCr: Some men obtained gambling luck from dreams the nature of which was unknown to informants. SP-Ash men dreamed that they should use charms, for example, salt, when gambling. S-DthV: One began to dream when he was a small boy that he had won in gambling; he had a different dream for each game; there was no general luck. S-Bty: a dream of the red racer snake made a man a good gambler. S-RsRi men dreamed that they had won in gambling. S-SnRv thought a dream of a ghost gave gambling luck.

Fleetness.—For this, S-DthV dreamed of running in the mountains; S-Bty, of kini'ⁱ, the bullet hawk; S-RsRi, of running fast, like an eagle, against a fast runner. S-SnRv: CT has crane power which talks to him and tells him to race; other men have antelope, ghost, or white clouds so that they can run as fast as the cloud's shadow. CT says the dream comes repeatedly so that one knows it is a power and obeys its instructions. Dreams gave fleetness also among NP-FSp and S-Lida.

Longevity.—NP-FSp, and S-Lida: Some men dreamed that they would live to be old. S-DthV: After sickness, men dreamed that they would live long. S-Bty thought there were no dreams insuring longevity. S-Elko said that people dream frequently, as omens; dreams of short life brought early death; dreams of green things indicated that one would live at least until the end of the year.

Miscellaneous.—S-DthV: Some men dreamed that they talked often and well.

NP-FSp and possibly SP-Ash and S-Bty: Men sometimes acquired powers enabling them to escape from danger. NP-FSp: TS's grandfather had power to be safe from fire.

NP-MC said some men had power to seduce women. There seems to have been no "medicine" for this.

¹⁸⁸For other Owens Valley Paiute examples, see Steward, 1934.

S-BtLM and S-SnRv: Some men dreamed special circle-dance songs.

For bear impersonating, see note 2558.

Destiny of the Soul (2597-2609)

Though there was little interest in the afterworld, some believed that souls of the deceased went above. As the exact nature and location of the afterworld was usually known only through the experience of shamans or persons who had "died" (become unconscious in illness) and returned to life, there was much disagreement. Some ideas are:

SP-Ash: Souls went to *navunguvup*, ghost land. S-DthV: Perhaps above; dead people see their relatives there. S-Bty: The place is above, close to the earth. S-SmCr: TH learned from his uncle, a shaman, that the trail to the afterworld starts in an unknown direction and then forks, one fork turning left to the white man's heaven where there is a special god and the people wear wings, one turning right to Coyote's place where crazy Indians go, and one leading straight ahead to where other Indians go and where wolf, *biaic*, is god.

DANCES (2614-2719)

The sole dance of most localities in pre-Caucasian times was the Circle or Round dance, called merely *nukaiyu* or *nukap*, dance. Though varying slightly in details, in seasons held, and in extra purposes such as rainmaking or producing crop fertility, it was substantially uniform throughout the area and may be considered a distinctively Shoshonean dance. It has been held on reservations and elsewhere until recently, and in fact only now is being supplanted by white man's dances. In native times, dance gatherings were comparatively small; in post-Caucasian times, better transportation and larger communities enable greater numbers to participate.

Post-Caucasian conditions have also caused a remarkable spread of the Circle dance to other areas in connection with the Ghost dance. Originating in Nevada, the Ghost dance naturally adopted the local dance form.¹⁸⁹ Also, other dances have been introduced to the Great Basin: the "South dance," which was native only to the Owens Valley and Death Valley regions; the Bear dance of the Ute,¹⁹⁰ which spread as the "Back-and-forth" dance among Nevada Shoshoni; the Sun dance, which came recently to Idaho Shoshoni and Utah Ute but scarcely touched the area under consideration; and perhaps the "Father dance" as a special form of the Circle dance.

These facts indicate that dance forms diffuse readily provided there is sufficient intertribal intercourse to introduce them. On the other hand,

the abandonment or modification of a dance form in a changing culture will naturally depend upon the degree and manner in which it is integrated with other parts of the culture.

Circle Dance (2614-2651)

The Circle dance was primarily for pleasure, serving especially as an opportunity for courting, but had various other minor functions. It has recently been called the fandango. Native names are:

Waigi *nukün*:^a, Little Lake Shoshoni; *tuwa-hani*, S-DthV; *nukaiya* (dance), S-Mor; *nukaiyu*, S-Hmlt, S-Ely, S-Elko, S-Egan, S-RubV, S-SnRv; *muwük*: S-BtLM; *nuga*, NP-MC; *waigi* (side) *nugatu* (dance), NP-FSp; also, *nadzangai* (holding hands), S-SnRv; *sigo* (drag feet) *nukap*: (dance) or *buna* (round) *nukap*: S-RsRi.

S-RsRi and S-GSmV had a similar but slower dance, in which dancers embraced one another's waists, called *ano* (horn) *nukap*:. This was first seen in S-GSmV about twenty years ago, having been introduced from the east where Coyote is said to have originated it.

Following are some of the times and purposes of the Circle dance besides those in the lists:

SP-Ash and S-DthV held the mourning ceremony on the first night of the Circle dance. S-BtLM: When performed in the spring when grass was about 4 inches high and called *tawa* (spring) *nuka* (dance), it helped seeds to grow; when held in summer and called *taza* (summer) *nuka*, it helped seeds to ripen. S-Egan: The fall dance, held prior to pine-nut gathering, made deer plentiful. S-SnRv held it whenever enough people were together, for example, at salmon-fishing time. TP said S-SnRv people at Owyhee danced as follows: early spring, called *takavi* (snow) *tapazüngun* (*tap*: to trample; *pazüngun*, to make dry), to make the snow disappear; in May, called *pui*: (green) *ta* (foot?) *suungun* (to accomplish by means of), to make plants green; when seeds (or, farther south, pine nuts) were ripe, it and the Back-and-forth dance were performed ten nights to produce a good harvest. Eureka, according to H, danced the Circle dance six nights; it brought enough rain to lay the dust but not enough to aid plant growth. He once saw a dance at Belmont, probably a circle dance, in which women jumped, throwing grass seeds (*wai*), *Mentzelia* (*kuhwa*), and pine nuts, which they carried in baskets. (See also notes 2621-2629, 2647.)

Clowns seem to have been a recent feature of the Circle dance. S-SnRv said that in a comparatively recent dance, two persons dressed like old men wore masks made of sacking, and sage-bark leggings, carried canes, and had bark-bundle slow matches tied to their belts. They were introduced as visitors and asked to sing. After performing, they unmasked and one was seen to be the local song leader, *huvia günt*.

For additional features of the Circle dance, see notes 2635-2651.

¹⁸⁹Spier, 1928:269-272; Mooney.

¹⁹⁰Regan, 1930; Steward, 1932; Lowie, 1924: 299-301.

Bear or Back-and-Forth Dance (2652-2673)

This originated among Ute who danced it in the spring to placate the bear and called it "Bear dance." It spread among Shoshoni as the "Back-and-forth dance," descriptive of the step, "Embracing dance," or "Notched-stick dance," referring to the musical instrument.

SP-Ash acquired it probably from Shivwits Paiute or Yuman tribes, who recently had adopted it for mourning ceremonies, or from other Southern Paiute.¹⁰¹ It was danced in two forms: one, called mamakomēp (back-and-forth) wūnūmiga (dance), listed as A, used in the mourning ceremony alternating with the Circle dance; the other, called witsihuvia (bird song) wūnūmiga, listed as B, a purely social dance. There may have been another variety called mugua (soul?) pa (water) wūnūmiga, known as the "crazy dance," which had several singers without musical instruments and dancers who faced the singers.

Most Shoshoni acquired this dance directly from the east. They devoted a day or so to it during the Circle dance. S-Mor, S-RsRi, and S-Hmlt danced it before the Circle dance each of five nights. S-Egan introduced it by way of variety during the Circle dance each night.

This was called: nagova (embracing) nūk: (dance), S-SmCr; nakova mukēp; S-RsRi; momokoin (back-and-forth), S-Mor, S-Hmlt; mamakoin, S-Ely, S-Egan, S-RubV; also, wūhūnigūnt (from the musical rasp, hūp, meaning literally, "cut"), S-Egan, S-RubV.

TP said this has recently been danced by Owyhee people, who go south for pine nuts. It is alternated with the Circle dance and is called wūhū (rubbing) nuki (over notches) mukaiyu (dance). He thought the name mamakoin was of Ute origin.

All connection with the bear was lost but S-Ely knew that it had come from the Ute who had seen the bear dance this way in the mountains and S-Mor knew of an association of it with the bear somewhere, but said there were no bears at Morey. Except for the association with the bear, the Shoshoni borrowed the Ute dance almost in its entirety, including: women choosing partners, men paying them afterward, dancing back-and-forth in two lines facing each other, breaking up the line and dancing in couples, stopping the dance when someone fell and rubbing him with the rasp, and the musical rasp as the sole instrument.

South or Exhibition Dance (2674-2710)

This is a special performance by several costumed men, usually visitors from another locality, who are remunerated by their hosts. It was previously recorded among Owens Valley Paiute,¹⁰² who

¹⁰¹Spier, 1928:272-274. Lowie, 1924:299.

¹⁰²Steward, 1933:321-322.

agreed upon its introduction from the south, some believing it to be pre-Caucasian, others placing it as late as 1850, that is, early Caucasian. S-Lida, S-DthV, and S-Bty believed it to be pre-Caucasian, but JS thought Belmont had not known it. However, CTh said his grandfather told him it was introduced to NP-MC before CTh's birth from Paiute at Bishop in Owens Valley. The hī'nōqō^{wa} of Walker River and Fallon Northern Paiute is probably the same dance and was said to have reached these localities from the south.¹⁰³ It spread, therefore, rapidly northward in the western part of the Shoshoni area perhaps in late pre-Caucasian or early Caucasian times.

The northern part of the area, S-Egan, S-RubV, and S-SnRv, curiously claim the dance to be old and pre-Caucasian, though they call it "South dance," whereas central and southern regions—S-SmCr, S-Mor, and S-Ely—acquired it recently or lacked it and S-SprV and S-Elko's lack of knowledge of it may indicate its absence. BH, S-Mor, saw it only at Currant Creek, performed as an exhibition by Bill Kawich from the Kawich Mountains to the south; each person paid him \$25.00. That it was everywhere customarily danced by visitors from another community facilitated its spread.

This dance, recently known as the "War dance," was called: wahvitc (the name given the Tūbatulabal [?] south of Little Lake and translated as "mean") yūkūna (dance), Little Lake Shoshoni (who danced it like S-DthV); tu:gwa (night) nuk:a (dance) or nukwanakud:^a, S-Bty; mugwa (soul?) nūkan, S-DthV; pani (south) nūk:a, S-SmCr, S-Mor; pani nūkē, S-Ely, S-Egan; pani nukaya, S-RubV, S-SnRv; pani mukaiyu, S-BtlM; panu muka, also "Rabbit dance," NP-MC; totsohoid^u, NP-FSp. The name is always "South dance" among those who received it recently and is variable among those who had it earlier.

For additional features of this dance, see notes 2678-2710.

Sun Dance (2715)

BG said that this was introduced to Star Valley about 1918, danced for about two years, then abandoned. AR, S-Elko, said it was danced in Steptoe Valley for the first time in July, 1935, but, being disliked, was given up. The purpose of the latter was to cure rheumatism. The lodge had a cow's head and eagle feathers on the center post; dancers had whistles and held eagle feathers. It lasted two or three days. It was called tagowūh (thirsty).

Ghost or Father Dance (2716-2719)

Information on this was acquired incidentally and is so fragmentary that it is now possible to do little more than state the problem. It was reported only at S-SnRv and S-Mor.

¹⁰³Lowie, 1924:306.

The following account is S-SnRv: the dance, called tsoa (from tsoep:, ghost) nukaiyu (dance) or ap:ə (father) nukaiyu, is claimed to have antedated Jack Wilson's visit. For five nights everyone did the Round dance; they gambled during the day. The dance leader, called ap:ə (father) duk^{wi} (impersonating) or ap:ə nakunt, had a special power which he dreamed as a boy. There were few such leaders. During the dance, the ap:ə stood by the center pole. His song said that it came from above. People joined him, singing, "The good land is moving toward us; the land where we will never die." Dead people were supposed to appear by the pole but only the ap:ə might touch them. There was no belief in a previous destruction of the world, but it was said that in the future, the world would turn inside out and be remade. This dance, which was formerly held only at long intervals, has not been performed for many years.

Certain facts suggest that the Father dance had a composite origin. First, HJ, S-Hmlt, said his father had related an early destruction of the world by upheaval, which HJ vaguely thought might have meant an earthquake. The idea of a previous destruction is absent from S-SnRv, but it shares a world renewal concept with S-Hmlt. Second, Spier has shown that in the northwest, a Ghost dance antedates the form spread by Jack Wilson.¹⁹⁴ Third, though the Father dance variety of Ghost dance was reported only at S-SnRv in this area, the "father" is supposed to give benefits in answer to prayers during Circle dances among Idaho and Utah Shoshoni (to be presented in a future paper); and nature is supposed to be benefited by prayers or "talking" in many Nevada Circle dances. There is, therefore, the question of whether in the north, "father" has supplanted "nature" farther south. Wagon Jack, S-SmCr, a weather shaman, is said to produce rain by holding a Circle dance and praying to nūwī (our) apū'ū (father), the "old man above." It is possible that the "father" concept was introduced from Plateau tribes who were early subject to mission influence. Further suspicion is cast on the native possession of this "father" concept by CT's statement:

"Ija (wolf), our father, would tell the dance leader to call a dance (probably Circle dance) in the early spring so that food plants would grow. During the dance, the leader prayed to wolf. The leader dreamed his power."

Wolf, moreover, is the main character in creation myths throughout the area, presides over the S-SmCr afterworld, and unupi (wolf) is the modern Uintah Ute term for God among Christian Indians (John Duncan, informant).

On the other hand, the Christ-impersonator in

¹⁹⁴1935. Mooney, 809, says that Wind River Shoshoni claimed to have held a dance similar to the Ghost dance 50 years before Jack Wilson's dance of 1890.

the Ghost dance of 1890 is sometimes called "father,"¹⁹⁵ which might account for the substitution at an early date of "father" for either "nature" or "wolf."

The questions, then, are whether a world renewal concept is old and widespread in this area, whether the concept of a non-animal "father" is native or is derived from the Ghost dance or Christian influence, and whether the revival of the dead in the Ghost dance is native or is an interpretation of the Christian resurrection.

S-Mor: BH's grandfather recounted a dance, brought by an Indian missionary, which included the Circle dance with new songs and the promise that the dead would return. It had failed and BH's grandfather said it was a "lie" and to pay no attention to it. BH said it was introduced before the white man entered the country.

MISCELLANEOUS (2720-2742)

Calendar.—Native month names were abandoned so long ago that few informants knew them. The names as listed on page 268, though elicited with much difficulty and subject to some doubt, are probably representative. In addition to months or moons (mūa), fragments of evidence show that four seasons were also named.

In addition to the names listed, S-Lida gave: March, bosi-mua; December and July, bia-mua. For Northern Paiute month names in Owens Valley, see Steward, 1933:289; in Surprise Valley, see Kelly, 1932:152-153.

Astronomy.—The nature of celestial bodies and of meteorological phenomena was given little thought.

Names of the Milky Way were: kueci (dust) woyona (streak), S-Lida; busi wo'oyooin, S-GSmV; tugumbi (sky) ta (straight ?) waoda (backbone ?), S-RubV; tsoapobo: (ghost road) or muguabo (soul road), NP-MC; tuwūhawiv (sky path), SP-Ash.

The cause of thunder and lightning had no explanation. The sex and nature of the sun and moon were unknown, except as the moon was made of sun gall in some myths. S-Lida, however, thought the sun was male, the moon a woman with a hatchet (but hatchets were not part of the native culture). NP-FSp said a pado'opi (bear ?; the usual term for bear is pahavitci) ate the moon during an eclipse; people threw fire toward it. S-RsRi said it died during an eclipse, S-Lida, that the sun covered it!

The north star was called padūwunūdu; the Pleiades, awai (many); the Big Dipper, yahidu (is driving rabbits) or kwazika (has a tail), NP-FSp and NP-Flk.

When the tips or "horns" of the crescent moon are up, the moon is full of water and it will rain; horns down(!), clear weather; horns to

¹⁹⁵Mooney, 802-809.

TABLE
NATIVE MONTH

	S-DthV	S-Bty [†]	S-RsRi	S-SmCr
December*.....		tā-mūa (winter)	dū:-mūa (little)	bia-mūa (big)
January.....	pia-mūa (big)	pia-mūa (big)	pia-mūa (big)	
February.....	pivosi-mūa (?)	pivosi-mūa (growth begins)	ica-dūa (coyote [young born])	ica-dūa (coyote [young born])
March.....	taha-dūa (spring)	tāhwā-mūa (spring)	gwā-mūa (fence— antelope corral)	gwa-mūa (fence)
April.....	mūza-mūa (mt. sheep lamb)	mūza-mūa (mt. sheep lamb)	tāhma-mūa (spring)	tāhma-mūa (spring)
May.....	hu:pa-dūa (green brush)	tukap:-mūa (ripe)	?	?
June.....	?	hupa-mūa (green brush)	?	?
July.....	?	tatsa-mūa (dried)	?	bia-mūa (big)
August.....	?	tubiji-mūa (very hot)	?	?
September.....	?	yuva-mūa (ripe pine nuts)	tuba-mūa (pine nuts [ripe])	tuba-mūa (pine nuts [ripe])
October.....	?	agū-mūa (crack [pine nuts])	yuba-mūa (fall)	yuba-mūa (fall)
November.....	?	pahumpi-mūa (pah- umpi seeds ripe)	na-mūa (breeding)	na-mūa (breeding)

*Year ordinarily is considered as beginning with December, except S-Egan, which regarded November as 1st month. Mūa, mūa, and dūa (Shoshoni) and mūh (N Paiute) mean "moon."

[†]S-Bty: some doubt concerning this sequence of names.

1

NAMES

S-Hmlt	S-Egan	S-RubV	S-Elko	S-SnRv	NP-MC
to-mua (winter)	bia-müa (big)	bia-müa (big)	bia-müa (big)	bia-müa (big)	tämo-müh (storm [i.e., winter])
to-mua	kua-müa (?)	kua-müa (?)	kua-müa (?)	gua-müa (?)	pinata-müh (middle [of winter])
tamu-singwai-mua (spring-half)	bositc-müa (big snowfall)	bositc-müa (big snowfall)	bositc-müa (big snowfall)	tahma-sunwe- müa (spring- half)§	tämo-müh-nawipowet (storm-moon-last one)
tamu-singwai-mua	ija-düa (coyote [young born])	ija-düa (coyote [young born])	ija-düa (coyote [young born])	ica-düa (coyote [young born])	täma-müh (spring)
tahu-mua (spring)	müza-müa (mt. sheep lamb [born])	müza-müa (mt. sheep lamb [born])	müza-müa (mt. sheep lamb [born])	?	pinata-müh (middle [of spring])
tahu-mua	tubuci-müa (ante- lope young [born])	tubuci-müa (an- telope young [born])	?	?	täma-müh-nawipowet (spring-moon- last one)
dadza-mua (hot)	ewa-müa (fawn [born])	ewa-müa (fawn [born])	ewa-müa (spot- ted [i.e., fawn])		täza-müh (summer)
dadza-mua	tauwa-müa (fat [i.e., game])	tadza-müa (sum- mer)	täza-müa (sum- mer)		pinataza-müh (midsummer)
tuba-mua (pine nuts [ripe])	akü-müa (sun- flower [ripe])	akü-müa (sun- flower [ripe])	?		täza-müh-nawipowet (summer-moon- last one)
tuba-mua	tuba-müa (pine nuts [ripe])	tuba-müa (pine nuts [ripe])	tuba-müa (pine nuts [ripe])	agai-müa (sal- mon)	yuva-müh (fall)
duhuya-nanaga- mua (deer breed)	tuhodu-müa (hole [i.e., rodents dig in])	ätogo-müa (an insect, freezes)†	ätogo-müa (an insect, freezes)		pinatyuva-müh (mid-fall)
duhuya-nanaga- mua	tui-müa (small)	tui-müa (small)	tui-müa (small)	naha-müa (breed- ing)	yuva-müh-nawipowet (fall-moon-last one)

†Atogo, fleshy insect with striped abdomen and powerful claws, said to freeze to death during this month.

§Also called bositc (big snowfall) month.

one side, warm weather. S-DthV and S-Bty said moon indications of bad weather applied only to winter.

The rainbow was called: uṇwupadogowinū (red and blue stand up), S-Lida; uwupadumbi (rain ? water sky), S-RsRi; piagutugwinup (striped streak), NP-MC; padogowinup¹ (water standing up or much water), NP-FSp and NP-FLk; ūwapodo (rain pole), S-DthV.

The whirlwind was called: tsoavitc (from tsoap, ghost), S-Lida; witsoavitc ("a dead Indian going some place"), S-GSmV, S-SmCr, S-RsRi, S-Mor, S-RubV; witsooiivitc, S-Hmlt; witsoap:, S-Elko; wuadoavitc, S-Egan; wun (upright) adoip (?), S-BtlM; pitu'mep (whirlwind), NP-MC.

Omens.—S-RsRi: appearance of the rainbow indicates that the rain will stop. S-Ely: the rainbow, though regarded indifferently elsewhere, is a good omen. S-Ely: snakes, though regarded in-

differently elsewhere, bring bad luck. NP-MC: coyote or owl cries indicate that something bad will happen. S-Lida: a falling star drops into the water and shows that someone has died. S-Ely: a falling star indicates rain. Some of these superstitions may have originated from white people.

Probably twitches in many muscles besides those listed were taken as omens, as among Idaho and Utah Shoshoni. Thus, S-SnRv said that a mouth twitch indicated that you would cry because someone would die. NP-MC: CTh's interpretations were admittedly guesses.

S-Lida, S-Ely: the finger will rot if pointed at the moon.

SP-Ash: the owl is an Indian's heart talking. It is also bad to hear a bird called nuyogogunt whistling and talking in the mountains. S-Bty: the owl, mumbitc, is very wise. S-DthV: the meadowlark calls the name of a person who will die.

CULTURE ELEMENT DISTRIBUTION LIST

SYMBOLS USED IN THE LIST

+	Element present.	N,E,S,W	North, east, south, west.
-	Element absent, that is, denied.	A,B	(under: Snares, Nets, etc.; Domed Wickiup;
(+)	Element known to locality, but was not the rule.		Bear or Back-and-forth Dance) explained in Note section.
M,W	Men, women; + = both	Number followed by plus sign in the column entry	indicates that there is a range between that and a greater number.
V	Variable.		Sometimes the exact range has been given in the "Ethnographic Notes on the Element List."
R	Recent, that is, post-Caucasian.	Two-letter	abbreviations entered underneath the longer abbreviations heading each column are those employed for comparative and map use in later work connected with this Culture Element Distributions survey.
H	Eaten when hungry.		
Y	Young only.		
?	Informant uncertain or his answer ambiguous		
Blank	Either that element was not on the list when locality was visited, or informant had no reliable knowledge of it.		
*	Indicates a note on the element under the same number in the section "Ethnographic Notes on the Element List."		

OCCURRENCE

ELEMENTS	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
SUBSISTENCE																			
Hunting																			
Deer																			
1. Surround*	+	+	+	-	+	+	+	-	-	+	+	-	+	-?	-?	+	+	-	-
2. Drive	+	+	+	-	+	+	+	-	-	+	+	+	+	+	+	+	-	+	+
3. Past ambushed hunter	+	+	+	-	+	+	+	-	-	+	+	-	-	+	+	-	-	-	-
4. Over cliff	-	-	-	-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	?
5. Into enclosure	-	-	-	-	-	-	-	-	-	-	+	+	-	+	-	+	-	-	+
6. Into enclosure with pit*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
7. Through V into pit	-	-	-	-	-	-?	-	-	-	+	+	-	-	-	+	-	-	+	-
9. With fire	+	+	?	-	-	-	+	-	-	-	+	?	-	-	-	-	-	+	-
10. With dogs*	-	+	+	-	-	+	-	-	-	+	-	+	+	-	-	-	-	+	-
11. In relays	-	+	-?	-	-	-	+	-	-	+	+	-	-	-	-	-	-	+	-
12. Shamanism*	-	-	-	-	-	-	-	-	-	+	?	+	+	-	+	+	+	-	+
13. Ambush	+	+	-	-	+	+	-	-	-	+	+	-	-	+	+	+	+	+	+
14. In pit beside trail*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	-
15. In pit beside spring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+	-
16. In pit around which brush fence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
17. Single hunter stalks	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
18. Runs down	+	+	+	-	+	+	+	+	-	+	+	-	+	+	+	+	+	+	+
19. Disguise	-	-	-	-	-	+	+	-	-	-	-	+	+	-	-	-	-	-	+
20. Deer head*	-	-	-	-	-	+	+	-	-	+	?	-	+	-	-	-	-	-	+
21. Entire deerskin	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+
22. Carry brush	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	?	-	-
23. Poison arrow	+	+	+	+	+	-	+	+	-	-	+	+	+	+	+	+	+	+	+
24. Fire to signal hunters	-	-	-	-	-	+	+	-	-	+	+	-	-	-	-	-	-	-	-
25. Formal chief*	-	-	-	-	-	-	-	-	-	+	-	-	-	+	+	-	-	-	-
26. Informal chief	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
27. Magic*	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	-	-

	NP-FS	NP-FL	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Fly	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
28. Communal Antelope Hunt*	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+
28a. Brush corral	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+
29. Solid fence	-	-	-	-	-	-	-	+	+	-	-	-	+	-	+	-	-	-	-
30. Brush at intervals*	-	-	-	-	-	-	+	-	-	-	-	-	-	+	+	+	-	+	+
31. Wings	-	-	-	-	-	-	+	-	+	-	+	-	+	+	+	+	-	-	-
32. Shaman	-	-	-	-	-	-	+	+	+	+	+	+	+	+	W	+	-	+	+
33. Shaman is chief	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+
34. Shaman's assistant*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
35. Shaman's enclosure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
36. Fire	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
37. Notched stick	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+
38. Grass-stuffed hide*	-	-	-	-	-	-	-	-	?	-	-	-	-	-	-	-	-	+	+
39. Hoof rattle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
40. Wand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
41. Shaman smokes	-	-	-	-	-	-	+	+	+	-	+	-	+	-	+	+	-	+	+
42. Passes pipe	-	-	-	-	-	-	+	+	+	+	-	-	+	-	+	+	-	+	+
43. Shaman sings	-	-	-	-	-	-	+	+	+	+	-	-	+	+	+	+	-	+	+
44. Audience sings	-	-	-	-	-	-	+	+	+	+	+	+	+	-	+	+	-	+	?
46. Antelope dance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
47. Antelope mask	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-
48. Round dance	-	-	-	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-
49. Stumbling taboo	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
*50. Loss of objects taboo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
51. Antelope's souls caught	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+	+	+
52. Number of nights to charm	-	-	-	-	-	-	1	1	1	-	5	1	5	1	5	3	-	1	1
53. Messengers to antelope	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54. Scouts to antelope	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
55. Antelope driven in	-	-	-	-	-	-	+	-	+	-	+	-	+	+	+	+	-	+	+
56. Antelope charmed in	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-
57. Fires to drive	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
58. Shaman in corral	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
59. Shaman "closes gate"	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
60. Special archer	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-
Other Antelope Hunting																			
61. Individual stalking*	-	-	-	-	-	+	-	-	+	+	-	-	+	+	+	+	+	+	+
62. Run down on foot*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
63. Run down on horseback	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
64. Drive past ambushed hunters	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-
66. With dogs	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
67. With fire	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-	-	-
69. Into trap, net, snare	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
70. Ambush by spring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-
71. Hunters disguised	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
72. Hunters in hole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
73. Disguise	-	-	-	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+
74. Antelope skin	-	-	-	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+
75. Brush disguise	-	-	-	-	-	+	-	-	-	-	-	-	+	-	-	+	-	-	-
Mt. Sheep Hunting																			
76. Surround	-	-	-	+	-	+	+	-	+	-	-	-	-	-	+	+	-	-	-
77. Drive	+	+	+	+	-	+	+	+	+	+	+	-	-	-	+	+	-	+	-
78. Past hidden hunters	+	+	+	-	-	+	+	-	+	-	+	-	-	-	-	-	-	-	-
79. With fire	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
*80. With dogs	-	-	-	-	-	+	+	+	-	+	+	-	-	-	+	+	-	+	-
81. Into enclosure*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+	-
84. Stalking by individuals	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SarV	S-BtM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
85. Attract by pounding*						+							+	+	+	+	+	+	+
86. Disguise	-	-	-	-	-	+	+	-	-	?	+		-	-	-	-	-	-	-
87. Head of sheep used				-	-	+	+	-	-	-?	+		-	-	-	-	-	-	-
88. Entire body used	-	-	-	-	-	-	+	-	-	-	-		-	-	-	-	-	-	-
89. Fire to signal hunters	-	-		-		+	+	-	-	+	+		-	-	-	-	-	-	-
90. Relay or back and forth	-	-				-	+	-	-	-	-		-	-	-	-	-	-	-
92. Communal Rabbit Hunt*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
92a. Net*	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
93. Club	-	-	-	-	-	+	+	+	-	+	+		-	+	+	-	+	?	-?
94. Club thrown	-	-	-	-	-	-	+	-	-	-			-	+	+	-	+	+	-?
95. Bow and arrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	
96. Men only hunt	+		-	+	+	+	-	+	+	+	+	+	+	+	+	-			
97. All people hunt*	-	-	-	-	-	-	+	-	+	-	-		-	-	-	+			
98. Special leader	-		-	(+)	(+)	-	+	+	+	+	+	+	+	-	+	+	+	-	-
99. Duration (days)*	2+	4+	-	30				10 V			30	30	5	V	V	2+	V	V	V
Snares, Nets, Etc.																			
100. Spring-pole trap*	+	+	+	+	+	+	+	-	-	-	+	+	+	+	+	+	+	+	+
101. For birds	+	+	+	+	+	-	+	-	-	-	+	+	-	+	+	+	+	+	+
102. For sage hen	-					-		-	-	-		+	-	+	+	+	+	+	+
103. Trap in enclosure						-		-	-	-			-		+			+	
104. Trap behind fence	-					-		-	-	-			-						
105. Bird noose over hole	-					-		-	-	-			-				+	+	
107. For rodents		+	+			+		-	-	-	-		-	+	-	-	-	-	-
109. For small mammals	+	+	+	+	+			-	-	-		+		-	-	+	+	+	+
110. For large mammals	-	-	-	-	-	+	?	-	-	-	-			-	-	-	-	-	-
112. Running noose for rabbits						+		-	-	-	+		-			+	+	+	+
113. Noose in fence gap	+	-	+	+		+		-	-	-	+		-	+	+	+	-	+	+
114. For deer	+	-	-	-		-		-	-	-	-		-	-	-	-	-	-	-
115. Rabbits		-	+	+		+		-	-	-	-		-	-	-	-	-	-	-
116. Birds	-	-	-	-		+		-	-	-	+		-	-	-	-	-	-	+
117. Sage hens		-						-	-	-			-	+	+	+	-	+	+
118. Long rabbit net	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
120. Bird net				+	+			+	+	+	+		-	+	+	+	+	+	+
121. Circular dome			-	+	+			+	+	+	+		-	?	-	-	+	A	-
122. Tunnel shaped				-	-			-	-	-	-		-		+	+		B	
123. Rabbit net used				-	-			-	-	-	-		-					B	+
124. Willow frame				+	+			+	+	+	+		-	?	+	+	+	B	
125. Sagebrush support													-					B	
126. Edges staked down													-						+
127. Placed near water					+			+	+	+	+		-	+		+			+
128. Placed over creek									+	+	+		-					A	+
129. Sagebrush wings													-	+	+		+	B	+
130. Pull-over type				+	+								-	+		+	+	A	
130a. Sack type				+	+														
131. Used mating season*								+	+	+	+		-		+	+	+	+	+
132. For sage hens	-	-	-	-	-			+	+	+	+		-	+	+	+	+	+	+
133. For doves				+	+			-	-	-	-		-	-	-	-	-	-	-
134. For ducks*	-	-	-	-	-			-	-	+	+		-	+	+	-	-	-	-
135. For eagles	-	-	-	-	+			-	-	-	-		-	-	-	-	-	-	-
136. Birds driven to net*	-	-	-	-	-			+	+	+	+	+	+	-	+	+	+	B	
137. With antelope disguise	-	-	-	-	-			+	+	+	+		-		+	+	+	B	
138. With antelope manure*	-	-	-	-	-								-		+	+			
139. With deer disguise	-	-	-	-	-					+	+	+	+						
140. Net snare for rabbits										+	+						+	?	

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtlM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
142. Deadfalls	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
143. Figure-4 type	+	+		+													+	+	+
144. Two-stick type	-																+	+	+
145. Bait	+																+	+	+
147. For small game*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
148. For birds generally	-			+	-	-	-	-	-	-	-	+	+	(+)	-		+	+	+
149. For grouse	-															+	+	(+)	+
150. Pitfalls	-	-	-	-	-	-	+		-	+	+	-	-	-	+	+	+	+	-
151. Cover cross bars	-	-	-	-	-	-			-	-	-	-	-	-	-	+	-	+	-
152. Bait	-	-	-	-	-	-			-	-	-	-	-	-	-	+	-	-	-
153. For carnivores*	-	-	-	-	-	-			-	-	-	-	-	-	-	+	-	-	-
154. For rabbits and rodents	-	-	-	-	-	-	+		-	-	-	-	-	-	-	+	+	+	-
Booths and Blinds																			
155. Brush enclosure				-		-	-	-		-	-	+	-	-	+	-	+	-	-
156. Domed brush house*				+		-	+	-		+	+	+	-	-	+	+	-	-	-
157. Stick and mud house*				-		-	-	-					+	-					-
158. Conical house						-		-						-	+				-
159. Pit				-		-	-	-	+		+			-	+	+	+	+	+
160. With brush fence				-		-	-	-			-			-	-	+	+	+	-
161. With brush cover	-	-	-	-	-	-	-	-	+					-	-	-	-	-	-
162. Concealment near water				+		-	+	-	+	+	+	+	+	-	+	+	-	-	-
163. Shooting, birds				+		-	-	-	+	+	+	+	+	-	-	+	-	-	-
164. Game	+	+	+	+	+	-	?	-	+	+	-	+	+	-	+	+	+	+	+
165. Birds caught, bare hand	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
166. Perch				+		-	-	-						-		+			-
167. Inclined pole*						-	+	-						-					-
168. Noose on stick*	-	-	-	-	+	-	-	-	-	-	-	+		-	+	-	-	-	-
169. Birds taken						-		-						-					-
170. Bluebird						-		-			+			-		+			-
171. Doves				+		-	+	-						-					-
172. Grouse						-		-						-	+				-
173. Game killed								-						-		+	+	-	-
174. Sheep								-			+			-	+	+	-		-
175. Antelope													+						-
176. Tule blind				+				-											-
177. Bird killed by sitting on it						-		-						-	+				-
Decoys and Disguises																			
180. Stuffed birds*	-	-	-	-	-	-	-?	-	-	-	-		+	-	-	-	-	+	-
181. Pulled with string*	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	+	-
182. Birdskin over head*	-	-	-	-	-	-	+	-	-	-	-	+	+	+	-	+	+	-	-
183. Animal disguise	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
184. Head	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
185. Whole skin	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
186. Sticks as front legs	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
187. Paint arms	-	-	-	-	-														+
188. Of deer	-	-	-	-	-	+	+	-	-	+	+	?	+	-	-	-	-	-	+
189. Of antelope*	-	-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+
190. Of mountain sheep	-	-	-	-	-	+	+	-	-	-	+	-	-	-	-	-	-	-	-
191. Grass or brush disguise	-	-	-	-	-	+	?	-	-	-			+	-	-	+	?	-	-
Waterfowl Drives																			
192. Communal drive	-												+	+	+	+	-	+	-
193. Chief	-												+	-	-	-	-	-	-
194. Killing with club	-													+			-	+	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Liða	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
195. Mud hens taken	-												+	+	+	-	+		
196. Ducks taken*	-															+	-	+	-
197. Individual drive: with animal dis- guise	-			+											+				
198. Ducks taken	-			+							+				+	+	-		
200. Sage hens driven into net	-							+	+	+	+		-		+	+	+	+	
Miscellaneous																			
201. Rodent skewer*	-	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
202. For cottontail	-	+					+	+	+	+	+	+	+	+	+	-	+	+	+
203. For rat	-	-																+	
204. For chipmunk	-	-														+			
205. Reptile hook	-			+	+	-	-	-	-	-	-	-	-		-		-	-	
206. Game hung on belt by head						+	+	+	+	+	+	+	+	+	+	+	+	+	+
207. Rats poked out	+	+	+	+	?						?	+	+	+	-	+	-	+	
208. Rats burned out	-	-	+	-	-	+	-	-	-		?	+	-	+	-	+	-	+	
209. Smoking out	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
210. Jack rabbit	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	
211. Cottontail	+							+											
212. Other rodents	+					-	+	-		-	-	+	+		-	+	-	+	
213. Bear	-							+	-	-	-	-	-	-	-	-	-	-	
214. Fan to blow smoke in den*	+	+	?	-	+	+	+	+	+		+	+	+	+	+	+	+	+	+
215. Sage-hen wing	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
216. Crow wing*	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
217. Hawk wing*	-	-		-	-	-	-	-	-		+	-	-	-	+	+	-	-	-
218. Brush	+	+	?	-	+	+	+	+	+		-	-	+	+	-	-	-	-	-
219. Feather	-	-	?	-	-	-	-	-	-		-	-	-	+	-	-	-	-	-
220. Basket	-	-		-	-	-	-	?	?	+	-	+	-	-	-	-	-	-	-
221. Rodents flooded out*	+	+									+	+		+	+	+	+	+	+
222. Flares for fowl			?		-	-	-	-	-	-				-	-		-		
Eagle Catching																			
223. Aeries owned						+	+	+	+	+	+	+	?	+	+	+	+	-	-
224. Young from nest	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
225. Frighten off	-				-	+	+												
226. Hunter climbs	+		+			+	+		+	+	+	+	+	-	+	+	+	+	
227. On rope						+	+		+	-	-	+	+	-	+	+	+	+	
228. On net			+			-	-		-	+	+	-	-	-	-	-	-	-	
229. Carries cage						-	-		-	-	-	-	-	-	-	-	+	-	
230. Seizes by hand						-	-		-	-	-	-	-	-	-	-	-	+	
231. Caught by deadfall						-	-	-	-	-	-	-	+	+	-	-	-	-	-
232. Caught from pit						-	-	+	-	-	-	-	-	-	-	-	-	+	-
234. Seized by hand			+			-	-	+	-	-	-	-	-	-	-	-	-	+	-
235. Caught from house			-			-	-	-	-	-	-	-	-	-	-	+	-	-	-
236. Take feathers and release				+												+	+	+	+
237. Raise			+													+	-	+	+
238. Nest in tree			-													+	-	+	+
239. Tie up			-													+	-	+	+
240. Cage	+		+													-		-	+
241. Eagle-catching-power dream* . . .									(+)		+	+	+	+	+	+	+	+	-
242. Caught for feathers	+					+	+	+	+	+	+	+	+	+	+	+	+	+	+
243. Tail																	+	+	
244. Wing																		+	
245. For trade only										+	+		+	+	+	+	+	-	-

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
Rearing Other Birds																			
246. Chiefly mockingbird*		+		+	+	+	+	+		+	+	+			+	+			
247. Chiefly dove																			
248. Other birds				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
249. Young from nest				+	+	+											+		
250. Keep in cage				+		+	+	+	+	+	+	+	+	+	+		+		+
251. Twined willow, pointed top				+													+		+
252. Fishing*	+	+	+	-	-	-	-	-	+						?		+		
253. Fish taboo	-	-								+	-	-	-	-		-	-	-	-
254. Fish absent	-	-	-	+	+	-	-	-											
255. Fish nets	-	-	+	-	-	-	+	-	-	-	-	-	-	+	?	-	+	+	+
256. Special form	-	-		-	-	-	-	-	-	-	-	-	-	+		-	+	+	+
257. Rabbit net	-	-		-	-	-	+	-	-	-	-	-	-	+		-	-	-	-
258. Wade in stream	-	-	+	-	-	-	-	-	-	-	-	-	-	+		-	+	+	+
259. Use through ice	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	+	+	+
260. Weir	-	-	-	-	-	-	-	-	+	-	-	+	-	-		-	+		-
261. Rock dam	+	-	-	-	-	-	-	-	-	-				+			+		
262. Willow dam	-	-	-	-	-	-	-	-	-	-				+			+	+	
263. Basket*	+	+	-	-	-	-	+	-	+	-	+	+	+	+		+	+	+	
264. Conical carrying*	+	+	-	-	-	-	-	-	+	-	-	-	+	+		+	-	-	-
265. Special elongated	-	-	-	-	-	-	-	-	-	-	+	-	-	+		-	+	-	+
266. In weir	-	-	-	-	-	-	-	-	-	-	-	+	-	+		-	+	+	
267. In dam	-	-	-	-	-	-	-	-	-	-	-	-	-	+		+	+	-	
268. Supported by sticks	-	-	-	-	-	-	-	-	-	-	+	-	-	-		-	+		
269. Held in hand	+	+	-	-	-	-	+	-	+	-	+	+	+	-		-			
270. Drive with willow bundle	-	-	-	-	-	-	-	-	+	-	-	+	-	-		-			
271. Hand catch in shallow	+	+	-	-	-	-	-	-	+	-	-	+	-	+		-			
272. Harpoon	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	+	+	-
273. Spear	+	+	-	-	-	-	-	-	-	-	-	+	-	-		-	-	+	-
274. 1 prong	-	-	-	-	-	-	-?	-	-	-	-	+	-	-		-	-	+	-
275. 2 prongs	+	+	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
276. Fish arrow, 1 prong	-	-	-	-	-	-	-?	-	+	-	-	-	-	-		-	-	-	-
277. Night fishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
278. Torch or fire	-	-	-	-	-	-	-	-	-	-	-	+	-	-		-	-	-	-
279. Moonlight	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	+	-	-
280. Hook*	+	+	-	-	-	-	?	-	-	-	-	-	-	+		+	+	-	+
281. Of bone	+	+	-	-	-	-	-	-	-	-	-	-	-	+		+	+	-	
282. One barb at angle*	+	+	-	-	-	-	-	-	-	-	-	-	-	+		+	+	-	
284. Line	+		-	-	-	-	-	-	-	-	-	-	-	+		+	+	-	
285. Pole			-	-	-	-	-	-	-	-	-	-	-	+		+	+	+	
286. Bait: angleworm		+	-	-	-	-	-	-	-	-	-	-	-	+		+	+	+	
287. Bait: grasshopper			-	-	-	-	-	-	-	-	-	-	-	+		+	+	+	
288. Bait: salmon egg	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
289. Bait: grub		+	-	-	-	-	-	-	-	-	-	-	-	+		-	+	-	-
290. Bait: bag, buckskin	?	+	-	-	-	-	-	-	-	-	-	-	-	+		+	-	-	-
291. Fly	-	-	-	-	-	-	-	-	-	-	-	-	-	+		-	-	-	-
292. Sinker			-	-	-	-	-	-	-	-	-	-	-	-		-	+	-	-
293. Poison in stream	+	+	-	-	-	-	+	-	-	-	-	-	-	-		-	-	+	-
294. Dam stream	+	?	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
295. Divert creek	+	-	-	-	-	-	+	-	-	+	+	+	-	-		+	-	-	-
296. Strike to kill	-	-	-	-	-	-	-	-	-	-	-	-	-	+		+	+	-	-
297. Animals Eaten*																			
297a. Dog*	-?	+	+	-	-	?	+	-	(+)	?	-	-	-	-	-	-	-	-	-
298. Wolf*	-	-	-	-	-	-	+	-	-	H	-	+	-	-	-	-	-	+	+

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
299. Coyote*	-	-	+	-	+	+	+	H	(+)	?	-	H	-	-	-	-	-	-	-
300. Fox	-	-	+	-	+	+	?	?	(+)	-	-	+	+	-	-	-	-	-	?
301. Bear*	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
302. Badger						+	+	+	+	+	+	+	+	+	+	+	+	+	(+)
303. Porcupine*										+	+	+	+	+	+	+	+	(+)	-
304. Mt. lion	-	-	-	-	+	-	-	-	-	-	-	+	+	-	-	-	-	+	-
305. Wildcat	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	(+)
306. Ground hog														+	+	+	+	+	+
307. Skunk	-	-	+	+	-	-	-	-	-	-	-	-	+	+	-	+	+	+	+
308. Gopher				+		+	+	+	+	+	+	+	+	+	+	-	+	+	?
309. Rat		+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	?
310. Wood rats		+												-	+			+	+
311. Mice		+				+	+	+	+	+	+	+	+	+	+	+	+	+	-
312. Mole	-	-	-	-	-	+	?	?	+	+	+	+	-	-					
313. Mole, gopher foot for fertility*	+	+	-	?	+	-	-	-	-	-	-	-	-	-					
314. Eagle	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
315. Buzzard*	-	-	-	-	-	+	-	-	-	-	-	+	+	-	-	-	-	-	-
316. Raven	-	-	-	-	Y	+	Y	?	-	-	-	?		-	-	-	-	-	-
317. Crow	-	-	-	Y	Y	+	Y	-	Y	-	-	+	+	-	-	-	-	-	-
318. Owl	-	-	Y	+	+	+	-	+	+	-?	+	+	+	H	?	+	+	+	-
319. Hawk*	-	-	-	+	Y	+	+	?	+	H?	+	?	-	-	-	-	-	-	-
320. Dove	+	+	+	+	Y	+	+	+	+	+	+	+	+	+	+	+	+	+	+
321. Mockingbird	-	-	+	+	+	-	+	-	+	-?		+	+	-	-				+
322. Grouse	+															+	+		-
323. Sage hen	+						+	+	+	+	+	+	+	+	+	+	+	+	+
324. Quail								+	+	+	+	+	+	-	+	+	+	+	+
325. Other															+				
326. Snakes (general)*	-	-	-	+	+	H	+	-	+	+	+	+	+	-	-	-	-	-	-
327. Rattlesnake	-	-	-	-	-	H	+	H	+	H	H	H	+	-	-	-	-	-	-
328. Lizards (large only)*	-	+	-	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-
329. All lizards	-	-	-	-	-	+	+	-	-	-	-	+	-	-	-	-	-	-	-
330. Lizard egg	-	-	-	-	-	+	?	-	-	?		?		-		+	-	-	-
331. Chuckwalla	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
332. Horned toad	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
333. Tortoise	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
334. Mud hen	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
335. Fish	+	+	+	-	-	+	+	+	+	-	+	+	+	+	-	+	+	+	+
336. Frog	-	-	-	-	-	+	-	+	-	-	-	+	+	+	-	-	-	-	-
337. Caterpillars*	+	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	(+)
338. Larva in lake	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
339. Ants	+	-	+	-	-	-	-	+	+	+	+	+	-	+	+	+	+	+	+
340. As food *		-		-	-	-	-	+	+	+	+	+	-	+	+	+	+	+	+
341. As tonic	+	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
342. Ant eggs	+	-	?	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
343. Bee eggs				-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
344. Cicadas						+	?	+	+	+	+	+	+	+	+	+	+	+	-
345. Gather in baskets																		+	-
346. Roast in coals																			-
347. Grind on metate													+	+				+	-
348. Cricket	-	-	-				+	+	+	-	+	+	+	+	+	+	+	+	-
349. Drive into trench	-	-	-							-	-	-	-	-	-	+			-
350. Drive into pit	-	-	-							-	+	+	-	-	-				-
351. Drive into fire circle													+	+					-
352. Grasshopper				-			+								-	-	+	+	-
353. Catch by hand	-	-	-						+	-				-	-				-
354. Gather in baskets	-	-	-							-	+	+		+	-		+	+	-
355. Eviscerate	-	-	-							-							+		-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
356. Roast in pit	-	-	-		-				-								+	+	-
357. Grind on metate	-	-	-		-				-								+	+	-
358. Store, buckskin bags	-	-	-		-				-								+		-
359. Anglemorm	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
360. Raw liver	-	-	-						-	-			+	-	-		+		-
Animal-Food Taboos, Etc.																			
361. Fetus taboo	-	-	?	-	-	-	?		-	-	-	-	-	-	-	-	-	-	H?
362. Deer heart taboo	-	-	+	+	+	+	+	-	+	?	+	-	-	+	-	-	+	+	-
363. To young	+	+	?	+	+	+	+	?	+	+	+	-	-	+	-	-	+	+	-
364. Liver taboo to young											+			-	-	-		+	
365. Deer lung taboo to young						-	+	?	-	-	-	-	-	-	-	-	-	-	?
366. Lung eaten for strength																	+		
367. Bird eggs taboo to young	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+
368. Scavenger eggs taboo																	+		
369. First kill taboo	+	-	-	+	+	+	+	?		+	-	+	+	+	-	-	-	-	?
370. To youth	+	-	-	+	+	+	+			+	-	+	+	+	-	-	-	-	
371. To mother	-	-	-	-	-	-	-			-	?	-	+	-	-	-	-	-	
372. To father	-	-	-	-	-	-	-			-	?	-	+	-	-	-	-	-	
373. Mother washes boy		-	-												-	+	-	-	
374. Youth eats special part		-	-								+				-	-	-	-	
375. First kill after childbirth	+	+	-	-	+	-	-	?		-	?	+	+	-	+	-	+	+	+
376. Taboo to father			-	-	-	-	-			-	?	+	+	-	-	+	+	+	+
377. Taboo to mother			-	-	-	-	-			-		+	+	-	-	+	+	+	+
378. Hunter distributes game	+	+	+	+	+	+	?		+	+	+	+	+	+	+	+	+	+	+
379. To all village	+	+	+	+															
380. To relatives	+													+					
381. To mother-in-law	+													+					
382. Hunter keeps game	+	+	?	+	+	+	?		+	+	+	+	+	+	?	+	?	+	+
383. Ribs	-	-										?	+	-			-	-	
384. Hind quarter	+	+										?	-	-			-	-	
385. Side	-	-												+			-	-	
386. Best part	-	-		+	+	+			+	?		+	-	-		+			
387. Any part	-	-															+	+	
Miscellaneous Concepts																			
388. Women hostile to hunting	-	-	-?	+	-	+	+	+	+	?	?	?		+			-	-	-
389. Hunter avoids intercourse nights before	-	-	-?	+	-	+	+	?	-				2	2+			-	-	-
390. Talk before hunt												+		+	+	?	-	-	
391. Smoke before hunt					+	?	+		-	-	+	+	+	-	-	?	-	-	
392. Smoke during hunt					+	?						+	+	-	-		-	-	
393. Bathe before hunt: cold bath				+	+	?	-		+	?	-	+	-		-	-	-	-	
394. Sweat bath														+					
395. Talk during bath									+		-	-	-	-	-		-	-	
396. Disposal of deer bones	-?	+	-	-	-	-	-	-	-		-	-	-	-			-	-	
397. Kept from dogs	-	+	-	-	-	-	-	-	-		-	-	-	-			-	-	
398. Game immortal	-	-	?	-	+	?	?		?	+	?			-			-	-	
399. Game controlled by human beings	+	+	+	-	+	?				+		+		+	+				
400. Spirits	-	-	?		?	?			-								-		
401. Offering of game kill				+	+	-?			+	+	+	+	+	+	+	+	+	+	-
402. To nature									+	?	+		-	+	+		+		
403. To spirit				+	+	-?			-	?	-	+	-						
404. With prayer				+	?	?			+	+	+		+	+	?		?	-	
405. Piece of gall														+	+	+	+	+	
406. Throw in brush														+	+	+		+	

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Fmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
407. Heart on stick					+				-		-						+		
408. Liver																	+		
409. Tip of deer tail																		+	
Gathering																			
410. Acorns*	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
411. Leach in sage-lined pit	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
412. Bury in sand to cook*	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
413. Grind in mortar	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
414. Boil mush	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
415. Mesquite*	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
416. Beat off tree with stick	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
417. Pick by hand	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
418. Women gather	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
419. Pods	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
420. Young eaten	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
421. Mature pit stored	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
422. Seeds	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
423. Thrown away	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
424. Stored*	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
425. Grind wooden mortar	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
426. Stone mortar	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Plants																			
427. Yucca	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
428. Joshua tree	-	+	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
429. Eat bud	-	+	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
430. Pull bud by hand	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
431. Pry with stick	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
432. Roast in coals	-	+	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
433. "Grass" seeds*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
434. Cactus fruit eaten	-	?	+	-	-	+	-	-	+	-	+	-	+	+	+	+	+	+	+
435. Stems eaten	-	+	-	-	-	-	-	-	+	-	+	-	+	+	-	-	-	-	-
436. Burn needles off	-	-	-	-	-	-	-	-	+	-	+	-	+	+	-	-	-	-	-
437. Brush needles off*	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
438. Roast in ashes	-	-	-	-	-	-	-	-	+	-	+	-	+	+	-	-	-	-	-
439. Roots	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
440. Berries	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
442. Mescal*	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pine Nuts																			
443. Hooked pole	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
444. Natural hook*	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
445. End fire bent	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
446. End separate piece	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	-	-	+
447. Climb	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	+
448. Men	+	+	-	-	+	+	+	+	+	+	+	+	+	+	-	-	-	-	+
449. Women	-	-	-	+	+	+	+	+	-	-	+	-	-	+	-	-	-	-	+
450. Climbing stick	+	+	+	+	-	+	-	+	+	-	+	-	+	+	-	-	-	-	+
451. Store green, in stone circle*	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	-	+
452. Whole cone in cache	+	+	+	+	-	+	+	+	+	+	+	+	+	+	-	-	-	-	+
453. Cooked seeds	-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
454. Burn nuts from green cone*	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
455. Strike nuts from ripe cone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
456. Cache*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				+
457. Unlined pit	-	-	-	+	-		-	-	-		-	-	-	-	-		-	-	
458. Grass lined	+	+	+	-	+		+	+	+		+	-	+	+	+		-	-	
459. Pine-leaf-soil lined	-	-	-	-	-	+	+		+						+		-	-	
460. Brush & stone covered	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		-	-	+
461. Juniper-bark lined	-	-	-	-	-				+	+			+	+	-		-	-	
462. Grind on metate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
463. Parch	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
464. In fan, twined basket	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
465. In circular, coil basket	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
466. Conical gathering basket	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
467. Family owned plots	+	+	?	(+)	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
467a. Offerings of pine nuts*											+	+							
468. Eaten as flour	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
469. Mush	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
470. Chilled mush	+					+	+	+	+	+	+	+	+	+	+	+	-	-	
Miscellaneous Plant Foods																			
471. Cane sugar*	+	+	+	+	+	+	+	+	+	+	+	-	+		+	+	+		+
472. Boil cane												-					+		
473. Dry and beat	+		+			+	+	+	-	+	+	-	+	-	+		-		+
474. Dry and grind	+								+		+	-							
475. Willow-sap sugar														+	+	-	+		
476. Pine sugar white pine pitch																	+		
477. Piñon pitch	+	+				+	+	+	+		+	-		+					
478. Chewing gum	+	+	+		+	+	+	+	+	-	+	+	-	+	+	-	+	-	+
479. From plant root*	+	+	+	-	+	+	+	+	-	-	-?	-	-	+	+	-	+	-	-
480. Rabbit-brush root*	+	+	-	-	-	-	+		+	-	-	-	-	+	+	-	+	-	+
481. Rabbit-brush bark	-	-	+	-	-	-	-		-	-	-	-	-	-	-	-	-	-	+
482. Pitch	+	+	-		+	+	+		-	-	-	+	-	+	-	-	-	-	-
483. Berries dried					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
484. Roots dried and stored	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gathering Implements																			
485. Digging stick*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
486. Point one end	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
487. Spatulate end						-	-	?	+	?	-			-	-	-	-		
488. Horn shod*													+						
489. Of mountain mahogany		+							+	+	+		+			+			
490. Of serviceberry														+	+		+	+	
491. Of greasewood																	+		
492. Conical seed basket	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
493. Basketry seed beater	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
494. Plain	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
495. Edged*	-	+	+	+	+	+	+	+	+	+	+	+			+	-		+	+
496. Horn	-	+	+	?	-	+	?	-	-		-	-			-	-		-	-
497. Wood	-	-	-	-	+	-	+	+	+		+	+	+	+	+	-		-	+
498. Rib	-	-	-	-	-	+	-		-	-	-	-				-	+	-	-
499. Seed knife*	+	+	?	+	+														
500. Wooden	-	-	?	+	+	?	?		-	-	+	+		-	-				-
501. Shin bone	-	-				+	+	-?	-	-		+		-	-	-			
502. Stone: wood handle	+	+	?	+	-	+	+	+	-	+			-	-	+	+			
503. Stone: horn handle	-	-		-	-	-	-		-	-		+	-	-	-	+			

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
<u>Cultivation</u>																			
Wild Seeds																			
504. Wild seeds planted*	-	-		-	-			+	+	+	+	+	+	-	+	-	-	-	-
505. Wild seeds irrigated*	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
506. Elected irrigator	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
507. Dams	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
508. Ditches	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
509. Burn for wild tobacco*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+
510. Burn for wild seeds	+	+	+				+	+	+	+	+	+	+	+	+	+	-		+
511. Domesticated Plants																			
512. Variegated maize	-	R	+	R	R	-	-	-	-	-	-	+	+	-	-	-	-	-	-
513. Black-eyed bean	-	-	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
514. Pumpkin	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
515. Squash	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
516. Watermelon	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
517. Muskmelon	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
518. Planter dibble	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
519. Store in house	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
520. Irrigation	-	-	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
Seed Storage																			
521. In pit*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
522. Bark or grass lined	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
523. In basket	-	-	+	+	+	+	?	?	-	-	-	-	-	-	-	-	-	-	-
524. In pot			+	+	+	+	?	?	-	-	-	-	-	-	-	-	-	-	-
525. In bark bag*									-	-	-	-	-			+	+	+	-
526. In buckskin bag			+	+	+	+	+	?	-	-	-	-	-	-	-		+	+	-
528. In rock cranny									-	+							+		
<u>Food Preparation</u>																			
529. Salt from mineral from playa*	+	+		+	+	+	-	+		+	+		+	+	-	?			-
530. Mineral from rocks			+														+		-
531. Burn brush*	+	-	-	-	-	-	+	-	+	-	-	-	-	-	+			+	-
532. Small mammals roasted, eaten whole*	+			+		+	+	+	+	+	+	+	+	+	-		+	+	
533. Roasted, entrails removed	+					-	-	-	-	-	-	-	-	+	+		+	+	
534. Roasted, entrails boiled	-					-	-	-	-	-	-	-	-	-	+		-	+	
535. Meat dried on coals*	+		+			-	-	-	-	-	-	-	-	-	-	-			-
536. Drying frame	-					-	?		-	-	-	-	-	-	-	+			
537. Dried in trees	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	
538. Smoked	-	-	-		+	-	?	-	-	-	-	-	+	-	-	-		+	
539. Smoked in house	-								-	-	-	-	+	-	-	-	-	-	
540. Pulverized	-	-	+	-		+	+	-	-	-	+	+	+	+	-			+	
541. Mixed with seeds	-								-	-	-	+	+	-	-	?		-	
543. Mixed with fat*	-					+	+	-	-	-	-	+	-	+	-	?		+	
544. Stored in sage bags*															+	+			
545. Tripe eaten	+													+	+	+	+	+	
546. Cook blood in paunch, gut*	+	+	+	+	+	+	+	+	+	+	+	+	+	?	+	+	+	+	+
547. Fish	+	-	-	-	-	-	-	-	-	-	-	?	+	+		+			
548. Dried in shade*	-	-	-	-	-			+	-	-		+	+		+		+	+	
549. Dried on coals	+	-	-	-	-	-	-	-	-	-	-	?	-	-	-	-	-		
550. Smoked in sweat house	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
551. Frozen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
553. Bone: cooked bone ground*	+	+	+						+	+	+	+	-	-			+	+	
554. Ground bone cooked	+	+	+						+	-	+	+	-	-	+	+	-		-

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
599. Tule or brush	+	+	+	+	+	(+)	+	-	-	-	-	+	?	-	-	-	A	-	+
600. Mat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
601. Earth covered, entirely	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
602. Earth covered, part	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	+	-
603. Pole-thatch binders						+	?	-	-	-	-	-	-	-	-	-	-	+	-
604. Center post	+	?	(+)	+	-	(+)	-	-	-	-	-	-	-	-	-	-	-	-	-
605. Door						+	+	-	-	-	-	+	?	-	-	-	+	+	+
606. Side of house (direction)	E	E	S?		E	V	V	-	-	-	-	-	-	-	-	-	E	V	V
607. Flush with wall						+	+	-	-	-	-	-	-	-	-	-	+	+	+
608. Of twined bark						-	-	-	-	-	-	+	?	-	-	-	B	-	-
609. Of twined grass						-	-	-	-	-	-	-	-	-	-	-	-	+	+
610. Floor covered with grass																	+	+	
611. Fire indoors, center of house	+	+	+		-	-	-	-	-	-	-	-	+	?	-	-	B	+	+
612. Outside house	-	-	-			+	+	-	-	-	-	-	-	-	-	-	-	-	-
614. Smoke hole in roof	+	+	+		-	-	-	-	-	-	-	-	+	?	-	-	+	+	
615. Tripod or Conical House	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
617. For winter	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
618. No. of foundation poles	3	3	-	2	4	4	4	4	4	4	3	4	4	+	+	5+	-	-	-
619. Forked poles interlock	+	+	-	+	+	+	-	-	+	-	+	-	-	-	+	-	-	-	-
620. Tied at intersection	-	-	-	-	-	-	+	-	-	-	+	+	-	-	-	+	-	-	-
621. Pit depth (feet)	-	-	-	1	2	-	-	-	2	2	-	2	2	1	1+	1	-	-	-
622. Cone-shaped, circular ground plan	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
623. House height (feet)	6	6	-	V		6+	V	V	V	V	V	V	7	9	V	V	-	-	-
624. House diameter (feet)	V	V	-	V		V	V	V	V	V	V	V	V	V	V	V	-	-	-
625. Encircled outside by stones	-	-	-	-	(+)	-	-	-	-	+	-	+	-	-	-	+	-	-	-
626. Cover	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
627. Of brush or tule	-	-	-	+	+	+	+	+	-	-	-	+	-	-	+	-	-	-	-
628. Bark	-	-	-	-	-	+	+	-	+	+	+	+	+	-	-	-	-	-	-
629. Grass (number of layers)	-	-	-	-	-	-	+	+	-	-	-	-	-	3	-	5	-	-	-
630. Twined sage-bark mats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
632. Pole-thatch binders	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	?	+	-	-
633. Earth covered, entirely	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
713. Gabled Type.	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
714. Number interior posts	2	2		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
715. Ridgepole	+	+		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
716. Circular ground plan	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
717. Pit (depth)	2+	+		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
718. Roof covering	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
719. Brush	+	+		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
720. Grass	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
721. Earth	+	+		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
722. Door	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
723. Tunnel	+	+		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
725. Twined bark	-	-		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
726. Twined grass	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweat House Operation and Use																			
727. Heated by fire inside	+	+	?	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
728. By rocks (heated outside)	-	-		-	-	-	-	+	+	+	+	+	+	+	-	+	+	+	+
729. Pit for rocks	-	-		-	-	-	-	?	+	-	-	+	-	-	-	+	+	+	+
730. Rocks around patient	-	-		-	-	-	-	-	-	+	+	-	-	-	-	+	-	-	-
731. Rocks in pile	-	-		-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
732. Covered with brush or grass	-	-		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-
733. Water poured on rocks	-	-		-	-	-	-	+	+	-	-	+	+	+	-	+	+	R	+
734. Water in baskets	-	-		-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-
735. Used for sickness	+	+		+	+	+	-	+	+	+	+	+	+	+	-	+	+	+	+
736. Colds				+	+	+	-	-	-	-	+	-	-	-	-	+	-	+	-
737. Rheumatism						+	-	-	+	-	+	-	-	-	-	-	-	+	-
738. General debility	+	+		+	+	-	-	-	-	-	+	-	-	-	-	-	-	+	-
739. Shaman treats inside	-	-		-	-	-	-	-	-	-	-	-	-	-	-	+	+	R	-
740. Used for bathing, i.e., cleansing	+	+		+	+	-	-	-	-	-	-	-	-	-	-	-	+	-	+
741. Daily	-	-	(+)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
742. Bather removes clothing	+			-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+
743. Attendant for bather	-	-		-	-	-	-	-	-	+	+	-	-	-	-	-	-	+	-
744. Pray while bathing	+	+		+	+	+	-	-	+	?	+	+	-	-	-	-	+	-	-
745. Tell bad dream	+	+		+	+	-	-	-	+	-	+	-	-	-	-	-	-	-	-
746. Talk to personal power	+	+		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
747. Talk for hunting luck	-	-		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
748. Cold bath afterward	+	+		+	+	+	-	-	-	-	-	+	?	-	-	-	-	-	-
749. Smoke while bathing	+	+		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750. Used by men	+	+		+	+	+	-	+	+	+	+	+	+	+	-	+	+	+	+
751. By women	(+)	(+)		+	+	+	-	+	+	+	+	+	+	+	-	+	+	+	+
752. Number persons accommodated	30	30		10		-	1	2+	1		2+			1		1	3+	1	3
753. Used for clubhouse	+	+		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
754. Used for gambling house	+	+		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
755. Used for dormitory	+	+		-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
756. Used for meeting house	+	+		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
757. Owned by individual	-	-		+	?	+	-	+	+	+	+	+	+	+	-	+	+	+	+
758. Owned by community	+	+		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
759. Used by community	+	+		-	?	+	-	-	-	-	-	+	-	-	-	-	-	-	-
Miscellaneous Houses																			
760. Dog house	-	-		-	-	+	-	-	-	-	-	+	-	-	-	-	+	+	-
761. Small domed willow	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
762. Special grinding house	-	-		-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-
763. Menstrual house	-	-		-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
764. Ceremonial Enclosure	+	+		+	+	-	-	R	R	R	+	+	-	-	-	+	-	-	-
765. General gatherings only	+	+		+	+	-	-	+	+	+	+	+	-	-	-	+	-	-	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elkc	S-Egan	S-RubV	S-SnRv	S-BtllM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
813. Portable, irregular	-	+	(+)	-	+		+	-	-		-	-	-	-	-	-	-	-	-
814. Portable, slab	+	-	+	-	?		-	-	-		-	-	-	-	-	-	-	-	-
815. Portable, sunk in ground	+	+	-	-	+	+		-	-		-	-	-	-	-	-	-	-	-
816. Stone mortar, small	-	-			+	+		-	-		-	-	-	-	-	-	+	-	-
817. For paint, medicine, etc.	-	-			+	+		-	-		-	-	-	-	-	-	-	-	-
818. For grinding food	-	-			+	+		-	-		-	-	-	-	-	-	+	-	-
819. Wood mortar	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
820. Cavity in log end*	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
821. Sunk in ground	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
824. Pestle, of stone	+	+	+	+	+	+	+	-	-	+	-	-	-	-	-	-	+	-	-
825. Cylindrical (length inches)*	14	14	17		17	+	+	-	-		-	-	-	-	-	-	+	-	-
826. Used for acorns	+	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
827. Mesquite	+	-	+	+	(+)	-	-	-	-		-	-	-	-	-	-	-	-	-
828. Pine nuts						+	+	-	-		-	-	-	-	-	-	-	-	-
<u>Metate and Muller</u>																			
829. Thin, oval metate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
830. Grinding on 1 side only	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
831. Used for seeds	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
832. Meat						+	+	-		+	+	+	+						
833. Bone						-	-	-		+		+	-						
834. Paint						-						+					+		
835. Cleaned with: fingers	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
836. Porcupine tail													+		-	-			
837. Brush of sage bark																+			
838. Brush of mescal fiber	-	-	+				-	-	-	-	-	-	-	-	-	-	-	-	-
839. Brush of Joshua fiber	-	-	-		+		-	-	-	-	-	-	-	-	-	-	-	-	-
840. Brush of hair	+	+	+																
841. Scraped with stick											+				-	-		+	
842. Brush						+	+	+	+	-?	-	-	+		-	+		+	
843. Oval-shaped muller	+	+	+	+	+	+	+	+	+	+	+	+	+		+		+		
844. Back-and-forth motion	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<u>Mush Stirrer</u>																			
846. Single straight stick	+	+	+	+	+	+	-	-	-	-	+	+	+	+	+	+	+	-	-
847. Looped stick*	-	-	-	-	+	+	+	+	+	+	+	-	-	+	-	-	-	+	+
848. Paddle	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-
<u>Spoon, Dipper, Etc.</u>																			
851. Dipper of: turtle shell	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
852. Mt.-sheep horn	-	-	+	+	+	+	-	-	+	-	-	-	+	-	-	-	-	+	-
853. Deer skull	-	-	-												+	-	-	-	-
854. Pottery	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
855. Basketry with handle*	-?	+		-	-	+					-	+		+	-	+	-	+	+
856. Basketry without handle*							+	+	+	+		-				+	-	-	-
857. Spoon of: cottonwood bark	-	-																+	-
858. Jack-rabbit scapula	-	-									+			+	+	+	+	+	+
859. Wildcat scapula	-	-													+	+	+	+	-
860. Wooden spatula for eating																+	+		-
861. Dishes of horn													+	-	-	-	-	-	-
862. Rough wooden slab*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
863. Twined-willow cup														+	+	+	-	+	+
864. Stone bowls	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
866. Pottery bowls	+	+	+	+	+														
867. Water container animal stomach bag*	+	+	+	+	+	+	+	+	+	-	+	-	-	+	-	+	+	+	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtlM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
868. Basketry olla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
869. Wooden scoop for digging*						+	-	-	+		-	-	-	-	-	-	-	-	-
<u>Knife</u>																			
870. Unhafted flint blade*	+	+	+?	-	+	-	-	-	+	-	+	-	+	+	+	+	+	+	+
871. Wrapped in buckskin	+	+		-	+	-	-	-	-	-		-	+		?		+	+	?
872. Flint blade hafted in wood	-	-	+	+	-	+	+	+	-	+	-	+	+	+	-	+	-	-	?
873. Horn handle				+		+	+	?	-	?		+	-	-					
874. Bone knife				+		+	+	?	-	?									
875. Broken cobble for cutting	-	-	?		+	+	?		-	?		+							
<u>Scraper</u>																			
876. Stone, broken cobble	-	-	-	-	-	+	?	?	-	-	-	-	-	-	-	-	-	-	-
877. Horn	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-
878. Bone*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
879. Rib, various	+	-	+	-	-	+	+	+	+	+	+	+	-		-	-		+	-
880. Horse rib									R								R		
881. Shin	+	+	+	+	+	+	+	?	+		+	-	+	+	+	+	+	+	+
882. Femur, end notched	-	-	-	-	-											+	+		
883. Pelvis									-	+	+	+	-	-	-	-			
<u>Awl</u>																			
884. Bone*	+	-	-?	-		+		+	+	+	+	+		+	+	-	+	?	+
885. Cannon (deer)	-	-	-	-		+	?	+	?	+	+	+		+	?		+		+
886. Ulna (deer)	+	-	-	-		-		-	?			+							
887. Humerus													+						
888. Rabbit tibia															+				
889. Rabbit hip														+					
890. Cactus spine	+	+	+	+		+	?	-	-	-	-	-	-	-	-	-	-	-	-
891. Handle pitch- or gum-covered*	+	+	+	+		+		-	-	-	-	-	-	-	-	-	-	-	-
892. Awl case, bark bundle	+	+	-	+		+	?	?	?			+							
893. Buckskin			+								+			?					
<u>Drill</u>																			
894. Shaft with stone point*	?	?	?	-		+	?	?	-	-?	+	+		?	+	+	?	?	+
895. Shaft with bone point*	-	-	?	-					+		+								
896. Shaft with horn point*				-												+		+	
897. Stone knife for drill				-												+			
<u>Various</u>																			
901. Broken cobble for chopping	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
902. Natural cobble for hammer	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<u>Flint Flaking</u>																			
903. Flint flaker*	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+
904. Sharp point	+	+	+	+	+	+	+	+	+		-		+	-	+	+	+	+	+
905. Notched end											+		-	+?	?	-	-		
906. Of antler tip	+	+	+	+	+	+	?		+	?	+		+	+	+	+	+	?	+
907. Of mt.-sheep horn				-	+											+			
908. Flint roasted in ground	-	-	-	-	-				+					-	-		+	-	-
909. Flint warmed	-	-	-	-	-						+		+						
910. Buckskin hand pad	+	+	+	+	+	+			+	?	+				?	?	+	+	
911. Pressure flaking	+	+	+	+	+						+								

	NP-PSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC	
SKIN DRESSING																			
912. Skin soaked first*												+	+	+			+	-	
913. Hair removed on inclined rubbing post for scraper (see 876)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
915. Tanning with brain*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
916. With spinal cord	-	-	-	+			+	-	-	-	-	-	(+)	-		-	-	-	
917. With marrow	-	-	-	+		+	+	-	-	-		-	-	-		+	-	-	
918. With liver	-	-	-	+		+	+	-	-	-		-	-	-		+	-	-	
919. With wood ashes	-	-	-	+		+	+	-	-	-		-	-	-		+	-	-	
920. Tanning agent cooked*												+			+		+		
921. Kept in piece of intestine																	+		
922. Graining: soak and stretch													+	+		+	+	+	
923. Rubbing stone	-	-	-	-	-	+	+	R	+	+	+	+	+	+	+	+	+	+	
924. Smoking	-	-	+	-	-	+	+		+	+	+	+	+	+	+	+	+	+	
925. One side only	-	-		-	-	+	+		+	+	+	+	+	+	+	+	+	+	
926. Both sides	-	-		-	-	+	+		+	+	+	+	+	+	+	+	+	+	
927. Hide tied funnel shape	-	-	-	-	-	-	-				+	+	+	+	+	+	+	+	
928. Hide on tripod over fire	-	-	-	-	-	-	-						+	+	+	+	+	+	
929. Cedar-bark smoke	-	-	-	-	-	+	+					+	+	+	+	+	+	+	
930. Wood-chip smoke*	-	-	+	-	-	-	-					-	-	-	+	+	+	+	
931. Done by men	+	+	+	+	+								+						
WEAPONS																			
Bow																			
933. Self bow*	+	-	+	+	-	-	+		+	-	-	-	-	+	-	-	+		
934. Length (feet)		-		4			3			-	-	-	-	3	-	-			
935. Middle of bow sinew wrapped*		-				-				-	-	-	-	+	+	-			
936. Of willow	V	-	+	+			+		+	-	-	-	-	-	-	-	-		
937. Sinew-back bow	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	
938. Length (feet)	3			3	4	2 1/2	3 1/2		3 1/2	3	3		3	3	3	3 1/2			
939. Width (in half inches)*	3+	3+	?	3+	4+	4	?		3				3	4					
940. Double curve																	+	+	
941. Ends recurved			+	+	+	+	?	?									+	+	
942. Of juniper	+	+	+	+	+	+	+		+	+	-	+	+	+	+	-	+	+	
943. Of serviceberry	-	-	-	-	-	-	-				+	+	+	+	+	+	+	+	
944. Sinew (no. of layers)	V																4+		
945. Glue of horn*	+	+		+	+	?	?		+	+	+	+	+	+	+	+	+		
946. Glue of fish*	-												+			+	-	+	
947. Glue from greasewood*	+	+	+																
948. Horn bow	-	-	-	-	+	-	-		+	?	+	-	-	+	+	+	+	-	
949. Sheep horn	-	-	-	-	+	-	-		+	?	+	-	-	+	+	+	+	-	
950. 2 horns end to end	-	-	-	-	-	-	-		+	?	+	-	-	+	+	+	+	-	
951. Sinew backed*	-	-	-	-	-	-	-				+	-	-	+	+	+	+	-	
952. Horn-backed wood bow	-	-	-	-	-	+	-		-	-		+	-			+	-		
953. Bowstring, sinew	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	
954. Vegetable fiber	+	+		-	-	?	-		-	-	-	-	-	-	-	-	-	-	
955. Number of ply	1	1	1	1												2	2		
956. Position of bow when shot approxi- mately horizontal	+	?	-	-	-	+	-		-	-	-	-	+	-	-	-	-	-	
957. Slanting	-	?	-	+	-	+	-		-	-	-	-	-	+	-	-	+	+	
958. Approximately vertical	-		+	-	+	+	+		+	+	+	+	+	+	+	+	+	+	
959. Wristguard	-		R		+	+	+		-	-	-	+	-	+	-	+	+	+	
960. Bow designs*						+	-									+	+	+	
960a. Paint	+															+	+	+	

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
<u>Arrow</u>																			
961. Without foreshaft*	+	?	+		+	-	+	+	-	+	+		+		+	+	+	+	+
962. Length (feet)*										3	3					2			
963. Hardwood*	+		+				+		+	+			+		+	+	+	+	+
964. Sharpened point	+		+																+
965. Crossed sticks for birds	-		-		-												+	-	+
966. Stone head*	+		+							+	+		+		-	+	+	+	+
967. With foreshaft*	+		+	+	+	+	+	+	+					+	+	+	+	+	-
968. Cane shaft	+		+	+	+	+	+	+	+	+	+			+	+	+		+	
969. Hardwood shaft	-		-	-	-	-	-	-	+	+	+				+				
970. Hardwood foreshaft*	+		+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
971. Plain wooden point	+		+	+	+														
972. Wrapped for ducks	+		-	+	+	-	+	-	-	-	-			-	?	-	-		
973. 4 cross sticks for birds*	+		+	+	+	+	+	+	+	-?	-			-	+	+		+	
974. 1 cross stick, gophers														+	-				
975. Stone point (types X and Y)*	X	X	?	X	X	X		Y	Y?		Y					XY			
976. Bone point	-		?		-	-	-?	-	-	-	-			-?	+	-	+	?	-
977. Horn point	-					-	-?	-	-	-	-			+	?	-	+	?	-
978. 2-pointed bird arrow*	-		+																
979. Ornament: 3 spiral grooves																	+		
980. Paint	+					+		-		+				+	+	+		-	+
981. Blood									+										
982. Feathers: three	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
983. Or two									+	+					+				
984. Or four								+											
985. Spiral*	+	+	-	+		+	+	+	+	+	+		-	+	-	-	+	+	-
986. Gum or pitch adhesive*	+			+	-	-		+	+	+							+	+	
987. Sinew tied	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
988. Arrow poison	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
989. Liver																			
991. Decayed blood from heart*	+			+	+				+				+			+		+	+
992. Rattlesnake poison														+	+	+		-	
993. Red ants									+								+		+
994. Special*	+								+								+	+	+
995. Arrow release, primary	+	+	+	+	+	+	?	+	-	+	+		+	+	+	+	+	+	+
996. Arrow release, special	-	-	-	-	-	-	-	+	+	-	-		-	-	-	-	+	-	-
<u>Arrow Straightener</u>																			
997. Flat stone slab, unshaped*	-																	+	
997a. One-piece stone	+	+	+	+	+	+	-	-	+	+	-		+	+	+	+	-	-	+
998. Oval	+	+	+	+	+	+													
999. Transverse grooves (number)	V	V	1	1	+	2			V	1						-		-	
1000. For cane shafts only									+	+					+	+	+	+	
1001. Two-piece stone	-	-	-	-	-	-	+	-	-	-			+	+	+	+	+		+
1002. 1 groove in each*	-	-	-	-	-	-	+	-	-	-	-		+	+	+	+	+		+
1003. For hardwood only	-	-	-	-	-	-		-	-	-					+				
1004. Perforated horn	-	-	-	-	-	-		+	+	+	+			+	+	+	+	+	+
1005. Mountain-sheep horn	-	-	-	-	-	-								+	+		-	+	+
1006. Antelope horn	-	-	-	-	-	-								+	-		+		+
1007. 1 hole	-	-	-	-	-	-		-	-	-	-			-	-	+	+	-	+
1008. 2 graduated holes	-	-	-	-	-	-		-	-	-	-			-	+	-	+	+	-
1009. 3 graduated holes	-	-	-	-	-	-		+	+	+	+			+	+	-	-	+	-
<u>Quiver</u>																			
1010. Whole skin, head down*	+	+	+	+	+	+	?	-	-	+	+		+	+	+	+	-	+	+

	NP-FSp	NP-FLk	SP-Ash	S-DtAV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RaRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1011. Fox	+			+	+	+													
1012. Wildcat*			+		+				+		+		+	+	+	+	+	+	+
1013. Buckskin	+															+			
1014. Fawn															+		+	+	+
1015. Young antelope																		+	
1016. Coyote					+			+		+			-	+		+		+	-
1017. Cut skin, sewed up stomach	-	-	-		-	-	-	+	+	-	-		-	-	-	+	-	-	+
1018. Carry also bow						+	+	+	+	+	+				+	+	+	+	+
1019. Fire outfit	+																+	+	+
1020. Pull arrow over shoulder	-	-	+	+	+	+	+	+	?	+	+		+	?	+	-	-	-	+
1021. Pull arrow under arm	+	+	-	-	-	-	-	+	?	-	-		-	+	+	+	+	+	-
<u>Miscellaneous Weapons</u>																			
1022. Thrusting spear	-	-	-	-	-	-	-	-	-	-	-		+	-	-	-	R	-	-
1023. Shield	-	-	-	-	-	-	-	+	-	-	-		+	-	-	-	-	-	?
1024. Rawhide	-	-	-	-	-	-	-	+	-	-	-		+	-	-	-	-	-	
1025. Wooden rim	-	-	-	-	-	-	-		-	-	-		+	-	-	-	-	-	
1026. Feathers attached	-	-	-	-	-	-	-		-	-	-		+	-	-	-	-	-	
1028. Club	-	-	-	-	-	-	-	+	-	-	+		-	-	-	-	-	-	?
1029. Plain rabbit club only*	-	-	-	-	-	+	+	+	-	+	+		-	+	+	-	+	-	-?
1031. Sling, toy only	+	+	R	+	+	+	?	+	+	+	+	+	+		+	+	+	+	+
<u>BASKETRY</u>																			
1032. Made by women only	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<u>Materials</u>																			
1033. Willow-coil foundation	+	+	+	+	+	+	+	-	R	-	+	+		+	+		-		
1034. Willow-twine foundation*	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+		
1035. Coil and twine weft of willow sapwood	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1036. Devil's claw*	+	+	+	+	+	+	-	-	-	-	?	-	-	-	-	-	-	-	-
1037. Joshua-tree root*	+	+	+	+	+	+	-	-	-	-	?	-	-	-	-	-	-	-	-
1038. Root for yellow	-	-	-	+	-	-	-	-	-	-	?	-	-	-	-	-	-	-	-
1039. Inner willow bark brown*	+	+	+	+		+	+			+	?	-			+	+			
1040. Pussywillow black												+							
1041. Red feather quills						+													
1042. Yellow feather quills						+	-				-	-							
1043. Pull through tin can						+	+				-	+							
1044. Applied decoration: black paint	+	+	-	+		+	+			+									
1045. Red paint	+	+	-	-		+	-			+									
1046. Yellow paint						+	-			+									
1048. White paint*				+															
<u>Weaves</u>																			
1049. Coil, foundation	+	+	+	+		+	+	-	R	-		+		R?	+	+			
1050. Grass bundle*	-	-	+	-		-	-	-	-	-	-	-		-	-	-	-	-	-
1051. 1 rod									+					+	+	+			
1052. 2 rods							+								+				
1053. 3 rods	+	+	+	+		+	+	-	+	-		+							
1054. 2 large, 1 small rod								-		-					+				
1055. 4 rods									+										
1056. Coil (looking into basket) clock- wise	+	+	-	-	-	-	-	-	-		+					+			

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RuBV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1057. Counterclockwise	-	-	+	+	+	+	+	-	-	-	+								
1058. Awl through outside basket	+	+	+	+	+	+	+	-	-	-	+			+	+	+			
1059. Twine weaves plain 2 strand	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1060. Diagonal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1061. 3 strand						+						-		+	-				
1062. Open work	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1063. Close work	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1064. Bead covering	R	R	?	-		-	-			R	R								
1065. Stitch noninterlocking	+	+	+																
1066. Feathers woven in			+			-	-		-		-								
<u>Forms</u>																			
1067. Seed beater, twined*	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+
1068. Oval	+	+	+	+	+	+	+	+	+	+		+		+	+	+			
1069. Circular												+				+			
1070. Parallel warp	+	+	+	+	+	+	+	+	+			+		+	+	+			+
1071. Winnowing basket, twined	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+
1072. Fan shaped, triangular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+
1073. More rounded	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
1074. Parallel warps	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1075. Open twine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1076. Close twine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1077. Used also for parching	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1078. Circular tray	+	+	+	+	+	+	-	-	-	-	-	+	?	-	-	-	-	-	-
1079. Coiled	+	+	+	+	+	-	-	-	-	-	-	+	?	-	-	-	-	-	-
1080. Twined	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1081. Used for parching	-	-	+						-	-	-	-	-	-	-	-	-	-	-
1082. Conical carrying basket	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1083. Twined	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1084. Open twine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1085. Close twine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1086. Coiled bottom	-	-	-			+						-							
1087. Wicker bottom												+							
1088. Buckskin-covered bottom	+	+	+			+	+					+							
1089. Pointed bottom*	+	+	+			+	+	+	+	+	+	+	+	+	+	+		+	+
1090. Rod-and-bundle rim*	+			+		+	+		+	+	+	+	+	+	+	+		+	+
1091. Fishing basket	-	-	-	-	-	+	-	-	-	-	+	+	?	+	-	-	+	-	+
1092. Plain twine	-	-	-	-	-	+	-	-	-	-	+	+	?	+	-	-	+	-	+
1093. Basketry hat, twined	+	+	+			+	+	+	+	+	+	+		-	-	-		-	-
1094. Hemispherical	+	+	+			+	+	+	?	+		+		-	-	-		-	-
1095. Applied black design	+	+	+			+	+	+				-		-	-	-		-	-
1096. Water jug, twined	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+
1097. Wicker bottom						+								+	+	+			
1098. Flat bottom	-	-	-	-		-	-	-	-	-		+	?	+	+	-	-	-	-
1099. Rounded bottom	-	-	-	-		+	+	-	-	R		-	-	+	+	-	-	-	-
1100. Pointed bottom	+	+	+	+		-	-	+	+	+		+	-	+	+	+	+	+	+
1101. Tapers to spout	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	-	+	+
1102. Pitched outside	-	-	+	+	+	+	+	+	+	+		+	+	+	+	+	-	+	+
1103. Pitched inside	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	-	+	+
1104. Pitched bottom			+	+	+	+	+	+	+	+		+	+	+	+	+	-	+	+
1105. Painted red	+	+		+	+	+	+	+	+	-		+	+	-	+	?	-	-	+
1106. Painted white	-	-	-	-	-	-	-	-	-	-		+	+	-	-	-	-	-	-
1107. Painted yellow	-	-	-	-	+	-	-	-	-	-		-	-	-	-	-	-	-	-
1108. Handle of horsehair	+	-			+		-		-	-		-		-	+	-	-	-	-
1109. Handle of human hair	-	+			-		-		+	+		-	+	+	-	-	-	-	-
1110. Handle of buckskin					+		+		-	-		+	+	-	+	+	-	-	+
1111. Handle of vegetable string	-				-		-		-	+		-	-	-	-	+	-	-	-

	NP-FSp		NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RaRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SaRv	S-BtLM	NP-MC
	FS	FL																		
1112. Stopper of cedar bark							+	-	-	+	-		-		-	-	-	-		
1113. Stopper of grass, etc.							-	+	+	+	+	+			+	+	+	-		
1114. Basketry bowl*	+	+	+	+	+	+	+	+	+	+	-	+	+	-	+	-	-	-	-	+
1115. Coiled	+	+	+	+	+	+	+	+	+	+	-	-	+	?	R	-	-	-	-	
1116. Twined	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+
1117. Pitch coated*	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	
1118. For boiling	(+)	(+)	-	-	+										-	?	-	-	-	+
1119. Basketry ladle							+	+	+	+	-		+		+	+		-		
1120. Twined							+	-	+	+	-		+		+	+		+	+	
1121. Coiled							-	+	-	-	-				-	-				
1122. With handle								+	+		-		+		+	+				
1122a. Basket sifter	+				+															
1123. Caterpillar basket	+						-	+	-		+	+	+		-	-	-	-	-	-
1124. Open twine	+						-	+	-		+				-	-	-	-	-	-
1125. Parallel sides, round bottom.	+						-		-						-	-	-	-	-	-
1126. Bottleneck basket, coiled	-	-	+	+	+	+		-	-	-	-		+	?	-	-	-	-	-	-
1127. Round shoulder	-	-	+	-	+	+		-	-	-	-		+	?	-	-	-	-	-	-
1128. Square shoulder	-	-	-	+	+			-	-	-	-			-	-	-	-	-	-	-
1129. Lids modern							-	-					+	?	+	+	+			
1130. Handles modern							-	+					+	?	+	+				
1131. Bags	+	+													+		+	+		
1132. Sage bark, twined	-	-													+		+	+	+	+
1133. Tule, twined	+	+					-	+	?	-	-	-	-	-	+		+	+	+	+
1134. Mats							+	-	?	-	+	+	+	+	+	+		-	+	+
1135. Twined sage bark*							-	-	?	-	-	-	-	-	+	+		-	+	+
1136. Twined tule	+	+					+	-	?	-	+	+	+	+	+	+	+	+	+	+
WEAVING																				
Skin Blanket																				
1137. Animal furs used (twisted strips) .	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1138. Rabbit	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1139. Rat							+	+	?	+	+	+	+	+	-	-	-	-	-	-
1140. Wildcat							-	?	-	+	+	?	-	+	-	-	-	-	-	-
1141. Squirrel									+	+	+	?	-	+	-	-	-	-	-	-
1142. Coyote												+	-	+	-	-	-	-	-	-
1143. Loom, 2 parallel bars	+	+	+	-		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1144. Horizontal	+	+	+	-		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1145. Vertical	+	+	+	-		-	-	+		R	R	-	-	-	-	-	-	R	-	-
1146. Loom, 1 horizontal bar and pegs* .	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1147. Warp 2-ply	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1148. Single strip																	+			
1149. Plain stick for twisting	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1150. Through hole						+														
1151. Twist on thigh																			+	
1152. Weft of string	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1153. Of buckskin	-	-	-	-	-	-											+	-		
1154. Twined weave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1155. Sex of maker (+ = both)	M	M	+	M	+															
Feather Blanket																				
1156. Birdskins used	+	-	-	+	+	-	?	-	-	-	-	-	-	-	-	+	+	-	-	+
1157. Mud-hen skins	+	-	-			-		-	-	-	-	-	-	-	-	+	+	-	-	+
1158. Other than mud-hen skins				+	+	-		-	-	-	-	-	-	-	-		-	-	-	
1159. Skins sewn together	-	-	-			-		-	-	-	-	-	-	-	-	+	-	-	-	

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1160. Skins woven, like for fur (above) .	+	-	-	+	+	-	-	-	-	-	-	-	-	-		-	-	-	
1161. Twist on string	-	-	-	+	+	-	-	-	-	-	-	-	-	-		+	-	-	+
1162. Number of ply warp	-	-	-			-	-	-	-	-	-	-	-	-		V	-	-	2
1163. Vegetable-Fiber Blanket* . .	-	-	+	+	+	+	+	-?	+	+	+	+	-	+	+	+	+	+	
1164. Materials: juniper bark	-	-	+	-	+	+	?	-	-		+	+	-	+	+	-	-	+	
1165. Sage bark	-	-	+	+	+	+	+	-	+		-	+	-	+	+	+	+	-	
1166. Willow bark	-	-	-	-	-	+	?	-	-		-	-	-	-	-	-	-	-	
1167. Inner cottonwood bark	-	-	-	-				-	-		-	-	-	-	-	-	+	-	
1168. Spirogyra (?)*	-	-	-	-				-	-		-	-	-	+	-	+	+	+	-
1169. Woven, like for fur blankets (above)	-	-	-	+	+	+	?	-	-		+	+	-	+	?	+	+	+	
1170. With plain (checker) weave .	-	-	+	-	-			-											
1171. Nets	+	+		+	+	+	+	+	+	+	+	+		+		+	+	+	+
1172. Material: milkweed*					+	+	+	?	?		-	+				-	+	-	-
1173. Angawana						-	-				+	-				+	+	+	+
1174. Shuttle: string lengthwise on stick					+	+	?	-	+	+	-	?		-	-	+	+	+	+
1175. String around 2 sticks . . .						-		-	-	-	-			-	+	-	-	-	-
1176. String ball on stick								+	-	-	-			-	-	-	-	-	-
1177. String ball, no stick						-		-	-	-	+			+	-	-	-	-	-
1178. Knots: bowline at edge					+	?	?		+	?									
1179. Weaver's	+	-			-	+	?	-	+								+	?	+
1180. Overhand	-	+	?		-	-		+	-								-		-
1180a. Square	-	+			+	-		-	-								-		-
Cordage (twisted)																			
1181. Material: milkweed	-	-	+	-	-	+	+				-	+				-	+	-	
1182. Wana	-	-	-	-	-	-	-				+	+	+			-	-	+	
1183. Amsonia (wicivi).	+	+	-	+	+	-	-				-	-	+			-	-	-	
1184. Sinew	+	+	+	+	+	+	+				-	+				+	-	-	
1186. Number of ply for string: 2 ply .	+	+	+	+	+	+	+	+	?	-		+	+	+	+	+	+	+	+
1187. 3 ply	-	-	-	-	-	+	-	-		+		-	-		-	-	+	+	-
1188. Clockwise														+	+	+	+		
1189. Counterclockwise										+									
1190. Number of ply rope	-	-	-	-	-								3	-		3	-	3	-
1191. Braided rope (strands)	-	-	-	-	+	3	?	-				+	3	3	-	3	3	3	+
1192. Sex of maker (+ = both)	M	M	M	M	M	M	M	M	M			+	M		F	M			
1193. Rope of withes	+	+	-	?	?														
1194. String rolled on thigh	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+
1195. POTTERY*	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	-
1196. Clay ground on metate	+			+							+		-	-?	-	-	-		-
1197. Temper of sand	+	-	-		-	-	-	-?	-	-?	-?		-		+	-	-		-
1198. Of crushed rock	+	+	+		+	-	-	-	-		-				-	-	-		-
1199. Mallow juice in clay*	+	+		+	+	-	-		-		-		-		-	-	-		-
1200. Cactus juice in clay*	-	-		+	-	-	+		-		-		+		-	-	-		-
1201. Construction: coils	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+		-
1203. Continuous spiral of clay . .	+							+									+		-
1204. Rests on basket	-	(+)	?			+													-
1205. Coil clockwise (looking into pot)	?	+	-				-									+	+		-

	NP-FSP	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1207. Coil counterclockwise	?	(+)	+		+		+												
1208. Cobble and paddle	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1209. Cobble and hand	-	-		-	-	-	-	-	-	-	-	+		-	-?	-	-	-	-
1210. Scraped with fingers only				-	+	-	-	-	+								-	-	-
1211. Scraped with stick	+	+		+	-	+	+		-								+	-	-
1212. Clay slip	-	-	-	-	-	-	-	-		+			-	-	-	-	+	-	-
1213. Rim bound with fiber	-	-	-?		+									-	-	-		-	-
1214. Pot fired, open fire	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	-	-
1215. Decoration	+	-?	+	+	+						-							-	-
1216. Red paint		-	+	-	-	-	-	-	-	-	-		+	-	?	-	-	-	-
1217. Black paint	+	-	-	-	-	-	-	-	-	-	-		+	-	?		+	-	-
1218. Incised with stick		-	-	-	-	-	-	-?		-	-			+	?	-	-	-	-
1219. Incised with thumbnail	+	-	-	+	+	-	-	-		-	-			+	?	+	-	-	-
1220. Paint after firing	?	-	-	-	-	-	-	-	-	-	-		+	-	-	-		-	-
<u>1221. Vessel Shapes*</u>																			
(see fig. 11)																			
1223. Miscellaneous: stone pot rests																			
(number).	-	-	-	-	4	V	-		-	-			-		V	-	-		
1224. Unbaked clay effigies	-	-		-		+										+	+		
1225. Baked clay pipes	+	+	+	-	+														
1226. Unbaked clay pipes	-	-	-	+	-		+	-	-	-			-	+	?	-	-	-	-
1227. Suspend pot from tripod													+	+	-	-	-	-	-
BURDENS																			
1228. Pack strap, skin (+, both sexes)	-	-	F		F	M			+		F	+	+	+	+	-	+	+	+
1229. Pack strap, vegetable fiber (+, both sexes)	-	-						+	F	F	+	M	M	+	+	+	+		
1230. Twisted rope (no. of ply)	-	-						2											
1231. Braided (no. of strands)	-	-				3			-	4	+			-		3	3	+	
1232. Over head (+, both sexes)	-	-	F	F	F	-	F	F	F	F	F	F	F	+	F	F	+	F	+
1233. Over basketry hat	-	-	F	F	F	-	-	F	F	F	F	F	F	-	-	-	-	-	-
1234. Over bark head pad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-
1235. Across shoulder chest (+, both sexes)			(M)	-	M	+	M	M	M	M	M	M	M	+	M	M	+	M	+
1236. Held hand at chest			+	-	+														
1237. Carrying nets	+	+	+	+	+	+	+	-	-	+	+	+	+	-	-	-	-	-	-
1238. Piece of rabbit net	-	-	-	-	-	?	-	-	-	+	-	+	+	-	-	-	-	-	-
1239. Hammock shaped, on back	+	+	+	+	+	+	-	-	-	-	+	?	-	-	-	-	-	-	-
1240. Deerskin bag	+	-	+	(+)	+		+	-	+	+	+	+	+	+	+	+	+	+	+
1241. Used by men	+								+	+	+	+	+		+	+	+		
1242. Conical basket	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+
1243. Coolie yoke	-	-	-	-	M	-	-	-	-	-	-	-	-	-	-	-		-	-
CRADLES																			
1244. Oval ladder	-	-		+	+	+	-	-	-	-	+	+	+	-	-	-	-	-	-
1245. Basketry	+	+		R	R	R?	+	+	+	+	-	+	-	+	+	+	+	+	+
1246. Elliptical outline	+	+		+	+	+	+	-	+	-	-	+	-	+	+	+	+	+	+
1247. Oval outline	+	+		-	-	+	?	-	+	-	-	-	-	+	+	+	+	R	+
1248. Rectangular outline	-	-		-	-			+	+	+	-	-	-	-	-	-	-	-	-
1249. Rod rim	+	+		+	+	+	+	+	+	+	-	-	-	+	+	+	+	+	+
1250. Twined horizontal rods	+	+				+	+	-	-	-	-	+	-	+	+	+	+	+	+

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SuRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1305. Women's bone nose pin*	+	-	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
1306. Tattoo	(+)	+	+	+	+	R	-	+	+	+	R	+	-	+	+	+	R	R	R
1307. With cactus needle							-									+			
1308. Pigment: wood charcoal*							-		+	+		+	-	+	+	+			
1309. Burned piñon shells							-		+				-						
1310. Pigment: gray							-		+				-		+				
1312. When youth or maiden							-		+	+		+	-						
1313. Any time*							-						-		+				
1314. On face	+	+	+		+	+	-	+	+	+		+	-	+	+	+	+		
1315. On arms	-	-	+		+	+	-		+			+	-	+		+			
1316. On legs*	-	-	-		-	-	-		-			+	-	+		-			
1318. Head deformation*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1319. Head-shape correction*		+			+							+							
1320. With hands at birth		+			+													+	
1321. Nose correction																	+	+	+
DRESS AND ADORNMENT																			
1322. Necklaces*	+	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+
1323. Shell beads*	+	+	-	+	+	+	+	-?		+	-	-			+	-			
1324. Shell disk	-	-	-	+	+	+		-			-	-				-			
1325. Olivella	+	+	-	-	-	-	-				-	-				-			
1326. Dentalium	-	-	-	+	+		-				-	-				-			
1327. Glass beads						+										+			+
1328. Animal claws	-			+	+													+	+
1329. Bear	-	-	-	-	-													+	-
1330. Wildcat																			+
1331. Animal teeth			+		+	+	-	-	-	-	-	-				+		-	-
1332. Dewclaws	+	?	?	?	+	+	+	+	-	+	+					+		-	+
1333. Burned pine seeds							+												
1334. Bone tubes*						+	+	+			+	+				-		+	+
1335. Bird bones*								+			+	+						+	+
1336. Mammal bones*							+				+								+
1337. Belts	+	?	?	+	+	+	+	+	?	+	+	+	?	?	+	+	+	+	+
1338. Buckskin*	+			+	+	+	+			+		+			+	+	+		+
1339. Animal fur*																	+	+	
1340. Beads	-			+	-	+	+				-	-			-	-	-	-	
1341. Hoofs*						+									-	-	-	-	
1342. Bones											+	+				-	-	-	
Paint																			
1343. Apply dry pigment*																	+	+	
1344. Over greased skin*																	+	+	
1345. Over saliva on skin																			
1346. Mix pigment with: marrow	+	+	+	+	+	+	+	+		+	+	+			?	-	-	-	+
1347. Water*															+	+	-	-	+
1348. Applied to: face*	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+
1349. Face as rouge*							-?		-	-		-				-	+	+	+
1350. Body			+	-	-	-	+	-	-	-	-	+			+	+	+	+	-
1351. Hair	-	-	-	-	-	-			-	-	-					+	+	+	-
1352. Applied with: fingers	+	+	+	+	+	+	+	-		+	+	+			+	+	+	+	+
1353. Stick*	+	+		+		+	+	-		+	-	+				-	-	-	
1354. Brush	-	-	-	-	-	-	-	+		-	-	-				-	-	-	

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtlM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1355. Applied after bad dream*	+																+		
1356. Applied to prevent skin darkening in summer*																	+	+	+
1357. Pigments: black mineral*			+	+	+	+	+	-	+	+	-			+	+	-	+	+	
1358. Black charcoal		+	-	-	-	-	+	-	-		+			-		+	+	+	
1359. Black soot*			-	-	-	-												+	
1360. White mineral*	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
1361. Red mineral*	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
1362. Blue mineral*	+	+		-	+	+	+	-	-		-			-	+	+	+	+	-
1363. Yellow mineral*				-	-	+	-	-	-		+			-	+	+	+	+	-
1364. Green mineral*											+				+	+	-	+	+
1365. Galena																		+	+
<u>Hair Dressing</u>																			
1366. Hairbrush: porcupine tail			-		-										+	-	(+)		
1367. Grass bundle																+		+	
1368. Grass-root bundle			-														+		
1369. Brush bundle				+													+		
1370. Men: length to neck			+	+	-		+							+	+	+	+	+	+
1371. Length past shoulders*	+	?	+	-	+	+	+		+	+	+	+	+	+	+	+	+	+	+
1372. Hangs loose	-	-	+	+	+	-	+	-											-
1373. Coiled on head*	-	-	-	(+)	-														
1374. Tied up on head	-	+	-	+	-	-													
1375. Bangs	-	-	-	-	-	-					-	-	+	-	-	-	-	-	
1377. Part middle	+	+		-		+	+	+	+	+	+	+	+	+	+	+	+	-	+
1378. Braid each shoulder	+	-	-	-	+	+		+	+	+	+	+	+	+	+	+	+	+	+
1379. Braid fur wrapped*											+	+	+	+	+	+	+	+	+
1380. Women: length to neck			+	-	-		+	-	-	-	-	-	-	-	-	-	-	-	-
1381. Length past shoulder	+	?	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
1382. Hangs loose	-	-	+	+	+	-									+		-		+
1383. Tuck under basket hat	(+)	+	-	-	+	-					+								
1384. Tie back of neck*	-	-	-	-		+	?											+	
1385. Part middle	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1386. Braid over each shoulder	+	-	-	-	-	-		+	+	+	+	+	+	+	+	+	+	-	-
1387. One braid (behind)	-	-	-	-	-	+					(+)	+							
1388. Bangs	+	+	+	+	+	+	+	-	R	-	-	-	-	+	-	-	-	-	-
1389. Tie on top of head	?	+	-	-															
1390. Hair adornment and ointment: white clay*	-	-	-	-												+	+	?	
1391. Red paint*	-	-	-	-							+			-	-	+	+	-	-
1392. Red paint in part	-	-	-		+	+	+	-	+	(+)	-	+	-	-	-	+	-	+	+
1393. Marrow	-	-	+	-	-	+	?	+	-	-	+	+	-	+	+	+	+	+	+
1394. Mud against lice*	-	-	-	-	-	-		-	-	-	-	-	-	-				-	-
1396. Wash with plain water																+	-	+	-
1397. Wash with white clay*									+		-	-		+	-	-	+	-	-?
1398. Cutting head hair: with stone	-	-	-	-	+			+	+	+	-			+				?	?
1399. Singe off	+	+	+	+	-	+		-?				+					+	?	-
1400. Depilation: of beard*	+	+	+	+	+	+	+	?	+	+	+	+		+	-	+	+	+	+
1401. Of eyebrows*	-	-	-	-	-	-	-		-	-	+	-		+	-	-	-	?	-
1404. With fingernails	+	?	?	+	+	+			+	?	+	+	+	+	?	+	+	+	+
<u>Headgear</u>																			
1406. Woman's basketry hat*	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-
1407. For carrying only	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
1408. Twined bark hat*														+	-		-	-	-

	NP-Fsp	NP-Flk	SP-Ash	S-DtV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RstRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1409. Man's fur cap *	-	-	+	-	+	+	?	-	+	+	+	+	+	+	-	+	+	-	-
1410. Tanned buckskin	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1411. Fawn *	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-	-	-
1412. Antelope	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
1413. Mt. sheep lamb *	-	-	-	-	+	-	-	-	+	-	+	-	+	-	-	-	-	-	-
1415. Muskrat	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
1417. Wildcat	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-
1418. Coyote	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
1419. Peaked	-	-	+	-	+	+	-	-	+	-	+	-	+	-	-	-	-	-	-
1420. With quail tufts	-	-	+	-	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-
1421. With other feathers	-	-	-	-	-	+	-	-	-	-	-	-	+	-	-	-	-	-	-
1422. With horns *	-	-	-	-	+	-	-	-	-	-	+	+	+	-	-	-	-	-	-
1423. Hair net *	-	-	-?	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-
1424. For dancing only	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1425. Fur eyeshade, held by string *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
1426. Band around head	-	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+	-	+
1427. Tanned buckskin	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-
1428. Cottontail fur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+
1429. Other fur *	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+
1430. Horse mane *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
1431. Hairpin, wood	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GARMENTS																			
Robes and Capes *																			
1432. Woven (twined) vegetable fiber	-	-	-?	+	+	-	-	-	+	+	+	+	+	+	-	-	-	-	+
1433. Woven (twined) fur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+
1434. Sewed hides, fur left on	-	-	+	-	+	+	+	+	-	-	+	+	+	+	+	+	+	-	+
1435. Deer	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+
1436. Wildcat *	-	-	+?	-	-	+	-	-	-	-	+?	+	-	+	+	-	-	-	+
1437. Badger	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
1438. Ground hog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
1439. Coyote	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
1440. Mt. sheep	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1441. Gloves or mittens	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
1442. Hand muff of fur	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1443. Feather robes	+	?	?	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shirts and Dresses																			
1444. Women's long gown *	+	+	-	-	+	+	+	+	+	+	+	+	+	-	+	+	-	+	+
1445. Deerskins (number) *	-	-	-	-	-	3+	+	+	2	2	2+	2+	2+	-	3	2	-	1+	2
1446. Antelope skins (number)	-	-	-	-	-	-	-	-	-	2	+	2	+	-	+	2	-	2	2
1447. Mt. sheep skins (number)	-	-	-	-	-	+	-	+	+	2	-	+	-	-	+	2	-	2	2
1448. Knee length	+	+	?	-	+	+	+	+	+	+	+	+	+	-	+	+	-	+	+
1449. Shin length	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-
1450. Skins, front and back	-	-	-	-	-	+	+	+	+	+	+	+	+	-	+	+	-	+	+
1451. Inset on sides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
1452. Poncho type *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
1453. Sleeves elbow length	-	-	-	-	-	+	+	?	-	-	+	?	+	-	-	-	-	-	-
1455. Flaps over upper arms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
1456. Sleeveless	+	-	-	-	-	-	-	-	+	-	-	-	-	-	+	+	-	-	+
1457. Women's gown decorated with: paint.	-	-	-	-	-	+	-	-	+	-	-	-	+	-	+	+	-	-	+
1458. Tubular bone beads	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
1459. Glassbeads	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
1460. Haliotis shell pendants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SuRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1461. Men's shirt*	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1462. Deerskins (number)	-	-		-	-	2	+	2	2	2	2	3	+	2	-	1	1	1	1+
1463. Mt. sheep skins (number)	-	-		-	2?	+		+	2	2	+	-	+	+	1	1	1	1	1+
1464. Antelope skins (number)	-	-		-	-				2	+	3	+		+	1	1	1	1	1+
1465. Skins, front and back	-	-		-	+	+		+	+	+	+	+	+	+					+
1466. One skin, poncho style	-	-		-	-?										+	+	+	+	+
1467. Tied at neck	-	-		-		+												+	
1468. Open front, tied thong	-	-		-											+	-	-	-	-
1469. Sleeves, elbow length	-	-		-	+	+	+	-?	-	-	+	+	+	-	-	-	+	-	-
1470. Sleeves, wrist length	-	-		-	-	(+)									+	-	-	+	+
1471. Sleeves, fringed	-	-		-		+	+		+	-	+	+	+	?	+	-	+	+	+
1472. Sleeveless	-	-		-		-										+			
1473. Painted	-	-		-					+	-	-	-				+	+		
1474. Bone-bead pendants																+			+
<u>Skirts</u>																			
1475. One skin around waist*	+	+	+	+	-					?	+		-	+	-?	+	+	-	-
1476. For women	+	+	+	+	-								-					-	-
1477. Of buckskin	+	+	+	+	-						+		-				+	-	-
1478. Of mt. sheep skin				+	-						+		-				+	-	-
1479. Of mt. lion skin					-						+		-				-	-	-
1480. Fringed*				+	-								-				+	-	-
1481. Two skins, sewed sides	-?	-?	-?	-	+		+		+		+	+	-?	-		-	-	-	-
1482. For women	-	-	-	-	+		+		+					-		-	-	-	-
1483. Knee length	-	-	-	-	+				+					-		-	-	-	-
1484. Fringed	-	-	-	-					+		+	-		-		-	-	-	-
1485. Of deerskin	-	-	-	-			+		+			+		-		-	-	-	-
1486. Of mt. sheep skin	-	-	-	-					+					-		-	-	-	-
1487. Of antelope skin	-	-	-	-					+			+		-		-	-	-	-
1488. Small front apron*	+	+	+	+	+	+	+		-	?	-	+	?	+	?	+	+	+	+
1489. For women	+	+	+	+	+	+	+		-		-			+		+	+	+	
1490. For men*	-	-	-	-	-				-		-			-			+		
1491. Of skin	+	+		+		+	+		-		-	+		+		+	+		
1492. Fringed	+	+				+	+		-		-			+		+			
1493. Shredded bark	-	-	+	?					-		-	+		+			+	+	
1494. Braids or cord	-	-							-		-	+		-					
1495. Worn with back apron*	-?	-?	(+)		+	+	+		-		-	+		+		+	+	+	
1496. Worn under dress	-	-	-	+	-				-		-			-				+	+
1497. Large back apron*	-	-	+	+	+	+	+	?	-	?	-	+	?	+	?	+	+	+	+
1498. For women	-	-	+	+	+	+	+		-		-	+		+		+	+	+	+
1499. Of skin	-	-	-?	+		+	+		-		-	+		-		+	+		
1500. Fringed	-	-				+	+		-		-	-		+		+			
1501. Shredded bark*	-	-	+						-		-	+		+			+	+	
1502. Braids or cord	-	-	-						-		-	+		+					
1503. Vegetable-fiber skirt*	-	-	-	-	-	-	+	?	-	-	+	+	+	+	+	-	-	-	-
1504. For women	-	-	-	-	-	-	+		-	-	+	+	+	+	+	-	-	-	-
1505. Shredded bark, hanging loose	-	-	-	-	-	-	+		-	-				+	+	-	-	-	-
1506. Twined bark	-	-	-	-	-	-	+		-	-	+	+	+	+	+	-	-	-	-
1507. Grass, hanging loose	-	-	-	-	-	-			-	-	-			+	-	-	-	-	-
1508. Breechclout	+	+	+	+	+	+	+	?	?	+	+	+	+	+	+	+	+	+	+
1509. For men	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+
1510. For women	-	-	-	-	-				+			+		+					
1511. Buckskin	+	+	+	+	+	+	+		+		+	+	+	+	+	+		+	
1512. Of fur	-	-	-	-	-	-	+				+						+		
1513. Of bark*	-	-	-	-	-	-	+					+		+		-	-	-	
1514. Of woven vegetable fiber	-	-	-	-	-	-	+					+		-		-	-	-	
1514a. Habitually nude	M	M	+		(+)											+	+	-	-

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SrRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1515. Leggings*	+	+	-	-	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+
1516. For men			-	-		+			+				+	-		+	+	+	+
1517. For women*			-	-					+					-		+	+	+	+
1518. Skin, sewed*	-	-	-	-	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+
1520. Tule	-	-	-	-	-	-				-				-		-	+		-
1521. Sage, twined*	+	+	-	-	-				+	-		+		-		+	+		-
1522. Juniper	-	-	-	-	-								+	-		-			
1523. Length: hip to ankle*	-	-	-	-	-	+			+		+	+	+	-	+	+	+	-	+
1524. Hip to knee	-	-	-	-	+			+		+		+		-		-		+	
1525. Knee to ankle	+	+	-	-	-		+	?				+		-		+		+	
<u>Footgear</u>																			
1526. Habitually barefoot	+	+	+	(+)	+	+	?		+	(+)	+	+	-	+		+	+		-
1527. Skin moccasin, 2-piece*	+	+	+	+	+	+	+	+	-	-	+	+	-	+	+	+	-	-	-
1528. Soft upper	+	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	-	-	-
1529. Harder sole	+	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	-	-	-
1530. Badgerskin sole					+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
1531. Sole flat	+	+	-	+	-	(+)	(+)	+	-	-	+	-	-	+	+	+	-	-	-
1532. Sole molded to foot	-	-	+	-	+	(+)	+	-	-	-	-	-	-	-	-	-	-	-	-
1533. Heel seam	+	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	-	-	-
1534. Ankle flaps added	+	+	-	+	+	+	+	+	-	-	+	-	-	+	+	+	-	-	-
1535. Ankle height	+	+	-	-	-	(+)	(+)	+	-	-	+	-	-	+	+	+	-	-	-
1536. Calf height	-	-	-	-	-	(+)	(+)	-	-	-	-	-	-	-	-	-	-	-	-
1537. Knee height	-	-	+	+	+	(+)	(+)	-	-	-	-	-	-	-	-	-	-	-	-
1538. Tongue added	-	-	+	-	-	+	+	?	-	-	+	-	-	-	(+)	(+)	-	-	-
1539. Skin moccasin, 1-piece	-	-	-	-	-	-	-	-	+	+	-	?	+	+	+	+	+	+	+
1540. Seam outside of foot	-	-	-	-	-	-	-	-	-	+		+	+	+	-	+	+	+	+
1541. Seam inside of foot	-	-	-	-	-	-	-	-	-	-		-	-	+	-	-	-	-	-
1542. Seam up heel	-	-	-	-	-	-	-	-	+	+		+	+	+	+	?	+	+	+
1543. Seam up toe	-	-	-	-	-	-	-	-	+	-		-	-	-	+	-	-	-	-
1544. Toe puckered	-	-	-	-	-	-	-	-	+	-		-	-	-	-	-	-	-	-
1545. Uppers added	-	-	-	-	-	-	-	-	?	+		+	-	+	?	+	+	+	+
1546. Ankle height	-	-	-	-	-	-	-	-	+	+		+	+	+	+	+	+	M	+
1547. Calf height	-	-	-	-	-	-	-	-	-	(+)		(+)	-	-	?	-	-	W	-
1549. Hard sole added	-	-	-	-	-	-	-	-	-	-		-	+	?	-	?	-	-	+
1550. Tongue added	-	-	-	-	-	-	-	-	-	(+)		(+)	-	(+)	-	+	+	+	+
1551. Skin moccasins of: deerskin*	+	+		+		+	+	+	-	+		+	+	+	+	+	+	+	+
1552. Badgerskin				+		+	+	+	+	-		-		+	+	+	+	+	+
1553. Ground-hog skin									-					+					
1554. Fur left on for winter															+		+	+	+
1555. Woven-bark moccasin										+	?	+	-	+	-	W	+	-	+
1556. Moccasin lining	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1557. Shredded bark	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1558. Deer hair												+					+		
1559. Rabbit hide													+						
1560. Badger hair								+											
1561. Woven-bark overshoe	+			+	-	-	-	W	+	-	?	+			-	W	+	?	+
1562. Sandal	-	-	+	-	?	+	+	(+)	-	-	-	-	-	-	-	-	-	-	-
1563. Leather	-	-	+	-		-	+	-	-	-	-	-	-	-	-	-	-	-	-
1564. Bark	-	-	+	-		+	+	(+)	-	-	-	-	-	-	-	-	-	-	-
1565. Snowshoe	+	+	?	+	+	+	?	?	+	+	+	+	+	+	+	+	-	+	+
1566. Circular shape	-	-		-	-	-			+	-	-	-	+	+	-	-	-	-	-
1567. Oval shape	+	+	?	+	+	+			-	+	+	+	+	+	+	+	-	+	+
1568. Tennis-racket shape	-	-		-	-	-			-	-	-	-	+	R	-	-	-	-	-
1569. Thongs of leather	+	+	?	-	-	-			-	-	-	-	+	-	+	+	-	-	+

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1570. Thongs of sinew	-	-		-	-	-			-	-	-	-	-	+	+	-	-	-	-
1571. Thongs of vegetable cord . . .	-	-		-	+	-			-	+	+	+	(+)	(+)	-	+	-	+	-
1572. Thongs of withes	-	-		+	-	+			+	-	-	-	-	-	-	-	-	-	-
1573. Thongs of sticks	-	-		-	-	-			-	-	-	-	-	(+)	-	-	-	-	-
1574. Laced across	+								-	+	+	+	+	+	+	+	-	+	+
1575. Laced lengthwise	+								-	+	-	+	+	+	+	+	-	+	-
1576. Laced radially									+	-	-	-	-	-	-	-	-	-	-
<u>Ceremonial Dress</u>																			
(See under Dances.)																			
<u>GAMES</u>																			
1577. Ball Race*	-	-	-	-	-	-	+?	-	-	+	+	+?	+	+	+	+	+	+	-
1578. Race along course	-	-	-	-	-	-	?	-	-	+	+		+	+	+	+	+	+	-
1579. And return	-	-	-	-	-	-		-	-	?	+		+	-	+	+	+	+	-
1580. Line on ground as goal . . .	-	-	-	-	-	-		-	-	+	?		+	+	+	+	+	-	-
1581. Puck	-	-	-	-	-	-	?	-	-	+	+		+	+	+	+	+	+	-
1582. Stuffed-skin ball	-	-	-	-	-	-		-	-	+	+		+	+	+	+	+	+	-
1583. Approximate diameter (inches)*	-	-	-	-	-	-		-	-					6	6	4+	8		-
1585. Propulsion	-	-	-	-	-	-		-	-	+	+		+	+	+	+	+	+	-
1586. Foot	-	-	-	-	-	-	+?	-	-	+	+		+	+	+	+	+	+	-
1587. Bare foot	-	-	-	-	-	-		-	-								+	+	-
1588. Carrying puck permitted* . . .	-	-	-	-	-	-		-	-	-	-		-	-	-	-	-	+	-
1589. To win, get puck to goal	-	-	-	-	-	-	?	-	-					+	+		+	+	-
1591. Number players on side	-	-	-	-	-	-	?	-	-	2V	5V		2	5V	12	8V	V	8V	-
1592. Number of sides	-	-	-	-	-	-	?	-	-	2	2		2	2	2	2	2	2	-
1594. Played by men only	-	-	-	-	-	-	?	-	-	+			+	+	+	+	+	+	-
1595. Betting	-	-	-	-	-	-	?	-	-	+	+	+	+	+	+	+	+	+	-
1596. Shinny*	+	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1597. Field	+	-	?	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1598. Goal	+	-	?	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1599. At each end of field	+	-		-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
1600. Paired posts*	+	-		-	-	-	-	+	+	-	+	-	+	+	-	-	W	-	-
1601. Willow arch	-	-		-	+	-	-	-	-	-	-	-	-	-	-	-	M	M	M
1602. Single post and hole	-	-		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
1604. Rock pile	-	-		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
1605. Sack	-	-		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
1606. Line on ground (circle)* . . .	-	-		-	-	-	-	-	-	-	-	-	-	-	+	+	-	W	W
1607. Puck	-	-	?	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1608. Stuffed-skin ball	M	-		-	+	M?	-	+	-	-	-	-	-	-	-	-	M	M	M
1608a. Diameter in inches	4				5												1	2+	3+
1609. Stuffed skin, dumbbell shape .	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	W	-	-
1610. Braided-skin cord	-	-		-	-	+	+	-	+	+	+	-	+	+	+	-	-	-	W
1611. Braided-bark cord*	-	-		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	W
1612. Hide strip	W	-		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
1613. Puck in middle to start* . . .	+	-		-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1614. On ground to start	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M
1615. Throw in air to start*	-	-		-	-	+			+	+	+	+	+	+	+	+	W	W	W
1616. Propulsion straight stick . . .	W	-		-	-	+	+	-	-	+	+	+	+	+	+	+	W	W	W
1617. Feet	M	-		-	+	M?	-	+	+	-	-	-	+?	-	-	-	M	M	M
1618. Number of goals to win	-	-	?	-		1		1	1	1	1	1	1?	1	1	1	1	1	1
1619. Carrying ball permitted	W	-		-	-		+		-	-	-	+		-	+		W		

	NP-FSp	NP-Flk	SP-Ash	S-DeV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1620. Grappling permitted*	-	-		-	+	+	?		-	+	-	-		+?	+		M	M	+
1621. Referee	-	-		-		+			+	+					+		-	-	-
1622. Betting	-	-		-		+	+	+	+	+	+	+		+	+	+	+	+	-
1623. Played by men	+	-		-	?	+	-	+	-	-	-	-	-	+	-	-	4	+	+
1624. Played by women	+	-		-	?	+	+	-	+	+	+	+	+	+	+	+	8+	+	+
1625. Number players each side	6	-		-	10	V	5	7	V	V	?	5	4	5	5+	7+	V	V	V
1626. Hoop and Pole*	+	+	?	+	+	+	+	+	+	+	+	-?	-	-	-	-	+	+	-
1627. Hoop	+			+		+	+	+	+	+	+	-	-	-	-	-	+	+	-
1628. Of twigs						-		?	-	?	+	-	-	-	-	-	+	+	-
1629. Wrapped bark				+		-			-			-	-	-	-	-	-	-	-
1630. Buckskin covered	+	+		+	+	+			+			-	-	-	-	-	-	-	-
1632. Diameter (inches)				6								-	-	-	-	-	12	12	-
1633. Pole, plain	+	+		+	+	+	+	+	+	+	+	-	-	-	-	-	+	+	-
1634. Length (feet)	7			8		10		6+	4+			-	-	-	-	-	6	6	-
1635. Course						+			+	+	+	-	-	-	-	-	+	+	-
1636. Pile of horizontal willows	+	+	?	+	+	+			+	+	+	-	-	-	-	-	-	-	-
1638. At both ends	+											-	-	-	-	-	-	-	-
1639. Play: bound ring from willows	+	+		+	+	+						-	-	-	-	-	-	-	-
1640. Sides cast simultaneously	+	+		-	+	+	?	+				-	-	-	-	-	-	-	-
1641. Sides cast successively	-	-		+	-	-	?	-	+	?		-	-	-	-	-	+	+	-
1642. Pole through hoop counts	2	?		2	5?	3	?	?	1?	?	?	-	-	-	-	-	-	-	-
1643. Pole under hoop counts	1			1	1	1		1	?	?	?	-	-	-	-	-	-	-	-
1644. Pole over hoop counts	1			0	1	1		1	?	?	?	-	-	-	-	-	-	-	-
1645. Play for counters												-	-	-	-	-	-	-	-
1646. Points to win	3			3	5	3	?	5	5	?	?	-	-	-	-	-	-	-	-
1647. Win by elimination	-			-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
1648. Number players each side*	1+	1+		1+	1+	2+		1	?	?	?	-	-	-	-	-	V	V	-
1649. Played by men	+	+		+	+	+	+	+	+			-	-	-	-	-	+	+	-
1651. Referee	+	+							+			-	-	-	-	-	-	-	-
1652. Betting	+	+		+	+	+	+	+	+	+		-	-	-	-	-	+	+	-
1653. Ring and Pin	-	-	+	+	-	+	?	+	-	+	+	+	+	-?	+	-	+	-	-
1654. Number of pins	-	-	1	1	-	+		1	-	1	1	1	1	-	1	-	?	-	-
1655. Number of strings	-	-	1	1	-	+		1	-	1	1	1	1	-	1	-	?	-	-
1656. Ring of: rabbit skull*	-	-	+	+	-	+			-	+	+	+	+	-	+	-			-
1657. Pine cone	-	-	-	-	-	+			-					-	-	-	-	-	-
1658. Brush ball	-	-	-	-	-	+			-					-	-	-	-	-	-
1659. Barrel cactus	-	-	-	-	-			+	-					-	-	-	-	-	-
1660. Cane, one hole	-	-	+	-	-				-					-	-	-	-	-	-
1661. Played by: men	-	-		-	-			-	-	-	-	+	-	-	-	-	-	-	-
1662. Women	-	-		-	-			-	-	-	-	+	-	-	-	-	-	-	-
1663. Children	-	-		-	+			+	-	+	-	-	+	-	M	-	-	-	-
1664. Old men	-	-		-	-				-	-	+		+	-	-	-			-
1665. Playing in summer taboo	-	-	+	-	-				-	-	-	-		-	-	-	?	-	-
1666. Hand Game*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1667. "Sticks": hollow bone	-	-	+	-	-	-		+	-	+	+		-	-	+	+	+	M	-
1668. Bitapered, solid bone	-	-	-	-	+	+		+	-	+	+		+	+	+	+	W	-	+
1669. Wood	+	?	(+)	+	+	+	+	+	+	(+)	W	+	+	-	?	+	-	-	+
1670. With finger loops*	(+)	?	+	+	+	+	-	+	R	-	-	-	-?	-		+	-	-	-
1671. String of beads						-	-	-	-	-	-	-	-	-	-	-	-	+	-
1672. Play with: two sticks	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1673. Four sticks	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1674. Eight sticks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1675. 1 of each pair wrapped	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RaRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1676. Guess for unwrapped	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1677. Hide in bare hand	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1678. Guesses indicated by palm*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+
1679. By motion																	+		
1680. Only true guess vocalized	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1681. Side holding sticks sings	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+
1682. Counters: plain, straight twigs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1683. Number*	10	?	?	10	10	10	14	10	10	12	12	12	14	12	12	12	12	14	12
1684. In neutral pile at start	-			-	-	-	+	-	-	(+)	-	-	-	-	-	-	-	-	-
1685. Divided at start	+			+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
1686. Called "cooked" and "raw"*	+					-	-					+					+	+	+
1687. Played by men	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1688. Played by women	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1689. Betting	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1690. Sing while play	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1691. 4-Stick Guessing Game	+	?	+	+	+	+	+	+	+	+		-	-	+	-	+	+	+	+
1692. Sticks of wood*					+							-	-		-	+		+	+
1693. 4 sticks*	+		+	+	+			+	+	+	+	-	-	+	-	+	+	+	+
1694. 2 long or thin				+	+			+	+	+	-	-	-	-	-	+	+	+	+
1695. 2 short or thick				+	+			+	+	+	-	-	-	-	-	+	+	+	+
1696. Same as hand-game sticks	+				-			-	-	-	+	-	-	+	-	-	-	-	-
1697. Cover with winnowing basket			-					+	+	+	+	-	-	+	-	+	+	+	+
1698. With basketry bowl	+		+	+	+														
1699. Guess for: long			?		+			+	-	-	-	-	-	-	-	-	?	-	-
1700. Short								-	+	-	-	-	-	-	-	+		-	-
1701. Thick								-	-	+	-	-	-	-	-			+	-
1702. Unwrapped	+							-	-	-	+	-	-	+	-	-		-	-
1703. Position guessed indicated as in hand game	+		+	+	+			+	+	+	+	-	-	+	-	+	+	+	+
1705. Plain twigs	+				+			+	+	+		-	-	+	-	+	?	+	+
1706. Number*	10		?	10	10			10	10	12	12	-	-	12	-	12	?	10	8
1707. In neutral pile to start*				-	-			?	-	(+)	-	-	-	-	-	-	-	-	+
1708. Divided at start				+	+			?	+	+	+	-	-	+	-	+		+	-
1709. Called "cooked" and "raw"												-	-		?		+	+	+
1710. Played by men	+		+					+	+	+	+	-	-	+	-	+	+	+	+
1711. Played by women	+		-					-	-	-	-	-	-	-	-	-	-	-	-
1712. Number players each side*	1+	1+	2+		V							-	-		V				
1713. Sing while play	+		+		+							-	-		-				
1714. 4-Stick Dice	-?	-?	-?	-?	-?		+	+	+	+	+	+	+	+	+	+	+	+	+
1715. Dice, length in inches							8	8	8	6	6	6			6	6		6	
1716. All red on one side*											+			+	+	+	+	+	+
1717. 2 marked on end							+	+	+	+	-	+			-	-	-	-	-
1718. 2 marked in middle							+	+	+	+	+	+			-	-	-	-	-
1719. 2 plain									-						+	+	+	+	+
1720. 1 with cross in middle															+	+	+	+	+
1721. 1 with parallel lines															+	+	+	+	+
1722. Called "mother," "father"	-	-	-	-	-						+					+	+	+	+
1723. "Little ones"																+	+	+	+
1724. Play: throw on winnowing basket																			+
1725. Strike on rock							+	+	+	+	+			+	+	+	+		
1726. Counters, number*							6+	-		?	5+	?			-	5	V	10	5
1727. Divide to begin								-			?				-			+	+
1728. Neutral pile to begin							+	-			?				-	+	+	+	+
1729. Mark on ground							-				-?				+	-	-	-	-

	NP-ESp	NP-Flk	SP-Ash	S-DthV	S-bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1730. Number marks to win														10					
1731. Scoring*																			
1732. Played by men							-	1	-	-	-	+		(+)	-	-	-	1	1
1733. Played by women							+	+	+	+	+	+		+	+	+	+	+	+
1734. Many Dice or Basket Dice*	-?	-?	-?	-?	-?	?	+	+	+	+	+	+	4	R	-	-	-	-	1
1735. Dice of wood*							+	+	+	+	+	+	?						
1736. Square											+								
1737. Oval							+	+											
1738. One side red							+	+	+	+	+	+							
1739. Length (inches)									2		2	1½							
1740. Number*							13	12	12	8	10	30							
1741. Throw on winnowing basket							+	+	+	+	+	+							
1742. Scoring: all white up counts							15			8									
1743. All white up wins game								+	+		+								
1744. 1 red up counts							10	10	10		2								
1745. 2 reds up counts							5	5	5		1								
1746. 3 reds up counts								0	0	0	0								
1747. 4 reds up counts							?	0	0		0								
1748. 5 reds up counts								1	1		0								
1749. 6 reds up counts								0	1		0								
1750. 7 reds up counts								1	1		0								
1751. 8 reds up counts								0	0	8?	1								
1752. 9 reds up counts								0	0		2								
1753. 10 reds up counts								5	5										
1754. 11 reds up counts							10	10											
1755. 12 reds up counts																			
1757. All red up counts							30												
1758. Counting: pebbles as counters									+		-								
1759. Marks on ground							+	+	+	?	-								
1760. Pebble pile = 5 marks								+	+	+	-								
1761. Earth pile = 5 marks									+		+								
1762. Number to win							15	25	25	?	?	?							
1763. Played by women							+	+	+	+	+	+							
1764. Played by men							+	-	-	-	-	+							
1765. 8-Stick Dice*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1766. Dice of split cane	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1767. Split hardwood*	-		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+
1767a. Length in inches	10								12									10	
1768. Peach stone	-		+																
1769. One side red	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1770. One side black*	-		-															+	
1771. Number of dice	8		8	8	8	?	8	8	8	8	?	8	8	8	8	8	8	8	8
1772. Casting: twirl in air	+				W				M	+		+							
1773. Knock from knee	+				M				W										
1774. Knock from hand												+							
1775. Bounce end on ground						+	+	+	+	+	+	+	+	+	+	+	+	+	+
1776. Bounce end on rock																			
1777. Scoring: all white up counts	16			16	16	16	?	16	16	16	?	?	16	16	16	16	16	16	16
1778. 1 red up counts	7			7	7	14		7	14	7			2	14	14	14	14	14	14
1779. 2 reds up counts	6			6	6	6		6	6	6			3	6	6	6	6	6	6
1780. 3 reds up counts	5			5	5	5		5	5	5			4	5	5	5	5	5	5
1781. 4 reds up counts	4			4	4	4		4	4	4			5	4	4	4	4	4	4
1782. 5 reds up counts	3			3	3	3		3	3	3			4	3	3	3	3	3	3
1783. 6 reds up counts	2			2	2	2		2	2	2			3	2	2	2	2	2	2

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Fmlt	S-Ely	S-SprV	S-Flko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1784. 7 reds up counts	1			1	1	1		1	1	1			2	1	1	1	1	1	1
1785. 8 reds up counts	16			16	16	16		16	16	16			16	16	16	16	16	16	16
1786. Counting: move counters between sticks in ground	+		+	+	+	+													
1787. Sticks arranged in arc*	+		+	+	+										+	+	+	+	
1788. Number of spaces	32		?	32	24	32	32	40	25	36	10		V	60	36	42	60	68	21
1789. Number of moving counters	2		2	2	2	2	2	2	2	2	2		2	2	2	2	2	2	2
1790. Go back when meet opponent							+	+	+	+	+	+		+	+	+	+	+	+
1791. Played by men						+	+	+	+	+	+	+		+	+	+	+	+	+
1792. Played by women	+				+	+		-	-	+	-	+		+	+	+	-		(+)
1793. Betting					+	+	+	+	+	+	+	+		+	+	+	+	+	+
<u>Archery</u>																			
1794. Target	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
1795. Arrow previously shot	+	-	-	-	-	+	-	+	+	-	-		-	-	-	+	-	-	+
1796. Arrow previously thrown	-	-	+	+	+		-		-	-	-		-	-	-		A	A	-
1797. Stick	+	-	-	-	-	-	-	-	+	+	-		-	+	+	-	+	-	-
1798. Brush bundle	-	-	+	+	+	-	+	?	-	-	+		+	-	-	-	-	B	-
1799. Willow shavings	+	+	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
1800. Approximate distance (feet)	50	50		50	10														
1801. Shoot arrow	+	+	+	+	+		+	+	+	+	+		+	+	+	B	B	+	+
1802. Over tree at target							+	+	+	+	+		+	-	-	-	-	-	-
1803. Throw long arrow	-	-	-	-	-	-	-	-	-	-	-		-	-	-		A	A	-
1804. Number shot, each player	2			2					2							?	2	2	1
1805. Scoring: nearest to target counts	1							1	1	1	-			1	1	1	1	1	1
1806. Touching target* counts									2		*			5		2	2	5	
1807. Number points to win	6							5	5	5*			2	10	5	4*	4	5	5
1808. Played by men							-	+	+					+	+	+	+	+	+
1809. Played by boys*	+						+	+	+								(+)		
1810. Arrows thrown for distance	?	-	?	-															+
1811. Ring and Dart	+	?	?	?	?	?	?	?	?	?	?	?	?	+	+	+	-	-	-
1812. Ring of willow	+													+	+	+	-	-	-
1813. Netted with vegetable string*	?													+	+	+	-	-	-
1814. Diameter (inches)	12													4	4	4	-	-	-
1815. Dart with feather														+	+	+	-	-	-
1816. Length (inches)														4+	4	4	-	-	-
1817. Catch dart in ring														+	+	+	-	-	-
1818. One point each catch														+	+	+	-	-	-
1819. Number points to win														10	?	5	-	-	-
1820. Played by men														+	-	-	-	-	-
1821. Played by children														-	+	+	-	-	-
1822. Quoits	+					?	?	?	?	+	+	+	?	?	+	?	+	-	-
1823. Target: stick									-	-	-						+	-	-
1824. Rock									+	+	+						-	-	-
1825. Quoit: rock									+	+	+						-	-	-
1826. Rounded rock																	+	-	-
1827. Number throws each player																	1	-	-
1828. Scoring: nearest goal counts	1																1	-	-
1829. To hit goal counts																	2	-	-
1830. Snow Snake	?	?	?	?	?	?	?	+	+	+	+	?	?	?	+	+	-	-	-
1831. Stick bounced off								-	-	-	-	-	-		+	+	-	-	-
1832. Snow on ground								-	-	-	-	-	-		+	-	-	-	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1834. Brush pile, snow capped								-	-	-	-	-		-	+	-	-	-	-
1835. Throw at snow pile								+	+	+	+	+		+	-	-	-	-	-
1836. Through air								+	+	+	+	+		-	-	-	-	-	-
1837. Played by children only								+	+	+	+	+		+	+	-	-	-	-
1838. Juggling	+	+	+	+	+	+	?	+	+	+	+	-		-	+	+	+	+	+
1839. Objects juggled: stones	+	+	+	+	+	+		+	+	+				+	+	+	+	+	+
1840. Wild gourds			+			-		-	-	-				-	-	-	-	-	-
1841. Maximum number*	3	3	3	2	3	2		8		2+	?			3	4	3	2	?	?
1842. Played by women						+										-	-	-	-
1843. Played by girls																+	+	+	+
1844. Played while walking																		+	+
1845. Foot Race.	+																+	+	+
1846. Cross country*	+																+	+	+
1847. Wrestling*	+																+	+	+
1848. Shot Putting								+	+			+	+	+	-	-	+		+
1849. With rock								+	+			+	+	+	-	-	+		+
1850. Played by men									+					+	-	-	+		+
1851. Played by boys								+				+	+	-	-	+	(+)		+
1852. Stilts	?	?	?	?	?	?	?	?	?	?	+		R	-	+	+	+	R	R
1853. Used by boys																		+	
1855. Jacks*	+	+	?	+	+	+	+	+	+	?	?	+		-	-	+	+	R	+
1856. Jacks (number)						10			V					-	-				
1857. Stones	+	+		+	+	+	+	+	+			+		-	-	+	+		+
1858. Used by girls only								+	+			+		-	-	+	+		+
1859. Tops*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1860. Top: stick with pitch	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
1861. Rounded rock																	+	+	-
1862. Spin: twirl with fingers*																+		+	+
1863. Twirl with string															+	+	+	+	-
1864. Lash with whip																	+	+	-
1865. Spin on ice	-	-	-	-	-												+	+	-
1866. Played by boys										+	+	+	+			+	+	+	+
1867. Played by girls										-	-	+	-			-	-	-	-
1868. Sling	+	+		+	+	+	?	+	R	+	+	+	+		+	+	+	+	+
1869. As toy only	+	+		+	+	+	?	+	+	+	+	+	+		+	+	+	+	+
1870. Bull-roarer	+	?	+	+	+	+	+	+	R?	?	+	+	+	+	-	+	+	+	-
1871. Whirrer of wood	+			+															
1872. Of sheep horn	-			+															
1873. Used as toy	+			+								+							
1874. Used to make wind blow*	-	-		-										+			+	+	?
1875. Cat's Cradles*	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+
1876. Toes used	-	-	?	-	-	+	-										+	+	?

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SaRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
<u>Smoking, Miscellaneous*</u>																			
1921. Any time					+				-	+		+					-	+	
1922. Bedtime	+	+	+	+		+			+									+	+
1923. Occasional only														+	+	+	-	+	
1924. At gatherings, etc.									+			+						+	
1925. By shamans	+	+	+	+	+	+	+	+	+	+		+						+	
1926. As offering	-	-	+	+	+	+	?		+			?							
1927. To spirit*						+													
1928. To ghost			+																
<u>Tobacco</u>																			
1929. Gathered wild	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1930. Dry and thresh leaves				+				+	+		+	+	+	+	+	+	+	+	
1931. Mixed with other plant:	-	-	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	-	+
1932. Leaf of buhu	-	-	+	-		-	-											-	
1933. Leaf of dumayu (=kinikini)	-	-		-		-	-	+	+	+		+		+	+	+	+	-	
1934. Leaf of naicutumayu	-	-		-		-	-								+	-	+	-	
1935. Root of tazep for colds	-	-		-		-	-						+	+				-	
1936. Artemisia bark	-	-		-		+	-												
1937. Other bark	-	-		-		-	-					+							
1938. Suguwuv	-	-		-	+	-	-												
1939. Arambi	-	-		-		-	-					+	+						
1940. Grind on metate						+													
1941. Make into balls	+					+			-		-								
1942. Keep in: buckskin pouch	+	+	+	+	+	+	+		+	+	+	+	+	+	+		+	+	+
1943. Fur pouch								+	+		+	+					+	+	
<u>MUSICAL INSTRUMENTS</u>																			
<u>Rattle</u>																			
1944. Cocoon	+	-	?	-	+	+	-?	?	-	?	-	-	?	-	-	-	-	-	-
1945. Attached to stick	+	-		-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
1946. Attached to arm	-	-		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1947. Used by shaman	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1948. Used dancing*	-	-		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1949. Used sweat-house singing	+	-			+		-	-	-	-	-	-	-	-	-	-	-	-	-
1950. Split stick	+	+	+	+	+	+	?		-	R	-	+		-	-	-	-	-	-
1951. One split	+	+	+	+	+	+			-		-	+		-	-	-	-	-	-
1952. Used "exhibition" or "south" dance	+	+		+		+	-	+	-	+	-	-		-	-	-	-	-	-
1953. Sheephorn				+															
1954. On stick				+															
1955. Rawhide					+	+		+		-		-					-	-	-
1956. Used by shaman								+		-		-					-	-	-
1957. Rabbit's ear							+	+	+	+	+			-	-	+	-	-	-
1958. Used by shaman								+						-	-		-	-	-
1959. Used by women in hand game														-	-	+	-	-	-
1960. Deer's ear	+	+	-?	+	+	+								-	-	+	-	-	-
1961. Used by women in hand game														-	-		-	-	-
1962. Deer's testicle on stick														-	+		-	-	-
1963. Wood-rat fur											+								
1964. Gourd	-	-	+	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
1965. Hoof rattle	-	-	-	+	-	+	+	-?	+	-	-	-		-	+	-	+	+	+
1966. Antelope hoofs	-	-	-	-	-				-	-	-	-		-	+	-	-	-	-
1967. Mt.-sheep hoofs	-	-	-	+	-				+	-	-	-		-	-	-	-	-	-

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
1968. Deer hoofs	-	-	-	-	-	+	+	-	-	?	?	-	-	-	-	+	+	+	+
1969. Number of hoofs	-	-	-	-	-	3+	-	-	8+	-	-	-	-	-	-	-	-	-	+
1970. Hoofs in bunch	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	+
1971. Hoofs in line	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	+	-	+
1972. Used by shaman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+
1973. Notched stick*	-	-	+	-	-	-	-	R	R	R	R	R	-	R	+	R	+	+	+
1974. Plain, notched	-	-	-	-	-	-	-	+	+	+	+	-	-	+	-	+	-	-	+
1975. Ornamented, notched	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+
1976. Rub with stick	-	-	-	-	-	-	-	-	+	+	+	+	-	+	+	+	-	-	+
1977. On stuffed hide "resonator"*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
1978. Used by antelope shaman	-	-	-	-	-	-	-	-	+	+	+	+	-	+	+	+	-	+	+
1979. Used in "bear dance"	-	-	-	-	-	-	-	+	+	+	+	+	-	+	+	+	-	-	-
1980. Used for amusement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
<u>Buzzer</u>																			
1981. Hoofs twirled on string	-	-	-	-	-	-	-	+	-	+	+	-	-	+	+	-	+	-	-
1982. Deer patella twirled on string	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
1983. Buckskin twirled on string	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
(Bull-roarer, see elements 1870 ff.)																			
1985. Drum*	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-
1986. 2-headed drum	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
1987. Body of willow rings	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
1988. 1-headed drum, or tambourine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
1989. Body of wood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
1990. Diameter (inches)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-
1991. Depth (inches)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-
1992. Drumstick, simple	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
1993. Fur on end	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
1994. Musical Bow	-	-	-	-	-	+	-?	+	+	-	-	-	-	-	-	-	-	-	-
1995. Archer's bow used	-	-	-	-	-	+	-	+	+	+	-	-	-	-	-	-	-	-	-
1996. Held in teeth	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
1997. Plucked with fingers	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
1998. Rubbed with stick	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
1999. Used by antelope shaman	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
2000. As toy	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
2001. Whistle	-	-	-	-	-	+	?	-	-	+	-	+	+	-?	-	-	-	+	-
2002. Bone, number of holes	-	-	-	-	-	+	-	-	-	-	-	-	2	-	-	-	-	-	-
2003. Willow, as toy	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	+	-
2004. Flute*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2005. Material, elderberry	+	+	-	+	+	-	+	+	+	+	-	-	-	+	+	+	+	+	+
2006. Willow	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
2007. Bone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008. Length (inches)*	-	-	18	-	-	-	-	15	-	-	-	-	-	24	18	18	21	18	-
2009. Pitch stop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010. Number of holes	?	?	?	4	4	-	4?	4	4	4?	4	2	4	4	3+	6	6	6	6?
2011. End blown	?	?	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
2012. End cut diagonally	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013. Mouth blown	?	?	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
2014. Used for casual music	-	-	-	-	-	-	-	+	+	-	+	-	-	-	+	-	-	-	+

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2015. As toy	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	-	+
2016. Courting	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+	+	-
2017. By shaman	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MARRIAGE																			
2018. Bride price	+	+	-	+	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-
2019. As present	+	+	-?	+	+	+	+	+	+	+	+	-	-	-	-	+	-	-	-
2020. Reciprocal present	+	+	?	+	+	+	+	+	+	-	+	-	-	-	-	-	-	-	-
2021. Bride service (months)	?	?	(+)	-	-	-	+	+	+	+	+	+	+	12	-	12	-	-	+
2022. Marriage by abduction	?	?	?	?	?	?	?	+	+	+	+	+	+	+	+	+	+	+	-
2023. Another's wife won by fight	?	?	?	?	?	?	?	+	+	+	+	+	+	+	+	+	+	-	-
2024. Friends assist	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-
2025. Polygyny permitted	-	-	-?	-?	-?	-?	-?	-	+	-	+	+	+	-	+	+	+	+	+
2027. Polyandry permitted	-	-	?	-	-	-	-	-	+	-	+	+	+	-	+	+	+	+	-
2028. Fraternal necessary	+	+	?	+	+	+	+	+	+	+	+	+	+	+	+	(+)	+	+	+
2029. Sororate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2030. Required*	+	+	?	+	+	+	+	+	+	+	+	+	+	+	+	(+)	+	+	+
2031. Levirate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	(+)	+	+	+
2032. Required*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2033. Choice of mates: any blood relative taboo	+	+	+	+	+	+	+	+	+	+	-	+	+	-	-	+	+	+	+
2034. Father's sister's daughter preferred*	-	-?	-?	-?	-?	-?	-?	-?	-	-	+	-	+	+	+	-	-	-	-
2035. Father's sister's step- daughter preferred	-	-?	-?	-?	-?	-?	-?	-?	+	+	-	+	+	-	-	+	+	-	-
2036. Mother's brother's step- daughter preferred	+	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-
2037. Child betrothal	(+)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	(+)
2038. Post-marital residence: patrilocal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2039. Matrilocal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2040. Variable	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2041. Adultery: wife sometimes beaten	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2042. Wife sometimes killed	-	-	-	-	-	-	+	-	-	+	+	+	+	-	-	+	+	-	-
2043. Wife sometimes rubbed with blood	?	?	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2044. Paramour beaten	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2045. Paramour's horse killed	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2046. Husband sometimes divorced	+	+	?	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2047. Divorce may be for: sterility	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2048. Infidelity	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2049. Incompatibility	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2050. Prostitution	(+)	(+)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2051. Premarital intercourse: with be- trothed only	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2052. Girl's mother paid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
KINSHIP RELATIONS																			
Avoidances																			
2053. Mother-in-law son-in-law	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2055. Address as plural person	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2056. "Respect" required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
2057. Passing in front of taboo	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2058. Continues for life	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RaRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SaRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2059. Mother-in-law daughter-in-law . . .	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2061. Address as plural person . . .	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2062. "Respect" required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
2064. Restraint required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2065. Continues for life	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2066. Father-in-law daughter-in-law . . .	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2068. Address as plural person . . .	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2069. "Respect" required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2071. Restraint required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2072. Continues for life	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2073. Father-in-law son-in-law	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2075. Address as plural person . . .	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2076. "Respect" required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2078. Restraint required	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2079. Continues for life	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2081. Brother and sister avoid obscenity	+	+	+	?															
<u>Joking Relations</u>																			
2084. Brothers-in-law*		+																	
2085. Play jokes																			+
2086. Aid each other																			+
2087. Cousins	+	+																	
<u>Adoption</u>																			
2088. Of orphan	-	-	+	+					+								+	+	
2089. When parents impoverished																	+		
BERDACHES OR TRANSVESTITES																			
2090. Male	+	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-
2091. Wears woman's dress	+	-	+		-	+	+	+	+	-	+			-	+	-	-	-	-
2092. Does woman's work	+	-	+		-	+	+	+	+	+	+	+		-	+	+	+	+	-
2093. Has female organs		-			-	?								+			+	-	-
2094. Marriage to man	-	-	+		-	-			-	-	-			-	-	-	-	-	-
2095. Lives with man		-			-	-	+	-	-	-	-			-	-	-	-	-	-
2096. Is shaman	-	-	-		-	-	-	-	-	-	-			-	-	-	+	+	-
2098. Regarded disapprovingly . . .		-			-	-	+		+							+	+		-
2099. Regarded indifferently . . .		-			-	-		+		+						+			-
2100. Female	-	-	+	-	-	-	-	-	-	-	-	+	+	-	-	+	-	-	-
2101. Wears man's dress	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-
2102. Does man's work	-	-	?	-	-	-	-	-	-	-	+	-	?	-	-	+	-	-	-
2104. Marriage to woman	-	-	+	-	-	-	-	-	-	-	-		?	-	-	-	-	-	-
2110. Fire test in youth							+												
DIVISION OF LABOR*																			
(M, men; W, women; +, both)																			
2111. General seed gathering	W	W		W		W	W	W	W	W	W	W	W	W	W	W	W	W	W
2112. Pine-nut gathering*	+	+		W		+	+	+	+	+	+	+	+	+	+	-	-	-	-
2113. Knocking down	+			+		+	M	M	M	M	M	M	M	M	M	-	-	-	-
2114. Picking up*	W			W		+	W	W	W	W	W	W	W	+	W	-	-	-	-
2115. Transporting	+	+		+		W	+	+	+	+	+	W	+	+	W	-	-	-	-

		NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
		FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2116.	Preparing	W			W		W	W	W	W	W		W	W	W	W	-	-	-	-
2117.	Cooking	W	W		W		W	W	W	W	W	W	W	M	W	W	W	W	W	W
2118.	Carrying water		+		+		+	+	+	+	+	+	+							
	2119. Near camp		+		+		+	+	W	W	W		W							
	2120. Long distance		+		M		M	+	+	M	+	M	+							
2121.	Fire tending: gathering wood		+		M		+	+	W	M	M	+	+		+		M	W	W	W
2122.	Hunting	M	M		M		M	M	M	M	M	M	M		M	M	M	M	M	M
2123.	Fishing	M			-		-	M	-	+	W		M		M	-		M	M	M
2124.	Gathering: larvae							W	+	+			W		W			W	W	
	2125. Grubs							W	+	+		+	W		W					
	2126. Grasshoppers								+	+		+	W		-					
2127.	Rats and mice catching						M	M	M	+	M	M	M		M	M		M	M	
2128.	Lizard catching						M	M	M	+	M		M		-	-		-		
2129.	Pine nuts from mt. cache						+	+	+	M	M		M		-			-		
2130.	Manufacturing: house		M		M		M	M	+	M	M	+	M	M	+	+	+	+	+	M
	2131. Baskets	W	W		W		W	W	W	W	W	W	W	W	W	W	W	W	W	W
	2132. Skin preparations	W			W		M	M	+	M	M	M	+	M	M	+	+	+	+	M
	2133. Clothing	+			W		M	M	W	M	M	+	+	+	+	W	M	+	W	M
	2134. Moccasins	+			M		M	M	+	M	M	+	+	+	+	M	M	+	M	M
	2135. Pottery	W	W		W		W	W	W	M	W	W	W	+	+	W	W	+	M	
	2136. Metate				M		M	M	W	M	M	W	M	?	+		M	W	+	
	2137. Skin blanket	M	M		M		+	W	M						+	?	M	+	W	M
	2138. Cord				M				M	M	M	M	M	M	M	W	M			
	2139. Weaving		M		M				W	W	W	W	W	W	+		W		W	M
	2140. Rabbit net				M		M	M	M	M	M	M	M	M	-		M	M	M	M
POLITICAL ORGANIZATION																				
Political Group																				
2141.	Sovereign body is localized band	+	+	(+)	(+)	-	-	-	-	(+)	-	-	-	-	-	-	-	(+)	-	-
	2142. Village	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2143.	Temporary large organization for: annual dance	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2144. Rabbit drive	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2145. Antelope drive	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	-	+	+
	2146. Fishing	-	-	-	-	-	-	-	-	-	-	-	-	-	+		(+)	+	+	(+)
	2147. Mud-hen (or duck) drive	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	-	+	?
	2148. Pine-nut trip	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	
Chief																				
2149.	Band chief	+	+	(+)	-	-			-	R	-	-	-	-	-	-	-	-	R	R
	2150. Patrilineal succession	+	+	+	+	+	+											+		
	2151. Community approval required	+	+		+	+	+											-		
2152.	Chief's assistant	-	+		+								-					+		
2153.	Chief's announcer		-							(+)			-					+		
2154.	Chief's messenger	+	+	+	+								-	+				-		
2155.	Special chief for dance	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+
	2156. Rabbit drive	+	+		+			+	+	+	+	+	+	+	-	+	+	+	+	-
	2157. Antelope drive	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
	2158. Mud-hen (or duck) drive	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
	2159. Fishing	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-		+		
	2160. Hunting generally	-	-	-	-	-		+		+	+		-		+			(+)	+	
	2161. Pine-nut trip	-	-	-							-	-	-		-	+		-		
2162.	Village chief								+				-	+	R	+	+	+	+	+
2163.	Leader in ill-defined region	-	-		+				+	+	+	+		V	+	+	+	+	+	
	2164. Patrilineal succession	+								+										

	NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
PROPERTY																			
2165. Land: band owned hunting territory .	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2166. Band owned pine-nut territory	+	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
2167. Band owned fishing streams . .	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2168. Disputes settled by fight . .	+	-	-	-	-	-	-	-	(+)	-	-	-	-	-	-	-	-	-	-
2169. Family owned seed plots . . .	(+)	(+)	+	-	-	-	-	-	-	-	(+)	-	-	-	-	-	-	-	-
2170. Family owned fishing place . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
2170a. Family owned plots of planted wild seeds	-	-	-	-	-	-	-	+	+	+	+	+	+	+	-	+	-	-	-
2171. Chattels: all privately owned . . .	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2172. All destroyed at death	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
2173. Eagle aeries privately owned* . . .	+	+	-	-	-	+	+	+	+	+	+	+	?	+	+	+	+	?	-
2173a. Doctor's songs privately owned . . .	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
WARFARE																			
2174. Raids only	+	-	+	-	-	-	+	+	+	+	-	-	+	+	-	+	-	-	+
2175. Rare	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2177. Captives	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
BIRTH CUSTOMS																			
2178. Special house for childbirth* . . .	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2179. Like dwelling			-						+							+			
2180. Domed willow house*								+		+	+	+		+	+	+	+		+
2181. Number of days confined* . . .	5	5	5+	5	5	5	30	30	30	30	5	90	30	30	30	30	90	30	25
2182. Ground warmed	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
2183. Ground covered grass, bark . .			+													+	+	+	+
2184. Hot stones			+								+						+		
2185. Warmed pit, number days* . . .	5	5	-	-	5	+	+	30	30	30	5	90	5	-	?	30	+	-	-
2186. Husband gets firewood	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
2187. Delivery: mother kneels	+	+		+	+	+	+	-	-	?	-	-	-	+	-	+	+	-	-
2188. Lies flat	-	-		-	-	-	+	+	+	-	+	+	+	-	+	-	-	+	+
2189. Holds to stake	-	-	-	-	-	-	-	-	-	-	-	+					2	+	-
2190. Is lifted			+			+	+				-	+				W	W		
2191. Ties strap around waist* . . .													+				+		
2192. Is shaken												+							
2193. Drinks hot water			+	+	+								+	+	+		+		
2194. Midwife usually is: husband . . .												?	+	+					
2195. Person with special power* . .	?		+	+	+	+		+								+	+	+	+
2196. Any woman	+	+					+	+								+	+	+	+
2197. Any female relative																		+	
2198. Strong man					+											+			
2199. Grandmother			+						+	+	+	+		+					
2200. Midwife in difficult case is: person with special power*	+	-	-		+		?		-	+	-	+	+	-		-	+		
2201. Man to frighten baby out . . .	+				+	+			-		-								
2202. Man to squeeze or shake												+			+				+
2203. Afterbirth is buried*	+	+	+	+	+	+	+	+	-	+	+	+	+	-	+	+	+	?	+
2204. Wrapped in bark	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
2205. Thrown in brush	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
2206. Thrown away	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
2207. Mother bathed after birth* . . .	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	?	+	+
2208. Treatment of mother (no. days) . . .																			
2209. Has nurse or attendant	+				?	+	+	+	+			+	+	+	+	+	-	?	+

		NP-FSp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-Snrv	S-BtLM	NP-MC
		FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
	2210. Drinks warm water*	30	10	6	5	5	5	30	30	30	30	30	90	5	30	30	30	90	30	5
	2211. Meat and grease taboo*	30	10	6	30	30	30	30	30	30	30	60	90	30	30	30	30	90	30	25
	2212. Salt taboo	-	-	6	-	-	-	-	-?	30	?	-	-	-	-	-	-	-	-	-
	2213. Work taboo	?	10	6	?	5	5	30	-	5	30	30	5	30	-	30	30	-	-	25
	2214. Uses scratching stick*	5	5	6	5	+	5	30	30	30	30	5	90	5	30	30	30	90	?	?
2215.	Mother, at end of confinement bathes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2216. Paints self*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
	2217. Gives away old clothes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
	2218. Burns old clothes	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
	2219. Throws away old clothes	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+	-	-	+	+
	2220. Leaves old clothes on tree	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
2221.	Treatment of infant: bathed when born*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2222. Steamed when born	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+
	2223. Stroked with eagle feathers	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
	2224. Bathed every morning*	-	-	-	-	-	-	-	-	+	+	-	+	+	+	+	-	-	-	-
2225.	Umbilical cord cut with stone knife	+	-	-	?	+	?	?	+	+	+	-	+	+	+	+	+	+	+	+
	2226. Cut with sharp cane	+	+	-	?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2227. Tied with string	+	+	-	+	+	?	?	+	+	+	+	+	+	+	+	+	-	+	-
	2228. Tied with antelope sinew	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+
2229.	Umbilical cord, disposal: removed (number of days).	4	4	+	5	-	-	-	-	6	-	5	5	-	5+	7	-	-	+	?
	2230. Placed on cradle	+	+	-	-	+	+	-	-	-	+	+	-	-	+	-?	+	-	+	-
	2231. Placed in rat hole	-	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
	2232. Placed in antelope wallow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
	2233. Placed in red-ant nest	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
	2234. Placed in rock cranny	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
	2235. Placed in tree*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
	2236. Placed in deer trail	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2237. Buried in birth house*	-	-	-	+	-	-	+	-	-	-	-	-	+	-	+	+	-	-	-
	2238. Buried shady side of sage	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2239.	Cradle, days until given 1st cradle*	1	1	-	-	-	-	-	1	14	30	-	1	1	3	14	20	90	2	25
	2240. 2d cradle*	5	5	-	5	30	10	30	-	-	-	5	90	14	30	30	30	+	30	-
	2241. 2d, when 1st outgrown*	+	+	-	-	+	-	-	+	+	+	-	-	-	-	-	-	-	-	-
	2242. 3d, when 2d outgrown	-	-	-	+	-	-	-	+	+	+	+	-	+	+	-	-	+	+	-
2243.	Cradle made by maternal grandmother	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+
	2244. Paternal grandmother	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
	2245. Any woman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
2246.	Treatment of father: bathed*	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+
	2247. Hot bath at birth*	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
	2248. Cold bath at birth*	+	-	-	-	-	-	+	+	+	-	+	+	+	+	+	-	+	+	+
	2249. Bathed by another man*	+	-	-	-	+	+	?	-	-	+	+	-	-	-	-	+	-	-	-
	2250. Runs after bath	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+	-
	2251. Confined in birth house, days*	5	5	-	-	-	-	-	+	5	-	-	5	5	6	-	5	-	+	-
	2252. Confined in separate house*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	+	-	-
2253.	Father may not drink cold water (days)*	10	5	-	-	-	5	5	-	5	30	5	5	5	6	-	-	-	-	-
	2254. Eat meat and grease (days)*	6	5	-	3	30	5	5	5	5	30	5	5	5	6	5	5	5	5	-
	2256. Smoke (days)*	6	5	-	-	-	-	5?	-	5	-	?	-	-	?	-	-	5	+	-
	2257. Gamble (days)*	30	5	?	3	30	5	5	-	5	30	-	5	-	?	5	5	5	+	25
	2258. Take sweat bath (days)*	6	5	-	-	5	-	-	-	-	-	-	5?	-	-	-	-	-	-	-
2259.	Father must run daily*	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
	2260. Number of days	5	5	-	1	5	5	5	5	5	30	5	5	5	6	5	5	5	5?	-
	2261. Twicedaily	+	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
	2262. Any direction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	NP-ESp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2263. In morning*	+	+	-	-	-	+	+	?	+	?	+	+	+	+	?	+	+	+	-
2264. East in morning*	+	+	-	-	+							+				-		+	-
2265. West in evening	+	+	-	-	-							+				-		+	-
2266. Clockwise around camp	-	-		-	-											+			-
2267. Bring back firewood	+	+		+	+	+	+	?	?	+	+	+	?	+	+	+	+	+	-
2268. Father must also use scratching stick (days)	-	-	-	-	5	5	5	30	30	30	5	5	5	6	5	5	5	-	-
2269. Bathe (days)	+	+	+	+	+												5		1
2270. Do housework	-	-				-	-	-	-	-	-	+	?	-	-	-	-	-	-
2271. Father, at end of observances, gets new clothes	+							+	?	-	?	+	+	+	+	+	+	+	-
2272. Gives away old clothes	+							+		-		+	-	-	-	+	+		-
2273. Throws away old clothes*	-							-		-	+	-	+	+	+	-	+		-
2274. Bathes																	+	+	-
2275. Paints self red																		+	
2276. Hunts*	+	+	+			+	+	+	-		-	-	+	+		+	+	-	-
2277. Gives away first kill																	+		
2278. Father's requirements observed at all births						+	+	?	+	+	+	+	+	-	+	+	-	-	?
2280. First of each sex only						-	-		-	-	-	-	-	+	-	-	+	+	
2281. Parents' sex restrictions (days)	30	?	?	30													-	+	
<u>Twins</u>																			
2282. Feared	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
2283. Regarded as good luck					+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2284. One killed	(+)	-	-	+	-		+	-	-	-	-	-	-	-	-	-	-	-	-
2285. Death of one brings death of other	+						+		+						+	+	?	+	+
2286. Mother's sister adopts one											+							(+)	
<u>Infanticide</u>																			
2287. Of deformed	-	-	?			-	+	-	+	+	-	-	-	?	-	-	+	-	-
2288. Of unwanted*			+	+	+	+	+	-	+	+	-	-	-	+	+	-	+	-	-
2289. Of illegitimate						-	?	-				-	-		+	+	-	-	-
2290. Killed by sitting on														+					
2291. Putting in badger hole																	+		
2292. Leaving outdoors																+	+		
2293. Abortion	?	?	?	+	+	+	+	+	+	+	?	-	-	?	+	?	+	+	-
2294. By pressure*					?	+	?	?	-	?		-	-		+		+	+	-
2295. By lying on rock					?	?	?		+	?		-	-		-		-	-	-
<u>Names *</u>																			
<u>Loss of Milk Teeth</u>																			
2296. Thrown away	-	+		+	-	-	-	+	-		-	-		-	-	-	-		+
2297. Thrown over shoulder					+	+	-	-	+		-	+		-	-	-	-		-
2298. And call own name	-	-		-	-	+	-	-	-		-	-	-	-	-	-	-		-
2299. Relative flips at child*	-	+		-	-	-	-	-	-		-	-	-	-	-	-	-		-
2300. Thrown under green bush	-	-		-	-	-	+	-	-		-	-	-	-	-	-	+		-
2301. Buried under green bush	+	-		-	-	-	-	-	+		-	-	-	+	-	-	-		-
2302. Buried under sand grass	-	-	-	-	-	-	-	-	-	-	-	-	-		+	+	-		-
2303. Bark-wrapped, buried in mts.	-	-	-	-	-	-	-	-	-	-	+	-	-		-	-	-		-

	NP-FSP	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsHi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SuRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
GIRL'S PUBERTY																			
First Menstruation*																			
2305. Observance for each girl alone*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2306. Confinement	-	-	-	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
2307. Number of days	-	-	-	5	-	5	30	5	30		30	30	30	30	30	30	10	6	5
2308. In family house	-	-	-	5	-	-	-	-	-		-	-	-	-	-	-	-	-	-
2309. In special house*	-	-	-	-	-	+	+	+	+		+	+	+	+	+	+	+	+	+
2310. Behind home	-	-	-	-	5	V	V	V	V		V	V	V	V	V	V	V	V	V
2311. In isolated place*	-	-	-	-	-	+	+		+		+	+	+	+	+	+	+	+	+
2312. Lies on heated ground				+	+						+		+	+	-	-	-	(+)	+
2312a. In pit, steamed	+					-	-	-	-	-	-	-	-	-	-	-	-	-	-
2313. Attended	-	-	+					+	+		+	+	+	+	+	+		+	+
2314. By mother	+	-						+	+		+	+	+	-	+	+		+	+
2315. By any female relative*	-	-						-	-		-	-	-	-	-	-	-	-	-
2316. By any woman	-	-						-	-		-	-	+	+	-	-	-	-	-
2317. Attendant combs girl's hair*	+	+	+		+	+	-	+	+	+	+	+	-		+	+	-	-	-
2318. Instructed about conduct															+		+	+	
2319. Girl may not eat meat or grease (days)	+	10	5?	5	5	5	30	5	30		30	30	30	30	30	30	10	6	5
2320. Fish	+	10	-		-	-	?	-	30		30	-	30	30	30	30	10	6	5
2321. Salt	-	-	-	-	-	-	-	-	30		30	-	-	-	-	-	-	-	-
2322. Cold water*	+	10	-	?	+	-	+	-	5		30	30	-	30	14	30	-	-	-
2323. Talk	-	-	-	-	-	-	-	-	-		-	+	-	-	-	+	-	-	-
2324. Laugh						-	-	-	-		-	+	-	-	-	+	-	-	-
2325. Be visited															-	+	-	+	-
2326. Look at people	-	-	-	-	-	-	-	-	-		-	-	-	-	-	+	-	-	-
2327. Scratch self with fingers*	+	+	+	+	+	+	+	-	+		+	+	+	+	+	+	+	-	?
2328. Comb hair	+	+	+	+	-	+	+	-	+		+	+	-		+	+	-	-	-
2329. Girl must arise early*																+	+	+	-
2330. Run daily*	6	5	5	-	+	+	+	-	+		+	+	-	-	+	+	-	(+)	-
2331. Carry firewood*						+	+	+	+		+	+	+	+	+	+	+	+	-
2332. Work hard	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	+	-
2333. Veil self when outside	-	-	-	-	-	+	?	-	-		-	-	-	-	-	+	-	-	-
2334. Wear basket hat outside				+	+	-	+	-	-		+	-	-	-	-	-	-	-	-
2335. Use scratching stick (days)	+	+	+	+	+	5	30	-	30		30	30	30	30	30	30	10	-	-
2336. Use drinking tube	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-
2337. Avoid hunters	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	-	+	+
2338. Avoid sick	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	-	+	+
2339. Avoid all men	+	+	+	+	+	+	-	+	+			+			-	+	-	+	+
2340. Bathe daily	-	-				-	+	-			?			-	+	-	-	-	-
2341. Bathe twice daily	-	-				-	-	-	-			+		-	-	-	-	-	-
2342. At end of confinement girl bathes	+	+	+	+	+	+	+	+	+		+			-	+	-	+	+	+
2343. Hair is cut	+	+	-	-	+	+	+	-	-		-	+	+	-	-	-	-	-	-
2344. Girl painted red*							+	-	+			+		+	-	+	+	+	+
2345. Clothes destroyed	-	-	?	-	+	+	+	-	-		+	+	+	-	+	+	-	-	-
2346. Clothes kept for future menses																		+	+
2347. Gets new clothes*															+	+	+	+	+
2348. Deloused by mother	-	-	?	-	+	-	+	-	+			+	?	+	+		+	-	-
2349. Deloused by attendant	-	-		-	-	+	-	-	-			-		-	-		-	-	-
2350. Wears sage leggings*																+	+	?	-
2351. Scratching stick: wood	+	+	+	+	+	+	+	-	+	?	+	+	+	+	+	+	+	-	-
2352. Single	+	+	-	+	+	+	+	-	+		+	+	+	+	+	+	+	-	-
2353. Double	-	-	+	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-

[illegible]

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtIM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2453. Annual Mourning Ceremony . .	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2454. Held in spring	+	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2455. Held in fall	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2456. For all year's dead	+	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2457. Leader is band chief	+	+	+		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2458. Dancing	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2459. Singing	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2460. Mourning songs	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2461. Singers given property . . .	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462. Oratory	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2463. Property for deceased*: clothes .	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2464. Valuables	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2465. Hung on pole	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2466. Burned	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2468. Mock battle	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELIGION																			
Shamanism																			
2469. Men are shamans	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
2470. Women are shamans	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)			(+)	(+)	(+)	(+)	(+)	(+)
2471. Shamanistic power received when child	+	+	+	+	+		+		+	+	+			+	+		+	+	+
2472. Any time	+	+	+	-	-		-		-	-	-			-	-		-	-	-
2473. Power inherited from father*. . .						+	-?	+	+	+	+			+	?		+	+	-
2474. Mother																	(+)		
2475. Before relative's death . . .						?	?	-	+	+	+			+			+		-
2476. After relative's death . . .						?	?	+	-	-	-			-			-		-
2477. Source of power in natural dreams, unsought	+	+	+	+	+	+	+	+	+	+	+			+	+	?	+	+	+
2478. Sought in mountains	-	-	?	-	-									-	-		+		-
2479. Sought in cave	-	-		-	-	?	+	+	+	-	-			-	-	-	-	-	-
2480. Sought through jimsonweed . .	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2481. Shaman called to interpret vision .									+					-		+		+	-
2482. Shaman called to supervise youth. .	+	+	-	+	+			+	+		+			-		-	+		-
2483. Power may be refused	-					+	+	-	-	-	-			+	?		-	-	-
2484. One doctor has several powers . .						+	+	+	+	+	+			+	+		+	+	+
2485. Vision gives songs	+	+	+	+	+	+	+	+	+	+	+			+			+	+	+
2486. Dances						?	+	+	-	+	+			+			+	+	+
2487. Paraphernalia						+	+	+	+	+	+			+			+	+	+
2488. Paint								+									+	+	-
2489. Methods	+	+	+	+	+			+	+	+	+			+			+	+	+
2490. Doctor's assistant	+	+	-	+	+	+	+	+	+	+	+			+	?		+	+	+
2491. Equipment of various doctors: stick			+	+	+	+	+	-	+	+	+			+	+		+	?	-
2492. Feathers	-	+	-	-	-	+	+	+	+	-	+			+	+		+		+
2493. Eagle-down						+													
2494. Fire						+	+	+	+	-	+			+	+		+		-
2495. Clay																	+		
2496. Dewclaw or hoof rattle . . .																	+	+	+
2497. Cocoon rattle	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2498. Flute	+			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2499. Loss of equipment dangerous to doctor						-								+			+		

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
<u>2500. Curing Performances</u> . . .																			
2501. In outdoor brush enclosure*	+	+	+	+	+		+	+	+	+	+	-		+	-		+	+	-
2502. In house						-	-	-	-	-	+			-	+		-		-
2503. Doctor sings	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+	+	+
2504. Audience joins song	+	+	+	+	+	+	+	+	-	+	+			+	+		+	+	+
2505. Doctor smokes	+	+	+	+	+	+	+	+	+	+	+			+	+		+	+	+
2506. Assistant lights his pipe																			
2507. Passes pipe to audience	+	+	+	(+)	-	+	+	+	-	+	+			+	+		-		-
2508. Passes pipe to right							+	+	-								-		-
2508a. To left						+			-								-		-
2509. Doctor talks	+	+	+	+	+	+	+	+	+	+	+			+	?		+	+	+
2509a. Assistant interprets	+	+	-	+	+	+	+	+	+	+	+			+	?		+	+	+
2510. Doctor dances	+	+	+	+	+	+	+	-	+	-				(+)	+		+		+
2511. Doctor walks						+	+	-	-	+	+			(+)			+		+
2512. Doctor sucks out of patient	+	+	+	+	+	+	+	+	+	+	+			+	+		+		+
2513. Blood	+	+		+		+	+	+	+	+	+			+					+
2514. Snake									+	+				+	+				-
2515. Flint	+	+				+	+		+	+	+								-
2516. Stick	+	+		+							+				+				
2517. Worm																			+
2518. Other or various objects	+	+	+	+	+	+	+	+	+	+	+			+	+		+	+	+
2519. Doctor sucks through: mouth only	+	+	+	+	+	+	+	+	+	+	+			+	+		+		+
2520. Stick						+	+	-	-	+	+			+	+		+		-
2521. Pipe	+	+	-	-	-	-	-	-	-	-	-			-			+		-
2522. Feather	+	+	-	-	+	-	-	-	-	-	-			-			+		-
2523. Doctor goes into trance*								-	+	+					+			+	+
2524. Doctor vomits disease object	+	-	-?	+	+														
2526. Doctor exhibits disease object	+	?	+	+	+	+	+	+	+	+	+			+	+		+	+	+
2527. Disease blown away	+	-	+	+	+	+	+	-	+	-	-			+	+		+	+	?
2528. Brushed away	-	-	-?	+	-	-	-	-	+	-	-			+	+		+	+	+
2529. Doctor sprinkles water on patient	+	+	+	-	-	-	+	-	+	-	-			+					-
2530. Blows from mouth	+	+	+	-	-														
2531. Doctor presses ashes on patient	-	-	+	+	+	-	+	?	-	-	-			?			-	-	+
2532. Doctor lays hands on patient	+	+	+	+	+	+	+	-	+	+	+			+	+		+		?
2533. Doctor touches patient with stick									+	-	-			-	-		+		-
2534. Doctor touches patient with fire drill	+	+	+	+	+	+	-	-	-	-	-			-			-	+	-
2535. Doctor handles fire*			+	-	-	-	-	-	-	-	-			-	?		+	(+)	+
2536. Places hands in fire						-	-	-	-	-	-			-				(+)	-
2537. Picks up fire						-	-	-	-	-	-			-			+		-
2538. Stands in fire						-	-	-	-	-	-			-			+		+
2539. Puts coals in mouth			+	-	-	-	-	-	-	-	-			-			+		-
2541. Shaman recovers lost soul	+	+	+	+	+	+		+	+	+	+			+	+		+	+	+
2542. Doctor's soul leaves body	-	-	+	+	-	+	?	+	+	+	+			+	+		+	+	+
2543. Patient's soul stick	+	?	-	-	-				+	+	+			+	-		-	-	-
2544. Exhibits and restores soul								+	+	+	+			+	+			+	-
<u>Special Shamans' Powers</u>																			
2545. Rattlesnake curing dream	+	-	+	+	+	?	-	-?	-	+	?	-		V	+	?	+	+	+
2546. Dream of rattlesnake	-			-	+		-	-	-	-				-			+	+	+
2547. Dream of buzzard	+	-	?	+	?	+	-	-	-	-				-			-		
2548. Handles snakes	-	-	+	-	+		-	+	+	+	+			+			+	+	+
2549. Cures by sucking	+	+	+	+	+		+	+	+	+	+			+					-
2550. Sucks out snake			+				+		+	+	-			-	+				-
2551. Wound-curing dream						-	?	-	-	-	?			-	-		+	-	-
2552. Dream of closing hole						-	-	-	-	-				-	-		+	-	-

	NP-FSp	NP-FLk	SP-Ash	S-DchV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2598. North, south, east, or west	S				E									S					S
2599. Along Milky Way									+								+		+
<u>Ghost</u>																			
2600. Leaves body at death	+	+	+	+	+	+	+	-	+										+
2601. Shortly before death	-	-	-	-	-	-	-	+	-										-
2602. Ghost visible	+	+	+	-?	-	-?	+	-	+	+							+		+
2603. Ghost audible	+	+	+	-?	-	-?	+	-	+	+									+
2604. Ghost feared	(+)	(+)	(+)	(+)	(+)	-	-	?	+	+							-		
2605. Ghost in whirlwind*		+	+	+	+	+	+	+	+	+							+		+
2606. Dream of dead is ill omen	+	+	+	+	+	+	+	+	+	+							-		+
2607. Cold bath to nullify*	+	+	-	-?	+														
2608. Pray to nullify*	+	+	-	?	+														
2609. Blow smoke to nullify	-	-	-		+														
<u>Jimsonweed</u>																			
2610. Eaten to find lost objects*			+			R	-	R	R	R	-	-	-	R?	-	-	-	-	-
2611. For weakness in winter					+														
2612. For spirit vision*			+																
2613. For "second sight"	+	-	+	-	-														
<u>DANCES</u>																			
2614. Circle Dance*	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2615. Brush corral	+	+	-	+	+	+	+	-	+	+	+	+		-	-	+	-	-	-
2616. Times performed: at fall rabbit hunt	+	+	-		+		+	+	+	+	+	+		-					-
2617. Fall pine-nut harvests	+	+	+	+	+		-	+	-	+	+	-		+	+	+	+		+
2618. Spring			-	-	-		-	+	+	+	+	+	+	(+)	+	+			-
2619. Summer			-	-	-		-	+	+	+	+	-		-	+	+	+		-
2620. Purpose: mainly pleasure	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2621. Make seeds grow																	+	+	
2622. Make pine nuts grow											+				+				
2623. Produce rain							+	+	+	-	+	+		+	+		+	+	-
2624. Bring deer														+					
2625. Mourning ceremony	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2626. Center post to dance around			-	-	-	-	+	+	?	+	-	-		+	+	+	+	+	+
2627. Dry cottonwood			-	-	-									+					
2628. Pine-nut tree*			-	-	-									+	(+)				
2629. Juniper tree			-	-	-				(+)								+		
2630. Music: all dancers sing	+	+	+	+	+	+	+	+	-	+	+	+		(+)	-	-	+		+
2632. Split-stick rattle	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2633. Drum	-	-	-	-	-	-	-	-	-	-	-	+	?	-	-	-	-	-	-
2634. Number of special singers*			3+	2+	-	V		1	1+	1	2+	V		V	1	1	1	1	
2635. Dancing: women choose partners . .	(+)			+	+	-			+	+	-	+		-	+	+	+		+
2636. Men choose partners	(+)			+	-	+			(+)	-		-				-	-		-
2637. Dance in one circle									+										
2638. Dance in two concentric circles								+	?		+	-		-	+	+	+	-	-
2639. Sexes alternate			+		+	+	+	+	+		+	+		+	+		+	+	+
2640. Shuffle step				+	+							-			+	+	+	+	+
2641. Hopping step	+		+									+							
2642. Dance clockwise			-	+	+	+	+	-	+	-	+	+		+	+	+	+	+	+
2643. Dance counterclockwise			+	-	-	-	+	+	-	+	(+)	-		-	-	-	-	-	-

	NP-Fsp	NP-Flk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2644. Dance leader: special chief*	-	-	-	-	-	-	+	-	-	-	-	-	(+)	+		+	+	+	+
2645. Band chief *	+	+	+	+	+	+	?	+	+	+	+	+	(+)	-		-	-	-	-
2646. Messengers carry invitations							-						+	+		-			+
2647. Additional features: occasion for courting	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2648. Occasion for public mourning	+		+	+	-							-							-
2649. Clowns																	R		+
2650. Duration (days)*			3+		5		5			5	5	5		5	5	5	5	5	3+
2651. Camp circle									(+)								+		
2652. Bear or "Back-and-Forth" Dance	-	-	+	-	-	-	-	+	+	+	+	+		+	+	+	-	-	-
2653. Number years ago introduced	-	-	?	-	-	-	-	R	40	20	20	30		35	30	R	-	-	-
2654. Corral of brush	-	-	-	-	-	-	-	-	+	+	+	+							-
2655. Musical rasp	-	-	A	-	-	-	-	+	+	+	+	+				+	+	-	-
2656. Resonator: wash tub	-	-	?	-	-	-	-	+	+	+	+	-				+	+	-	-
2657. Resonator: board	-	-	?	-	-	-	-	-	-	-	-	+				-	-	-	-
2658. Gourd rattle *	-	-	B	-	-	-	-	-	-	-	-	-	-			-	-	-	-
2659. Number musicians	-	-	V	-	-	-	-	2+	V	V	V	V				2+	2	-	-
2660. Dancing: women choose partners— touch with stick	-	-	A	-	-	-	-	+	+	+	+	+				+	+	-	-
2661. Men pay partners	-	-	-	-	-	-	-	+	+	(+)	-	?	?			-	?	-	-
2662. Dance in lines	-	-	AB	-	-	-	-	-	+							+	+	-	-
2663. Dance in couples	-	-	-	-	-	-	-	+	+	+	+	+				-	-	-	-
2664. Whip to make dance	-	-	+	?	-	-	-	-	-	-	-	-				-	-	-	-
2665. Chief urges dancers with stick	-	-		-	-	-	-	-	-	+	+	-				-	-	-	-
2667. Stop dance at fall	-	-	A	-	-	-	-	-	+	+		+				+	+	-	-
2668. Rub fallen person with rasp	-	-	-	-	-	-	-	-	+	+	+	+				+	+	-	-
2669. Cover fallen person with blanket	-	-	A	-	-	-	-	-	-								-	-	-
2670. Held same time as Circle dance	-	-	A	-	-	-	-	+	+	+	+	+				+	+	-	-
2671. Held at mourning ceremony	-	-	A	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
2672. Same chief as Circle dance	-	-	+	-	-	-	-	+	+	+	+	+		+	+	+	-	-	-
2673. Duration (days)	-	-	V	-	-	-	-		5	5	5	5				2	5	-	-
2674. "South" or Exhibition Dance	+	+	+	+	+	+	+	+	-?	+	+	+	?	?	+	+	+	+	+
2675. Pre-Caucasian	+	+		+		+	+	?	-	-	-	?	-			+	+	+	+
2676. Number years ago introduced	-	-		-				40	-	40	?					-	-	-	*
2677. Dancers' paraphernalia: eagle-down head ring	+	+	-?	(+)	+	+	+	?	-	+	-?					-	-	-	+
2678. Feather crown*	+	+	+	(+)	+	+	+	+	-	+	-					-	+	?	-
2679. Separate feathers on head*	-	-	-	-	-	-	-	-	-	-	-	+	?			+	+	+	+
2680. Yellowhammer band on head*	+	+	-?	(+)	-	-	+	-	-	-	-					-	-	-	-
2681. Yellowhammer band on chest	-	-	-	?	-	+	-	-	-	-	-					-	-	-	-
2682. Feather necklace	+		-	-	+	+	+	-	-	+	-	-				-	-	?	-
2683. Eagle-down rope skirt*	+	+	-	+	+	+	+	-	-	+	-	-				-	-	-	-
2684. Breechclout	-		+		+	+	+	+			+	+				+	+	+	+
2685. Wildcat fur hung on belt	-								-							+			
2686. Fox fur hung behind on belt*	-								-		+					+	+		+
2687. Barefoot *	+			+	+	+	+	-	-	+	+	+				+	-		+
2688. Carry feathers in hand*	+	+	-?			+	+	+	-	-	-	-				-	-?	-	-
2689. Carry bow and arrow*	(+)				+				-							+	+		
2690. Carry mock bow and arrow*									-									+	+
2691. Dancers paint face	+			+	+	+	+	-	-	+	+	+				+	+	+	+
2692. Body	+			+	+	+	+	-	-	+	+	+				+	+	+	+
2693. Music (number musicians)*	4			2+		V	V	1	-	V	-	-				3+	-	+	-

	NP-FSp	NP-FLK	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2694. Split-stick rattle	+			+	+	-	+		-	+	-	-		-	-		-	-	
2695. Skin rattle	-			-	-	+	-		-	-	-	-		-	-		-	-	
2696. Rap bundle of thin boards	-			-	-	-	-		-	-	-	+		-	-		-	-	
2697. Strike two sticks together	-			-	-	-	-		-	-	-	-		-	-		+	+	
2698. Weaselskin necklace	+	-		-															
2699. Dancing: individuals perform separately	+	+	+	+	+	+	+	+	-	+	+	+		+	+	+	+	+	
2700. Pretend to shoot spectators	+				+	+			-					+	+		+	+	
2701. Number of dancers	V	V		10	10	4	10	1	-	1	10	10		10	10		6	10	
2702. Dancers are: men	+	+	+	+	+	+	+	+	-	+	+	+		+	+		+	+	
2703. Women				-	-	-	-	-	-	-	-	+		+	-		-	-	
2704. Visitors				+	+	+	+		-	+	+	-		-?				-	
2705. Pay to dancers from hosts	+			+	+	+	+		-	+	+	-		+	+		+	+	
2706. Coins held in split stick				-					-			-			+		+		
2707. Property spread on blanket				+	+				-			-			+				
2708. Dance performed at time of Circle dance	+	+	+	+	+	+	+	+	-	+	+	+		+	+	+	+	+	
2709. At midnight, one night									-					+					
2710. In afternoon, one day									-						+	+	+	+	
<u>Crazy Dance</u>																			
2712. Special singers	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2713. Dancers in line, men one end, women other	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2714. Dance back and forth and sideways	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2715. Sun Dance	-	-	-	-	-	-	-	-	-	-	-	(+)	-	(+)	-	-	-	-	
2716. Ghost Dance	+									+							+		
2716a. Circle dance	+									?							+		
2717. Shaman by center post	?									?							+		
2718. Dead return to post	?									?							+		
2719. Duration of dance (nights)	?									?							5		
<u>MISCELLANEOUS</u>																			
<u>Calendar</u>																			
2720. Descriptive month names	+	+	+	+	+	+	+		+					+	+	+	+	+	+
2721. Number of month names	12	12	12	?		12	12		12					12	12	12	12	12	12
<u>Astronomy</u>																			
2722. Milky Way named			+			+	+									+			+
2723. Dust road	?	?				+	?												
2724. Smoke from fire	?	?				-	?		+										
2725. Sky path	?	?	+			-	?												
2726. Thunder: pregnant women cover selves	+		?			+		-	+			+							
2727. Position of new moon indicates weather	+	+	+	+	+	+	+	+	+										+
<u>Whirlwind</u>																			
2728. Is spirit or ghost	-	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+

	NP-FSp	NP-FLk	SP-Ash	S-DthV	S-Bty	S-Lida	S-GSmV	S-SmCr	S-RsRi	S-Mor	S-Hmlt	S-Ely	S-SprV	S-Elko	S-Egan	S-RubV	S-SnRv	S-BtLM	NP-MC
	FS	FL	SM	Sa	Sb	Sc	Sd	Se	Sf	Sg	Sh	Si	Sj	Sk	Sl	Sm	Sn	So	MC
2729. People hit with stick	-	-	-	-	-	+	-									+			
2730. People throw water at it	-	-	-	-	-											+			
<u>Omens</u>																			
2731. Twitching back muscle: someone will die	-	+	-		+	+	+										+		+
2732. You will carry a deer	-	-	+		-														
2733. Twitching leg muscle: someone is coming	+	+	+		+	+	+					+					+		+
2734. Sneeze: someone talking about you .												+							
2735. Opposite sex talking of you .	+	+	+	?	?		+										+		+
2736. Bird calls omens of death: owl . .	+	+	+	?	+	+	+	+				+					+		+
2737. Magpie																	+		+
2738. Crow																	+		+
2739. Dove	+							+				-					+		+
2740. Meadowlark				+	+														+
<u>Various</u>																			
2741. Point at rainbow, finger rots . . .	+	+	+	+	+	+	-					+					+		
2742. Worm causes toothache					+	+		+		+				-					

ELEMENTS DENIED BY ALL INFORMANTS

[The elements have the numbers which they would have had if they had been retained in the tabular list. "Denied by all informants" means "by all informants asked."]

SUBSISTENCE

Hunting

Deer.—(8) Driven into trap, net, or snare. Communal antelope hunt.—(53) Messengers to antelope. Other antelope hunting.—(68) Driven over cliff. Mt. sheep hunting.—(82) Driven into trap, net, or snare; (83) through V-fence. (91) Magic. Snares, nets, etc.—(106) Spring-pole trap for waterfowl. (111) Running noose for deer. (119) Deer net. (141) Basketry traps. (146) Deadfalls for large mammals. Decoys and disguises.—(178) Live birds. (179) Live animals. Waterfowl drives.—(199) Individual drive for mud hens. Miscellaneous.—(222) Flares for fowl. Eagle catching.—(233) Caught from pit with bait. Fishing.—(283) Two-bark hook.

Food Preparation

(542) Meat mixed with berries. (552) Fish pulverized.

HOUSES

Dwelling

Domed wickiup.—(613) Fire in shallow pit. Tri-pod or conical house.—(616) For summer. (631) Cover of mats; (636) stone slabs. Gabled house.—(655) For summer. (665) Twined-bark mat cover. (671) Door flush with wall. (674) Pit fireplace inside.

Sweat House

Wickiup type.—(690) Covered with mats. Gabled type.—(724) Door flush.

NAVIGATION; FIRE MAKING

(772) Pole raft. (791) Bow drill.

MISCELLANEOUS IMPLEMENTS

Mortar and pestle.—(822) Used with basket hopper. (823) Wood pestle. Metate and muller.—(845) Muller used with rotary motion. Spoons, dippers, etc.—(849) Dipper of wood; (850) gourd. (865) Steatite bowls. Various.—(898) Adz. (899) Wedge. (900) Stone ax.

SKIN DRESSING

(932) Done by women.

WEAPONS

Arrow.—(990) Gall for arrow poison. Miscellaneous.—(1027) Armor. (1030) Dagger.

BASKETRY; CORDAGE; POTTERY

(1047) Whole feathers applied as basket decoration. (1185) Buckskin cordage material. (1202) Pottery construction: rings of clay.

MUTILATIONS; DRESS AND ADORNMENT; GARMENTS

(1283) Most females bored ear lobes. (1311) Tattoo when child. (1317) Tattoo on body. (1318) Head deformation. (1376) Men's hair: front lock sticks up. (1394) Mud used against lice. (1395) Braids fur wrapped. (1402) Depilation of pubic hair; (1403) by stone flake. (1405) Shaving. (1416) Man's fur cap of beaver. (1454) Women's long gown: sleeves fringed. (1519) Fur leggings. (1548) 1-piece skin moccasin knee height.

GAMES

Ball race.—(1584) Puck a wooden stick. (1590) To win, runner gets to goal. (1593) Referee. Shinny.—(1603) Goal a single post and ring. Hoop and pole.—(1631) Tule-ring hoop. (1637) Course at one end. (1650) Played by women. Hand game.—(1674) Play with 8 sticks. 4-stick guessing game.—(1704) Counters. Many dice or basket dice.—(1756) 13 reds up scores. Snow snake.—(1833) Stick bounced off snow pile.

TOBACCO AND SMOKING

(1898) Tubular pipe bowl of wood.

MARRIAGE; KINSHIP RELATIONS

(2026) Sororal polygyny necessary. (2054) Mother-in-law son-in-law: speech taboo. (2060) Mother-in-law daughter-in-law: speech taboo; (2063) passing in front of taboo. (2067) Father-in-law daughter-in-law: speech taboo; (2070) passing in front of taboo. (2074) Father-in-law son-in-law: speech taboo; (2077) passing in front of taboo. (2080) Brother-sister avoidance. (2082) Brothers-in-law avoidance; (2083) avoid obscenity.

BERDACHES OR TRANSVESTITES

(2097) Male: social restrictions. (2103) Female: has male organs; (2105) lives with woman; (2106) is shaman; (2107) social restrictions. (2108) Regarded disapprovingly; (2109) regarded indifferently.

WARFARE; BIRTH CUSTOMS

(2176) War ritual. (2255) At a birth, father may not eat salt. (2279) Father's requirements observed at birth of 1st child only.

GIRL'S PUBERTY; BOY'S PUBERTY

(2363) At subsequent menstruations women may not eat salt. (2379) Boy confined; (2380) uses head scratcher.

DEATH CUSTOMS; RELIGION

(2445) Male relatives abstain from meat during mourning. (2467) Image of the dead used at annual mourning ceremony. (2540) Slight-of-hand employed in curing performances.

ETHNOGRAPHIC NOTES ON THE ELEMENT LIST

(Note numbers correspond to element-list numbers.)

SUBSISTENCE

Hunting

Deer

1. S-BtLM: one man frightens deer out of brush to hunters.

6. S-RubV: relationship of pit to enclosure not clear, but may have consisted of V-fence and pit. Deer drawn into it by shaman who sang.

10. NP-FLk: night before hunting, dogs were bathed and their faces painted with red stripes (but hunters had no ritual for selves). S-BtLM: dogs drove deer out of brush at their owner's commands. NP-MC: native dogs very rare and too small to hunt anything larger than squirrels and ground hogs. Bonneville reported that among Shoshokoes (probably N Paiute) at mouth of Powder R. on Snake R., children used dogs to hunt small game (Irving, 1:333-334).

12. S-Egan, S-Mor: antelope shamans could also charm deer.

14. Pit variously used as a blind. S-BtLM: dug beside game trails over which deer driven. Not used near springs because one "could not know from which direction deer would come to water." S-SnRv: used beside trails on which deer travel S in fall. Simpson (p. 70) wrote of an arrangement in Pah-hun-upe V. (somewhere near Humboldt R. in Shoshoni territory) which is a "couple of brush-fences or barriers converging to a narrow pass and a large hole in this last portion. Pete says they are to guide deer near the hole, in which the Indian hides himself and shoots them as they pass with bow and arrows at night, a fire being used as a lure."

18. S-SnRv: hunter (duhuyu, deer, hont, one who does) trails deer for 2 days; when it begins to tire and leaves trail to hide, hunter, knowing its habits, tries to head it off. Large deer may "walk on its toes so that its tracks appear to be those of small animal."

20. NP-FLk: deer's sense of smell so acute that could not be deceived by disguise (MH). S-SnRv: deer would kill man in deer disguise (CT).

23. S-SnRv: after deer killed with poisoned arrow, hunter talked to animals used to make the poison—horned toad, red ants, a fly, and a beetle—telling them not to poison him, then "blew away" the poison. This is called mavocitai.

25. Where shaman performs, he is chief.

27. S-Lida: plant mixed with deer manure and placed on deer trail. S-SnRv: disclaimed deer magic, but said some Shoshoni in Nevada put angawansonip (red grass) on deer trail and talked to buiyuhü (some substance ?) to attract sage hens, but such people did "not last long," being somehow destroyed by this practice. S-BtLM: hunter put angawanasonip straws into 1st fresh deer tracks, urine, or manure he found; following deer trail, he would soon find deer dead.

Communal Antelope Hunt

28. TP said North Fork Shoshoni lacked antelope corrals and shamans, hunting instead on horseback in relays. Antelope formerly very numerous. S-SnRv: CT had heard of people from S (near Elko) who entered Owyhee region in summertime and used an antelope corral and shaman. Snake R. Shoshoni had few antelope; these were hunted in native times on foot with bow and later on horseback. But Bonneville in 1832 saw women at mouth of Powder R. on Snake R. in Oregon (called Shoshokoes; in recent times this N. Paiute country) make sage fences 3 ft. high with single opening enclosing about 100 acres. Women concealed selves behind fence; when antelope inside, men took turns chasing them around until they were exhausted and could be killed with clubs (Irving, 2:337).

29. S-Elko: corral always built by shaman; often of small stones laid in circle 50 ft. in diam. Charmed animals would not step over it. If timbers available however, fence 7 ft. high might be built. Corral wings 3 mi. long, of juniper brush. S-SmCr: corral ca. 2 ft. high. Everywhere, opening was on side from which antelope were to come.

30. Sarah Hopkins described similar corral among Humboldt Lake N Paiute (p. 55).

31. S-SprV: wings 1/2-mi. long.

32. Shamans were men in all instances except one: BM knew of old woman shaman in Butte V. S-Elko: may have had 2 antelope shamans, though each locality usually had only 1 and some localities had none.

34. NP-MC: shaman's assistant fills his pipe and talks for him.

38. Among Humboldt Lake Paiute (Hopkins, p. 56) stuffed tapered hide wrapped with rope, was rubbed with stick, like musical rasp.

40. Short stick, painted red, held aloft by the shaman as he sings.

42. Record also by Sarah Hopkins (p. 56) among Humboldt Lake Paiute.

44. S-SprV: all people hold sticks pointed toward hole in center of corral. Pine Cr. and Diamond V.: had 4 chiefs and several girls who assisted in singing (SF).

48. S-Hmlt: dance only 1st night. Painted young women dance.

50. If anyone loses anything while building fence, antelope's spell will be broken so that they will escape through that place. Also, among Humboldt Lake Paiute, stumbling, any accident, or failure to keep one's mind on antelope broke spell where this happened (Hopkins, pp. 55-56).

52. S-SprV: shaman bathes 5th night, after singing. Pine Cr. and Diamond V.: shaman sang 3 nights (SF). Sarah Hopkins gives 5 nights for Humboldt Lake Paiute (pp. 55-57), but CTh gave 1 night for NP-MC.

53. Sarah Hopkins (pp. 55-57) says among Humboldt Lake Paiute, 2 messengers, carrying sage-bark torches and pipes, make ceremonial circuit of antelope every day for 5 days. CTh did not know about messengers.

55. S-Egan, S-RubV: 4 or 5 men drive antelope.

56. Antelope said to be irresistibly drawn so that driving unnecessary. S-SprV: antelope attracted at night, during the singing, toward corral, into which they are driven final day.

60. NP-MC: although it is not necessary to kill the 1st antelope shot at, 1st one killed must be cooked and eaten in general feast before others are skinned, otherwise antelope will not enter corral following year. S-Elko: shaman shoots all antelope.

Other Antelope Hunting

61. S-SnRv: only expert hunters said to be able to crawl up to antelope with their bows and arrows, because antelope tended to remain in open where they could see in all directions.

62. S-SnRv: antelope tended to run in large circle and hunter pursuing them on foot took them by heading off their leader.

74. S-BtLM: JP's father used cloth painted to resemble skin. NP-MC: painted hunter's arms to resemble antelope's leg. Among Humboldt River Shoshoni, Remy and Brechley, traveling in 1861, said antelope hunter wears mask of antelope head with horns. He puts on some red cloth and "attracted by curiosity, the antelope approach within bow or gun shot" (pp. 128, 156). Antelope-skin disguise for hunting antelope with bow observed by anonymous traveler at Antelope Spring, somewhere E of Ruby V., in 1854 (Eventful Narratives, p. 97).

Mt. Sheep Hunting

80. S-BtLM: dogs, directed by hunter's motions, drove sheep over cliffs.

81. Reported only at S-Egan. Corral, of mountain mahogany sticks sloping inward in circle about 100 ft. in diam., is near spring and has wings. There is said to be one on mountains W of Neff ranch in Ruby V.

84. S-BtLM: stalked sheep from above, on cliffs. S-DthV: shot sheep with poisoned arrows.

85. Attract by pounding. S-Lida: done in November, when rams were fighting, hunter concealing self in pit. S-RubV: hunter hides in hole, where he has built fire to keep warm. NP-MC: struck rock with moccasin to attract sheep.

Communal Rabbit Hunt

92. SP-Ash: thought rabbits had been driven with fire; nets not used. S-Elko: 8 or 10 men drove rabbits onto trails where they ran into small nets propped up on sticks.

92a. S-Egan: 4-8 nets. S-Hmlt and Duckwater Shoshoni: 20-30 nets. S-RsRi: 3 or 4, each 3 ft. high. These lengths of each section of net were given: S-DthV, 200 ft.; S-BtLM, 600 ft.; NP-MC, 600 ft.; S-SmCr, 10 ft.; S-Egan, 20 ft. S-BtLM: nets supported at their ends by posts in between which they were propped on lighter sticks.

98. NP-FSp, NP-FLk: director is any competent hunter. Elsewhere, generally a special man who always undertook the task.

99. "Month" entered as 30 days in List. These durations were also given: NP-FSp, 2-3 days; NP-FLk, 4-6; S-Hmlt, 30-45; S-Egan, 30; S-RubV, 2-4.

Snares, Nets, Etc.

100. S-SnRv: called huja (sage hen) nuəp:.

102. S-Elko: used during August.

109. NP-MC: for rabbits only when they are sufficiently numerous to make a trail.

114. TS quoted his grandfather that a Paiute man had tried this near Black Rock, in Owens V., the noose of spring-pole trap being set in opening in rock fence. He thought it had not worked.

120. S-BtLM: used both dome and tunnel shapes (entered respectively as A and B in List).

127. S-Bty: caught eagles in net propped up beside spring and fastened to log.

130. NP-MC: used some form of horizontal net propped up on sticks; sagebrush wings converged to its opening.

131. S-Elko: this was done in August.

134. N Paiute at Fallon, Nevada, but not S-SmCr, used net for ducks. Diamond Valley Shoshoni placed net, like that used for sage hens, on land for ducks (SF).

136. S-Hmlt: antelope disguise also used when shooting ducks.

138. Antelope manure is smeared on the hunter to conceal human odors.

147. S-Lida: deadfalls only for coyote and wildcat. NP-MC: figure-4 type without bait set at holes of squirrels (tzip:); also used among pine-nut trees for brown bird, called kaim.

150. See also "Deer Hunting" in section, "Ethnographic Discussion." CTh said former inhabitants (non-Paiute) of Lovelock during his grandfather's day, used pitfalls for wolves and coyotes; NP-MC: did not use them. People, probably N Paiute of Dixie V., near S-SmCr, are reported in 1854 to have fenced a spring, with pit inside fence, covered with springy wire grass for rabbits; also, similar pitfalls for antelope (Eventful Narratives, p. 88).

153. S-BtLM: claimed coyotes cannot be caught by traps because they do not travel regular trail.

Booths and Blinds

156. S-RubV: called paitoni; holds 1 man; is covered with cedar boughs and earth; mainly for hunting mountain bluebird, kaiyats (feathers of this bird removed in warm water prior to cooking) JK said this structure probably used also in Kawich Mts.

157. Construction unknown.

167. S-GSmV: in some manner bird could only reach water, which was surrounded by stakes, by sliding down inclined pole which hidden hunter could reach through hole in blind.

168. S-Egan: sinew noose on stick 2 ft. long. S-RubV: BM thought this used only by Bannocks.

169. S-Hmlt: took mountain bluebird, aiyats; also large bird with white head, dogwots; also flicker, bütumitc. Flicker feathers or shafts not used for dance regalia as they were farther S.

174. N Paiute in Deep Springs V. hid in stone blinds near Deep Springs Lake to kill mountain sheep coming down to springs (JA).

176. S-DthV: built like domed house; for duck shooting.

Decoys and Disguises

180. NP-MC: used at Lovelock by Paiute, but not at NP-MC, where insufficient water for ducks.

181. S-BtlM: tied 3 decoys on long string, and pulled them slowly toward bank in Humboldt R.; ducks followed them and were shot.

182. Claimed also for N Paiute of George's Cr., Owens V. (GR), but denied at NP-FSp.

184. Though use of disguises denied in Owens V. and Death V., TSt, S-Bty, claimed to have heard of them in Owens V. GH also denied their use in S-DthV.

188. S-Hmlt: used for stalking ducks.

189. S-BtlM: hunter waiting in ambush for sage hens once saw man in antelope disguise, mistook him for antelope, shot and killed him.

Waterfowl Drives

196. Duck drives held at Lovelock but not by NP-MC. S-SnRv: held duck drives on upper Owyhee R. but not on Snake R.

Miscellaneous

201. S-BtlM: rodent skewer called punda (twist) sotoin. Simpson (p. 37) lists this, along with bows, traps and nets, as the "principal instruments of subsistence" of Shoshoni between Cooper Range and Pe-er-re-ah Range, probably near S-BtlM.

213. S-SnRv: bear not hunted formerly.

214. S-SmCr: used only for smoking cottontail rabbits out of rocks.

215. S-BtlM: or duck wing. Smoke fanned into den (called kuitsatoi, from kuip, smoke, tsatoi, fan); when rabbit ceased squealing it was pulled out by means of rodent skewer.

217. S-Hmlt: hunter always carries wing of red-tail hawk, sana kwina.

221. S-BtlM: squirrel, gopher, and young badger. On South Fork of Humboldt R., Simpson (p. 66) saw "places where the Indians have dammed up the rills to cause them to flood the habitations or holes of badgers, gophers, rats, etc., and thus secure them for their flesh and skins."

Eagle Catching

232. JP had heard of using pits around Bruneau and Jarbidge.

240. SP-Ash: eagle kept in dome-shaped brush cage and fed rabbits and meat.

241. For examples of eagle-catching power, see "Religion; guardian spirits" under "Ethnographic Discussion."

245. S-Egan and probably most other places used eagle feathers for arrows and trade. Greatest demand for them, however, was by shamans.

Raising Other Birds

246. S-Egan: procured most mockingbirds (called saiyam:) from S, though few could be found in Spruce Mts.

247. S-BtlM: sometimes kept dove (hewi) loose in dwelling to pick up seeds dropped on floor. During winter, it was put in cage with nest of rabbit fur, then released in spring.

Fishing

252. S-Egan: doubted that Steptoe Valley Shoshoni took any fish in pre-Caucasian times, unless they went S to Cave Cr. where people took fish with baskets. S-RsRi: fish were: minnows (tuumbaywi), "mountain trout" (toya, mountain; baywi, fish), and very small fish, puiwa, which lived in mountain streams.

255. SP-Ash: used dip (?) nets for some very small fish in rills in Ash Meadows.

263. NP-FLk: 1 person holds basket, others drive fish into it.

264. S-SnRv: used for catching minnows. S-SprV: called osa, name of conical seed basket. S-RubV: knew of such baskets, called wosa, but did not use them in Ruby V. where there were no fish.

265. S-Hmlt: called paywi (fish) wosa and used without any dam or weir, merely supported in stream on 2 sticks. S-Elko: called panga (fish) wosa or agai (salmon) wosa; twining is widely spaced. TP said similar basket used by North Fork Shoshoni.

273. S-Hmlt: denied fish spear, but SF claimed it for Diamond V.

278. Torch or fire disclaimed throughout area, but TP said recently introduced at Ft. Hall, Idaho.

280. NP-MC: CTh's father made hooks of handle of iron bucket procured from immigrants, and tied it with vegetable-fiber string (wiha'). He heard that Lovelock Paiute had made rabbit-bone hooks.

282. Hoffman (p. 469) reports hook of bone splinter with smaller splinter tied at end to form 40° angle, used for salmon trout in Maggie Cr., Independence Cr., and Owyhee R., all in region N of Elko.

288. S-SnRv: dried salmon eggs kept in salmon skins and soaked in water before used for bait.

289. NP-FLk: large, tough red worm, called bohovavi (bohovi, sage; wavi, worm), up to 1½ in. long, dug in winter from sage roots. S-Elko: when fishing through ice in winter, 200 small hooks put on one line, each baited with "long black worm" procured from slough; when many fish on hooks, line pulled up.

291. S-Elko: fly made of feathers.

293. Shoshoni stupefied fish in Little Lake by putting mashed root in "tule bundle ring," 10 ft. in diam., and pushing it in water. Effect on fish lasted about 1/2-hour (GG). North Fork Shoshoni: poured ground root, tooza, procured from hillsides, into streams. Fish subject to this too long have strong taste. S-BtlM: similarly used same plant, to:dzā.

Animals Eaten

297. Game of Humboldt River Shoshoni, according to Remy and Brenchley (p. 128), includes "deer, lynx, fox, wolf, minx (*Putorius bison* Lin.), white ermine, mountain sheep (*Ovis montana* Desm.), grouse (*Tetrao*), crows, magpies, ring doves, and a few other animals."

297a. S-SmCr: knew of eating dogs only among some non-Shoshoni peoples to E called tsadū' (dog) dūka (eater). Dogs rarely eaten anywhere and then only in time of famine.

298. S-SnRv: heard of eating wolf near Owyhee; said to be similar in taste to mountain sheep.

299. Coyote. S-Lida: as food and tonic. JS given some after sickness in his childhood, and recovered within 2 or 3 days.

301. SP-Ash: no bear in this region.

303. S-BtlM: JP did not like porcupine but said some people ate it.

309. S-SnRv: ate large mountain rat but not smaller species.

313. NP-FSp: right front foot of mole or gopher roasted and eaten by women who meanwhile wished or talked for children, stating number and sex desired. SP-Ash reversed this, putting gopher's foot into girl's food to insure sterility. Idaho Shoshoni forbade gophers to pregnant women for fear of causing miscarriage.

315. Buzzard. S-Hmlt: called wiūmbitc. S-SnRv: called kiāmbitc, said odor too bad to eat.

319. Hawk. S-RsRi: only small species eaten.

324. Quail. S-SnRv: called pangowo.

326. S-SprV: bull snake, gogo, and "water snake," baskogo (from pa, water), eaten.

328. NP-FLk, S-Bty: ate only large blue lizard. S-Hmlt and S-SprV: ate lizard called bogojia.

331. S-DthV: chuckwalla caught while feeding in early morning or pulled from rock crannies by means of reptile hook (element 205). These were sometimes traded to neighboring localities where they did not occur but were relished. S-SmCr: procured them occasionally for medicine against inflammation. S-Elko: procured lizard of an unknown species from S for use on skin injuries and sores; BG now has some of this, pulverized.

334. S-Hmlt: mud hen called saya.

337. NP-FLk, NP-FSp, S-Bty, and SP-Ash: called piūga. In Owens V. these were the caterpillar of the moth, *Coloradia pandora*, occurring on *Pinus jeffreyi* in Sierra Nevada Mts. (see Steward, 1933, 256), but elsewhere they lived on brush and were probably different species; no specimens were collected. NP-FLk: ate another species which lived

on ground near certain bushes and was called tsagwano i. S-RubV: prepared such caterpillars by removing their heads, roasting them in coals.

338. Pupae of fly, *Ephydra hians* Say., which breeds in Owens Lake and was called cuija'vi, NP-FSp; inada, S-DthV. Shoshoni said 2 other species of pupae procured in Owens Lake: pisa'wada, which resembles first but is white, and üviēta, which resembles small seeds.

339. Procuring and preparing ants, a large black species called ani'ⁱ, was described by S-RsRi as follows: dug from nest in early morning while still cold; dirt winnowed out in basket; killed with coals in parching tray; entire ants ground on metate; boiled into mush.

341. NP-FSp, NP-FLk: tubercular person ate 3 or 4 live red ants; vomited next day; if ants alive, he would live; if dead, he would die. S-Ely: eaten as tonic when person thin.

343. S-Elko: ate eggs of yellow jacket, pena.

344. S-BtlM: cicadas gathered from bushes in early morning into conical basket; parched in coals which burned off legs and wings; dried and ground on metate; could be stored for winter. Called: kūa, S-Lida, S-SnRv; gūa by other Shoshoni. S-SnRv: same preparation as that for cricket (element 348) but did not store them. In February, 1826, Ogden noted absence of large game on Snake R. below Malad R. and found Indians eating locusts and ants which they had stored in summer (Oregon Hist. Quart., 10:354).

348. Cricket called: maico', S-SmCr, S-RsRi, S-Egan, S-RubV; me:s", S-SnRv. S-BtlM: gathered into conical basket before sunrise; same preparation as for cicada (note 344). S-SnRv: scooped into conical basket in early morning; thrown into pit from which fire had been removed; covered with grass; when roasted, insides removed by pulling off head; legs pulled off; dried; ground; stored in buckskin bags for winter use. S-Elko: drove them into fire; then dried and ground them.

352. Grasshopper. S-RubV, S-SnRv: called a:tiŋ. S-BtlM: eaten only when hungry; thrown into grass fire and eaten when turned red.

355. S-SnRv: eviscerate by pulling off head.

Animal-Food Taboos, Etc.

362. S-GSmV: also rabbit and sheep hearts. SP-Ash: taboo only to women.

363. S-RsRi: flesh along inside of backbone and tubes of lungs also taboo. May eat these only after marriage and birth of both boy and girl. NP-FLk, NP-FSp, S-Lida, S-GSmV, S-SnRv, S-RsRi: heart taboo to young persons lest it weaken their hearts.

369. S-RsRi: youth eats only a little.

370. S-BtlM: only heart, liver, etc., taboo to boy.

375. S-RsRi: parents eat only small amount. S-SnRv: taboo until after birth of both boy and girl.

378. S-Hmlt: this distribution called nanahoin (from nanagat, giving). A little given to each household in village. S-Elko: hunter gives por-

tions most often to aunts, uncles, and relations by marriage, especially mother-in-law to whom he must take some even though she may live 20 mi. away.

Miscellaneous Concepts

396. NP-FLk: bones of deer and other large-game animals burned. S-Bty: deer had to be carried so far that the bones were never brought home by hunter.

Gathering

Acorns

410. Little Lake Shoshoni gathered acorns from eastern slope of Sierra Nevada Mts., pounded them in mortars, leached them in sand craters which were recently lined with sacking, boiled them into mush adding meat if available.

412. S-Bty: acorns roasted in pit from which fire had been removed, then ground and boiled into mush.

Mesquite

415. S-DthV: Coville says (1893) mesquite (*Prosopis juliflora*) was gathered in autumn, the pods cached until spring, then pounded, the flour sifted and made into loaves. Little Lake Shoshoni: boiled young beans (like done with modern string beans); ground older, ripe pods in deep wooden or stone mortars and sometimes ate the flour uncooked (GG). SP-Ash: sifted flour through basket, made it into paste, and moulded it into uncooked cakes which were stored in ground; pieces broken from cakes and eaten.

424. S-DthV: stored in bag in cave.

Miscellaneous Plants

433. Most important seed in S half of this area was sand bunch grass (*Oryzopsis hymenoides*), called wai, which was pulled by hand, dried, seeds knocked into basket, then winnowed. Other seed plants and their distributions have been given (Steward, 1938).

434. S-DthV: Coville (1892) reports use of prickly pear (*Opuntia basilaris*), called ná'va, the joints formed by the season's growth being dried and later boiled or steamed in large, rock-lined pits. S-RsRi: used round (barrel?) cactus, müza, and prickly pear, wo:gaibi. S-SnRv: occasionally ate species called müts, removing needles by burning or rubbing on rock and roasting it.

437. SP-Ash: used bundle of stems to brush off needles.

442. Coville (1892, 356) says S Paiute procured mescal, which does not occur in Death V., at Charleston Mts. He saw stone-lined pits, 1-3 ft. deep, 6-20 ft. in circumference, where, with some ceremonies, the short, thick plant axes and leaf bases were steamed for 2 days.

Pine Nuts

444. Dutcher (1893) observed in Panamint V. region a pine-nut pole 1 in. in diam., 6 ft. long, stripped of bark and having a branch 6 in. long at one end, bound with a thong to prevent splitting, which served as hook.

451. S-RubV: stored no pine nuts in mountains. NP-MC: covered them with rocks and boughs but dug no pit.

454. Panamint Valley Indians (Dutcher, 1893) dried cones in huge brush fire, pounded them on rock with another small rock, twisted the cones, shook nuts out, then winnowed out leaves and chaff.

456. Hoffman (p. 473) reports pine-nut caches of stone circles, 2-4 ft. in diam., between Eureka and Belmont; he thought birds and animals got into caches more often than their owners.

467a. Pine nuts, like game, were offered to the "country" to prevent sickness; offering called tuba (pine nut) dü (?), S-Hmlt.

Miscellaneous Plant Foods

471. Cane sugar called: hu:gabi, S-SmCr; huga-piha, S-Hmlt, S-SnRv; wükwükhobiha, NP-MC. S-SnRv: procured near Bliss, Idaho; cane boiled down. S-RubV: cut cane in springtime, dried it, then scraped the sugar off into basketry bowl.

475. S-Elko: called suhuvi (willow) ha (sugar); it is sap exuded where insects have bitten tree. S-SnRv: procured willow sugar from Elko people.

477. S-SmCr: pitch, called sanako'o, from pine-nut trees, wa:pi'i. S-Hmlt: gum called sanako (probably pitch).

479. NP-FSp, NP-FLk: milkweed boiled down; also, nodule on roots of plant, kutsohonobi, which grows near Fish Springs. S-Lida, S-GSmV: called muguri canakum; is gum from some low-growing plant not definitely known to be rabbit brush.

480. NP-FSp, NP-FLk: bark from rabbit-brush root. SP-Ash: from bottom of brush called tavap (probably rabbit brush). Rabbit brush called: sivepi'i, S-SmCr; siwəp:, S-Elko, S-Egan, S-SnRv; sigəp'i, NP-MC. Bark from root is chewed until gum forms.

Gathering Implements

485. Called bodo (stick), S-RsRi, S-Mor, S-Hmlt, S-SprV, S-RubV; or dünambi (mountain mahogany, an extremely hard wood) bodo; or duhabodo (duhavi, serviceberry), S-Elko, S-Egan. S-BtIM: used dead wood, as green wood wears out too rapidly. SF, Diamond V., made a specimen of green mountain mahogany wood for Peabody Museum of Harvard University, 3½ ft. long, unusual in having point at each end; for digging roots, burrowing animals, potter's clay, etc. The only shovel-like implement was reported by S-RsRi: a flat piece of juniper, wider at one end, called wo:gwa:.

488. S-SprV: made stick with deerhorn point an

crooked deerhorn handle; this seems to have been a "walking stick," not digging stick. TS said NP-FSp hunters always carried a stick when in mountains to facilitate climbing steep hills.

495. S-Hmlt: used mountain mahogany or serviceberry.

499. Little Lake Shoshoni: used seed knives made of sharp deer ribs or of somewhat sickle-shaped piece of mountain mahogany, about 10 in. long, $1\frac{1}{2}$ in. wide, sharp on inner edge.

Cultivation

Wild Seeds

504. S-Hmlt: probably sowed lamb's-quarters, *Mentzelia*, and a plant called wu:sia in spring, land having been burned over previous fall. S-RsRi, S-Egan: sowed lamb's-quarters. S-Mor: rarely had sufficient seeds to spare for sowing. Diamond Valley: burned brush in fall, planted lamb's-quarters, *Sophia parviflora* (boina), and *Oryzopsis hymenoides* (wai, sand grass) in spring (SF).

505. S-BtLM: JP thought people did not know plants needed water, hence did not irrigate. S-Hmlt claimed not to have irrigated, but SF said Diamond Valley practiced some.

509. S-BtLM: said people continually burned over country but reason not known.

510. S-RubV: burned to promote growth of *Atriplex argentea* (suna). Diamond Valley: burned to promote growth of lamb's-quarters.

520. S-Ely: HJ says there are native irrigation ditches near Ely. JR thought all villages in Snake and Spring valleys irrigated.

Seed Storage

521. S-BtLM: pit is partitioned for each kind of seed, each of which is placed in old buckskin or ground-hog skin, or sage-bark bag. Pits preferred to storage houses because could be concealed, as people were constantly searching for caches to rob. NP-MC: when taken from pit, seeds are winnowed from any earth that has been picked up with them.

525. S-SnRv: especially for storing camass, which is cooked, dried, and put in sage-bark bags; the bags are buried in holes covered with grass, rocks, and earth.

Food Preparation

529. S-SprV: from salt marsh N of Baker. S-Elko: from NE of Wells. S-Lida: from Silver Peak playa. S-SmCr: from salt flat; earth dissolved in water; sediment poured off; evaporated by fire. NP-MC: claimed not to have used salt aboriginally.

530. S-SnRv: procured salt from rocks near Jarbidge.

531. S-GSmV: certain grass stalk. S-Egan: brush, called onok:hwa, from White R., S of Ely. S-BtLM: salt is scraped up under dead rye grass

in flats along Reese R., S of Battle Mt. S-RsRi: burned rye-grass (wadunzip) roots.

532. S-DthV: ate chuckwalla, large lizards, some snakes, rats, mice and gophers, roasted in earth oven without removing entrails. In Pah-hun-upe V., near Humboldt R., Simpson (p. 72) saw Indians throw rats into fire, then eat them, entrails and all, children being especially fond of juices. They also ate lizards.

535. NP-MC: said seldom enough meat or fish to be dried for winter; people ate rabbits or caught fish from Humboldt Lake in winter.

536. S-RubV: meat merely hung on horizontal pole.

538. S-SprV: used mountain mahogany wood for smoking.

541. S-SprV: mixed with sunflower seeds (aku).

543. S-BtLM: pounded with fat on any flat rock to prepare it for eating but not stored in this form.

544. Bags hung in trees.

546. NP-FSp: mix blood and fat in intestines; cook in coals.

548. S-Mor: fish taken from White R. were dried. Bonneville saw "Shoshokoes" (N Paiute ?) on Snake R. in October drying fish on scaffolds (Irving, 2:190-191) and storing it (Irving, 1:338); also, Shoshoni on Snake R. below Twin Falls living largely on salmon (Irving, 1:329-330).

554. NP-FLk, NP-FSp: bones of rabbits and deer (joints only ?).

555. S-DthV: mountain-sheep bones only.

557. Marrow called: undu:gu, S-SmCr; du:gu, S-Hmlt. S-SnRv: only old people ate marrow; it would cause children to "make too much noise." S-RubV: only young people ate marrow.

558. S-Egan, S-SnRv: hoof removed, inside dried and later used for soup. S-BtLM: ground to prepare for eating.

561. SP-Ash: for mescal. S-SnRv: for camass (yamba) roots; communal oven is large, circular hole, lined with rocks; it has large central rock called heart (bih); after fire built in hole has burned down, coals are covered with grass; bundles of wet grass radiate like spokes from the "heart" to divide oven into family compartments; camass put in, covered with wet grass and hot ashes and left 2 days, during which people must refrain from intercourse which would spoil the cooking.

563. NP-FSp, NP-FLk: used only to make steam during childbirth.

565. NP-MC: apparently bent into diamond shape.

573. Parching basket everywhere was the fan-shaped, twined tray, coarsely woven for large seeds, finely woven for small seeds. Little Lake and Panamint Valley Shoshoni also used circular, coiled tray.

575. S-BtLM: seed-meal mush is stirred in a twined basket about 2 ft. in diam. Woman serves it into small baskets, taking each person's portion to him where he sits. S-SnRv: chokecherries

pounded, seeds included, made into cakes and dried; this process general throughout northern Utah and Idaho which lie in habitat of choke-cherry.

HOUSES

Dwelling

Windbreak

578. Among Panamint Valley Indians gathering pine nuts, Dutcher (1893) observed that each of 5 or 6 families made a circle, 8-10 ft. in diam., of piñon branches and brush, 2-3 ft. thick and equally high, leaving opening in 1 side and having fire in center. S-RubV: Simpson in 1859 observed Shoshoni using only "brush barriers" or inclosed fences, summer and winter, to protect them from weather, though some erected pole-lodges (p. 64). Houses of Shoshokoes (N Paiute ?) met by Bonneville in 1832 at mouth of Powder R. on Snake R. were merely semicircular brush fences or windbreaks (Irving, 1:336).

Sun Shade

584. S-Bty: usually 4 posts.

586. S-Bty: usually on S and W sides.

Domed Wickiup

587. S-Bty: called huva (willow) gani (house). George's Creek Paiute, Owens V., made houses as follows: dome of willows, 10-12 ft. in diam., bent over pit 4 ft. deep; roof covered with grass laid vertically and held down by poles; no earth cover; smoke hole in center; doorway E (?) just large enough to admit person; door of willows twined together and set but not tied over opening; fireplace in center. S-SnRv: in the List, A is domed willow house (element 590), B, conical willow house (element 591). The winter house, B, called dohokahⁿⁱ, has willows with their butts planted in the earth and their tops brought to a point instead of forming usual dome. On Snake R. below Twin Falls, Bonneville in 1832 saw houses like "haystacks" constructed on branches of willow, covered with long grass and occasionally surrounded by sage enclosures about 3 ft. high (Irving, 1:333-334). S-BtlM: like the S-SnRv type B, may really have been conical form. Butts of roof poles planted in the earth, bent in toward top and tied to leave a smoke hole where they do not meet; covering is loose grass layers near ground, twined to poles; twined grass mats cover it near top. NP-MC: domed house, novi, was built when there were no timbers (but may have been the only type built).

593. NP-FSp, NP-FLk, SP-Ash: full-circle ground plan.

595. NP-FSp, NP-FLk: 10-12 ft. in diam.

598. NP-FLk, SP-Ash: grass, sigup:^u, up to 3 ft. long, placed in several overlapping layers.

604. NP-FLk: sometimes had center post.

606. Unless always E, it was merely on side away from prevailing winds.

608. S-SnRv: door has stick along the bottom to make it rigid.

610. TP observed that abundant grass on house floor is characteristic of Shoshoni (this is also true of modern tents at Owyhee) and believed that name Shoshoni might have been derived from this fact—so (much) sonip (grass).

Tripod or Conical House

615. Called tohni (perhaps contraction of to, winter, gahni, house), S-SmCr, S-RsRi, S-Mor, S-SprV; tohokahni, S-Hmlt; dookahni, S-Egan; kahni or to^hokahni, S-RubV (BM and RVJ). S-SnRv did not use this type, but called Bannock tipi nūmū (persons) gahⁿⁱ (house). NP-MC claimed as pre-Caucasian log cabin having circular ground plan and logs laid horizontally with interlocking ends; walls vertical; roof of poles, brush, and earth, with smoke hole in center; door on side; not pit. (It is inconceivable that this unique type was really pre-Caucasian.)

618. S-Mor, S-Elko: poles planted solidly in earth and not interlocking to support one another at their intersection. S-RubV: used dry cottonwood poles. S-Egan: cedar boughs. S-DthV: had foundation of 2 sloping poles, one resting in fork at the top of other.

624. NP-FSp, NP-FLk: 7-10 ft.; S-Elko: 12 ft.

630. S-RubV: uncertain whether mats used instead of or in addition to grass; mats twined, 3-4 ft. sq., placed in 4 or 5 layers on house (BM).

634. S-RubV: placed on roof up to 5 ft. from ground.

635. Interstices between vertical poles chinked with sticks, then whole covered with humus of decayed pine needles.

636. S-SprV: rock slabs laid flat over earth covering to height of 5 ft. from ground; probably possible because of peculiar local rocks. This and chimney are post-Caucasian.

638. S-Bty: door away from wind.

640. S-RubV: may run out 6 or 8 ft., is earth-covered; used for food storage (BM); tunnel is of arched willows, earth covered; sage-bark food bags hung here (RVJ).

643. NP-FSp, NP-FLk: doorway not covered.

644. S-Bty: door of twined tule mat.

Gabled House

653. The Owens V. Paiute gabled winter house described in Steward (1933, 263). On page 233 above, there is shown a house in pine-nut belt in basalt-covered hills ca. 20-25 mi. N of Deep Springs V. in country frequented probably by NP-FLk and Paiute from vicinity of Benton, N of Owens V. Professor George H. Anderson, of California Institute of Technology, who kindly supplied photograph,

writes (March 1, 1937): "The house is the only one I have seen intact, but I have seen other houses in various degrees of ruin throughout the entire White Mountain region. They are made with cedar logs the lower ends of which are held in position by large rocks, the upper ends resting against each other. In many places only the rocks remain in position, occasionally one or two cedar logs lying scattered about. In many instances in front of the opening in the circle of rocks where the door was located one can observe the stones on which they chipped their arrowheads, with many fragments of flint and obsidian scattered near by. Peculiarly enough the remnants of the houses are almost invariably on the tops of ridges. I do not think I have ever seen one in the floor of the canyons. Moreover, most of them are at high elevations, ranging from 9500 to 13,000 feet. Many of them are located at considerable distances from the nearest water supply." Although Owens Valley Paiute claimed to have wintered in these mountains when pine-nut harvest good, it is difficult to see why houses were so often built above the piñon zone, in places which must have been intensely cold in winter. It may be that summer seeds in this high, well-watered zone induced them to live in mountains also in other seasons. It is also possible that these were occupied by hunters pursuing mountain sheep. Use of stones may explain stone circles previously noted in Owens V. (Stewart, 1933, 334-335).

Little Lake Shoshoni made gabled winter house as follows: 2 posts support ridgepole, 5-6 ft. above ground; wall posts lean against ridgepole; ground plan circular or oval; pit 2 ft. deep; covered with brush or grass, held down by horizontal poles; no earth covering; vestibule doorway in E end; door of boughs or mat of twined tules or cane, hung from its top edge; smoke hole in roof center. SP-Ash, S-Bty: used this type especially at pine-nut camps in mountains.

668. S-Bty: door away from prevailing wind.

670. SP-Ash: door in S end.

House Interior

676. NP-FSp, NP-FLk: sleep on deer brush. S-Hmlt: grass called wa:vi.

677. SP-Ash: sleep on twined sage or juniper bark.

678. S-Elko: mat of cattails, toip:.

679. NP-FLk: sewed wildcat furs together.

S-Elko: especially woodchuck and ground-hog fur. On Humboldt R., Ogden saw "Snakes" with little clothing besides beaverskin robes (Oreg. Hist. Quart., 11:384-385). On Mary's R. near Elko, Leonard saw a large robe of many "beaver skins fastened together" (p. 157).

681. Especially rabbitskin blanket. NP-FSp: also woven mud-hen-skin blankets.

683. Especially rabbitskin blanket.

685. S-BtlM: only seeds for immediate use so stored.

686. S-SnRv: bags of sage bark; also store in pots inside house.

687. See note 521.

Sweat House

688. S-GSmV: had no sweat house; sick persons lay all night in hole with water from hot springs.

Wickiup Type

689. Called: paitoni, S-Elko; paitohni, S-SnRv, probably from pa (water) tohni (house); musa, NP-FSp, S-DthV; nava (steam) düwa (sweat) kahni (house), S-RsRi; navasukogadiṅgunt (something with which to steam or sweat), S-Egan, S-RubV.

696. S-SnRv: earth around bottom only; ground-hog blanket over top.

698. S-SnRv: pit lined with rye grass.

Conical Type

704. Called: paitohni, S-SmCr; patohni, S-SprV.

705. S-DthV: constructed like the winter dwelling, except for center post; was 10 ft. high; earth covered; fire next to doorway. S-Bty: fire near doorway; low wall of stones and mud projects from each side of doorway with small space between them for air to blow on fire.

Sweat-House Operation and Use

729. S-RubV: rocks covered with sagebrush; patient sits on top.

735. S-Bty: used also when fatigued. S-SmCr: this is only use of sweat house. S-Hmlt: called paitohni; prescribed by shaman; patient sits in pit, surrounded by hot stones.

743. S-BtlM: attendant necessary because of danger of patient succumbing to heat. Woman once died in one, her legs being burned before she was found.

745. S-RsRi, S-Hmlt: especially after dream of sickness. S-Bty: after dreaming of ghost.

751. NP-FSp, NP-FLk: women would not enter when group of men were in sweat house.

752. S-BtlM: accommodated 4 recently.

Miscellaneous Houses

760. S-BtlM: small, grass covered, built against outside of dwelling, with door through wall into dwelling.

NAVIGATION

773. S-RubV: balsa of tules, saip:, or willows. Used on Ruby Lake.

774. S-SnRv: middle bundle little smaller than others.

779. S-BtlM: prow turned up only on some; others roughly made.

783. S-BtlM: rope of a grass having sharp blades and growing near water. NP-MC: rope of sage bark.

FIRE MAKING

784. S-Mor: no foreshaft on this type; shaft of serviceberry, düavi.

785. S-Hmlt, S-Egan, S-RubV: shaft of serviceberry, foreshaft of sage, Artemisia. S-BtlM: shaft of willow or serviceberry, about 14 in. long; foreshaft, sage.

790. S-SmCr, S-RsRi: foreshaft of rabbit brush. TH said only strong men could make fire with drill; women could not do it.

792. Hearth usually of sage, Artemisia tridentata, called bohovi most places (S-SprV, boovi). S-BtlM: hearth called wäg. These lengths of hearth were given in inches: S-BtlM, 10; NP-Flk, NP-FSp, 24-30; SP-Ash, 12; S-DthV, 18-24; S-Bty, 18. S-Elko: hearth made by RB for the Peabody Museum of Harvard University is 3 in. wide, 11½ in. long, has 2 pits.

794. S-Bty: pulverized rock put in end of drill (?). S-BtlM: said sand was put in hearth pits only by persons who did not know how to make fire properly. Jack Stewart, old Owens Valley Paiute, placed charcoal in end of cane fire drill.

796. S-Bty: 1-2 pits.

804. SP-Ash: carry burning Joshua-tree limb. S-Lida: carried match suspended from burden basket. S-SmCr: made of rabbit-brush bark. S-Elko: fig. 4,g, specimen of sage-bark match made by RB, now in Peabody Museum of Harvard University. Long ends plucked and ignited from other end which carries spark to start fire. S-BtlM: slow match is swung to fan it into flame.

805. S-Lida: bundle of sage bark. NP-FSp, NP-Flk: bundle of shredded bark, 10 in. long, tied up. S-DthV: of juniper bark. Bonneville observed long sage-bark-rope torches among Shoshokoes (N Paiute ?) on Snake R. at mouth of Powder R., Oregon (Irving, 2:335).

MISCELLANEOUS IMPLEMENTS

Mortar and Pestle

809. NP-MC: said mortars used only by pre-Paiute inhabitants of Lovelock region, who ground all seeds in them.

810. S-SmCr: known to have been used among N Paiute.

811. SP-Ash: deep, bedrock mortars said to have been made by Coyote.

819. S-GSmV: very little used and rarely if ever of wood.

820. NP-Flk: called tumgo'° (tumbi, stone; go'°, hole or deep depression), used near Lida. SP-Ash: usually mesquite log; hole burned in.

824. S-Bty: stone pestle called pa:kü.

825. NP-FSp: 12-16; SP-Ash, 16-18.

Metate and Muller

830. S-Hmlt: back of metate used for cracking pine nuts or for other rough work. S-SnRv: back used for grinding paint.

Mush Stirrer

847. S-Elko: fig. 2,i, mush stirrer made by RB for Peabody Museum of Harvard University; of wiyumbi wood, 12 in. long, top tied by 3-ply, twisted buckskin cord; used for stirring mush in a large, twined basket. Occurrence of mush stirrer at S-RubV on authority of BM. NP-MC: CTh positive at one time that single stick bent into triangle; at another time that it was bent into a loop.

Spoon, Dipper, Etc.

852. S-BtlM: mt.-sheep-horn dipper was small, shallow; purpose unknown, perhaps for stirring mush. SP-Ash: shaped by heating. S-Bty: used during water boiling for childbirth.

855. S-BtlM: basketry dipper (with handle) breaks easily. S-Elko: fig. 4,i, specimen made by RB for the Peabody Museum of Harvard University; warps of willow extend to form handle; bowl twined; 10 in. long but most specimens formerly larger; for ladling mush from main pot or basket into individual cups.

856. Basketry dipper (without handle) called: suhu (willow) awa'a (cup or bowl), S-SnRv, S-Mor; awa, S-RubV; for dipping mush from large basket into small ones from which it is eaten.

862. S-BtlM: slab right size might be used for dish if found. JP said there was no way of making dishes of wood.

867. S-RsRi, S-Hmlt: only used at time of kill. S-BtlM: said they crack when dry, hence do not last long. S-Bty: perforations made around edge of paunch with stick, bag then laced up with string.

869. S-RsRi: flattish piece of juniper, some wider at one end.

Knife

870. S-Hmlt, S-Elko: called tumbi (stone) wi: (knife); carried in quiver. S-SnRv: of white flint traded from the Humboldt R. Presence of this flint in vicinity of Battle Mt. gave name tosa (white) wi: (knife) to Indians of that region.

Scraper

877. S-RubV: sharp edge of horn is notched while warm with flint knife.

878. S-BtlM: also long, slender bone in deer's shoulder (clavicle ?), having 1 sharp edge, ends wrapped in buckskin, for removing hair. For fleshing, notched end of deer scapula. S-SnRv: hair scraped off with deer scapula; fleshed with notched end of femur.

Awl

884. Although use of bone awl denied in S part of area, awl 2 $\frac{1}{2}$ in. long, made of a rib, found at a N Paiute camp in Deep Springs V., associated with Paiute-type pottery.

890. Panamint Valley Indians used cactus spine from devil's pincushion (*Echinocactus polycephalus*) for making baskets, according to Coville (1892). Fig. 3,k is cactus-spine awl with butt encased in pitch found in Death V. near Stovepipe Wells; several like this were in bark case.

891. SP-Ash: covered with gum from greasewood (probably kind of shellac), which was used for all glue and was kept in buckskin trinket bag.

892. Elongated bundle of bark into which several awls stuck found near Stovepipe Wells, Death Valley.

Drill

894. NP-MC: CTh said shaft was rolled on thigh to twirl when drilling. SP-Ash: denied making holes in wood or other materials!

895. S-RsRi: rabbit leg bone.

896. S-BtLM: portion of deerhorn near skull is hard, like flint. S-DthV: unhafted mountain-sheep horn (?).

Flint Flaking

903. Called: kipu, S-SmCr, S-Hmlt, S-RubV; kip:, S-Elko: gip:, S-BtLM. S-SnRv: only locality where it was positively stated that there were specialists in flint chipping.

905. S-Hmlt: used sharp point, as elsewhere. Also, antler point notched in end, to pry off flint flakes.

908. S-RsRi: put under fire ashes for 5 nights.

SKIN DRESSING

912. NP-MC: brain applied and hide put away for several weeks.

915. S-RubV: skin placed over metate and brain rubbed in with muller.

916. S-Egan: applied twice at interval of several days.

920. S-SprV: cooked between hot, flat stones, rubbed into hide with muller on metate.

923. S-SnRv: stone used for heavy skins.

924. S-Lida: held over juniper-bark smoke. S-SnRv: for heavy hides.

930. S-SnRv: different kinds of wood chips used for different colors or shades on hide. NP-MC: any kind of wood; smoked about 10 minutes. SP-Ash: any kind of wood; hide hung in closed house.

WEAPONSBow

933. S-Egan: of serviceberry, duhavi, for all uses. S-BtLM: of any wood; used only by men too lazy to back them with sinew.

935. S-RubV: and wrapped with sinew at intervals of 6-8 in., entire length.

938. NP-FLk, SP-Ash: measure from tip of fingers of outstretched arm to opposite shoulder.

939. Also, in half-inches: 3-4, NP-FLk, NP-FSp; 4-6, S-Bty.

943. S-BtLM: JP said serviceberry seldom large enough to make good bow.

945. S-BtLM: deer leg sinew (elsewhere usually deer back sinew), each strip running from one end to little past middle to overlap with that from opposite end.

946. S-SnRv: swimming bladder boiled. NP-MC: traded salmon skins from N; wrapped in green, wet grass and buried; when taken out they have disintegrated into glue, called tza:gu.

947. NP-FSp, NP-FLk: kept in fawnskin pouch.

949. S-RubV: horn softened for straightening by soaking in warm hot ground. S-Elko: not used, but known at Laneville.

951. S-Egan: sinew in 3 or 4 layers, glued with deerhorn which has first been burned a little, then boiled. Each sinew layer allowed to dry, then scraped before adding next.

957. S-DthV and Panamint V.: bows held slanting (BD and GH).

960a. S-BtLM: outside of arc painted red.

Arrow

961. SP-Ash: made of arrowweed; for large-game hunting with sinew-back bow.

962. NP-FSp: hunting arrow measured finger tip to sternum; war arrow measured finger tip to shoulder of same arm.

963. S-Mor, S-SprV: serviceberry. S-SnRv: young serviceberry, bark removed, dried. S-BtLM: serviceberry. currant, rose; greasewood too heavy. NP-MC: currant and rose.

966. S-BtLM: JP said no foreshaft used for stone-head arrows. Heads had 3 notches on each side (doubtful).

967. S-SmCr: TH said Paiute used cane arrows with foreshafts, but doubted whether Shoshoni used them. S-SmCr: 4 ft. long. S-RsRi: 2-3 ft. long; used only by boys. Some Utes were called hupa (cane) huga (arrow).

970. Greasewood at S-SnRv, S-BtLM, and probably elsewhere.

971. S-DthV: some arrows had wooden point with extra barb of wood tied in place. This may have been 2-prong bird arrow (note 978) (GH). Wooden-pointed arrows ordinarily for small mammals, especially rabbits.

973. S-RubV: used by boys.

975. S-DthV: other types of head made by Coyote or tsoavito. S-BtLM: see note 966. Types of head shown in fig. 2,c,d.

978. Said to be 4 ft. long, prongs each 8 in. long.

980. NP-MC: green.

982. S-RubV, S-SnRv, S-BtLM: sage-hen feathers. S-BtLM, NP-MC: eagle tail feathers. Eagle feath-

ers prettier, sage-hen tail or wing faster (JP).
S-DthV: duck, hawk, eagle feathers.

985. S-BtlM: few were spiraled. JP said more important to have feathers equally spaced.

986. NP-FSp: pitch mixed with charcoal, heated, applied in spiral.

988. S-SprV: black rabbit blood (?) smeared on stone point. S-Egan: hegwi (some internal organ ?) of deer boiled, not rotted, and mixed with rattlesnake poison.

991. S-Bty: rotted in ground; cooked under fire. S-DthV: from mountain sheep heart; placed in section of intestine and allowed to decay in ground; smeared for 2 or 3 in. on arrow foreshaft and in grooves cut in bullets. A white man, doubting its efficacy, put poison in cut on his wrist and died (BD). Shoshoni at Eureka used deer blood and rattlesnake poison (BH).

992. S-RubV: rattlesnake heart.

994. S-RsRi: consists of seed cluster from sage, baumbi, some kind of rotten sage wood, an old pine cone, blood from a deer's or sheep's heart, obsidian flakes; all are mixed, placed in a deer's stomach and hung in hole about arm deep in red-ant nest for 5 nights; then smeared on arrows. S-BtlM: poison is black substance, including decayed heart blood and many other ingredients. NP-MC: greasewood shavings, mashed ants, and blood, preferably from deer, placed in section of intestine and hung 1 night in hole. S-SnRv: dried horned toad, dried red ants (these have painful bite), small fly called bipoduki, which lives in holes in ground, and greenish beetle mixed and smeared on arrowhead; mere scratch from such points claimed to be fatal. NP-FSp: deer blood, salt, ashes, rock, and cactus needles.

995. S-SmCr: TH can use only primary, but said some old Indians also used 3d and 4th finger on bowstring.

Arrow Straightener

997. S-SprV: JR claimed an arrow wrench made of stone, having 3 holes in it!

997a. In Panamint V., Coville (1892, 360-361) observed cane arrows straightened by holding them on a stone having 2 grooves, or, if they were thin, by holding them with hands and teeth. Fig. 3,g,h,j shows 2 grooved arrow straighteners found near Stovepipe Wells, Death V. S-SmCr: said used only by Paiute to W. S-Hmlt: known at Pine Cr.

1001. S-DthV denied it, but Coville (1892, 360-361) says willow arrowshafts were "sand papered" by drawing them between 2 flat stones [ungrooved ?] held in palm of hand, in Panamint Valley.

1002. S-Hmlt: not used but known at Pine Cr. (SF).

1004. S-RsRi: for rosewood arrows. S-BtlM: ordinarily bark peeled, arrow dried, then straightened with hands and teeth; when difficult, horn wrench is used. NP-MC: ewe horn.

1005. S-Egan: young mountain sheep.

Quiver

1010. S-DthV: also used skunk. NP-FSp: for hunting arrows, of gray fox; for war arrows, of buckskin. S-Bty: also of dog and bear-cub fur. S-Hmlt: called hu: (arrow) guna; NP-FSp: called podo^hogona. S-RubV: may hold 50 arrows. S-SnRv: also of ground-hog fur. S-BtlM: of any fur which will make bag long enough so bow just protrudes.

1012. S-SnRv: fig. 2,b, wildcat-skin quiver, length 3 ft., made by Dave Humpy, now in Peabody Museum of Harvard University. Upper edge (in illustration) stiffened by means of rod, to which carrying strap attached.

Miscellaneous Weapons

1028. S-SmCr: type unknown. TH thought used only in absence of arrows.

1029. S-Hmlt: called wungo.

1031. Called: tapujiⁱ, S-SprV; wutingobo, S-Egan, S-SnRv, S-BtlM; tūgwivūvūi, NP-MC.

BASKETRY

Materials

1034. SP-Ash: used tall plant called sü:v (probably special willow), which is stronger than ordinary willow, for both foundation and weft of twining. Coville (1892) said Panamint Valley Shoshoni used year-old shoots of willow, Salix lasiandra, and sumac, Rhus trilobata, for white. GG, Little Lake Shoshoni, called willow tsiubi.

1036. Also called devil's horn or unicorn plant, Martynia proboscidea (Coville, 1892), and used widely in southern Nevada, California, and Arizona (Mason, p. 207). NP-FSp: procured it from Saline V., though TS said his father had planted it at Fish Springs. Little Lake Shoshoni used a grass, tērwip:, instead of devil's claw for black. S-Lida: planted devil's claw in gardens.

1037. Joshua-tree roots afford red material. Coville (1892) gives this as Yucca brevifolia, used in Panamint V. NP-FSp: imported it. Little Lake Shoshoni: red, which perhaps is Joshua tree, is called ūmp:. Mason (p. 213) gives tree yucca as Yucca arborescens.

1039. SP-Ash: used root of tule-like plant called tsokomosiv for brown.

1044. NP-Flk: used on large conical seed basket and on hat. S-GSmV: black paint from dugumbi (Ephedra sp.), boiled with yellow rock which has been burned; applied especially to basketry hats, willow inner bark having been left on the weft to hold paint in design area. S-DthV: burned rock ground and mixed with chewed Ephedra. S-RubV: black paint or weft (?) called tuusip:; only aniline dyes now used.

1048. S-DthV: white rock ground and mixed with chewed Ephedra.

Weaves

1050. Coville (1892) saw in Panamint V. foundations consisting of thin willow and 2 or 3 stems of *Epicampes rigens*, a grass.

Forms

1067. S-Elko: up to 14 in. long. S-SnRv: specimen at CT's home resembles that collected in S-RubV.

1085. S-GSmV: gadzaya'a, like conical carrying basket, but smaller; used also for gathering pine nuts from ground to carry them to larger basket; used also for fishing.

1089. S-RubV: basket, 20 in. deep, 20 in. in diam., has warp ends projecting straight down at bottom and coming to point instead of crossing and being bent back up opposite side to give slightly rounded bottom, as observed everywhere else.

1090. Top of basket finished with bundle of small rods, surmounted by heavy rod, as in Stewart, 1933, pl. 10, c.

1091. Open-twined conical carrying basket usually employed for fishing.

1096. NP-MC: said to hold 2-3 gallons.

1105. Sometimes mixed with pitch and applied to jug exterior with bark brush, S-BtLM.

1114. S-Bty: a specimen found near White Spring, in Belted Mts., NE of Beatty, is in possession of Mr. Greenwood, of Beatty.

1115. S-RsRi: specimen made by MJa.

1117. S-SmCr: soaked overnight to make it watertight.

1118. NP-FSp: used only for heating water at childbirth.

1119. S-GSmV: called aigwudzi'i.

1135. Made also in North Fork region (TP).

WEAVING

Skin Blanket

1146. Twining begun at stake end of warp. Panamint Valley looms horizontal (GH); sometimes vertical in Saline and Death valleys (WP).

1150. S-Bty: skin strip put through hole in stick to twist; elsewhere, merely twisted around end of stick.

Feather Blanket

1158. S-DthV: bluebirds.

1162. S-RubV: 1- to 4-ply.

Vegetable-Fiber Blanket

1163. S-Mor: made rarely if at all.

1168. S-Elko: green, stringy material (spirogyra?) from water tied onto twined sage bark;

blanket used for bedding. S-RubV: same material called baya-uh. It is dried on sand, not twisted, and used as both warp and weft of blankets. Used on beds, over rabbitskin blanket; has little warmth. Same is called: paya gap:, S-SnRv, S-BtLM.

1172. Called: pijigw bahwe, S-SnRv; wicivi, S-Bty.

1173. Called wiha', NP-MC.

1181. NP-FLk: used human-hair cord for basketry olla handle.

1184. Sinew mainly for sewing.

1191. NP-MC: sometimes 4 strands.

POTTERY

1195. S-SmCr: TH knew of only 1 woman who could make pots. Pots called: tumbi witua (tumbi, stone, witua, bowl), S-Hmlt, S-SprV; tumbi witua or wina witua (winabi'i, clay), S-GSmV, S-Elko, S-Egan, S-RubV; sogo witua (sogo, earth) or wina witua, S-SnRv.

1199. NP-FLk: also boiled small nodules from rabbit brush into paste and smeared it on pot while shaping it. S-DthV: boiled a plant, widogomb (probably mallow; N Paiute of Owens V. called desert mallow, *Sphaeralcea fremontii*, widogomb). GG said Little Lake Shoshoni mixed boiled plant, not mallow, with clay.

1200. S-GSmV, S-DthV: wogabi, prickly pear with yellow and pink flowers. S-SprV: hogabi, probably prickly pear.

1214. SP-Ash: recently cover pot with manure to fire. S-DthV: covered with brush to fire.

1215. S-Egan: sherds of flat-pot bottom were found by BM in Butte Mts.; he said some were painted. These might have been from a Pueblo site.

1216. S-SprV: claimed red (pisap), black (from an earth called tudumb [tuhu, black, tumb, rock]), white, and yellow paint. Use of any color, to say nothing of 4, doubtful. He may, however, also have seen a Pueblo site, where black-on-red, as well as black-on-gray, occurs occasionally.

1217. S-SnRv: stained after firing with black, tudumb. NP-FSp: TS saw sherd with black line. Of hundreds of sherds from sites in this area, I have seen none painted.

1219. S-DthV: said rims were incised with thumb-nail. Several archaeological sherds from near Lone Pine, Owens V., and from near Lida, Nevada, bear incised rims (fig. 3, b, d, e). S-Bty: similar incised sherds have been reported.

Vessel Shapes

1221. NP-FSp, NP-FLk: sherds suggesting such shapes as fig. 11, a, b, c, which were described by informants, have been found in Owens V. and Deep Springs V. (See also Stewart, 1933:266-269.) SP-Ash: fig. 11, d, e. Olla-like shape, fig. 11, d, may be informant's confusion with basketry olla. S-Bty: fig. 11, f, g. Very small bowl with pointed

bottom found near Hot Springs, 4 mi. from Beatty. S-Lida: fig. 11,h,i,j. Bowl probable, ladle more doubtful. Fig. 11,k, S-GSmV, S-DthV, S-Hmlt. S-DthV: some pots had pointed bottoms so that they could be set in ground and fire built around them for cooking. S-GSmV: some bowls are small, others as much as 15 in. in height. JK thought ladles also made. Fig. 11,l, S-RsRi, up to 12 in. tall, with slight lugs on opposite sides, under rim, by which to grasp them. (Yokuts pots sometimes have such lugs or handles, Kroeber, 1925: pl. 51.) Fig. 11,m,

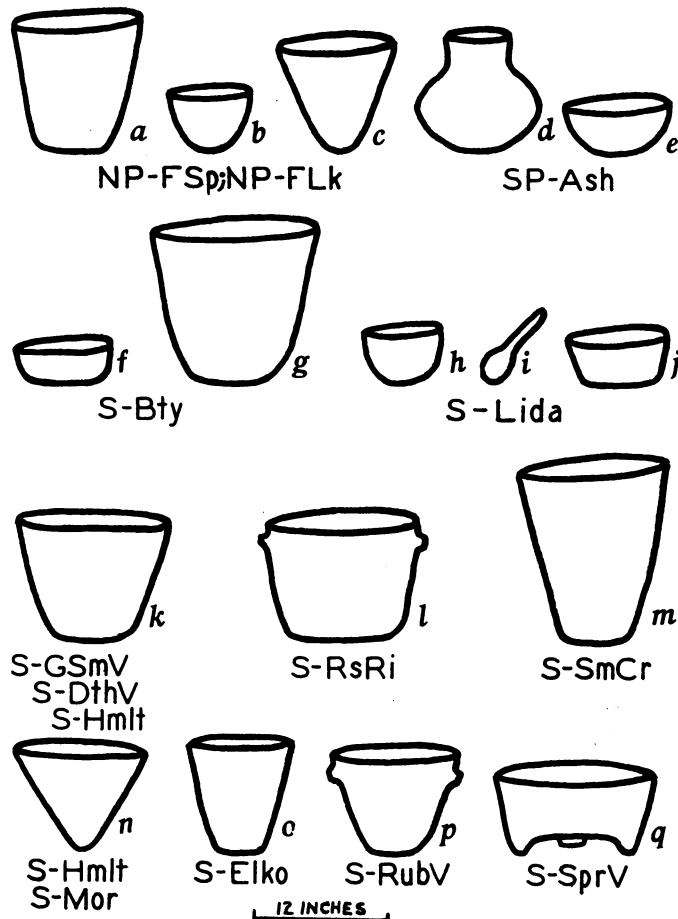


Fig. 11. Pottery shapes.

S-SmCr, up to 18 in. tall. Fig. 11,n, S-Hmlt, S-Mor. Conical shape has also been found near Beatty and in S Paiute territory. Fig. 11,o, S-Elko; BG thought these had handles to hang from a tripod; a Diamond Valley Shoshoni (SF) disagreed, but said they had flat bottoms. BG claimed to have found sherd with side carried down 1/2 in. below flat bottom. Fig. 11,p, S-RubV, has lugs below rim by which it is picked up, bark being used as pot holder. Fig. 11,q, S-SprV, 6-8 in. tall, 15 in. in diam. As with claim of 4 colors, 3-legged pots also may be doubted.

1227. On Snake R., below Twin Falls, Bonneville in 1832 saw Shoshoni cooking salmon in "pot" (not stated definitely to be earthenware, however) "hung over a fire" (Irving, 2:165).

BURDENS

1229. S-RsRi: may double rope over head. S-Hmlt: juniper-bark pack strap. S-RubV, S-SnRv: sage bark.

1231. S-Hmlt: 4 or 5 (probably 6) strands.

1239. Called: tapi'ha, NP-FLk, NP-FSp; tapia, S-DthV, S-Bty.

1240. S-SprV: JR said he once saw parfleche at Deep Cr., among Gosiute Shoshoni, which, however, is no proof that it was used in pre-Caucasian times even as far W as Gosiute. S-Mor: uncut skin with holes sewed up.

CRADLES

1244. S-Bty and S-DthV differ only in that former used 1-piece rim, latter 2-piece rim with ends joined on each side (fig. 12,b,c, p. 341). Owens V. Paiute type has lately begun to supplant these. S-Lida: probably formerly like native S-DthV and S-Bty type; now like Owens Valley type. S-Hmlt: HJ's was 3 1/2 ft. long, 12-14 in. wide.

1245. S-GSmV: like Kroeber's Handbook pl. 40,k, with heavy willow rim. S-RsRi, S-Mor: heavy willow rim and heavy horizontal reinforcing rod; vertical willow rods, some of which are bent over and lashed to rim at top and bottom. S-SmCr: probably like last; hood called tsokohnu. S-BtlM: JP said old type was like fig. 12,d, having heavy rod across where carrying strap fastened and hood like that on modern cradle. NP-MC: like fig. 12,e,g, having buckskin over bottom.

1246. S-RsRi: fig. 12,i, modern adaptation: length, 40 in.; width, 15 in.; rim 3/4-inch rod; top half of frame canvas covered, having no rods; bottom half made up of vertical wooden slats; hood twined basketry; rods in hood, 12 per inch, run vertically, and are twined together every 1-1 1/2 inches. S-Egan: fig. 12,g shows cradle without twined hood. Top portion covered with antelope hide (or canvas recently); willow rod rim joined on each side near bottom; infant tied on in buckskin blanket. S-RubV: similar to preceding (S-Egan).

1247. S-Elko: fig. 12,e has vertical reinforcing rod and horizontal reinforcing rod at top of horizontal willows; willow rods tied to rim and to vertical rod. Twined hood not shown in drawing.

1259. SP-Ash, S-Bty: deer-hoof rattles.

1260. S-BtlM: girls' cradles only have marks.

1269. S-BtlM, NP-MC: used exclusively today.

MUTILATIONS

1271. Panamint Valley Shoshoni: GH's ears pierced for shell pendants.

1276. S-SnRv: with piece of rabbit brush. S-BtlM: with greasewood or thistle.

1281. S-SmCr, S-BtlM: women more often bore their ears.

1282. S-BtlM: done when girl or when 1st child born, but without ceremony.

1286. S-Egan: wore only buckskin string.

1288. S-Mor, S-BtlM: probably *Haliotis* shell.

1300. S-SprV: bead of soft stone called tup:.

1301. GH, Panamint V., knew of woman whose nose was bored and who wore in it section of bone ca. 1 in. long. S-Mor: BH knew of only 1 man who had worn piece of wood through his nose "for fun." NP-MC: CTh knew of nose pin, short section of frog bone, used only among Pitt River Indians and by a Lovelock and McDermitt Paiute.

1305. S-DthV: also wore string of beads in nose.

1308. Pigment. S-Egan: charcoal of mountain mahogany; S-RubV: of sage wood.

1314. S-SmCr, S-RsRi, S-Mor: tattoo mainly from corners of mouth; also, chin, cheeks, and forehead.

1318. SP-Ash: recognized that the head is occipitally flattened somewhat by cradle.

children's necks. This is to smell; believed also to hold their necks erect.

1323. S-Egan: *Haliotis*. BM has 2 *Haliotis*-shell pendants, 1 circular, other heart shaped.

1334. S-SnRv: bone tubes lacking but heard of among Bannock. S-BtlM: each about 1 in. long, strung alternately with glass (?) beads. Three strings of these worn at once.

1335. S-Hmlt: sage-hen-bone tubes.

1336. S-Hmlt: wildcat-bone tubes.

Belts

1339. S-BtlM: JP thought no other kind of belt had been used.

1342. S-Hmlt: wildcat-bone belt.

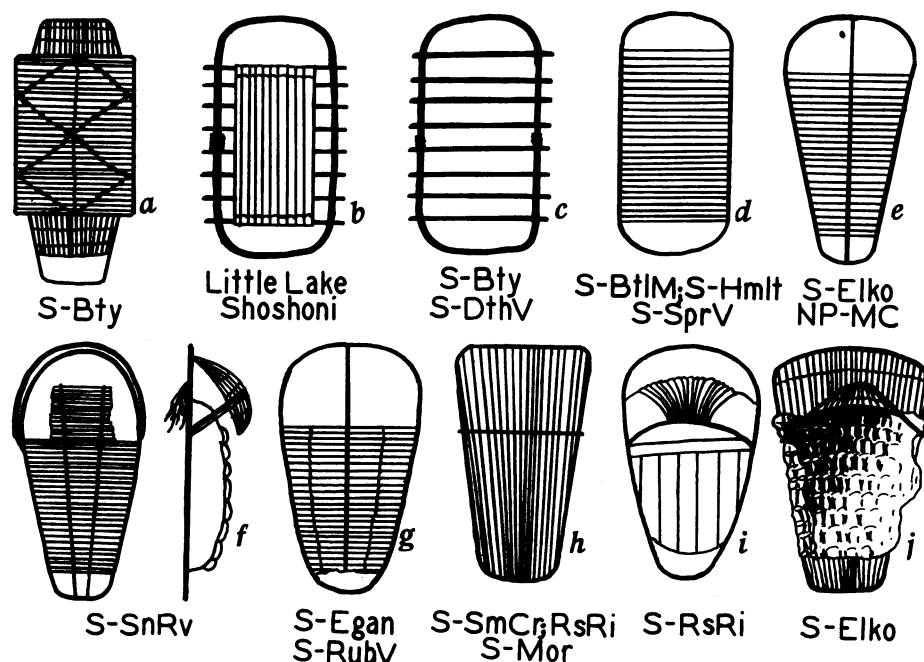


Fig. 12. Cradles. (Most are shown without hood.) a, recent basketry type; b, "ladder type"; c, old "ladder type"; d, elliptical type with horizontal rods; e, side view (with hood in place) and front view (without hood) of oval type with horizontal rods; g, oval type with horizontal rods; h, rectangular type with vertical rods; i, recent, slat cradle, with hood; j, model made by RB, S-Elko, with vertical and horizontal rods, hood, and sage-bark blanket.

1319. S-BtlM: newborn baby's mouth and forehead also straightened, but JP doubts that they remain straight!

1321. Infant's nose "pushed out from inside with finger" to make bridge more prominent. Several informants independently spoke of this.

DRESS AND ADORNMENT

Necklaces

1322. S-SnRv: needles of white pine in elongated sack which tapers into string tied around

1343. S-SnRv: deer grease; paint applied as powder.

1344. S-BtlM: young men apply powdered pigment over grease, old men over saliva.

1348. Humboldt River Shoshoni: according to Remy and Brenchley (p. 127), men and women "delight.... in painting themselves red, and daubing their faces, and around their eyes with many colors," especially at dances.

1349. S-BtlM: old persons rouge entire faces; young persons apply stripes of different colors,

Paint

especially on cheeks. Women may also lightly apply a little white paint.

1350. S-RubV: old men only. S-SnRv: after bad dream, bathe, paint body red.

1353. S-Ely: stick used only to apply black paint.

1355. NP-FSp: mud applied.

1357. S-DthV: burned and mixed with Brigham tea (*Ephedra* sp.) previously chewed. S-Lida: yellow earth burned to black. SP-Ash: also burned galena.

1359. S-BtlM: small fire built on flat stone; another stone held above fire to catch soot.

1360. S-DthV: ground and mixed with chewed *Ephedra*.

1361. Whitish rock burned to red. S-BtlM: small, soft lumps of this rock put into basin-shaped stone, covered with fire, burned until red; then wrapped in sage bark and soaked several days (purpose unknown); then ground on back of metate.

1362. Blue mineral. S-Bty: rare. S-SnRv: procured from warm springs. S-BtlM: merely scraped from cliff.

1363. S-BtlM: yellow mineral scraped from cliff.

1364. S-RubV: green paint (bui) scraped from rock near Duck R. with stick; transported in buckskin. NP-MC: used only on arrows.

1365. NP-MC: galena procured near Boise, Idaho; used for face paint.

Hair Dressing

1367. S-BtlM: stalk of probably broom grass (*wūzan^asonip*).

1369. S-Hmlt: brush made of dried rabbit brush; called *wūdzahna*. S-SnRv: fig. 4,h, specimen of grass-root (*waduzip*) brush, now in Peabody Museum of Harvard University.

1371. S-BtlM: some hair reaches to knees; men took pride in their hair. S-Elko: Tūmok, following instructions received in vision, wore one braid longer than other.

1373. GH, Panamint V., said hair braided (?) and coiled on head.

1375. Humboldt River Shoshoni men and women trim their hair "according to their fancy; they generally cut it straight across the forehead, leaving it to fall from the temples to the neck, and adorn it with all sorts of pieces of old iron" (Remy and Brenchley, p. 127).

1380. GH, Panamint V., said women parted their hair in middle and did it up in knot behind; bangs hung to their eyebrows.

1384. S-BtlM: only when gathering seeds.

1390. S-RubV: used only by old men and women for beauty; applied in spots with finger tips. Humboldt River Shoshoni frequently "powder a part of their hair" (Remy and Brenchley, p. 127).

1391. S-BtlM: at dances only feast chief (*kwinidagwani*) paints his hair and entire body.

1394. S-SnRv: heard of this somewhere in region but not locally.

1397. This clay or chalk called *evi*, S-RsRi. S-Elko: used something other than *evi*.

1400. S-RsRi: claimed formerly Indians had no beards; young men now have them because they eat white people's food. (These young men are often mixed bloods.)

1401. S-SnRv: heard that this was done by Ban-nock. S-BtlM: JP denied it, though his own eyebrows appear plucked. Plucked eyebrows observed among S Ute.

Headgear

1406. Coville (1892) mentions basket hats in Panamint V. Hat of GH's niece, Panamint V., twined. S-Lida: JS also described man's basketry hat with brim; post-Caucasian (?).

1408. S-Elko: fig. 9, made by RB, now in Peabody Museum of Harvard University; for men and women, winter use; the sage-bark (*Artemisia tridentata*) warp strands cross at top of crown and hang down on all sides, about 3 per inch, and are twined together with same bark.

1409. S-RubV: in winter, rabbit hide worn over head, its ends tied together under chin. S-SnRv: like S-RubV type, of rabbit or badger fur.

1411. Poll of young animal. S-Mor: roe deer with ears cut off.

1412. Poll of young animal.

1413. Poll of young animal.

1422. S-SprV: horns left on lamb's-poll cap.

1423. S-Bty: used only during dances, feathers being attached to it.

1425. Fur band across forehead, fur projecting as eyeshade; band held by string passing around head.

1429. S-Elko: beaver. NP-MC: ends of fur strip twisted once over each other at back of head and hang down.

1430. Horse mane tied with hide strip, hair hanging down over eyes.

GARMENTS

Robes and Capes

GG, Little Lake Shoshoni, said robes of mountain-lion, coyote, bear, and wildcat, but not badger, fur.

1436. S-Hmlt: JW thought wildcat skin not used; SF (Diamond V.) thought several wildcat skins sewed together to form robe.

Shirts and Dresses

1444. S-Hmlt: size, style, etc., depend upon number of skins available and size of person. S-Egan: a third skin cut in two to make an inset on each side. BM said Steptoe V. gowns similar.

1445. In the List, plus means "or 1 more."

1452. S-BtlM: if only 1 skin used, dress made like man's shirt, but longer. Pieces added if

necessary to increase length. Sleeve, sewed over but not beneath shoulder, also added.

1458. NP-MC: hanging from various places on breast.

1461. NP-MC: fringed along bottom.

1466. S-SnRv: like NP-MC (see note 1461), but skin from deer leg sewed on to make elbow-length sleeve. S-BtLM: short split down front of neck facilitates putting on shirt; neck drawn up with buckskin thong.

1471. Fringed along seam on underside of sleeve, when sleeve long, and sewed closed.

Skirts

1475. GH, Panamint V., said women wore 1-piece skirt, of several pieces of sheepskin if necessary, hung from buckskin belt; it overlapped in front, had 6-in. fringe at bottom; worn over front apron. Women wore nothing above their waists. S-BtLM: always wore long dress. NP-FLk: for winter only.

1480. S-SnRv: skirt hung nearly to knees but lower half cut into fringe.

1481. S-GSmV: actually large back apron and small front apron, which are sometimes tied at sides. S-RsRi: skirt actually front and back aprons sewed together at sides.

1488. S-Elko: of buckskin or badger or ground-hog fur, sewed together to form front and back aprons which are open on sides. NP-MC: possibly small front apron and large back apron worn under buckskin dress.

1489. S-BtLM: aprons worn under buckskin dress, but occasionally worn alone when woman has no dress. S-Bty: for young girls only.

1490. S-SnRv: worn habitually by men, except when hunting.

1494. S-Elko: specimens of front and back aprons of twined sage bark, made by RB, now in Peabody Museum of Harvard University.

1495. SP-Ash: also worn alone.

1497. S-BtLM, NP-MC: worn under full-length dress. See also, NP-MC, note 1488.

1498. S-Bty: worn only by young girls. See also, S-BtLM, note 1489.

1501. NP-MC: shredded-bark apron rare.

1503. S-Egan: claimed also to have made skirts of dangling ropes of rabbit fur. Such skirts used by dancers among Owens Valley Paiute (Steward, 1933, pls. 7,d, 8,e,f).

1506. S-Hmlt: badger-brush (hunavi) bark.

1508. GH, Panamint V., said breechclouts of buckskin; called navi'tcoponiap:.

1512. S-SnRv: ground-hog-fur breechclout; used only when chasing game; other times men wore only small front apron. S-Hmlt: of wildcat fur.

1513. S-Elko: specimen, of twined sage bark, made by RB, now in Peabody Museum of Harvard University.

Leggings

1515. S-Lida: JS thought these had been sewed

into 1 garment, i.e., trousers, but this is undoubtedly post-Caucasian, if true. SP-Ash, S-Lida: leggings not necessary because moccasins knee height.

1517. S-RsRi: worn by women in winter.

1518. S-GSmV: of badger skin.

1521. S-RubV: when no buckskin available, sage bark was spiraled around leg from belt to ankle or tied around lower leg.

1523. S-BtLM: known to informant only among Bannock.

1524. S-BtLM: hip halfway down thigh; each separate; worn with breechclout.

Footgear

1527. NP-FSp, NP-FLk: fig. 13,g. SP-Ash: fig. 13,i; top, knee height. S-DthV: like fig. 13,g, but nearly knee height; soft sole. Fig. 13,a,

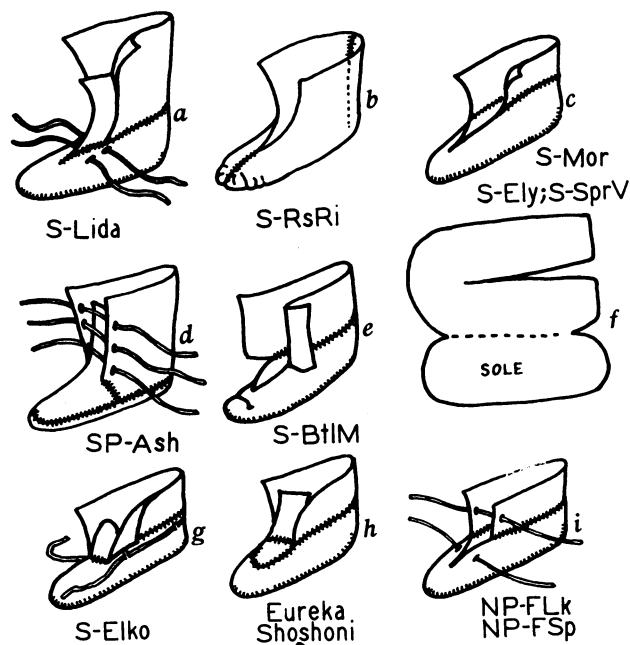


Fig. 13. Moccasins. a, 2-piece or hard sole; uppers and tongue added. b, 1-piece or soft sole. c, 1-piece; uppers added. d, 3-piece, hard sole. e, 1-piece; uppers added. f, cut of skin for type shown in "c." g, 2-piece; uppers and tongue added: made by RB, S-Elko. h, 2-piece, with instep gusset, tongue, and upper. i, 2-piece, upper added.

2-piece moccasin with hard sole and tongue and uppers added, S-Lida, S-GSmV. S-SmCr: like fig. 13,a, but sole flat, not molded; sole of hard deer's neck skin; uppers soft; ankle height; badgerskin, fur inside, especially for winter; called mumbü. Panamint V. woman's moccasins described by Dutcher (p. 378) as heavy skin soles sewed to uppers. Curtis (15:58) claims E Mono (i.e., N Paiute) moccasins were 2-piece with

deer neck skin only for use in rough country. GH said Panamint V. moccasins were of soft sheepskin, with 2-piece sole; tongue lacking; ankle height; but most people went barefoot. S-Hmlt: moccasins recently made by AR are like fig. 13,g, having separate sole and tongue; but AR said old type was 1-piece, like fig. 13,c. S-Elko: BG described 1-piece moccasin as native type, but RB made pair of soft moccasins, fig. 13,g, for the Peabody Museum of Harvard University. S-RubV: 2-piece moccasins, made with badger fur inside and lined with juniper bark; sole of hard buckskin for winter; had 1-piece tongue, like fig. 13,a, or gusset and tongue added, like fig. 13,d, according to RVJ. RVJ's daughter, MM, described 1-piece type, like fig. 13,c,f, having uppers which overlap in front and are bound with long string. Bronco Charlie, Eureka, had moccasins like fig. 13,d, which had been half-soled several times.

1539. S-RsRi: fig. 13,b, 1-piece, sewed up in-step and heel, toe puckered; made entirely of badger hide; fur turned inside; worn winter only; called *müwü* (man) *mëmb*. Fig. 13,c, also 1-piece; skin cut as in fig. 13,f and sewed along outside of sole and up heel; this usually of deer neck; tongue and uppers may be added; this type occurs at S-Mor, S-Ely, S-SprV, S-Elko. S-Egan: 2-piece, i.e., separate sole, moccasin; of deer hide; tongue sometimes added. S-Egan winter moccasin, 1-piece badger hide; fur inside; seam runs up toe as in fig. 13,b, but toe not puckered. S-SnRv: like fig. 13,c,f; buckskin or badger fur; both sexes have uppers same height. S-BtlM: buckskin moccasin like fig. 13,c,f. Winter moccasin of badger fur, hair turned inside, toe being puckered and slightly bent back (fig. 13,e); shredded bark pushed inside with stick after moccasin placed on foot. NP-MC: buckskin moccasin like fig. 13,c,f, with tongue and badger-skin sole added. Winter moccasin of badger skin; 1 skin served for 2 moccasins, each being single piece of skin; these not sewed but uncertain whether they were merely held on foot by means of a thong.

1551. Skin from deer's neck was hardest, hence used for soles at S-SmCr, S-Mor, S-Ely, S-SprV, S-Egan, and probably others.

1552. S-GSmV, NP-MC: cut badger skin in 2 for winter. S-Egan: made winter moccasins of badger fur, hair inside.

1555. S-Elko: fig. 13,g, specimen made by RB for Peabody Museum of Harvard University.

1563. SP-Ash: bark or leather. S-GSmV: imported.

1565. NP-FSp: probably somewhat like fig. 14,g, about 14 in. long, tied to foot, heel and toe. S-RsRi: fig. 14,a. S-Mor: fig. 14,b; rim of juniper, loop for heel and toe. S-Hmlt: fig. 14,c. S-SprV: fig. 14,d; rim of serviceberry; bark woven into buckskin thongs where foot rests; JR also claimed shapes like figs. 14,e,f. S-Elko: fig. 14,g, type having willow rim, sinew lashing with place where foot rests reinforced with shrub called *huwipë*; snowshoe called *zink*. Fig. 14,

h, type having 2 thin pieces of wood running short diameter over which lie 2 heavier pieces running long diameter. S-Egan: fig. 14,i. S-RubV: fig. 14,j; rim of serviceberry; snowshoe called

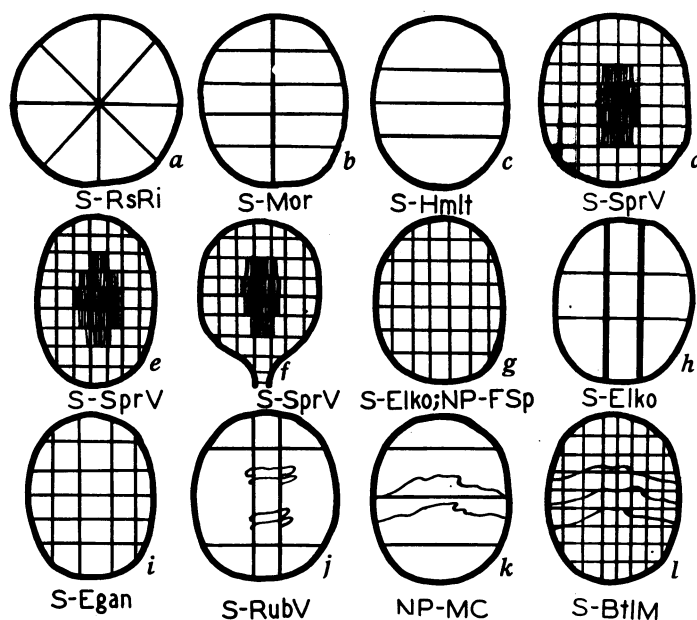


Fig. 14. Snowshoes.

dzinghu. S-SnRv: CT said there was too little snow on Snake R. to use snowshoes, but snowshoe made of a wooden rim with harness straps running across both long and short diameters was collected from a Snake River Shoshoni for Peabody Museum of Harvard Univ. S-BtlM: fig. 14,l; rim of willow; lacing of cord, *angawana*; each cord about inch apart; 3 loops to hold foot. NP-MC: fig. 14,k; rim of willow.

GAMES Ball Race

1577. S-Lida: known near Belmont, Nevada, but not at Lida. Two or 3 men race to distant point, then return, kicking stuffed-skin ball. Goal a line on ground. S-BtlM: played when people gather to eat fish. Someone yells, clapping his hand over his mouth, then announces race, distance, and number of runners on each side. Course may be 5 mi. long. Goal any well-known spot. NP-FSp, NP-FLk: recounted in myths (Steward, 1936, 388-395) but never played.

1583. S-BtlM: ball too heavy for 1 man to do all kicking. TP saw some balls which were probably Paiute in Owyhee region; they were $1\frac{1}{2}$ -2 in. in diam.

1588. S-BtlM: if 1 side carries ball, other may do likewise.

1591. S-Elko: 5-7. S-RubV: 8-9. S-BtlM: 8-10.

1595. S-BtlM: people bet buckskin shirts, beaded moccasins (beaded moccasins probably very

recent), arrows and arrow feathers, but not their bows.

Shinny

1596. NP-FSp, NP-FLk: known to have been played by some people to N who kicked ball. S-Elko: recently men have played shinny against N Paiute, using very small ball that could be grasped in toes. In the List, M is man's game, played with skin ball and feet; W, woman's game, played with cord, skin strip, or dumbbell-shaped skin and stick.

1600. See note 1596 for explanation of List symbols, M and W.

1607. S-Lida: this game similar at Belmont and Lida. Men played with skin ball using their feet. Women, or sometimes men and women, used rope or rope ring propelled by stick. In mixed games usually 3 men and 3 women on each side.

1611. S-BtlM: with heavy ends.

1612. S-SprV: JR saw S Paiute (?) girls playing with buckskin strap near Salt Marsh beyond Snake V. in western Utah.

1613. NP-MC: placed between feet of a player from each side.

1615. CT thought Paiute threw puck into air to start, but CTh, NP-MC, said it was placed on ground.

1620. S-SnRv: recently only.

1625. S-SnRv: 8-10 women.

Hoop-and-Pole

1626. Fig. 6, e, a Saline Valley Shoshoni hoop-and-pole made by JH for Peabody Museum of Harvard University: hoop is mesquite-bark ring, wrapped with bark, $4\frac{1}{2}$ in. in diam.; pole of screw bean, 1 in. in diam., 5 ft. long, with bark shaved off; course had 2 parallel piles of willows, each pile 15 ft. long, laid on ground 42 ft. apart. S-SnRv, S-BtlM: had heard of southern form of hoop-and-pole among "Pine-nut eaters" (an insufficient identification) to S. NP-MC: knew of game only among Lovelock Paiute, where played by men, 2 sides simultaneously casting pole 4-5 ft. long at tule ring rolled toward pile of willows at 1 end of playing course.

1633. S-DthV: 1 pole marked.

1634. S-Lida: 10-12 ft.; S-SmCr: 6-8; S-RsRi: 4-5.

1639. The play in S-DthV and Saline V. is similar. One player, standing in middle of court, rolls hoop against pile of willows and, when it has bounced off, casts his pole, holding butt in his hand and sliding it along ground. If his pole penetrates or touches hoop, his opponent casts, attempting to knock off his pole. First continues to roll until he misses hoop, when his opponent rolls. If both poles penetrate or touch hoop in same way, no score. Unlike S-DthV, however, Saline V. scores 5 points for penetrating, 1 for lying on hoop; 10 points win.

1648. NP-FSp, NP-FLk, S-DthV, S-Bty: 1-2; S-Lida, 2-4; S-RubV: 5 or variable.

1651. NP-FLk, NP-FSp: referee called huna (badger).

Ring-and-Pin

1656. SP-Ash: all large holes count 1; tooth sockets and orifices in malar bone, 10; small hole on each side of palate wins. Pegs moved in holes (variable number) in board to keep score.

Hand Game

1666. S-Lida: played same way at Belmont, Nevada.

1667. Sticks collected for Peabody Museum of Harvard University from WP, Saline Valley Shoshoni, are hollow bone, cylindrical, $3\frac{1}{8}$ in. long, $\frac{5}{8}$ - $\frac{3}{4}$ in. in diam.; 2 are wrapped for $\frac{1}{2}$ in. in middle with black thread.

1669. S-RsRi: wooden sticks collected from JF for Peabody Museum of Harvard University are cylindrical, $3\frac{1}{4}$ in. long, $1\frac{1}{8}$ in. in diam.; 2 are grooved in center and wrapped with black rag.

1670. S-Bty: used when players are suspected of cheating.

1671. S-BtlM: formerly used loop, about $1\frac{1}{2}$ in. in diam., of small shell-disk beads, thought to have been traded in from Pacific Ocean. Only 2 of these were used, each player holding 1 in palm of 1 hand. This facilitated cheating. Bone sticks said to have been introduced recently from Paiute.

1672. Used only when there is 1 player on each side.

1674. S-Egan, S-RubV: only when tied in pairs to prevent cheating. S-SnRv: seen tied in pairs at Ft. Hall, Idaho.

1678. Guesser's palm held horizontal indicates unmarked sticks in outside positions; vertical, unmarked sticks inside positions; points left, sticks are toward his left (i.e., in opponents' right hands); points right, sticks are toward his right.

1679. Clasp hands together and motion left, right, center; separate hands and point both ways to indicate sticks are in outside positions.

1683. S-Lida: 8-10 counters.

1686. Sticks, first called "raw" (saundeho, S-SnRv, S-BtlM; sauka'vu, NP-MC), are divided evenly to start game. When 1 side has lost all these, other side hands back original number, now called "cooked" (biadeho, S-SnRv, S-BtlM; kwasip, NP-MC). If these also lost, game lost.

1689. Remy and Brencley (p. 130) record that hand game was favorite among Humboldt River Shoshoni, men even betting their wives.

4-Stick Guessing Game

1692. NP-MC: all sticks same length, but 2 have smaller diameters and are wrapped. SP-Ash: sticks are bone. S-RsRi: sticks collected for Peabody

Museum of Harvard University from JF: 2 are 5 in. long, $\frac{3}{4}$ in. in diam.; 2 are $4\frac{1}{2}$ in. long, $1\frac{1}{8}$ in. in diam.; all wooden, unmarked. S-BtlM: 2 about 2 in. in diam., 6 in. long; 2 thinner and longer; none wrapped.

1693. NP-FSp: 2 sticks may be used.

1706. S-Mor: 12-16 counters.

1707. NP-MC: neutral pile called "raw"; sticks won from it called "cooked."

1712. NP-FSp, NP-Flk: 1-2 players; SP-Ash: 2-4.

4-Stick Dice

1716. S-SnRv: marked sticks red on marked side; other sticks plain on 1 side, red on other. S-Egan, S-RubV, S-BtlM: all sticks red on 1 side, white on other; one has cross, the "mother"; one, 10 parallel lines, the "father"; 2 unmarked, "little ones" (fig. 6,k). At S-BtlM, dice are split rose or currant stems, about $\frac{1}{2}$ in. thick, flat side painted, other side left rounded and plain.

1717. S-SmCr, S-GSmV: 2 of 4 sticks marked as in fig. 6,j. S-RsRi: in fig. 6,i marks are burned on.

1724. S-BtlM: 2 sides, 2 persons on each. Each side continues to cast until it fails to score.

1726. S-GSmV: 6-7(?) counters. S-Hmlt: 5(?) or 10(?) counters.

1731. S-Elko: BG knew little about scoring but thought all red and all white gave double count. S-Egan thought scoring was as follows (certain combinations are not recorded here):

3 red and cross.....	1
3 red and parallel lines.....	1
3 red and white.....	0
All red.....	1
All white.....	1
Both marked.....	0

S-RubV and perhaps S-BtlM scored as follows:

All red.....	wins
3 red and 1 white.....	0
3 red and parallel lines.....	1
3 red and cross.....	1
2 red and 2 white.....	0
2 red and cross.....	1
2 red and parallel lines.....	0
2 red, cross, and parallel lines.....	1
1 red and cross.....	1
1 red, cross, and parallel lines.....	1
1 red and parallel lines.....	0
All white.....	1

Thus the cross ("mother") always scores 1, the parallel lines ("father") scores only when combined with 3 reds. All white or all red scores 1. S-SnRv scored as follows:

Father, mother, and 1 white.....	1
Father, mother, and 2 white.....	2
Mother and 3 white.....	3
Father and 3 white.....	4
1 red and 3 white.....	1
2 red and 2 white.....	2
(When players have agreed to count red.)	

Father, 2 red and 1 white.....	0 (or 4)
Father, 1 red and 2 white.....	1
Mother, 2 red and 1 white.....	1
Mother, 1 red and 2 white.....	?
All red.....	4
All white.....	0

Also, score may be based solely upon number of white sides turning up.

Many Dice or Basket Dice

1734. S-Elko: introduced recently from S.

1735. Specimens from JF, S-RsRi, now in Peabody Museum, Harvard University, are 2 in. long $\frac{3}{4}$ in. wide, about $\frac{3}{8}$ in. thick.

1740. S-SmCr: probably 12 dice.

1755. S-SmCr, S-RsRi: all red up wins and pays double the amount bet. S-Hmlt: all red merely wins.

1757. Same as note 1755.

8-Stick Dice

1765. S-RsRi: JF described two 8-stick dice games, calling one topaidu, which name he had previously assigned to standard 4-stick dice, and calling other danza^hni, which is usual name for 8-stick cane dice. His 8-stick "topaidu" may be merely confusion of names. He described first as follows: played by women with 8 wooden dice, each 8 in. long, painted red on 1 side and thrown on winnowing basket; scoring was: all white, 5; 1 red, 1; 2 red, 2; 3, 4, and 5 red, 0; 6 red, 2; 7 red, 1; all red, 5; 5 points win; score kept by means of pebbles on ground. Except for number of dice, resembles 4-stick dice elsewhere.

Saline Valley Shoshoni called 8-stick dice tazani'¹nup; used 8 cane dice, each 14 in. long; women whirled and dropped them, men bounced them from their knee; scoring circuit had 30 twigs, grouped 7,8,8,7; game was played and scored as elsewhere.

1767. NP-MC: rosewood dice.

1767a. NP-FSp: 10-16 inches long.

1770. S-Egan: red probably native color, but BM's present set are bamboo, painted black on 1 side.

1771. S-GSmV: thought there might be 11 dice.

1777, 1785. Each counter or peg moved 8 spaces, giving double total points of 16.

1787. S-Egan: scoring circuit sticks arranged in arc, sticks having larger spaces at certain intervals which give them following grouping: 6,8,8,8,6. S-RubV: groupings are 6,7,8,8,7,6. S-SnRv: groupings are: 6,8,8,8,8,8,6. S-BtlM: groupings are: 6,8,8,8,8,8,6. Pegs may be moved once around arc or around and back again. Pegs called bak:. Each cluster of sticks in circuit called ohwi. When pegs stop in interval between clusters, called tumagumawando, "going to be sharpened."

1788. S-GSmV, S-Mor, S-Hmlt, NP-MC: uncertain of the number given. S-SprV: thought 300-400.

Archery

1806. S-RsRi: uncertain whether 2 or 3. S-Hmlt: wins.

1807. S-Mor: or perhaps 10. S-Elko: usually 10. S-RubV: 4 or 5.

1809. S-SnRv: boys do not bet on games.

Ring-and-Dart

1813. S-Elko: small hole left in center of netting.

1815. Dart is sharpened stick having single sage-hen feather tied to project backward from its butt.

Juggling

1841. S-SmCr: 8 is undoubtedly excessive.

Foot Race

1846. S-SnRv: 2 contestants run distances up to 10 mi. There is much betting.

Wrestling

1847. S-SnRv: touching knee to ground or lying flat on back may count as fall.

Jacks

1855. TP played jacks at Owyhee in his boyhood.

Tops

1859. S-BtlM: rock about 18 in. long, 6 in. in diam., coated several times with pitch which is applied to the upper portion and melted by fire so as to run down. It is spun between hands or whipped on ice.

1862. S-SnRv, S-BtlM: boys attempt to make their tops run into their opponents' tops and break them.

1863. S-Egan: cast on hard ground to spin.

Bull-roarer

1874. S-Elko: anyone may use bull-roarer in early spring to bring warm wind. S-BtlM: boys used it to make wind blow during hot weather.

Cat's Cradles

1875. S-Egan: figures include: eagle, sun, man, woman, house, antelope, lizard. S-RubV: figures include in addition to those enumerated under S-Egan, boy and girl. S-BtlM: figures include: bird, rabbit net, summer house, louse, deer, antelope, man, woman, and others.

Dolls

1883. S-BtlM: girls made small play houses and various clay dolls and animal effigies, with which they played all day.

MONEY

1888. S-DthV: said whole shells sometimes imported and beads manufactured locally. Strings of glass beads, in sections of different colors, used as money and as necklaces. Money called nawūku.

Saline V. Shoshoni measured money as in fig. 2,k (GH). Money consisted of strings of shells from W and of glass beads, both called nauwūku. One measure around the hand called stūwu (one) hupi, 2 measures called wa (waha'a, two) hupi.

GG, Little Lake Shoshoni, described 2 kinds of money: one, cylinders (of Columella shell ?) about 3 in. long, $\frac{5}{8}$ in. in diam., perforated lengthwise and carried on strings but counted individually, called ku'tsidambūi; other, round, flat shells from S, called motso'k:o, also on strings; both worn by women as necklaces.

S-GSmV: one measure, called makö:n, was 5 times as long as last 2 thumb joints.

S-Bty: red, white, and blue glass beads, apparently traded from S in pre-Caucasian days, worth \$.25 for length equal to circumference of hand; shell beads worth more.

SP-Ash: price of dog was a string of shell money that would encircle his neck.

S-Mor: twisted rabbitskins measured around hand, standards being 2 or 4 such lengths. 40 lengths worth \$5.00. Formerly, these traded for buckskins, etc.

S-SnRv: deer hides most frequently traded, but did not always have same value. Exchange with Nez Percé at Boise V., Idaho, sometimes brought 1 horse for 3 buckskins, also, 1 colt for about $\frac{1}{2}$ bushel of camass roots.

S-GSmV: pot worth 1 buckskin.

TOBACCO AND SMOKING

Pipe

1895. Remy and Brenchley observed (p. 130) that Humboldt River Shoshoni pipes are of wood or "red earth" and that "sometimes these earthenware pipes are exceedingly valuable, and Indians have been known to give a horse in exchange for one of them."

S-SprV, S-Elko: called pipe bowl toi, wooden stem, pitcimu.

1895a. S-Elko: fig. 4,d, stone pipe found near Elko by BG. S-DthV: fig. 4,e, pottery pipe in possession of Shoshoni Johnny. NP-MC: pipes usually held sufficient tobacco for 2 men.

1896. S-Lida, S-GSmV: procured steatite from near Blue Dick mine, N of Lida. S-BtlM: procured red stone from near Owyhee.

1901. S-Egan: stem may sometimes have been of rabbit leg bone.

1905. Monitor or platform pipe collected from SF, Diamond Valley Shoshoni. Stems for this type are of wood or cane.

1906. S-BtLM: said tubular pipes had no stems.

1910. S-BtLM: only women who are doctors smoke pipes.

1913. S-BtLM: pass pipe with right hand to neighbor on left. Pipes for gatherings have large bowls.

Cigarette

1914. S-BtLM: rarely used.

1915. Used only temporarily if pipe is lost.

Chewing

1919. NP-FLk: lime from burned clamshells. MH and others still use it today.

Smoking, Miscellaneous

Remy and Brenchley (p. 130) note that Humboldt River Shoshoni "like to puff the smoke of the tobacco out through their nostrils."

1922. NP-MC: also smoked in morning. S-BtLM, some persons smoke after meals; inhale and blow smoke out through nose. S-SnRv: never smoke indoors; man goes outside at bedtime and smokes rapidly until "he falls down."

1928. Unu'pi, ghost or whirlwind.

Tobacco

1930. S-BtLM: gather, stack until dry, knock leaves onto blanket, winnow out flowers. S-SnRv: leaves kept stacked; some crushed and put into pouch for use.

1935. S-Elko: leaf of tatsip and root of nativada smoked.

1936. S-Lida: used only by children in play.

1943. S-SmCr: pouch of fur of large rat. S-RsRi: foxskin, fur turned inside.

MUSICAL INSTRUMENTS

Rattle

1948. S-Bty: used in "war dance," probably South dance.

1957. S-DthV: fig. 4,b, rawhide rattle found in vicinity of Stovepipe Wells, Death V., and now at Bungalow City. Skin is in 2 pieces, sewed together, and perforated by wooden handle, $9\frac{1}{2}$ in. long.

1965. S-DthV: only as pendant on cradle. NP-MC: called duitci (deer) tosik (hoof). S-BtLM: fawn's dewclaws are dried, strung on buckskin, and put on end of stick 6 in. long, with eagle feathers and eagle down (see use under "Shamanism").

1973. S-Elko: introduced about 35 years ago with Back-and-forth dance (Ute, Bear dance). S-Egan: claimed pre-Caucasian, but used only to accompany singing for amusement. (See also, Back-and-forth dance.)

1977. Hide stuffed with rabbitskin blanket.

Drum

1985. S-Ely: willows bent and "woven" into ring to form body of drum (informant's confusion?). S-SprV: several rings of serviceberry superimposed in some way to form drum body, 8 in. deep; drum called wütua (this term used for any bowl). S-Egan: single wooden ring forms body; drum called soho (willow?) witua (bowl).

Whistle

2003. S-BtLM: willow type made by young boys in May when willow bark peels easily.

Flute

2004. S-Lida: JS saw one at Lida, probably brought there from Grapevine Canyon, Death V. S-SnRv: fig. 4,a, flute made by Ben Boney for Peabody Museum of Harvard University; of elderberry; length, 21 in.; pine (wongovi) pitch stop; holes, each $\frac{3}{16}$ in. in diam., burned in; wrapped with native cord, angawana.

2007. S-Egan: flute of wildcat thigh bone, with 3, 4, or 6 holes.

2008. S-Elko: 2-3 ft. long; S-SnRv: 21-27 inches.

2010. S-Egan: gave 3, 4, or 6 holes. S-SnRv: said 6, but specimen in fig. 4,a had only 4.

MARRIAGE

2021. S-Mor, NP-MC: 1-2 months bride service; S-Ely: 2-3 years (probably exaggerated).

2030. S-Bty, S-DthV: payment to avoid sororate (GH).

2032. See note 2030.

2034. S-SprV: also mother's brother's daughter preferred.

2035. S-Mor: also mother's brother's step-daughter preferred.

2039. S-DthV: GH said matrilocal until 1st child born, then independent residence.

2047. S-Bty: payment must be made to wife at divorce.

2050. Prostitution for a night only by couple about to marry, NP-FSp, NP-FLk.

KINSHIP RELATIONS

Joking Relations

2084. Brothers- and sisters-in-law are permitted more obscenity than are other relatives.

DIVISION OF LABOR

Remy and Brenchley observed (pp. 127-128) that among Humboldt River Shoshoni women do all the labor, even fetching home on their shoulders game killed.

2112. Dutcher, 1893, observed Panamint V. women doing all work of gathering pine nuts.

2115. S-Elko: all pine nuts carried down to winter camp in fall, perhaps requiring several trips.

2117. S-SprV: men did all cooking. (Questionable.)

2121. S-SnRv: men sometimes call their wives nugotowep: (nu, my, goto, fire, wəp:, maker), though new fires made with drill by men. S-BtlM: usually old women gathered firewood, but hunter returning home without load expected to bring in some wood.

2123. Women rarely assisted men in fishing at S-SnRv and S-BtlM.

2127. Rats and mice caught by boys.

2132. Skin preparations at present done by women in Owyhee region.

2134. S-SmCr: TH's father made moccasins.

2135. NP-Flk: pots made sometimes by man also. S-DthV: JH has recently been making pots to sell.

2136. S-Elko, S-BtlM: man procures rock and rough hews it with another rock; woman finishes it.

2137. S-DthV: skin blanket sometimes made by woman also.

POLITICAL ORGANIZATION

Chief

2152. NP-Flk: assistant helps chief plan festival and feed visitors.

2154. S-DthV: messenger no special person.

2155. S-DthV: usually 2, more or less equal, dance chiefs. S-Bty: several.

PROPERTY

2173. SP-Ash: aeries on Charleston Mts. owned by families.

BIRTH CUSTOMS

2178. Birth house called (same as menstrual house): hunika^t, S-Elko; hunagant, S-Egan, S-RubV; nakoto (self-burning) kahⁿⁱ (house), S-SnRv; oha'^a (baby) novi (house), NP-MC.

2179. S-RsRi, S-RubV: in winter, use houses like regular winter house.

2180. S-RubV: domed willow house used in summer only.

2181. Among Humboldt River Shoshoni (probably in vicinity of Elko), Remy and Brenchley (pages 126-127) observed that at childbirth woman retired for 5 days alone. They encountered woman secluded with new child, eating roots she had cooked; her

husband squatted on ground 2 mi. away, not permitted to approach her. S-SnRv: after birth of 1st child of each sex mother's confinement and restrictions are for 1 month only for each subsequent child.

2182. S-SnRv: ground warmed to prevent mother's blood from "clogging."

2185. S-Bty: pit 2 ft. deep; woman covered with blankets.

2186. Sarah Winnemucca says (pp. 49-50) that among Humboldt Lake Paiute, father gathers firewood and does all household chores for 25 days.

2187. SP-Ash: mother "sits" (kneels?).

2191. S-RubV: waist strap sometimes used.

2195. See "Shamanism" under "Religion" in section "Ethnographic Discussion."

2196. That is, any woman who understands task of midwife. S-SmCr: 4 or 5 women assist.

2200. S-BtlM: older woman who understands childbirth but has no special shamanistic power assists, merely manipulating mother so as to work out child. NP-Flk: man with special power says to baby: "This is a fine country." He walks back and forth, asking baby to follow him, that is, to come out. Or, he may bring a bow and arrow and pretend to shoot so as to frighten out baby. Women also have such midwife power. S-Bty: person with special power frightens out baby. See "Shamanism."

2203. S-SprV: afterbirth is first dried on tree, then buried.

2207. NP-MC: mother bathed every 5th day for 25 days. S-BtlM: mother may bathe any time, but must bathe previous to returning to dwelling.

2208. S-Bty: fire built morning and evening for 5 days, when mother tells her dreams so that child cannot be bewitched and will live long.

2210. S-DthV: warm water drunk until baby's umbilical cord detaches. S-Hmlt: 1-2 months. S-BtlM: water must have reached boiling point, then cooled slightly.

2211. Sarah Winnemucca (p. 49) claims Humboldt Lake Paiute women observed 25-day meat taboo.

2212. NP-MC: claims to have used no salt previous to the coming of white man.

2214. S-SnRv: scratching stick used lest hair cease growing. S-Bty: used for 1st infant only; stick marked with infant's excrement. S-DthV: used until umbilical cord falls off.

2215. S-SnRv, S-BtlM: woman, after washing and painting self, returns to dwelling in early morning before people have arisen.

2216. S-Egan: both mother and baby are painted.

2221. S-GSmV: if boy, bathed by stroking with eagle feather to make him grow large and strong.

2224. NP-MC: baby bathed every 5th day for 25 days.

2235. Recorded also among Humboldt Lake Paiute by Sarah Winnemucca (p. 50).

2237. S-RubV: umbilical cord buried when baby can walk.

2239. S-DthV: at birth, infant put on an old cradle. S-RsRi: infant cradled in bark and brush until completion of basketry cradle which is com-

menced at birth. SP-Ash: at birth maternal grandmother begins to make cradle.

2240. S-DthV: When umbilical cord detaches, 2d cradle given. S-Lida: more than 10 days. S-BtLM: 2d cradle given when mother returns to dwelling; old cradle left in birth house. Sarah Winnemucca claims (p. 50) Humboldt Lake Paiute infants received new cradle every 5th day for first 25 days.

2241. NP-Flk, NP-FSp, S-Bty: 2d cradle at half-year.

2246. S-BtLM: all father's restrictions and taboos for benefit of infant.

2248. S-SnRv: when birth announced, father at once jumps into water, then runs; this is for his strength, called nauma (self) vuya (making).

2249. S-Hmlt: man splashes water from bowl with leaves onto father.

2251. Confinement fairly complete, except when father leaves house to run.

2252. S-SnRv: confined until umbilical cord detaches, which requires 4-5 days.

2253. NP-FSp, S-Mor: uncertainty concerning answers 10 and 30, respectively.

2254. S-DthV: meat taboo until umbilical cord detaches. TS said Paiute at Bishop, Calif., observed meat taboo only 5 days. S-SmCr: observed to prevent father becoming heavy. S-SnRv: observed to prevent child "bloating." S-Hmlt: observed to prevent father from aging; when confinement over, he eats sage with his first meat. Humboldt Lake Paiute men, according to Sarah Winnemucca (p. 45), abstained from meat for 25 days.

2256. S-BtLM: man must stop smoking when his wife first known to be pregnant.

2257. S-DthV: gambling taboo until umbilical cord detaches.

2259. SP-Ash: if boy born, father must hunt and bring back deer, probably at time of birth. S-Elko: running prevents father's aging.

2263. S-RubV: father must not run too early for fear his eyes will water.

2264. S-BtLM: runs E in morning until sun rises, W in evening until sun sets. Each day, for 5 days, he runs shorter distance. S-Bty: E all day.

2267. S-BtLM: gathers wood 1st day only, running with it to birth house, when his wife is returning from her bath, and casting it under a bush.

2268. Scratching stick. S-Mor: to prevent father's wrinkling when old.

2273. S-SnRv: hangs old clothes on willows.

2274. S-BtLM: takes several baths at this time.

2276. S-SmCr: when first hunting after child-birth, if father hits game with his 1st shot, he will be good archer; if he misses, he will be poor thereafter. S-Egan: game given to woman who has cared for mother.

2278. S-Mor: probably required fewer restrictions after 1st birth.

Twins

2284. S-GSmV: if one twin was killed, other was covered with basket so as not to see it; this prevented other dying. S-DthV: may kill one or keep both.

2285. S-Egan: only if same sex; S-BtLM: also if opposite sexes.

2286. S-GSmV: JK's grandmother had twins, gave 1 to wet nurse and later took it back. S-Bty: mother may give one to suitable person for adoption.

Infanticide

2288. S-DthV: may give 1 child away for adoption. S-Elko: if child is killed, woman does not tell her husband.

2292. S-RubV: mother conceals infant somewhere until it dies, then buries it.

2293. S-Egan: abortion disapproved.

2294. S-BtLM: pressure abortion often caused woman's death.

Loss of Milk Teeth

2299. NP-Flk: relative, usually mother, flips tooth at child who says, "Old woman, give me good teeth."

2300. S-SnRv: placed under any growing bush to make new teeth grow.

2302. S-RubV: hidden in grass.

2303. S-Hmlt: after being thrown over child's head.

Names

NP-FSp: names usually given by paternal grandparents. NP-Flk: given by paternal aunts and uncles. SP-Ash: taken from some object in nature and dreamed by a relative. S-Bty: given by a "smart man," perhaps a chief. Sarah Winnemucca, probably overemphasizing one of many kinds of names, says Humboldt Lake Paiute girls were named after flowers (pp. 46-48) and sometimes after rocks. NP-FSp, NP-Flk: reluctance to tell own name to white persons is recent. Shoshoni names, to be listed in a future paper, are usually personal characteristics or various natural objects.

GIRL'S PUBERTY

First Menstruation

S-GSmV: emphasize girl's learning to work and cook. S-Lida: data were observed by informant at Belmont, Nevada, but probably apply also to Lida.

2305. CTh, NP-MC, seemed to know very little about girl's puberty rites. Sarah Hopkins says (p. 48) that the Humboldt Lake Paiute girls are isolated 25 days, accompanied by 2 friends; they stay in a special house.

2306. S-DthV: confinement was not complete.

2309. Menstrual hut built like and given same name as birth house: hunaguto', S-Hmlt; hunagahni (1st menstruation called hunakumba), S-RubV; huninobi, NP-MC.

2311. Menstrual house usually near camp, but

so situated as to keep woman from male contact. Women may visit her, men must talk from distance.

2312. S-BtlM: ground warmed somewhat around bed, but not so much as for childbirth.

2315. S-Hmlt: attended by her grandmother. NP-MC: sister or some other girl stays with her at night.

2317. SP-Ash: some other woman combs her hair; at S-RubV, brush used. S-Egan: girl's mother combs her hair with porcupine tail.

2318. S-Egan, S-SnRv: girl instructed to arise early, fetch wood and water, cook, not be lazy, not talk too much, and avoid eating too much; last is to prevent her skin from becoming dark. S-BtlM: instructed for 2 or 3 days only.

2319. Meat or grease taboo. S-SnRv: would make her lazy. S-BtlM: girl, upon returning to dwelling after menstruation, must chew 1st mouthful of any game hunted by men, then spit it into fire. Sarah Hopkins says (p. 48) Humboldt Lake Paiute girls abstained from meat for 25 days.

2322. S-DthV: may drink cold water only in small sips.

2325. S-BtlM: only women may visit her. Though question not explicitly asked elsewhere, information clearly implies that isolation was to keep her from contaminating men and household articles.

2327. S-GSmV: hair would fall out if scratched with fingers.

2329. S-RubV: MM said her aunt came early each morning to make her arise, then returned home.

2330. S-BtlM: girl must move rapidly in all pursuits, but does not actually run at any special time.

2331. Sarah Hopkins claimed (p. 48) that Humboldt Lake Paiute girls had to make 5 piles of firewood 3 times each day.

2340. S-RubV: girl bathed by attendant every 10 days. Sarah Hopkins says (p. 48) that Humboldt Lake Paiute girls bathed in river every 5th day for 25 days.

2344. S-BtlM, S-SnRv: girl is painted on final day, before returning to dwelling.

2346. S-SnRv: if camp moved by means of horses, menstrual clothes always transported on same horse.

2347. Sarah Hopkins says (p. 48) Humboldt Lake Paiute girl got new clothes and gave her old ones to her attendants.

2350. S-RubV: worn while in menstrual house and for 30 days after confinement. S-SnRv: worn only when girl leaves menstrual house.

Subsequent Menstruation

2355. Sarah Hopkins verifies (p. 48) CTh's assertion that seclusion for subsequent menstrual periods was 5 days.

2359. Girl or woman stays alone in most instances, though women may visit her.

2365. S-Ely: formerly menstruating woman did not cook for other persons; now she does.

2377. S-SnRv: when woman goes to menstrual house, her husband or some other occupant of

dwelling cleans out remains of old fire and builds new one with fire drill.

BOY'S PUBERTY

2381. TP said boys were told not to be lazy, also that young children of both sexes were told not to drink at well lest they die when they marry, not to take 1st cup of water, and not to take largest roots out of mush lest they become too heavy and drown when crossing river. This, however, is general child training, not specific puberty instruction.

2385. Game taboo in Panamint V. but not in Death V. S-RsRi: boy eats very little of it.

DEATH CUSTOMS

2387. S-BtlM: when death is certain, friends gather around invalid and remain until death occurs. This was observed at Owyhee, large crowd of visitors remaining also day or so after death, until funeral.

2395. SP-Ash: by sweeping around house where deceased has been.

2400. S-SnRv: undertaker covers self with white clay, evi, which often but not always used for other purification.

2404. Burial. NP-MC: head S or W.

2406. S-SnRv: in rocks if available; or in bank where earth may be pulled down; or abandoned in house when hope for life is gone.

2408. S-BtlM: in earth if soft; grave covered with sticks.

2421. S-BtlM: funeral speech tells of deceased's life, character, and how his family will miss him.

2423. S-Bty: people contribute food, clothing, weapons, money, etc. Recently at Owyhee, property is thrown on pile; custom learned from Bannocks, who have adopted it recently from unknown source.

2425. S-Hmlt: property either given away or put in tree beside grave. S-Egan: corpse clothed, covered with rabbitskin blanket, food being left near-by. Son or brother gets bow and arrows and dog. Woman's metate broken, baskets burned. S-RubV: bury blankets and clothes with corpse; keep metate; burn baskets. S-SnRv: some property buried with corpse, but clothing and bedding burned; such valuable articles as bow and rabbit net taken by any relative. S-BtlM: clothing buried with corpse, household articles burned.

Mourning

2432. S-SnRv: widow's hair cropped irregularly and ear lobe sometimes mutilated by her sister. Other female relatives cut their own hair to bob length. Sarah Hopkins reports (p. 21) that Humboldt Lake Paiute men and women cut off their hair and gashed their arms and legs for several days; widow cuts her hair first, braiding it and putting it across deceased's breast.

2437. S-BtlM: female relatives gash their legs on both sides until blood flows, by rubbing them in "pile of obsidian chips."

2440. NP-FSp: 2-3 years before remarry. Sarah Hopkins (p. 21) says Humboldt Lake Paiute woman may not remarry until her hair has regrown to its length before cut and she may not wash her face, use paint, or participate in festivities until her father-in-law or mother-in-law allows her to do so. S-SnRv: deceased's brother may marry widow at once but others must wait. S-BtlM: widow may marry within few days, especially to husband's brother. At Owyhee, feeling has recently developed that widowed person should not remarry for year.

2450. NP-FSp, NP-Flk: deceased's name mentioned with reluctance; usually designated by relationship to some living person.

2451. S-BtlM: but name may be mentioned if nep, "late" or "past," added.

Annual Mourning Ceremony

2458. S-DthV: dance called mugua nukana (soul dance); danced 1st night; 2d day and night no dance; 3d morning burned property; that night danced Circle dance (element 2614); 4th day went home.

2461. SP-Ash: singers and old men may take property from pole.

2463. S-DthV: burn pine nuts and other seeds, baskets, clothes, and shell money, which have been accumulated by relatives of deceased.

RELIGION

Shamanism

2473. S-BtlM: people inherit predisposition to shamanism but not particular power of ancestor.

Curing Performances

2501. Large circular corral, with 1 opening or gate. S-Bty: visitors camp around inside of corral.

2523. When pursuing patient's soul.

2534. SP-Ash, S-DthV: some kind of root ignited and pressed over pain. S-Bty: men dreaming of stone burning up used fire drill on pain.

2535. S-BtlM: JP saw man named wihi (iron) danap (knee) near Elko who could spread out coals of fire and lie on them without injury, thus burning out his illness. S-SnRv: doctors with power of handling fire sometimes put coals in their mouths and blow them out on patient.

Special Shamans' Powers

2551. Wound curing was ordinarily done by general practitioner.

2558. S-BtlM: JP saw man in Bannock country impersonate bear. S-SnRv: some men behaved like bears around camp; they were believed to be invulnerable in warfare.

2566. S-SnRv: some men had power to send their souls out to see enemy approaching.

Miscellaneous

2576. S-SnRv: when person washes early in morning, he "talks for good luck" to sun; when finished, he beats his chest and blows, which ends or "seals" prayer. S-RsRi: also prayed to sky.

2588. SP-Ash, S-Bty: offering of food or tobacco made upon reaching one's destination.

Nonshamanistic Curing

2594. Herbs used also by anyone who understood their qualities.

2596. S-SnRv: sweating might be done under doctor's directions.

Ghost

2605. S-SnRv: whirlwind may turn into person for short time, then back into whirlwind.

2607. S-Bty: take sweat bath and pray to spirit. NP-Flk, NP-FSp: take cold bath and talk to a spirit.

2608. SP-Ash: person tells dream and blows it (the ghost) away; otherwise, ghost may stay inside him and "lead him around."

Jimsonweed

2610. Acquired recently by trade. It enables one to see through solid materials and thus find lost or stolen objects.

2613. GG said Little Lake Shoshoni call it muip^u. Person soaked root all night and drank it in order to divine cause of his own sickness. SP-Ash: root boiled and liquid put in basket about 12 in. in diam., 6 in. deep, having eagle down around its edge. People sit around basket and drink it to find location of lost objects or to gain other information. It is considered to be very dangerous.

DANCES

Circle Dance

2614. S-Lida: said Belmont Shoshoni danced same as at Lida.

2621. S-BtlM: dance leader stands in front of his house and "talks" for rain and growth of plants.

2623. S-Egan, S-SmCr: recent droughts are attributed for recently abandoning round dance.

2628. S-Egan: for summer dance, young pine-nut tree with green cones pulled up by roots and put in center of dance corral; this helps insure good pine-nut harvest.

2629. S-SnRv: young juniper or spruce tree. S-RsRi: according to FSm, also used young juniper tree.

2634. S-BtlM, S-SnRv: singer, called huvia (song) gunt (possessor or performer), has dreamed special songs.

2635. S-RsRi: before dance starts, everyone joins hands in a line, with musicians in center, and walks around. Dance concluded final day in same way. When women choose partners, men first form circle, each woman then enters it to the right of her chosen man. S-BtlM: sometimes group of women dance alone, dance then being called katz^{ho} (end) nukaiyu.

2644. S-BtlM: leader called kwini (mush) dagwani (chief) because of his responsibility of distributing food. He has "talker" or assistant.

2646. S-Egan: several boys sent to camps in separate directions, but no official messengers.

2647. CT regarded courting as main purpose of dance.

2650. S-BtlM: might dance extra day to insure good fortune of group which had arrived toward end of dance. NP-MC: danced 3, 4, or 5 days.

2651. FSm, from Austin, Nevada, and now at Owyhee, thought all Shoshoni had made camp circles, referring probably to custom of camping around dance ground or corral. S-RsRi: went to Austin for dances and made camp circle with opening toward E.

Bear or "Back-and-Forth" Dance

2655. SP-Ash: "A," in element list, applies to form 1 of the dance; this form was called mama-komēp wūnūmiga (back-and-forth dance) and was used in the mourning ceremony, alternating with the Circle dance. "B," in the element list, applies to form 2 of the dance; this form was called witsihuvia wūnūmiga (bird-song dance), and was purely a social dance.

2659. SP-Ash: 3 or 4 musicians.

2662. See note 2655.

"South" or Exhibition Dance

2678. S-DthV: magpie tail feathers. SP-Ash: eagle and yellowhammer feathers. S-RubV: worn by dance chief only, according to RBJ's son-in-law.

2676. NP-MC: introduced 100 yrs. ago.

2679. One or 2 eagle feathers worn. Little Lake Shoshoni: each of several men wore 1 feather in his hair. S-BtlM: hair done up on head, 2 feathers stuck in it.

2680. NP-FSp: sometimes worn instead of head-

dress of usual type; also worn as ornament when not dancing.

2683. SP-Ash: no eagle-down skirt; wore eagle feathers pendent at waist and along bottom of buckskin shirt. S-DthV: hawk feathers hang from end of each eagle-down rope.

2686. S-RubV, NP-MC: only 1 dancer wears this.

2688. NP-Flk: eagle and unknown-bird feathers carried in hand.

2689. S-Egan: threaten to shoot spectators. S-RubV: carried only by leader who threatens to shoot spectators.

2690. S-BtlM: bow is kind used by boys; arrows are rye grass.

2691. S-Bty, S-DthV: color may be red, black, or white.

2692. S-DthV: crosses, stripes, and dots on chest. S-RubV: legs painted with horizontal black and white bands, upper body all white, face with spots of white clay, evi.

2693. S-BtlM: special singers transfer song to dancers by blowing and saying, "whoooo." NP-MC: singing done by dancers.

2700. S-Bty: may shoot baskets, kill dogs, and be otherwise destructive.

2701. S-Lida: 4-5 dancers; S-Egan, S-RubV, NP-MC, 10-12; S-BtlM, 6-7.

2702. S-RubV: RVJ's son-in-law said boy was included among dancers; RVJ denied this.

2703. S-Ely, S-Egan: 2 women wearing ordinary dresses participated.

2706. S-DthV, S-Bty: dancers paid in shell money, which is spread on blanket. S-DthV: dancers pay some to singers. S-Egan: dancer attempts to seize coin held by spectator in split stick; if successful, he puts it on rabbitskin blanket spread out on ground for such gifts. Formerly, gifts were stone beads (called biadzo¹⁰, about 4 in. long), glass beads, feathers, and other objects. S-BtlM: 2 dancers try to seize presents held on sticks and jerked back as they approach; property seized is spread on mat in center of dance ground. This property usually given to singers.

2708. S-DthV: danced 1st night of Circle dance. S-RubV, S-SnRv: held during day, the 1st day of Circle dance.

2710. S-BtlM: dance only during 5 or 6 songs; then performers run to water, bathe, and place their paraphernalia all on 1 horse. Dance must be finished before dark.

2721. S-Lida, S-GSmV, S-BtlM: Uncertainty concerning the answer "12."

SUMMARY AND CONCLUSIONS

SUMMARY

Different kinds of elements have dissimilar relationships to the total culture. Some have a relatively fixed place not only in the Shoshonean but in other cultures because they meet important human needs, for example, fire-making apparatus and the bow. Others also have a wide distribution because the satisfactions they provide do not depend upon strictly local cultures, for example, songs, games, dances, some features of religion, and others. Both kinds of elements are, for different reasons, incompletely integrated with other parts of the culture, hence may persist when other elements change or may be changed when the remainder of the culture is static. A third class of elements bears an important relationship to the local ecology and is incapable of great variation under local conditions, for example, many features of political and social organization, and related elements. Still other elements are partially predetermined by local peculiarities, for example, house types.

In synthesizing Shoshonean data, it is convenient to start with the place of economic traits in the total ecology. I must repeat, however, that an effort to ascertain the extent to which ecology is a cultural determinant is very different from a position of environmental or economic determinism. To the contrary, as the treatment throughout this paper has indicated, complexes unrelated to ecology and various psychological attitudes as well as historical factors are clearly determinants of some classes of elements. So far as ecology is concerned, the problem is simply to discover the portions of the culture upon which its effect has been greatest.

The physical environment of this area is comparatively uniform and the economic traits related to it are relatively unvarying, some extending into neighboring areas where they fill similar functions. Whether traits in the economic complexes have uniformity because of great antiquity or because of rapid diffusion, it is not always possible to know, though comparative ethnographic data and archaeological data have yielded some results on this point. In either case, their universality in this area seems explainable by their general usefulness.

Uniformity is greatest in the essential economic traits, which are: in hunting large game, animal drives of some sort, stalking, ambushing, shooting with poisoned arrows, corrals when practicable, communal antelope drives with the shaman (where antelope were abundant; but lacking in Owens Valley), and communal deer drives under leaders when practicable; communal rabbit drives with nets; spring-pole traps for small birds; small nets for birds (especially sage hens; and, except in the south, driving to nets with antelope disguise); deadfalls; probably some kind of

blind; nooses; rodent skewers; smoking and probably flooding out rodents from their holes; unritualized hunting including a scarcity of food taboos (practical hunting devices may obviously be borrowed without their ritual concomitants). The limitation of pit blinds and pitfalls to the northern portions of the area may indicate recency. Fishing, where unimportant, employed only seed baskets as scoops, and where important adopted methods from the north and west, for example, nets, weirs, hooks, and harpoons.

Greatest variation in hunting was in details which were dispensable to the main activity: masks and disguises, which were limited to the north; sinew backing to the bow, which was present everywhere but not used on all bows; bow material; material, type, and heads of arrows; magical ingredients of arrow poison; construction of ambushes; shape of rabbit clubs; ritual details of antelope and deer hunts; and others. To a certain extent, bow and arrow woods depended upon environmental materials.

There was a similar uniformity in the seed-gathering complex. Everywhere it included: basketry water ollas for desert travel; conical seed and carrying baskets (though the shape of the carrying basket in other areas is round, cylindrical, square or rectangular); basketry seed beater; seed knife; basketry winnowing and parching tray; digging stick; hooked pole for pine nuts; storage pits; threshing. Variants toward a different ecology, such as irrigation and sowing of wild seeds, had made little headway. The general traits of gathering were shared to some extent by neighboring areas where they filled similar functions.

In food-gathering traits, variation was greatest in details: weave and precise shapes of baskets; type of seed knife and digging stick; use of basketry hat; and others.

Methods of preparing food were also fairly uniform: meat of large game was dried, pounded, and stored for the future, or broiled or boiled and eaten at once; small game, unsuited for preservation, was eaten at once. Hard-shelled seeds required grinding, for which the metate was everywhere employed (though the mortar seems once to have served in a part of Northern Paiute territory). But for acorns and mesquite, which required pounding, the mortar was adopted from California. The earth oven and broiling on the fire are simple and probably old. Parching, an efficient means of cooking seeds, especially when prolonged boiling is impracticable, is general. Basket and pot boiling are more variable, and the latter clearly more recent. Pottery, therefore, though functionally of great importance to Pueblo cultures, was a variable and largely dispensable element in this area.

Some traits are simple, effective, and widespread outside this area. They may, therefore,

be considered to have stability irrespective of the particular cultural matrix in which they are found. They are: fire drill (though constructed in three different ways; woven and sewed fur robes chipped flint blades and unretouched flint flakes for cutting; skin dressing (including scraping, fleshing, and tanning; fleshers and scrapers vary in type; the tanning process varied in some details; smoking, a dispensable element, introduced from the north, acquired only limited distribution); the balsa raft where useful; the snowshoe, which varied greatly in details of shape and meshing; carrying frames or cradles for infants.

Another trait which had general stability, as shown by its enormous distribution across primitive culture areas and its remarkable survival to the present day, is shamanism. Its secondary features, such as the particular spirits and powers, ritual equipment and behavior patterns, are more variable, but have persisted because of the central concepts. Some of the same elements in other associations have changed more rapidly. For example, smoking as a general shaman's practice was stable, whereas in lay smoking, the pipe form, mixing of tobacco with other plants, and chewing varied considerably within the area and have changed within historic times.

Certain practical aspects of childbirth are, of course, necessary and therefore comparatively unvarying; others, including most of the treatment of the father, are ritual in nature and not only vary somewhat within this area, but cut across neighboring areas, for example, the scratching stick, hunting, gambling and food taboos, bathing, painting, new clothes, and the new fire.

The ritual elements of childbirth are also used in girl's puberty; but whereas both have in common the fear of contamination by the woman, the latter has a totally different purpose, namely preparation for adulthood with emphasis upon behavior. Thus, the same elements used here for different purposes fail to correlate elsewhere with culture areas (witness the varied use of the scratching stick in the Southwest). Moreover, the very purpose of puberty rites varies within the area and does not correlate elsewhere with major areas.

Death, like puberty rites, was necessarily a family affair. Elaborate group ritual was impossible. The dominating theme was grief. Were group ritual possible, the rites might have changed complexion, as they indeed did where the annual mourning ceremony was introduced, though this was a commemoration rather than funeral ceremony. Manner of disposal of the corpse is extremely variable—cremation, burial, abandonment.

Political and social organization, (Steward, 1938), were predetermined within certain definable limits by the local ecology. The political unit, because of the low population density and the unpredictable annual abundance of seeds, especially the pine nut, was necessarily limited to the loosely knit, non-land-owning aggregate of fam-

ilies that comprised the winter village. But special localities, like Owens Valley, produced land-owning bands. Local ecology also affected property concepts. And it precluded societies, clubs, rank, slavery, and so forth, though the absence of clans, moieties, and the men's tribal society is merely due to lack of historical contacts that would introduce them. The bilateral family was present because of substantial sex equality in economic activities and lack of social superstructures to affect it. It included polygyny correlated with the sororate and polyandry correlated with the levirate. But features of kinship, cross-cousin marriage, marriage by theft, and so on, are variable and not readily explainable by local ecology.

The social and political types produced a peaceful existence which in turn blocked warfare and the implements and concepts associated with it. But among eastern Idaho Shoshoni, the introduction of the horse made tribal clashes inevitable and provided a condition for the rapid spread of many elements of the Plains war complex. It also produced strong bands. Similarly in Nevada, the arrival of the white man and better transportation quickly produced large bands for the purpose of warfare.

Other phases of Shoshonean culture could vary and did vary within certain limits. House types were predetermined only by the requirements that they must not necessitate chopping; must, due to social type, accommodate one family; must, because of use for only part of the year, frequent change of residence, and abandonment at death, be easily erected. Within these limits, special construction was historically determined. Conical pole lodges, covered with materials locally available, were borrowed from the north. Gabled houses were introduced only to the more permanent settlements of the Owens Valley region.

Use of sweat houses as clubs and dormitories presupposes a comparatively large, permanent village, a condition fulfilled only in the Owens Valley region. Elsewhere, sweating was the main function and was done by a maximum of three or four persons at once; hence large, permanent sweat houses were not needed. The construction of the small sweat house, moreover, differed in two parts of the area, which had derived it from various sources. Secondary features of sweating, such as dropping water on rocks, praying, and so on, were only partly predetermined by use of the house itself.

Garments, though dispensable as shown by the fact that many individuals possessed only robes, afford some extra comfort in cold weather. The choice between the scanty Pacific Coast dress and the more complete Plains garments and moccasins, however, was determined in individual cases by the quantity of material available. But both styles would have been absent from the area but for historical contacts.

Considerable variation was possible in devices for transportation by human beings, but the use

of the seed basket by women is natural—the baskets were already made and had to be carried anyhow. Though men sometimes used these baskets, their other devices varied somewhat: nets, buckskins, and ropes. That women used the tumpline and men the chest strap appears to be more a matter of historical tradition than of necessity.

Two facts indicate a lack of intimate connection of games with the specific Basin culture: first, many have a general western or even continental distribution; second, many have only partial distribution in this area. But even where not intimately integrated with other activities, like the ritualized games of the Pueblo, some seem to be unaffected by culture change because of some great appeal, for example, the hand game. It may safely be predicted that the stock of games may be added to more readily than the stock of economic devices in which each fills a particular function.

Dances, with their costumes, songs, musical instruments, and so on, were also readily adopted irrespective of the remainder of the culture, as witnessed by the recent rapid spread of several into the area. A partial condition of the spread of dances, however, is the possibility of large gatherings to perform them. This condition was better fulfilled in post-Caucasian times and new dances were introduced even when the culture began to break down. Like games, dances as lay pursuits may be added to or abandoned. In this area, they were almost entirely without religious significance, which may account for their being abandoned in recent days more rapidly than the highly religious dances of other regions.

Though regard for personal adornment appears to be basic and ancient, the specific ornaments vary enormously. Not stabilized in this area by connection with social groups, status, or other reinforcing factors, necklaces, ear ornaments, tattooing, painting, and other items seemed determined only by individual taste, that is, by some vanity. The comparative uniformity of hair dressing, if the data are correct, may be merely a rapid spread of the Plains style, which also penetrated the Columbia plateau and was thus common to several unlike cultures. Depilation is general in this area but also spread over many other areas.

The indifference to ritual barred acceptance of many ritual elements. Those accepted have a wide distribution and extraordinarily varied use in the west, indicating their inherent variability as elements—for example, head scratchers, bull-roarer, food taboos, painting.

CONCLUSIONS

Culture change involves three general processes: alteration of or substitution for existing traits; addition of new traits; loss of traits without substitution. Of the last, there

is little evidence in this area. The effect of the first two differs not only in different cultures but in different kinds of elements.

Elements of the Great Basin economic complex had clearly been altered and changed by substitution from time to time. But an increase in the total number of elements was partly delimited by transportational difficulties. Under native conditions, therefore, the ecology was comparatively fixed except as it might have been altered by the introduction of horticulture. (But even horticulture existed in much of the area during early Pueblo times where it has since been unknown.) The ecology in turn largely predetermined the political groups, land ownership, and other features of property, kinds of houses and garments, and a few other elements. Some aspects of society, however, developed through internal specialization—for example, cross-cousin marriage—or through historical contacts. The ecology also barred rank, slavery, warfare, and other traits.

When the local ecology changed after the arrival of the white man, at first because of the introduction of the horse, political and social groups were first to change.

Some parts of Great Basin culture were deeply rooted in mental attitudes of the people and were consequently resistant to change. They had little connection with ecology. These were shamanism and the emphasis upon crisis rites, which also occur in very similar patterns elsewhere. Alteration of them entailed mainly an increase of their ritual content. In spite of the revolutionary changes in Shoshonean economic life and even of the addition of Christian worship, these persist with remarkable vigor today.

Finally, some kinds of elements were readily susceptible to alteration or addition without reference to ecology or to the total culture. These are songs, dances, games, and ornaments. Innovations add to rather than replace the existing stock. Until recently, Indians adopted songs, games, and dances from the white man as they had previously from their Indian neighbors, but did not abandon those they already possessed, thus accumulating an enormous repertoire. It is only in the last few years that a consciousness of the prestige value of those contributed by the white man has led to abandoning the old.

The processes underlying change in the different kinds of culture elements are claimed only for the Great Basin. Whether these have wider applicability may only be established by a similar analysis of each area or of each kind of element. In cultures with a different ecology or with a more complex social superstructure, factors which are totally lacking in this area will often be important cultural determinants; kinds of elements which here are subject to great variation, elsewhere will be fixed, and vice versa.

While the method used here employs both his-

tory and functional analysis, it implies that any historical reconstruction per se must pay close attention to the individuality of elements and that a truly "functional" view of culture must extend beyond the traditional limits of kinship to embrace the totality of human activities including their relationship to the local environ-

ment. It further implies that the elements of a local culture do not form a completely integrated pattern either for the group or for an individual.

(Since the above was written, a similar analysis based on more recent sources and covering the entire Intermontane—Basin-Plateau—area has been published, Steward, 1940.)

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AA	American Anthropologist.
AAA-M	American Anthropological Association, Memoirs.
AMNH-AP	American Museum of Natural History, Anthropological Papers.
BAE-R	Bureau of American Ethnology, Report.
MAIHF-NM	Museum of the American Indian, Heye Foundation, Notes and Monographs.
PM-P	Peabody Museum (Harvard University), Papers.
SI-R	Smithsonian Institution, Report.
SI-MC	Smithsonian Institution Miscellaneous Collections.
UC-PAAE	University of California, Publications in American Archaeology and Ethnology.
UNM-B	University of New Mexico, Bulletin.
USNM-R	United States National Museum, Report.
YU-PA	Yale University, Publications in Anthropology.
GSA	General Series in Anthropology.

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