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CULTURE ELEMENT DISTRIBUTIONS: XIII
NEVADA SHOSHONE

BY
JULIAN H. STEWARD



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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 cooperation 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; é, 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

⁴Steward, 1933.

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.

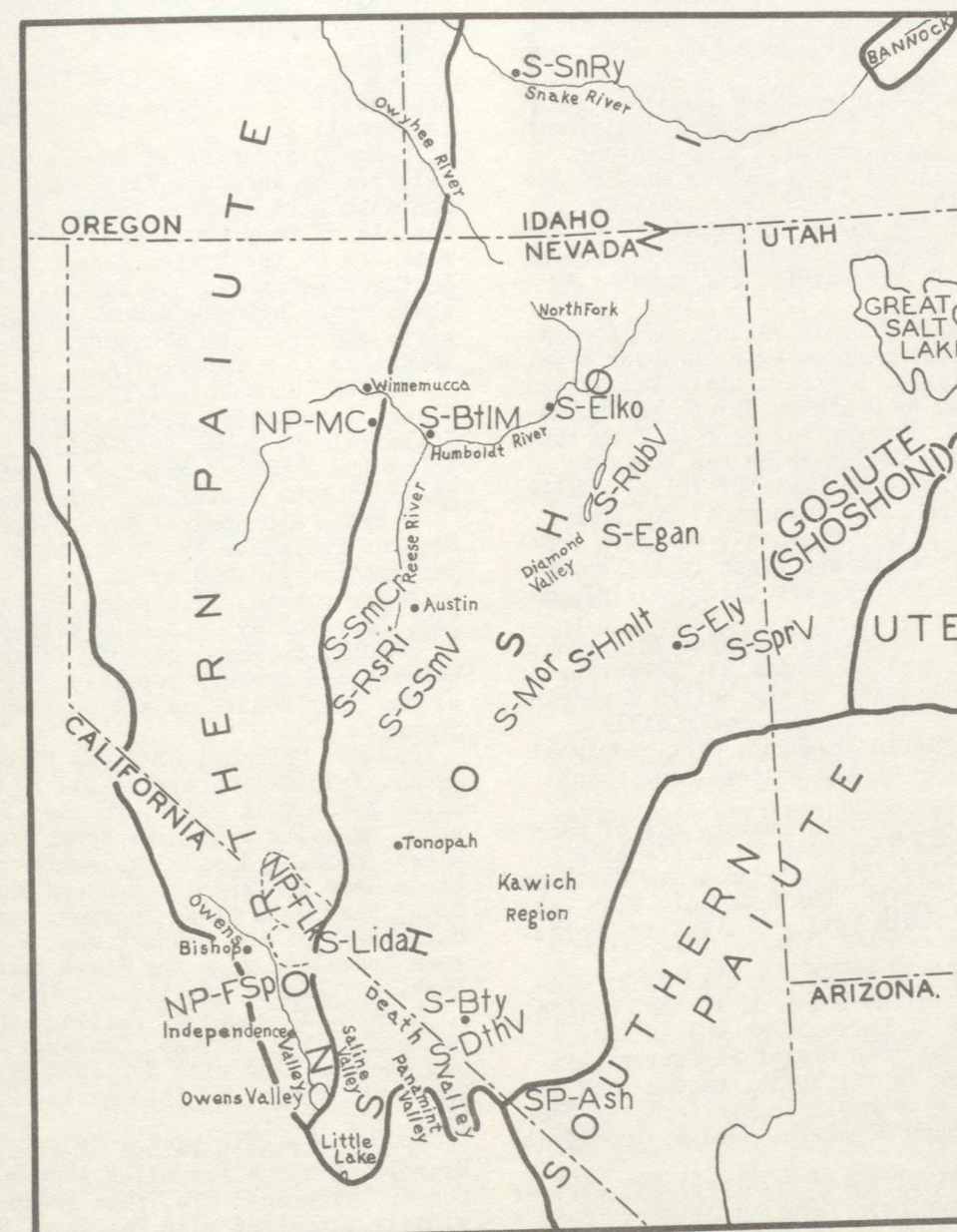
Conditions in the area on the whole favor field work. Few explorers, trappers, or miners penetrated it prior to 1850. Settlement, first by miners, later by ranchers, began about 1850. There are, consequently, a few old Indians still living who, as children, actually observed native life when it was relatively 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

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-Lida, 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-Hmt, 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-SnRy, Shoshoni of Snake River; S-BtIM, 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 Belled 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,

⁵Steward, 1933.

⁶1934.

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

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 Pahrump, Ash Meadows, and Las Vegas; now at Ash Meadows; intelligent, cooperative, 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; cooperative, 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; cooperative 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, cooperative, 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 cooperative; 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.

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

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 cooperative, 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. Cooperative, 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 cooperative 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, cooperative, 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,

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 Pahrump, 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 Ione 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 Ione 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.