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CULTURE ELEMENT DISTRIBUTIONS: XVII
YUMAN-PIMAN

BY
PHILIP DRUCKER

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

The series in American Archaeology and Ethnology, which was established in 1903, continues unchanged in format, but is restricted to papers in which the interpretative element outweighs the factual or which otherwise are of general interest.

The new series, known as Anthropological Records, is issued in photolithography in a larger size. It consists of monographs which are documentary, of record nature, or devoted to the presentation primarily of new data.

MANUFACTURED IN THE UNITED STATES OF AMERICA

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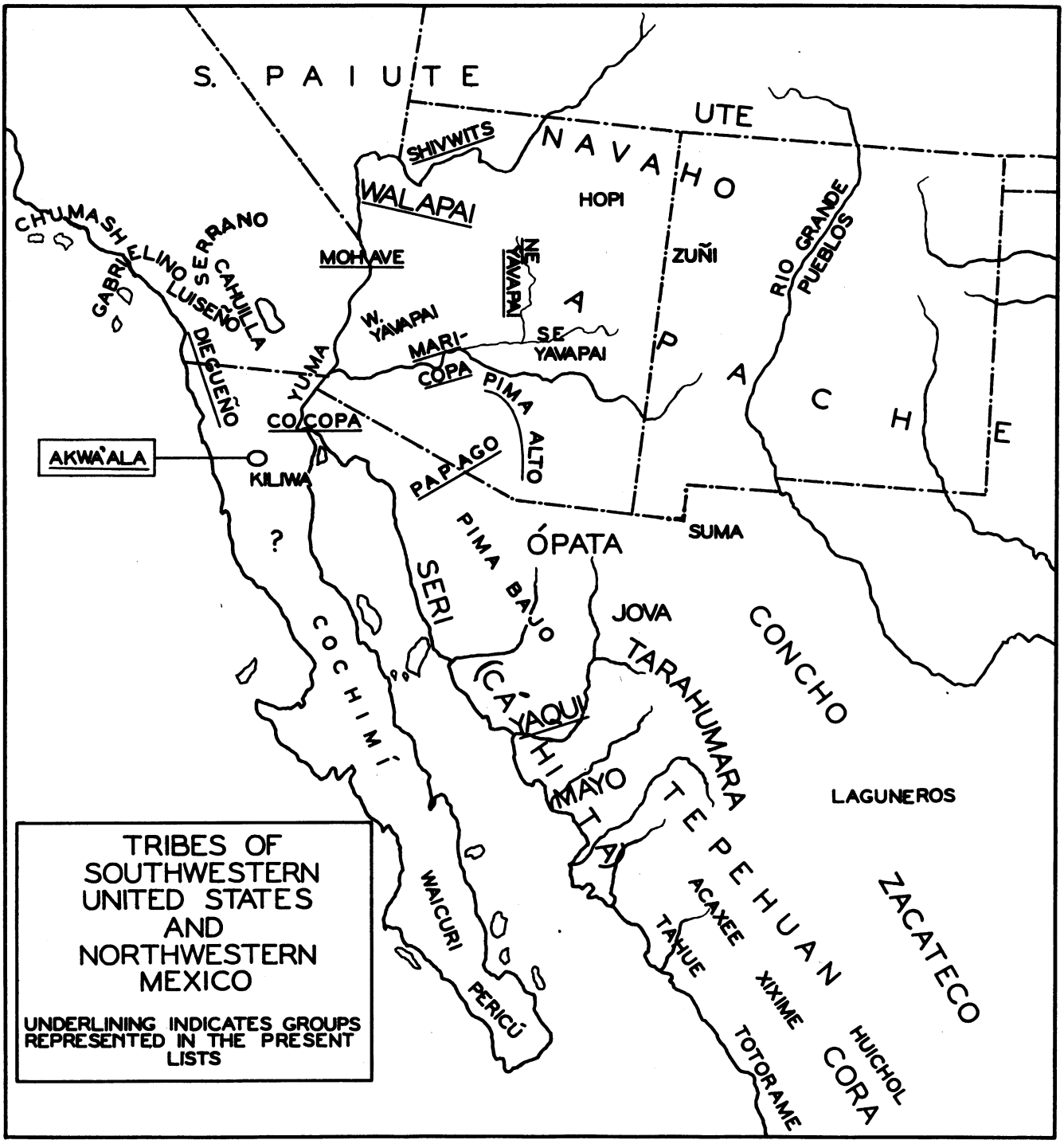
MAP

FOREWORD

The field work on which the present paper is based was done in the course of a three months' trip in the spring of 1938. Funds were provided by the Institute of Social Science of the University of California. The writer wishes to thank Dr. Ralph L. Beals of the University of California at Los Angeles, Dr. W. W. Hill of the University of New Mexico, and Professor E. W. Gifford and Dr. Omer C. Stewart of the University of California, who were kind enough to recommend informants and interpreters from the groups with which they were familiar. Without their aid not only would time have been lost, but informants equally good could not have been found. Especial thanks are due Dr. George Herzog of Columbia University, for painstakingly checking through the Pima list, and giving me access to his ethnologic notes on this tribe. His data have been included in the section "Ethnographic Notes on the Element List," and are designated by (GH).

Commonly included in ethnographic reports are expressions of thanks to the natives who assisted in making the study possible. To the present writer it seems that the user of an element list owes a special debt of gratitude to the informants and interpreters who maintained a steadfast good humor, coöperativeness, and conscientious effort under the barrage of questions. To all those who contributed to the present work the writer extends his sincerest thanks.



Map 1. Tribes of southwestern United States and northwestern Mexico.

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INTRODUCTION

The aim of this study is twofold: to present a series of comparable data on the "rancheria" groups of the southwestern United States as a part of the University of California program of the culture-element survey of western North America; and second, to establish the cultural position of these tribes in relation to those of neighboring regions.[1] This set of lists is meant to tie in with three previously made: Gifford's survey of the Puebloan and Athabascan Southwest (CED:XII), Stewart's southern Basin survey (CED:XVIII), and the southern Californian survey by the present writer (CED:V).[2] To this end, the prefield list was compiled on the basis of the studies just mentioned, supplemented by the available accounts on the region.[3] Of these latter, Spier's Havasupai and Maricopa monographs, Gifford's reports on the Yavapai and Cocopa, and Kroeber's interpretative sketch of the Mohave must be mentioned as indispensable for an understanding of the culture of the province.

In any study such as this one, in which so much weight is placed on the testimony of a single individual of each group, the question of reliability arises. In editing the lists therefore the writer has checked his data with the available literature as thoroughly as possible. Points of disagreement have been noted, and are cited in the section "Ethnographic Notes on the Element List." A review of these disagreements suggests two things: the amount of error is reasonably low (I should estimate about 5 per cent of the total entries), and this error is chiefly in matters of minute detail. There are very few instances of lack of accord on whether or not a certain ceremony is performed--most of the contradictory statements are of the order of whether participants painted a black or a red stripe across their faces. For this reason the present lists are in disagreement with such thorough and detailed accounts as those of Spier and Gifford more often than with Kroeber's or Underhill's penetrating but frankly interpretative studies. It may be added too that some of the error (as reckoned on the basis of disagreement) is more apparent than real, for there undoubtedly was individual variation in custom, and the present informants moreover were from local groups or bands distinct from the bands of the chief informants of other authors. In short, a critical check indicates that the data are sufficiently sound to warrant using them freely for comparative interpretations.

GROUPS INVESTIGATED

The data presented in the following pages are from eleven Southwestern groups, seven Yuman-speaking, and four Uto-Aztekan in language. The groups represented are as follows (the order is that of the lists):

	Abbreviations	
Diegueño (La Huerta)	Dieg	DM
Akwa'ala	Akwa	Ak
Mohave	Moh	Mo
Cocopa (River)	Coc	Co
Maricopa	Mar	Ma
Pima	Pim	Pi
Papago	Pap	Pa
Yaqui	Yaq	Yq
Yavapai (Northeastern)	Yav	Yv
Walapai	Wal	Wl
Shivwits Paiute	Shiv	SS

The location of the groups is indicated on map 1. Of the abbreviations listed above, the two-letter type correspond to those used on the culture element distributions map of the entire surveyed area (i.e., western North America), published in Kroeber's Tribes Surveyed (CED:XI) in this series. The longer abbreviations are those that I have employed in this paper. On the published map, the block of tribes under discussion here are labeled P.

[1]Assistance in the preparation of these materials was provided by the personnel of Work Projects Administration Official Project No. 665-08-3-30, Unit A15.

[2]To make certain of tie-ups, Gifford's Papago informant and Stewart's Shivwit informant were used for the present lists.

[3]See "Bibliography" at the end of the paper.

INFORMANTS

The people who contributed the information contained in the element list were the following:

Diegueño (La Huerta, Baja Calif.)[4]--(1) Juan Largo. A word list was obtained from this informant, and elements 1-205. He seemed fairly well informed, but quite apathetic.

(2) Juan Aldama. Active, in possession of all faculties, reputed to be extremely aged. Well informed, intelligent. The remainder of the list (206 on) is from him.

[(3) Bernardo Salgado. Somewhat younger than (2), active, well informed. A half day was spent checking information from (2), but the data checked so well that it was felt unnecessary to enter the data from (3) in the lists.]

Interpreter: Hilario Morffe.

Rating of list: good.[5]

Akwa'ala.--Petrocina Cuñedo. (m. was kwaẗ, a Diegueño-speaking group resident among the Akwa'ala). Active, good health except slightly hard of hearing. Extremely aged. Very well informed, intelligent.

Interpreter: Eugenio Albañez. (The interpreter was La Huerta Diegueño by birth, but since he spoke his wife's (Akwa'ala) language sufficiently well for everyday purposes, and the informant spoke her mother's language as well as her own, the linguistic situation gave no difficulty.)

Rating of list: good.

Mohave.--George Turner, Mohave Valley. Active, full possession of faculties, stated to be 66 years of age. Well informed, intelligent. Spoke some English, but felt himself on safer ground with an interpreter.

Interpreter: Dio Lewis.

Rating of list: fair. At the time, the writer would have rated it very good, because of the informant's quick comprehension of the questions--there were few points at which he showed evidence of failure to see the point. Editing of the lists however shows a certain amount of error in his answers, attributable apparently to carelessness in matters of detail. On the whole, however, the list seems sound.

Cocopa (River).--Jim Barley. Foot of H Street, Yuma. Full possession of faculties, apathetic. Aged.

Interpreter: Paul White (Yuma).

Rating of list: fair. Because of the informant's apathy, and the linguistic difficulty, the work was extremely slow. A little more than half the list was gone through. The data, on checking with available source material, seem however fairly reliable, although the informant showed a tendency toward oversuggestibility.

Maricopa.--Cyrus Sunn (m. Kaveltcadom). Good health, active, fairly aged. Good English (literate), intelligent.

(2) Mrs. Lila Howard, and her mother. Gave supplementary information on pottery and basketry.

Rating of list: good. The chief informant tried to restrict his answers to refer to the Maricopa proper as much as possible, but probably the list contains elements from other groups of the mixed community. It is scarcely possible to sift them out in the brief time allotted for getting an element list. By and large, the data check very well with the results of Spier's intensive study of this culture; points of difference are mostly minutiae.

Pima.--Chola Manuel (Lower Santan). Fairly well preserved, aged. Well informed.

Interpreter: Paul Azule.

Rating of list: good. The excellence of the list is due to the capabilities of the interpreter.

Papago.--(1) José Santos (Akchin; now living at San Xavier Reservation). Fairly aged, good health. Inclined to be apathetic.

Interpreter: Frank Rios.

Rating of list: mediocre. The informant was a bit dull; he and the interpreter very slow. Mr. Gifford used the same team for his Papago list (KP) in CED:XII--Apache-Pueblo, and informs me that he spent greater time on this list than on any other of his series. A complete list was obtained by the present writer, but part of the data on social organization (1745-1819), and all those on ceremonials, shamanism, and miscellaneous beliefs (2528 on) were obtained from Papago informants (2) and (3), and substituted for that given by (1).

(2) José Marino. Santa Rosa. Gave information chiefly on ceremonials.

(3) Albert Antón. Santa Rosa. Information on social organization and shamanism.

Interpreters: Carmen Pancho, Tommy Segundo.

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[4] I should like to call attention to the modern cultural situation on the Diegueño and Akwa'ala reserves in Lower California. The villages are isolated and seemingly little influenced except in a superficial way by Mexican neighbors (material culture and a good deal of economy have been deeply affected of course, and at La Huerta the shamanistic complex has somehow been inhibited). There is an excellent opportunity for making an acculturation study of these groups--one of the best I have encountered. As a control one could compare American Diegueño modern culture against that of their Mexican kin, an opportunity for careful checking seldom paralleled. I mention this favorable circumstance as a suggestion to anyone interested in studies of this type.

[5] Rating of lists is in terms of: good, fair, mediocre, poor.

Rating of data from (2) and (3): very good. Both informants possessed a great deal of knowledge, and the interpreters were very capable.

Yaqui.--Lucas Chavez. San Ignacio (Torim), Sonora (now living at Pascua village near Tucson). Good health, late middle age. An emigrant from the Yaqui River prior to the 1890's. Dr. Beals considers this man the best available informant, at least of the expatriates. About half a list was obtained.

Rating of list: fair. Actually, considering the long exposure of the Yaqui to alien influences, the data obtained are extremely good; the rating may be too severe. It is only by comparison with the information from less modified cultures that the list seems below par.

Yavapai (Northeastern).--Charley Pattea (Wipukupa division, Verde Valley). Active, good health, aged. Well informed.

Interpreter: Johnson Stacey. Very capable; well schooled in interpreting by Gifford.

Rating of list: good.

Walapai.--Kate Crozier (man) (Matewitide division). Blind, but active, aged. Well informed, intelligent. Some English, but preferred to work through an interpreter.

Interpreter: Ray Winfred.

Rating of list: good. The informant had an attitude uncommon in blind persons--cheerful, alert, and active, which facilitated work considerably.

Shivwits Paiute.--Frank Mustache. Good health, but deaf. Well informed, coöperative. Aged.

Interpreter: Tony Tallahash. Very capable.

Rating of list: good. The informant and interpreter were selected on the advice of Mr. O. C. Stewart, who obtained his Shivwits list (SS) chiefly from them.

Lists Dieg, Akwa, Yaq obtained in Spanish, remainder in English.

CULTURE ELEMENT DISTRIBUTIONS LIST

SYMBOLS USED IN THE ELEMENT LIST

+	Element reported present.	R	Reported to be recent innovation.
−	Element denied.	0	Absent because environmentally impossible (e.g., fishing techniques and apparatus in the Papaguería).
(+), (−)	Presence or absence reported, but not certain.	M, W	Men, women; following these captions + = both.
·	Informant did not know, or he or the investigator did not understand.	*	See section "Ethnographic Notes on the Element List."
S	"Some" or "sometimes" (i.e., variability of custom indicated).		

ELEMENTS	OCCURRENCE										
	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
SUBSISTENCE											
Agriculture											
1. Agriculture by all	−	−	+	+	+	+	+	+	−	−	−
2. Agriculture by few families only*	−	−	−	−	−	−	−	−	+	+	*+
3. Agriculture in good years only	−	−			*	−	*+	−			
4. Fields in river overflow basins	−	−	+	+	+	−	−	*(+)	−	−	−
5. Fields along stream course*	−	−	−	−	−	+	−	−	+	+	*(+)
6. Irrigation ditches	−	−	−	−	R	+	−	−	−	*+	*+
7. Water carried (ollas or baskets)*	−	−		S	S	−	+	*+	*S	*S	−
8. Temporale agriculture*	−	−	−	−	−	−	+	−	−	−	−
Crops											
9. Maize grown	−	−	+	+	+	+	+	+	+	+	+
10. Small white variety	−	−	+	+	+	+	+	*+	+	*+	−
11. Large white variety	−	−		+		+	·	*+	−	−	−
12. Red variety	−	−	+	+	+	+	+	+	−	+	−
13. Blue variety	−	−	+	+	+	+	+	+	−	+	−
14. Yellow variety	−	−	+	+	+	+	+	+	−	+	−
15. Spotted variety (mixed colors)	−	−	·	+	+	+	+		+	+	+
17. Varieties planted separately	−	−	−	+	−	+	+	+	−	+	−
18. Varieties mixed	−	−	+	−	+	−	−	−	+	−	−
19. Teparies grown	−	−	+	+	+	+	+	+	−	+	+
20. White variety	−	−	+	+	+	+	+	+	−	+	−
21. Yellow variety	−	−	+	+	+	+	+	+	−	+	−
22. Brown variety	−	−	−	+	+	·	−	*−	−	−	+
23. Black variety	−	−	+	+	+	+	+	*−	−	(−)	−
24. Mottled variety	−	−	+	+	+	+	+		−	+	−
25. Cowpeas grown*	−	−	+	*+	+	+	+	+	−	*R	−
26. Pumpkins grown	−	−	+	+	+	+	+	+	+	+	+
27. Varieties recognized*	−	−	4	4	(2)	6	3	3	1	2	1
28. Watermelons grown	−	−	+	+	+	+	+	+	−	+	−
29. Muskmelons grown	−	−	+	+	+	+	+	+	−	+	−
30. Grass seeds planted*	−	−	+	+	*−	−	−	−	−	−	−
31. Wheat grown*	−	−	+	+	R	R	*+	+	−	−	−
32. Sunflowers grown	−	−	+	−	−	−	−		−	+	−
33. Sugar cane grown	−	−	+	+	R	+	R	+	−	−	−
34. Chile pepper grown	−	−	−	R	R	R	−	+	−	−	−
35. Prickly pear grown	−	−						+	−	−	−
36. Tomatoes grown	−	−						+	−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
37. Indigo grown	–	–						+	–	–	–
38. Cotton grown	–	–	–	–	R	+	+	+	–	–	–
39. Tobacco grown	–	–	+	–	+	+	+	+	+	–	–
40. Gourds grown	–	–	+	+	+	+	+	+	+	–	–
Agricultural Tools, Techniques, etc.											
41. Dibble planter	–	–	+	+	+	+	+	+	+	+	+
42. Maize dropped in holes	–	–	+	+	+	+	+	+	+	+	+
43. Number kernels per hole	–	–	8	4+	4+	3+	3+	3	3+	1	4
44. Holes in rows	–	–	+	–	–	+	+	+	S	–	+
45. Holes irregular	–	–	–	+	+	–	–	–	S	+	–
46. Number feet (approx.) apart	–	–	3	3	2	1	1	1	1	3+	3
47. Men only plant	–	–	–	–	–	–	–	+	–	–	–
48. Men loosen ground, women drop in seed	–	–	+	+	+	+	+	–	+	+	+
49. Corn soaked before planting	–	–	S	+	+	S	+	–	+	+	+
50. Two maize crops per year	–	–	–	+	+	+	+	+	–	–	–
51. Teparies planted with maize	–	–	S	–	+	S	–	–	–	–	–
52. Teparies planted separately	–	–	S	+	–	S	+	+	–	+	+
53. Cowpeas planted separately	–	–	+	+	+	+	+	+	–	+	–
54. Pumpkins planted separately	–	–	+	+	+	+	+	+	+	+	+
55. Melons planted separately	–	–	+	+	+	+	+	+	–	+	–
56. Grass seeds broadcast by hand	–	–	+	–	–	–	–	–	–	–	–
57. Grass seeds blown from mouth	–	–	+	+	–	–	–	–	–	–	–
58. Wheat (R) planted in holes with dibble	–	–	+	+	+	+	+	+	–	–	–
59. Tobacco planted in basins	–	–	+	–		+	–	+	–	–	–
60. Broadcast by hand	–	–	+	–		–	–	+	+	–	–
61. Blown from hand	–	–		–		+	–	–	–	–	–
62. Tobacco planted in pits	–	–		–		–	+	–	–	–	–
63. Tobacco planted in ashes	–	–		–	(–)	–		–	+	–	–
64. Tobacco transplanted	–	–		–				+		–	–
65. Gourds planted apart from other crops	–	–	+	+	+	+	+	+	–	–	–
66. Near tree (for vine to climb)	–	–				+	+	+	–	–	–
67. Weeding by men, women (M, W; +, both)	–	–	+	+	+	M	+	+	+	+	M
68. Weeding by hand	–	–	+	S	+	+	+	+	S	+	+
69. Weed cutter with side blade	–	–	+	+	·	+	+	(±)	–	+	–
70. Dibble for weed cutter	–	–							+	–	+
71. True hoe	–	–	–	–	–	–	–	+	–	–	–
72. Wooden shovel (for ditching)	–	–	–	–	–	+	·	–	–	–	–
73. Mountain-sheep-horn scoop (for ditching)	–	–								+	+
74. Scarecrows for bird scaring	–	–	S	+	+	+	+		–	–	–
75. Bird scaring by children	–	–	+	+	+	+	+	+	+	+	–
76. Fences built	–	–	–	–	–	+	+	+	+	–	–
77. Whole cultivated area fenced	–	–	–	–	–	+	+	–	–	–	–
78. Fence of brush, etc.	–	–	–	–	–	+	+	–	–	–	–
79. Fence communally maintained	–	–	–	–	–	+	+	–	–	–	–
80. Individual fields fenced	–	–	–	–	–	R	–	+	+	–	–
81. Fences of posts and reeds	–	–	–	–	–			+	–	–	–
82. Stone piles or stakes to mark limits of fields	–	–	–	–	–	–	S	–	–	–	+
83. Boundaries determined by natural landmarks	–	–	+	+	+	–	S	–	–	+	–
84. Dams built to store or divert water	–	–	–	–	–		+	–	–	–	–
Harvesting											
85. Ears of maize picked (plants left standing)	–	–	–	–	–	–	–	–	+	+	+
86. Plants pulled up, piled, dried	–	–	+	+	+	+	+	+	–	–	–
87. Ears spread on ground for drying	–	–	+	+	+	+	+	+	+	+	+
88. Seed corn tied in bunches, suspended	–	–	–	–	+	+	+	–	+	+	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
89. Tepary vines pulled up, dried	−	−	+	+	+	+	+	+	+	+	+
90. Threshed with wooden flails	−	−	+	+	+	+	+	+	+	+	+
91. Threshed on ground	−	−	+	+	+	+	+	+	+	+	+
92. Threshed by men, women (M, W; +, both)	−	−	W	W	W	W	W	+	W	+	W
93. Cowpeas harvested like teparies*	−	−	+	+	+	+	−*	+	−	−	−
94. Pumpkins cut in long strips, dried	−	−	+	+	+	+	+	+	+	+	+
95. Whole pumpkins piled on ground	−	−	+	+	−*	−*	+		−	−	−
96. Covered with bean vines, leaves, etc.	−	−	+	+	−	−	+		−	−	−
97. Whole pumpkins stored in pits	−	−	+	−	+	−	−	−	−	+	−
98. Watermelons stored in pits	−	−	+	+	+	+	+	−	−	+	−
99. Covered with bean vines, leaves, etc.	−	−	+	−	+	−	−	−	−	+	−
100. Covered with earth	−	−	−	+	−	+	+	−	−	+	−
101. Muskmelons sliced, dried	−	−	S	+	+	+	+	+	−	−	−
Wild Vegetable Products											
102. Mesquite gathered	−*	+	+	+	+	+	+	+	+	+	+
103. Hook for gathering*	−	−	+	+	+	+	−	−	+	+	−
104. Club for knocking down	−	−	−	−	−	−	−	−	−	−*	+
105. Beans ground in mortar	−	+	+	+	+	+	+	+	+	+*	+
106. Beans ground on metate	−	−	−	−	−	−	−	−	−	+*	−
107. Meal dried in cakes	−	+	+	+	+	+	+	−	+	+	+
108. Meal made into drink*	−	+	+	+	+	+	+	+	+	+	+
109. Seeds discarded	−	−	+	+	+	+	+	+	S	+	+
110. Seeds ground, eaten	−	+	−	−	−	−	−	−*	S	−	−
111. Screw mesquite gathered	0	0	+	+	+	+	0	0*	0	0*	0
112. Ripened in pit*	0	0	+	+	+	−	0	0	0	0	0
113. Cooked in earth oven	0	0				+*	0	0	0	0	0
114. Ground in mortar	0	0	+	+	+	+	0	0	0	0	0
115. Mescal gathered	+	+	0*	0*	+*	+	+	+	+	+	+*
116. Gathering by which sex (+, both)	M	M	0	0	M	M	M	M	+	+	+
117. Wooden chisel for cutting*	+	+	0	0	+*	+	+	+	+	+	+
118. Driven with cobble	+	+	0	0	+	−	+	−	+	+	+
119. Driven with wooden club	−	−	0	0		+	−	+	−	−	−
120. Leaves trimmed off	−*	−*	0	0	+	+	+	+*	+	+	+
121. Mescal knife of stone	−	−	0	0	+	+	+	−*	+	+*	+
122. Side blade in wood haft*	−	−	0	0	+*	S	−	−	+	+	+
123. Heavy unhafted "chopper"	−	−	0	0	·	S	+	−	S	−	−
124. Ownership marks cut*	−	−	0	0	−	+	+	+	−*	−	−
125. Cooked in earth oven	+	+	0	0	+	+	+	+	+	+	+
126. Communally	+	+	0	0	+	+	+	+	+	+	+
127. Each person's piled separately*	+	+	0	0	+	−	−	−	+	+	+
128. Recognized by ownership marks*	−	−	0	0		+	+	+	−	−	−
129. Cooked mescal dried	+	+	0	0	+	+	+	+	+	+	+
130. Pounded with stone	+	+	0	0	+	+	−	+*	+	+	+
131. Pounded with wooden club	−	−	0	0			+	−*			−
132. Made into large flat cakes	+	+	0	0	+	+	+	−*	+	+	+
133. Wine made of mescal	−	−	0	0			+*	+	−	−	−
134. Mescal stalk eaten*	+	+	0	0	−*	+	+	+	+	+	+
135. Roasted on coals	+	+	0	0	−	+	+	+	+	+	+
136. Prickly-pear fruits gathered	+	+	+*	0	+	+	+	+	+	+	+
137. Tongs for picking	−	+	−	0	+	+	+	+	+	+	+
138. One-piece, split	−	−	−	0	−	−	−	+	(+)*	−	−
139. One-piece, bent	+	+	−	0	−	−	−	−	(+)	+	+
140. Two-piece	−		−	0	+	+	+	−	−	−	−
141. Knocked off with stick	−	−	+	0	−	−	−	−	−	−	−
142. Brushed to remove spines*	+	+	+	0	+	+	+	+	+	+	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
143. Shaken in net sack to remove spines.	·	+	−	0	−	−	−	−	−	−	−
144. Fruit dried in cakes	+	S	−	0	+	−	+	−		+	−*
145. Seeds parched, ground	+	+	−	0	S*	−	−	−	−	(±)*	−
146. Seeds discarded	−	−	+	0	S	+	+	+	+	(±)*	−
147. Viznaga fruits eaten	+	+	0	0	−	−	S*	−	−	−	−
148. Viznaga pulp eaten	+	+	0	0	S	+	+	+	−	−	+*
149. Viznaga cooked*	+	+	0	0			+	+	−	−	−
150. Cholla fruit eaten*	+	+	0	0	+	−	−	−	−	−	−
151. Cholla buds eaten			0	0		+	+	−	−	+	−
152. Cholla cooked (on coals, or boiled)			0	0	+	+	+	−	−	+	−
153. Sahuaro fruits gathered	0	0	0	0	+	+	+	S*	+*	+*	0
154. Pitahaya fruits gathered*	0*	0	0	0	0	0	S	+	0	0	0
155. Hooked pole for picking	0	0	0	0	+	+	+	(±)*	+	+	0
156. One crosspiece	0	0	0	0	−	+*	−	+*	−	−	0
157. Two crosspieces	0	0	0	0	+	−	+	−	+	+	0
158. Juice expressed from fruit*	0	0	0	0	+	+	+	+	+	+	0
159. Wine made	0	0	0	0	+	+	+	−	−	−	0
160. Seeds parched, ground*	0	0	0	0	+	+	+	+	+	+	0
161. Dried fruit made into cakes*	0	0	0	0	+	+	+	(−)	+	+	0
162. Yucca fruit eaten*	(±)	+					(±)		+	+	+
163. Acorns eaten	+	+	0	0	0	0	+	0	+	+	+
164. Sweet acorns only	−	−	0	0	0	0	+	0	+	+	+
165. Unleached	−	−	0	0	0	0	+	0	+	+	+
166. Raw	−	−	0	0	0	0	+	0	+	+	+
167. Roasted	−	−	0	0	0	0	−	0	−	+	+
168. Bitter acorns used	+	+	0	0	0	0	−	0	−	−	−
169. Leached in sand basin	+	+	0	0	0	0	−	0	−	−	−
170. Acorns hulled for storage	+	+	0	0	0	0	−*	0	+*	−*	−*
171. Piñon nuts gathered	+	+	0	0	0	0	0	0	+*	+	+
172. Ripe seeds picked up from ground	+	+	0	0	0	0	0	0	+	+	+
173. Parched in parching tray	+	+	0	0	0	0	0	0	+	+	+
174. Unripe cones gathered	+	+	0	0	0	0	0	0	+	+	+
175. Hook for gathering	−	−	0	0	0	0	0	0	−	+	R
176. Club for knocking down		S	0	0	0	0	0	0	S	S	−
177. Climb to pick	+	+	0	0	0	0	0	0	+	+	+
178. Cones roasted to open	+	+	0	0	0	0	0	0	+	+	+
179. Piñon nuts shelled for eating	+	+	0	0	0	0	0	0	+	+	S
180. Cracked and winnowed	+	+	0	0	0	0	0	0			+
181. Piñon nuts ground, shell and all	−	−	0	0	0	0	0	0	−	−	S
182. Yellow pine nuts gathered*											+
183. Walnuts gathered	0	0	0	0	0	0	+	0	+	+	0
184. Ground into meal	0	0	0	0	0	0	−	0	+	+	0
185. Juniper berries eaten*	+	+	0	0	0	0			+	+	+
186. Pulverized, drink made of	+	+	0	0	0	0			+	+	+
187. Cattail reed pollen gathered	0	0	−	+	+	−	0	−	−	−	0
188. Beaten out of pit	0	0	−	+	+	−	0	−	−	−	0
189. Tule roots eaten	+	·	−	+	+	−	0	−	+	−	0
190. Young shoots eaten	−	·	−	−	−	−	0	−	S	−	0
191. Ironwood nuts gathered	0	0	0	0	+	+	+*	+*	−	−	−
192. Threshed with stick	0	0	0	0	+	+	−	−	−	−	−
193. Rubbed in hands to thresh	0	0	0	0	−	−	+	+	−	−	−
194. Soaked in cold water to leach	0	0	0	0	+	+	−	−	−	−	−
195. Boiled to leach	0	0	0	0	+	−	−	−	−	−	−
196. Paloverde seeds gathered	0	0			(±)	+	+		+	−	−
197. Cottonwood catkins gathered	−	−	−	−	+	−	−		−	−	−
198. Grass seeds gathered*	+	+	+	+	+	+	+	+	+	+	+
199. With seedbeater and tray	+	+	+*	+*	−	−	+	+	+	+	+
200. Plain stick seedbeater	+	+	+	+	−	−	+	+	+	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
201. Woven seed beater	−	−	−	−	−	−	−	−	−	+	+
202. Curved blade*	−	−	−	−	−	−	−	−	−	+	+
203. Seeds stripped by hand	S	+			+	S	S	+		−	−
204. Plants pulled up, dried, threshed with flail	−	+		S	−	S			−	+	−
205. Grass cut, dried, threshed	−	−	−	−	−	−	−	−	−	−	*+
Hunting											
206. Deer hunted	+	+	*+	+	+	+	+	+	+	+	0
207. Stalked (individual hunt)	+	+	+	+	+	+	+	+	+	+	0
208. Deer-head decoy	−	−	−	−	*−	+	+	+	+	*−	0
209. Head with horns used	−	−	−	−	−	+	+	+	+	*−	0
210. Stick "legs"	−	−	−	−	−	+	*(+)	(−)	+	−	0
211. Blind hunting (by trail, waterhole)	+	+	−	−	+	+	+	+	+	+	0
212. Deer driven past (by others)	+	−	−	−	−	+	+	−	+	+	0
213. Converging fences built	−	−	−	−	−	−	−	−	−	+	0
214. Deer run down	+	+	(−)	S	*R	*R	+	*R	+	+	0
215. Deer snares	−	−	−	−	*(+)	−	−	*+	−	−	0
216. Fawn calls*	+	+	−	−	−	−	−	+	*−	+	0
217. Special share of meat for slayer (in group hunt)	−	−	·	+	+	−	−	+	S	+	0
218. Hide also			·	+	+	−	−	+	S	+	0
219. Hunters race to kill	−	−				*+	*+	−	S		0
220. First to touch gets hide	−	−				+	·	−	+		0
221. Get share where touched	−	−				+	+	−	+		0
222. Brought carcass home for feast*	+	+								−	0
223. Antelope hunted	*0	*+	0	0	+	+	+	*−	+	+	+
224. Stalked with decoy	0	−	0	0	−	+	+	−	+	+	+
225. Stick "legs"	0	−	0	0	−			−		+	+
226. Body painted	0	−	0	0	−			−		+	+
227. Antelope drives	0	(+)	0	0	+	+	+	−	+	+	+
228. Surround	0	(+)	0	0	+	+	+	−	+	−	−
229. With fire	0	−	0	0	−	−	−	−	+	−	−
230. Driven past hidden hunters	0	−	0	0	+	−	−	−	+	+	+
231. Blinds of stone	0	−	0	0	+	−	−	−	+	−	S
232. Blinds of brush	0	−	0	0		−	−	−		+	+
233. Mountain sheep hunted	+	+	0	0	+	+	+	−	+	+	+
234. Hunted extensively	+	+	0	0		−	−	−	+	+	+
235. Hunted rarely because considered supernatural	−	−	0	0	*	+	+	*·	−	−	−
236. Stalked (individual hunt)	+	+	0	0	+	+	+	−	+	+	+
237. Sheephead decoy	−	−	0	0	−	−	−	−	−	−	+
238. Female head	−	−	0	0	−	−	−	−	−	−	+
239. Driven	−	−	0	0	+	+	−	−	+	+	+
240. Past hidden hunters	−	−	0	0	+	+	−	−	+	+	+
241. Stone blinds	−	−	0	0			−	−			+
242. Dogs for driving	−	−	0	0	−	+	−	−	−	−	−
243. Rabbits hunted	+	+	+	+	+	+	+	+	+	+	+
244. Individual hunt with bow and arrows	+	+	+	+	+	+	+	+	+	+	+
245. Hook for extracting from burrow*	−	−	−	+	−	−	−	+	−	−	−
246. Plain stick for extracting from burrow	+	+		−	−	−	−	−	+	+	+
247. Arrow used for extracting	−	−			+	+	+	−	−	−	−
248. Snares for rabbits	−	R	+	+	*+	−	−	+	−	−	−
249. Spring-pole-type snare	−	R	+	+	+	−	−	+	−	−	−
250. Rabbit calf*	+	+	+	+	+	+	+	+	+	−	*+
251. Pocket nets, set in trails	+	*R	+	−	*+	−	−	−	−	−	*+
252. Communal rabbit drives	+	+	+	+	+	+	+	−	+	+	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
253. Drive into long nets	−	+	−	−	−	−	−	−	−	+	+
254. Connected in semicircle	−	−	−	−	−	−	−	−	−	−	+
255. Separate, with wings	−	+	−	−	−	−	−	−	−	+	−
256. Drive into pocket nets	+	−	S	−	+	−	−	−	−	−	−
257. Set in wings	+	−	+	−	+	−	−	−	−	−	−
258. Plain throwing club	−	−	−	−	(S)	+	+	−	S	+	−
259. Curved throwing club	+	+	*−	−	−	−	−	−	+	−	−
260. Smeared with rabbit blood*		+	−	−	−	−	−	−	−	−	−
261. Fire for driving	+	+	+	S	+	*−	+	−	+	+	+
262. Hereditary hunt master	−	−	−			*+	+	−	−	−	+
263. Appointed hunt master	+	+	+	−		−	R	−	+	−	−
264. Wood rats hunted	+	+	+	+	+	+	+	+	+	+	+
265. Hook for tearing up nests	−	−	+	−	−	−	−	−	−	+	−
266. Plain pole for tearing up nests	+	+	−	+	+	+	+	+	+	−	+
267. Snares for catching	−	−	+	−	−	−	−	−	−	−	−
268. Deadfalls for catching	−	R	−	−	−	−	−	−	−	−	+
269. Prop release*	−	R	−	−	−	−	−	−	−	−	+
270. Figure-4 release	−	−	+	−	−	−	−	−	+	+	−
271. Baited	−	R		−	−	−	−	−	*−	+	+
272. Bear hunted	0	0	0	0	0	*0	*−	S	*+	*+	0
273. By group (not individually)	0	0	0	0	0	0	−	S	+	+	0
274. Shot	0	0	0	0	0	0	−	+	+	+	0
275. Peccary hunted	0	0	(0)	·	0	+	+	+	0	0	0
276. Bayed with dogs	0	0	0	·	0			+	0	0	0
277. Shot	0	0	0	·	0	+	+	S	0	0	0
278. Clubbed	0	0	0	·	0			S	0	0	0
279. Mountain lion eaten	*+	+	0	−	−	−	−	−	+	*S	*+
280. Wildcat eaten	+	−	+	+	−	S	−	+	*−	+	+
281. Wolf eaten	0	*+				−	−	−	−	−	0
282. Coyote eaten	−	−	+	*−	−	−	*+	−	+	S	−
283. Swift fox eaten	+	−	+	−	−	−	−	−	+	*−	+
284. Badger eaten	+	+	+	−	*+	S	−	+	*−	+	+
285. Raccoon eaten		+	+	+	*−	+	0		+	−	0
286. Beaver eaten	0	0	+	+	+	+	0	·	−	0	0
287. Skunk eaten*	−	−	−	−	−	−	−	S	S	−	−
288. Porcupine eaten	·	·	0		−	*−	*−		+	+	+
290. Ground squirrel eaten	+	+	+	−	*−	*+	*(+)	+	+	+	+
291. Gopher eaten	+	+			*		−	+	−	+	+
292. Tortoise eaten	0	−	−	−	+	S	+	+	+	−	*(+)
293. Turtle eaten	−	−	−	−	−	−	0	*+	−	−	−
294. Caterpillars eaten	+	*−	+	+	+	*+	+	−	+	+	*+
295. Yellow-jacket eggs eaten	+	*−	+	−	+	−	+	+	−	−	−
296. Chuckawalla eaten	+	0	+	(0)	(+)	−	−	*+	*−	+	+
297. Hole or pole for extracting*	−	0	+	(0)	−	−	−	−	*−	+	+
298. Ducks eaten	*−	*−	+	+	+	+	*−	+	+	0	0
299. Shot	−	−	+	+	+	+	−	+	+	0	0
300. Mud hens only	+	+	−	−	−	−	−	−	−	0	0
301. Clubbed when too fat to fly	+	+	−	−	−	−	−	−	−	0	0
303. Quail eaten	+	+	+	+	+	+	+	+	+	+	+
304. Shot	+	+	+	+	+	+	+	+	+	+	+
305. Driven into long nets	+	+	−	−	−	−	−	−	−	−	−
306. Driven into pocket nets	−	−	−	−	−	−	−	−	−	−	+
307. Nets set in V-wings	−	−	−	−	−	−	−	−	−	−	+
308. Fire used for driving	+	+	−	−	−	−	−	−	−	−	−
309. Quail walked down in rain or snow*	−	−	−	+	+	+	−	−	−	−	+
310. Snares for quail	−	−	+	+	+	−	−	−	−	−	−
311. Simple type	−	−	+	−	−	−	−	−	−	−	−
312. Spring-pole type	−	−	−	+	*+	−	−	−	−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
313. Set in fences or wings	–	–	+	+	+	–	–	–	–	–	–
314. Box trap for quail*	–	–	+	+	+	+	+	+	–	R	–
315. Split prop release*	–	–		·	+	+	+	+	–	R	–
316. Hunted at night with flares	–	–	–	–	*	+	+	–	+	–	–
317. Wild turkey eaten	0	0	0	0	0	0	0	+	+	+	0
318. Hunted at night	0	0	0	0	0	0	0	+	+	–	0
319. With flares	0	0	0	0	0	0	0	+	–	–	0
320. Doves eaten	+	+	+	+	+	+	+	+	+	+	+
321. Other small birds eaten	+	+	+	+	+	+	+	+	+	+	+
322. Mockingbird eaten			–	–	–	ɗ*	–		–	–	–
323. Road runner eaten	+	–	+	–	*	ɗ	–		–	–	–
324. Eagle eaten	–	–	–	–	–	–	–	–	+	–	–
325. Hawk eaten	+	–	–	–	–	–	–	–	+	–	–
326. Crow eaten	+	–	–	–	–	–	–	ɗ*	–	–	–
327. Horned owl eaten	–	–	–	–	–	–	–	ɗ*	–	–	+
328. Young bird only	–	–	–	–	–	–	–		–	–	+
329. Quail eggs eaten	+	+	+	+	+	+	+	+	+	+	+
Fishing											
330. Fish eaten*	*	*	+	+	+	+	0	+	–	0	0
331. Netted	–	–	+	+	+	–	0	+	–	0	0
332. Long net, with vertical sticks*	–	–	+	+	+	–	0	+	–	0	0
333. Stone weights on bottom	–	–	+	+	+	–	0	ɗ*	–	0	0
334. Seined	–	–	+	+	+	–	0	+	–	0	0
335. Set	–	–	·	S	*	–	0	*	–	0	0
336. Dip net on cross-stick frame*	–	–	–	+	–	–	0	–	–	0	0
337. Dip net on parallel-stick frame*	–	–	+	–	+	–	0	+	–	0	0
338. Basketry fish scoop*	–	–	+	–	*	–	0	–	–	0	0
339. Large trawl, thrown out and hauled in with ropes	–	–	*	*	*	–	0	+	–	0	0
340. Movable "fence" of bundles of branches, dragged*	–	–	+	+	+	+	0	–	–	0	0
341. Weirs and traps used*	–	–	+	–	+	–	0	+	–	0	0
342. Enclosure of stakes	–	–	+	–	+	–	0	+	–	0	0
343. Baited with melon seeds	–	–	+	–	+	–	0	–	–	0	0
344. Dip-net used at entry	–	–	+	–	+	–	0	+	–	0	0
345. Fish speared	–	–	–	*	(*)	–	0	+	–	0	0
346. Spear with 2 diverging points.	–	–	–	–	·	–	0	ɗ*	–	0	0
347. Fish shot	–	–	+	+	+	+	0	–	–	0	0
348. Featherless arrows	–	–	ɗ*	+	+	*	0	–	–	0	0
349. Angling	–	–	–	–	+	–	0	+	–	0	0
350. Viznaga spine hook*	–	–	–	–	+	–	0	–	–	0	0
351. Hardwood hook with 2 acute-angled points	–	–	–	–		–	0	+	–	0	0
352. Fish caught with hands*	–	–	+	+	+	+	0	+	–	0	0
353. Dive to catch	–	–	+	+	+	+	0	+	–	0	0
354. Fish poisoned	–	–	–	*	–	–	0	*	–	0	0
355. Surf fishing with clubs*	–	–	0	+	0	0	0		0	0	0
356. Clams dug, eaten	*+	*+	0	+	0	0	0	+	0	0	0
357. Abalones eaten	*+	*+	0		0	0	0		0	0	0
358. Hardwood abalone bar	+	+	0		0	0	0		0	0	0
Salt											
359. Salt from salt pond	–	–	+	+	R	–	–	+	–	–	–
360. Salt from salt beds or deposit	*+	*+	–	*	–	–	+	–	S	–	*+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
361. "Salt" from alkali ground	–	–	+	–	+	S	–	–	+	+	–
362. Salt obtained in trade	*+	*+	–	–	*S	*+	–	–	–	S	*S
363. Salt obtained for trade	–	–	–	–	–	–	+	R	–	–	–
Cooking and Eating											
364. Cooking done by women	+	+	*+	+	+	+	+	+	+	+	+
365. Cooking in pottery vessels	+	+	+	+	+	+	+	+	+	+	+
366. Pot-rests used	+	+	+	+	+	+	+	+	+	+	–
367. Three	S	–	+	+	+	+	+	+	+	+	–
368. Four	S	+	–	–	–	–	–	–	–	–	–
369. Of clay	+	+	–	–	–	–	–	–	–	–	–
370. Of stone	+	S	+	+	+	+	+	+	+	+	–
371. Stone-boiling in baskets	–	–	–	–	–	*–	–	–	+	*–	+
372. Bent tongs for stones	–	–	–	–	–	–	–	–	+	–	+
373. Earth oven for cooking	+	+	+	+	+	+	+	+	+	+	+
374. Vegetable products	+	+	+	+	+	+	+	+	+	+	+
375. Meat	+	–	S	+	+	*–	+		+	–	–
376. Broiling on open fire	+	+	+	+	+	+	+	+	+	+	+
377. Parching of seeds, corn, etc.	+	+	+	+	+	+	+	+	+	+	+
378. Pottery tray	+	+	+	+	+	+	·	+	–	–	–
379. Basketry tray	–	–	–	–	–	–	+	–	+	+	+
380. Multiple-rod food stirrer	–	–	+	+	+	+	–	+	–	–	–
381. Single-stick food stirrer	–	+	–	–	–	S	+	+	–	–	–
382. Tongs for food stirrer	–	–	–	–	–	–	–	–	+	*+	+
383. Paddle food stirrer	*+	–	–	–	–	–	–	–	–	–	–
384. Corn meal cooked into mush	–	–	+	+	+	+	+	+	+	+	+
385. Corn-meal bread (baked in ashes)	–	–	+	+	+	+	+	+	–	–	–
386. Corn-meal tortillas*	–	–	R	*+	R	+	+	+	–	–	–
387. Made on pottery tray	–	–	–	*–	–	+	+	+	–	–	–
388. Maize soaked in wood ashes	–	–	–	–	*R	+	(–)	–	–	–	–
389. Maize soaked in lye	–	–	–	–	–	–	–	*+	–	–	–
390. Watermelon seeds parched, eaten	–	–	+	+	+	+	–	+	–	+	–
391. Muskmelon seeds parched, eaten	–	–	+	–	–	–	–	+	–	+	–
392. Pumpkin seeds parched, eaten	–	–	+	+	+	+	+	+	+	+	+
393. Food dishes of pottery	+	+	+	+	+	+	+	+	+	+	–
394. Food dishes of basketry	–	–	–	–	–	–	–	–	–	–	+
395. Food dishes of mountain-sheep horn			–	–	–	–	–	–		+	+
396. Dead mescal-cabbage shell as dish		–	0	0	–	–	–		–	*+	–
397. Wooden bowls and platters*	–	–	–	–	–	R	R		–	–	–
398. Ladles of mountain-sheep horn	–	–	0	0	–	–	–	–	–	+	+
399. Ladles of gourd		*+	–	+	+	+	+	+	+	–	–
400. Ladles of pottery	+	+	+	+	+	*–	+	–	–	+	–
401. Basket used as ladle	–	–							+	–	+
402. Long-handled wooden ladles*	–	–	–	–	R	R	*+		–	–	–
403. Fingers for spoon	+	+	+	+	+	+	+	+	+	+	+
404. Usually two (index and middle)	+	+	+	+	+	+	+	+	+	+	+
405. Spoon of sea shell	–	–	0	*(+)	0	0	–	+	0	0	0
406. Spoon of mesquite bark	–	–						+	–	–	–
407. Rabbit-foot swab for eating*	–	–	–	–	–	–	+	–	–	–	–
408. Usually two meals per day	+	+	+	+	+	+	+	+	+	+	+
Storage and Storehouses											
409. "Bird's-nest granary"*	+	–	+	+	+	+	+	–	–	–	–
410. On platform	+	–	+	+	+	S	+	–	–	–	–
411. On ramada	S	–	S	+	+	+	+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
412. On tree fork		–	–	+	–	–	–	–	–	–	–
413. Covered with branches, dirt	+	–	+	+	+	+	+	–	–	–	–
414. Notched-log ladder for access		–		+	+	+	+	–	–	–	–
415. Used for maize	–	–	+	+	+	+	+	–	–	–	–
416. Used for teparies	–	–	+	S	S	–	–	–	–	–	–
417. Used for mesquite	+	–	+	+	+	+	+	–	–	–	–
418. Cylinder of matting, rolled and tied*	–	–						+	–	–	–
419. Storehouses built	–	–	+	+	+	+	+	+	–	–	–
420. Rectangular frame	–	–	+	–	–	+	–	+	–	–	–
421. Flat roof	–	–	+	–	–	+	–	+	–	–	–
422. Brush-and-dirt covered	–	–	+	–	–	+	–		–	–	–
423. Walls of poles, brush, and dirt	–	–	+	–	–	–	–	–	–	–	–
424. Walls of poles or thatch	–	–	–	–	–	+	–	–	–	–	–
425. Door of logs piled across*	–	–	+	–	–	+	–		–	–	–
426. Walls of poles, crib fashion	–	–		–	–		–	*+	–	–	–
427. Lined with bark, hides	–	–		–	–		–	*+	–	–	–
428. Covered with bark, hides	–	–		–	–		–	*+	–	–	–
429. Gable roof over pit*	–	–	–	+	+	+	–	–	–	–	–
430. End posts with ridgepole	–	–	–	+	+	+	–	–	–	–	–
431. Thatch-and-earth covered	–	–	–	+	+	+	–	–	–	–	–
432. Entry in gabled end	–	–	–	+	+	+	–	–	–	–	–
433. Door of logs piled across	–	–	–	+	+	+	–	–	–	–	–
434. Small domed hut	–	–					+	–	–	–	–
435. Earth covered	–	–					+	–	–	–	–
436. Door of logs piled across.	–	–					+	–	–	–	–
437. Pit storage	–	–	+	+	+	+	+	–	+	+	+
438. For melons, pumpkins	–	–	+	+	+	+	+	–	–	+	–
439. Food in baskets	–	–	–	–	–	–	–	–	+		+
440. Cave or rock-shelter storage	+	+	–	–	–	–	+	–	+	+	+
441. Wall across front			–	–	–	–	+	–	+	S	–
442. Dry wall of rocks			–	–	–	–	+	–	–	–	–
444. Mud-chinked wall of rocks*			–	–	–	–	–	–	+	+	–
445. Storage in pit in cave	+	+	–	–	–	–	+	–	+	+	+
446. In pottery vessels	+	+	–	–	–	–	+	–	–	+	–
447. In baskets	–	–	–	–	–	–	–	–	+	–	+
448. Stored food suspended from sticks											+
Miscellaneous Storage Practices											
449. Mud-daubed baskets for storage			+	–	–	–	–	–	–	–	–
450. Meat jerked for storage	*–	*+	–	+	+	+	+	+	+	+	+
451. Deer, etc.	–	+	–	+	+	+	+	+	+	+	+
452. Small game	–	+	–	–	–	+	+	–	+	+	*(+)
453. Pounded before cooking	–	+	–	+	+	+	+	+	–	+	–
454. Fish dried for storage	–	–	+	+	+	–	0	+	–	0	0
Food-Quest Beliefs and Minor Rites*											
Agricultural Observances											
454a. Prayers at maize planting	–	–	–	–	–	+	+		–	*	–
455. Songs at maize planting	–	–	–	–	–	+	+		–	–	–
456. Food taboos at planting	–	–	–	*+	–	–	–		–	–	–
457. Melons and pumpkins only	–	–	–	*+	–	–	–		–	–	–
458. Eating salt, smoking tobacco taboo	–	–	–	*+	–	–	–		–	–	–
459. Offerings placed in fields	–	–	–	–	–	+	(+)		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
460. Magically sprouted grain*	–	–	–	–	–	+			–	–	–
461. Prayers and songs at tobacco planting	–	–				+	+		–	–	–
462. Rite to increase pumpkins and melons	–	–			+	+	+		–	–	–
463. Twins called on to perform	–	–			+	+	+		–	–	–
464. Chew new leaves of vines	–	–			+	+	+		–	–	–
465. Make circuit of garden	–	–			+	+	+		–	–	–
466. Spit leaves out at each "corner"*	–	–			+	+	+		–	–	–
Gathering Observances											
467. Fire for mescal oven lit by summer-born person	–	–	0	0	–	–	–	–	+	+	+
468. Continence during cooking	–	–	0	0	–	–	+	–	+	+	+
469. Scratching taboo during cooking	–	–	0	0	–	–	–	–	+	–	–
470. Chills and fever from prickly-pear fruit*	–	–		0	+	*+	+	+	–	–	–
Hunting Observances											
471. Sweating before deer hunt	–	–	–	–	*–	–	–	+	–	+	0
472. Optional	–	–	–	–	–	–	–	+	–	+	0
473. Bathing before deer hunt	–	–	–	+	–	–	–	S	–	–	0
474. Continence before deer hunt	*+	*–	–	+	–	+	*(+)	+	+	+	0
475. Group singing before deer hunt	*–	+	–	–	*–	+	+	+	+	+	0
476. Hunters assemble with weapons	–	+	–	–	–	+	+	+	+	+	0
477. Smoke tobacco ritually	–		–	–	–	+	*+	+	+	+	0
478. Sing deer songs	–	+	–	–	–	+	+	+	+	+	0
479. Singing led by shaman	–	+	–	–	–	+	+	+	+	+	0
480. Performance by Deer dancer	–	–	–	–	–	–	–	+	–	–	0
481. With mask, regalia, etc.*	–	–	–	–	–	–	–	+	–	–	0
482. Singing lasts all night	–	+	–	–	–	+	+	+	+	+	0
483. Hunters set out breakfastless	+	+	–	+	–	–	–	*+	–	–	0
484. Prayers on killing deer	–	–	–	+	–	–	–	*+	*+	+	0
485. Offerings to deer	–	–	–	–	–	–	–	*+	–	–	0
486. Deer turned head east before butcher	–	–	–	–	+	–	*–	–	–	–	0
487. Horns, tail, offal ritually disposed of	–	–	–				*–	+	+	*+	0
488. Deer meat taboo to impure (menstruants, etc.)	+	+	+		+	+	+	+	+	+	0
489. Restrictions before mountain-sheep hunt	+	*–	0	0	+	+	–	*–		–	–
490. Fasting requisite	+	*–	0	0	–	–	–	–		–	–
491. Continence requisite	+	*–	0	0	+	+	–	–		–	–
492. Group singing before hunt	–	–	0	0	–	–	–	–	–	–	+
493. Led by shaman	–	–	0	0	–	–	–	–	–	–	+
494. Hunters kneel, "dance"	–	–	0	0	–	–	–	–	–	–	*+
495. Hunters mimic death of sheep	–	–	0	0	–	–	–	–	–	–	+
496. Magic tricks displayed	–	–	0	0	–	–	–	–	–	–	+
497. Dance on cane arrows	–	–	0	0	–	–	–	–	–	–	*+
498. All-night singing	–	–	0	0	–	–	–	–	–	–	+
499. Sheep horns cached in mountains	*+	–	0	0	+	+	+	–	–	–	–
500. Sometimes brought home, for weather magic.	–	–	0	0	*+	*+	*+	–	–	–	–
501. Throwing, dropping causes windstorm	–	–	0	0	+	+	+	–	–	–	–
502. Mountain-sheep meat eaten unsalted	–	–	0	0		+	–	–	–	–	–
503. Group singing before antelope hunt	0	–	0	0	–	*+	*+	*–	–	–	*–
504. Led by shamans	0	–	0	0	–	+	+	–	–	–	–
505. Shamans smoke between songs	0	–	0	0	–	+	+	–	–	–	–
506. Shamans locate game between songs	0	–	0	0	–	+	+	–	–	–	–
507. Some have power to cripple antelope	0	–	0	0	–	+	–	–	–	–	–
508. Slain bear sung over	0	0	0	0	0	0	*–		+	–	0
509. Pollen put over bear's ears, nose, legs	0	0	0	0	0	0	–		+	–	0
510. Heart eaten raw by hunters	0	0	0	0	0	0	–		+	+	0

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
511. Sprinkled with pollen	0	0	0	0	0	0	–		+	–	0
512. Head ritually disposed of	0	0	0	0	0	0	–		+	–	0
513. Put in tree (not oriented)	0	0	0	0	0	0	–		+	–	0
514. Bear has house, stores provisions	0	0	0	0	0	0	(+)	+	–	+	0
515. Bear marries human	0	0	0	0	0	0	–	*+	–	–	0
516. Bearmeat eaten	0	0	0	0	0	0	–	–	+	*–	0
517. Hide used	0	0	0	0	0	0	–	+	+	+	0
518. Quail taboo to young	–	–	+	+	+	–	*–	–	–	+	+
519. Quail eggs taboo to young	–	–	–	–	+	–	*–	–	*+	+	+
520. Taboo to kill rattlesnake	–	–	+	–	–	–	*–	–	+	*–	–
521. Causes sickness	–	–	+	–	–	–	–	–	+	–	–
522. Rattlesnake shamans tried to prevent	–	–		+	+		+	–	–	+	+
523. Rattlesnake must be killed quickly (so does not suffer)								*+	–		
524. Taboo to kill horned toad			–	–	–	+	+		+	+	+
MATERIAL CULTURE											
Dwellings*											
Colorado River Complex*											
525. Rectangular floor plan	–	–	+	*+	*–	–	–	–	–	–	–
526. Floor excavated	–	–	–	+	–	–	–	–	–	–	–
527. One to two feet	–	–	–	+	–	–	–	–	–	–	–
528. Four-post frame, with connecting beams*	–	–	S	+	–	–	–	–	–	–	–
529. Two posts, longitudinal, with beam*	–	–	–	S	–	–	–	–	–	–	–
530. Two posts, transverse, with connecting beam*	–	–	+	–	–	–	–	–	–	–	–
531. Short side posts (hip roof)	–	–	+	+	–	–	–	–	–	–	–
532. Rear posts lower than side	–	–	+	–	–	–	–	–	–	–	–
533. Side and rear walls vertical	–	–	*+	+	–	–	–	–	–	–	–
534. Side and rear walls inclined	–	–	–	S	–	–	–	–	–	–	–
535. Walls of horizontal poles	–	–	–	S	–	–	–	–	–	–	–
536. Walls of vertical poles	–	–	+	S	–	–	–	–	–	–	–
537. Covered with arrowweed thatch	–	–	+	+	–	–	–	–	–	–	–
538. Earth covering over entire house	–	–	+	+	–	–	–	–	–	–	–
539. Vertical double sand-filled front wall	–	–	+	+	–	–	–	–	–	–	–
Gila River Complex*											
540. Circular floor plan	–	–	–	–	*–	+	+	–	–	–	–
541. Floor area excavated	–	–	–	–	+	–	*S	–	–	–	–
542. One to two feet	–	–	–	–	+	–	S*	–	–	–	–
543. Four-post frame with connecting beams	–	–	–	–	+	+	–	–	–	–	–
543a. Paired auxiliary posts for large house	–	–	–	–	+	–	–	–	–	–	–
544. One (center) post	–	–	–	–	–	–	+	–	–	–	–
545. Walls of poles bent in to central frame	–	–	–	–	+	+	+	–	–	–	–
546. Horizontal ribs lashed to walls	–	–	–	–		+	+	–	–	–	–
547. Courses of thatch for covering*	–	–	–	–	+	+	+	–	–	–	–
548. Earth covering on top of house*	–	–	–	–	+	+	+	–	–	–	–
549. Earth banked against sides*	–	–	–	–		+	+	–	–	–	–
Domed-to-conical Hut Complex*											
550. Circular (to elliptical) floor plan	+	–	–	+	+	+	–	–	+	+	+
551. One center post	+	–	–	–	–	S	–	–	–	S	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
552. Two interlocked forks	–	–	–	–	–	–	–	–	–	–	+
553. Three or four interlocked forks	–	–	–	–	–	S	–	–	–	S	–
554. Two posts with beam	–	–	–	–	–	–	–	–	S	–	–
555. House built without posts	–	–	–	+	+	–	–	–	S	–	–
556. Floor area excavated	+	–	–	–	–	–	–	–	–	–	–
557. Wall of poles inclined inward	+	–	–	–	–	–	–	–	–	♂*	+
558. Wall of poles bent inward	–	–	–	+	+	+	–	–	+	♂*	–
559. Stones at bottom to brace*	–	–	–	–	–	–	–	–	+	+	–
560. Covering of thatch (grass, brush)	+	–	–	+	+	+	–	–	+	S	+
560a. Covering irregular (not in courses)	+	–	–	+	+	+	–	–	+	+	+
561. Covering of bark	–	–	–	–	–	–	–	–	–	+	–
562. Earth covering over thatching	+	–	–	–	–	+	–	–	S	–	–
562a. Fire built before door (mosquito smudge)	–	–	–	+	+	+	–	–	–	–	–
563. Extended entryway*	–	–	–	–	–	–	–	–	S	S	–
563a. Used as winter dwelling	+	–	–	–	–	–	–	–	+	+	+
563b. Used as summer camp	–	–	–	+	+	+	–	–	–	–	–
Rectangular, Gabled, Thatched House Complex*											
564. Floor plan rectangular	–	+	–	–	–	–	–	+	–	–	–
565. End posts supporting ridge	–	+	–	–	–	–	–	+	–	–	–
566. Center posts under ridge	–	S	–	–	–	–	–	+	–	–	–
567. Two-pitch roof	–	+	–	–	–	–	–	+	–	–	–
568. Covered with brush, yucca thatch	–	+	–	–	–	–	–		–	–	–
569. Covered with reeds and palmetto	–	–	–	–	–	–	–	+	–	–	–
570. Earth covering over thatch	–	–	–	–	–	–	–	+	–	–	–
570a. Walls of vertically placed brush, reeds, etc., bound between poles	–	+	–	–	–	–	–	+	–	–	–
570b. Wattle-and-daub (jacal) construction*	–	–	–	–	–	–	–	♂S	–	–	–
570c. Huts with walls of stone and mud	–	–	–	–	–	–	–	♂*	–	–	–
Secondary Features											
571. Doorway faces east	–	–	–	+	+	+	+	♂*	+	+	+
572. Doorway faces south	S	+	+*	–	–	–	–	♂	–	–	–
573. Doorway faces west	S	–	–	–	–	–	–	–	–	–	–
574. Door: suspended mat of twined arrowweed stems	–	–	–	+	+	+	–	–	–	–	–
575. Door: suspended mat of woven bark	–	–	+*	–	–	–	–	–	–	–	+*
576. Door: suspended mat of grass, brush	+	+				–	+	–	–	–	–
577. Door: suspended mat of bean vines	–	–		+	–	–	–	–	–	–	–
578. Door: suspended mat of cane, etc.	–	–						+	–	–	–
579. Door covering absent	–	–		–	–	–	–	–	+	+	–
580. Fireplace in center of house	–	+	–	–	–	+	–	–	+	–	+
581. Fireplace between center and door	+	–	+	+	+	–	+	–	–	+	–
582. No fire in house (cook, etc., outside)	–	–	–	–	–	–	–	+	–	–	–
582a. Fireplace on floor level*	+	+	+	*–	+	+	+	–	+	+	+
582b. Smoke hole in roof	+	–	–	*+	*+	R	R	–	+	+	+
582c. Single-family house	+	+	S	S	S	+	+	+	+	+	+
582d. Multifamily house	–	–	S	S	S	S	–	–	–	S	S
582e. Dwelling type winter house only	+	+	–	+	+	+	–	–	+	+	+
582f. Dwelling type used year around	–	–	+	–	–	–	*+	+	–	–	–
Shades, Shelters, and Camps*											
583. Shade (ramada) in conjunction with dwelling*	+	+	+	+	+	+	+	+	+	+	–
584. Irregular number of posts	+	+	+	+	+	+	+	+	+	+	–
585. Flat roof	+	+	+	+	+	+	+	+	+	+	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
586. Gabled roof.	R	R	–	S*	–	R	R	–	–	–	–
587. Roof brush or thatch covered	+	+	+	+	+	+	+	+	+	+	–
588. Earth covering on thatch	–	–	–	S*	R	R	R	–	–	–	–
589. Enclosed sides*	S	+	S	S	S	+	S		+	+	–
590. Built attached to dwelling	–	–	–	S	S	–	–		S	–	–
591. Built separate from dwelling	+	+	+	S	S	+	+		S	+	–
592. Circular to semicircular windbreak of brush (unroofed)	+	+	+	+	+	+	+		+	+	+
593. Built in conjunction with dwelling	+	+	+	+	+	+	+		+	+	–
594. Used for cooking, etc.*	+	+	+	+	+	+	+		+	+	–
595. Used as temporary dwelling									S	S	+
596. Domed hut with two opposed doorways*									+	–	–
597. Brush lean-to against tree*										S	+
598. Cave or rock-shelter dwellings	+	+	–	–	–	–	–		+	+	+
599. Preferred type for winter	–	–	–	–	–	–	–		+	+	S
600. Used when gathering, in mountains	+	+	–	–	–	–	–		–	–	–
601. Front partially enclosed	+	–	–	–	–	–	–		S	S	S
602. With brush	–	–	–	–	–	–	–		+	+	+
603. Half-wall of rocks	+	–	–	–	–	–	–		+	–	–
604. Multifamily use*	+	S	–	–	–	–	–		S	S	S
605. Separate family spaces	+		–	–	–	–	–		+	+	+
606. Separate fires	+		–	–	–	–	–			+	+
Assembly House											
607. Men's assembly house	–	–	–	–	+	+	+	–	–	–	–
607a. Circular to oval ground plan	–	–	–	–	+	+	+	–	–	–	–
608. Four-post frame	–	–	–	–	–	+	–	–	–	–	–
609. Six main posts, four auxiliary posts*	–	–	–	–	+	–	–	–	–	–	–
610. Two posts with beam	–	–	–	–	–	–	+	–	–	–	–
611. Walls of poles, bent to central frame	–	–	–	–	+	+	+	–	–	–	–
612. Bound to horizontal poles	–	–	–	–	+	+	+	–	–	–	–
613. Thatch covering	–	–	–	–	+	+	+	–	–	–	–
614. Earth covering on top	–	–	–	–	+	+	+	–	–	–	–
615. Built by communal effort	–	–	–	–	+	+	+	–	–	–	–
616. Men assemble in, nightly*	–	–	–	–	+	+	+	–	–	–	–
617. Women excluded	–	–	–	–	+	+	+	–	–	–	–
618. Chief lives in	–	–	–	–	+	–	*+	–	–	–	–
619. Village medicine bundle kept in*	–	–	–	–	–	+	*+	–	–	–	–
620. Firetender official	–	–	–	–	*–	+	+	–	–	–	–
621. Used as sweat house*	–	–	–	–	–	–	–	–	–	–	–
622. Designated "(tobacco-) smoking house"*	–	–	–	–	*+	*+	*+	–	–	–	–
623. Headman's house used for meetings*	–	–	+	+	–	–	–	*+	–	–	
624. Shade used for meetings*	+	+	–	–	–	–	–	S	–	–	–
625. Meetings in circular brush windbreak*	+	–	–	–	–	–	–	–	+	+	–
Sweat Houses											
626. Small domed, conical structure of poles	*+	*–	–	*+	*–	–	–	–	+	+	*–
627. Covered with brush and grass	+	–	–	+	–	–	–	–	+	–	–
628. Earth covering on brush, etc.	+	–	–	+	–	–	–	–	+	–	–
629. Covered with bark.	–	–	–	–	–	–	–	–	–	+	–
630. Rectangular pit	–	–	–	–	–	–	–	+	–	–	–
631. Three to four feet deep	–	–	–	–	–	–	–	+	–	–	–
632. Gabled roof (end posts with ridge)	–	–	–	–	–	–	–	+	–	–	–
633. Covered with brush and earth	–	–	–	–	–	–	–	+	–	–	–
634. Door covering: blanket, hide	–	–	–	–	–	–	–	+	+	+	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
635. Door uncovered	+	–	–	+	–	–	–	–	–	–	–
636. Direct-fire heat	+	–	–	+	–	–	–	+*	–	–	–
637. Fire kindled outside, coals brought in	–	–	–	–	–	–	–	+*	–	–	–
638. Placed in the four corners	–	–	–	–	–	–	–	+*	–	–	–
639. Fire built inside, near door	+	–	–	+	–	–	–	–	–	–	–
640. Steam sweating	–	–	–	–	–	–	–	–	+	+	–
641. Rocks placed near wall	–	–	–	–	–	–	–	–	+	+	–
642. Forked stick for handling rocks	–	–	–	–	–	–	–	–		+	–
643. Pottery jar for water	–	–	–	–	–	–	–	–		+	–
644. Coiled basket for water	–	–	–	–	–	–	–	–		+	–
645. Sweating for minor curing	+	–	–	+	–	–	–	+	+	+	–
647. Sweating for hunting luck	–	–	–	–	–	–	–	+	+*	+	–
648. Sing when sweat	–	–	–	–	–	–	–	+	+	+*	–
649. Sweating by men, women (M, W; +, both)	+	–	–	+	–	–	–		M*	+	–
650. Sexes sweat separately	+	–	–		–	–	–		–	+	–
651. Hotbed "sweating" for minor curing*	–	–					+	–	–	–	–
Pottery											
652. Pottery made	+	+	+	+	+*	+	+	+	+	+*	+*
653. Pottery making by women	+	+	+	+	+	+	+	+	+	+	+
Techniques											
654. Clay ground, winnowed	+	+	+	+	+	+	+			+	
655. Temper added	–	+	+	+	+	+	+	+	–	–	–
656. Sand	–	–	–	–	+	+	(+)	S	–	–	–
657. Pulverized rock	–	–	+	–	–	–	–	–	–	–	–
658. Pulverized sherds	–	+	S	+	–	S	S	S	–	–	–
659. Grass or dung	–	–	–	–	–	–		+	–	–	–
660. No temper (already in clay)	+	–	–	–	–	–	–	–	+	+	+
661. Cactus juice mixed with clay*										+	+
662. Bottom of vessel molded	+	+	+	+	+	+	+	+	+	+	+
663. Over another vessel or stone	–	+		+	+	+	+	–	+	+	–
664. On knee	+	–	+	+	+	–	–	–	+	+	–
665. Molded with hands from lump	–	–						+	–	–	+
666. Concave bottom to which sides added	+	+	+	+	+	+	+	+	+	+	–
667. Conoidal bottom to which sides added											+*
668. Sides built up by coiling	+	+	+	+	+	+	+	+	+	+	+
669. Paddle-and-anvil technique	+	+	+	+	+	+	+	–	+	+	–
670. Pottery anvil	+	+	–	+	+	–	–	–	–	–	–
671. Mushroom shaped	+	+	–	+	+	–	–	–	–	–	–
672. Cobble anvil	+	S	+	–	+	+	+	–	+	+	–
673. Wooden paddle*	+	R	+	+	+	+	+	–	+	+	–
674. Rectangular blade*	+	R	+	+	+	+	R	–	R	+	–
675. Ovate blade	–	–					+	–	–	–	–
676. Tapering blade	–	–	–	–	–	S	+	–	+	–	–
677. Smooth cobble as paddle	–	+						–	S		–
678. Scraping technique	–	–	–	–	–	–	–	+	–	–	+
679. Shell scraper	–	–	–	–	–	–	–	+	–	–	
680. Wooden scraper	–	–	–	–	–	–	–	–	–	–	+
681. Polishing with smooth pebble and water	+	+			+	+	+		+	+	–
682. Polishing with smooth sea shell and water	–	–						+	–	–	–
682a. Polishing with cactus pulp											+
683. Firing in open fire (or very shallow pit)*	+	+		+	+	+	+	+	+	+	+
683a. Vessel filled with cedar bark											+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Vessel Shapes*											
Wide-mouthed jars*:											
684. Open returned rim, slightly elongated round body*	+	+	+	+	+	+	+	+	–	+	–
685. Sharply returned rim, long neck joining globular body at angle*	+	–	+	+	+	+	+	–	–		–
686. Open returned rim, sides diverge gradually to greatest width near base*	+			–	+						–
Narrow-mouthed jars:											
687. Slightly returned rim, long neck, globular body*	(+)	+	+	+	+	+	+	+	–	+	–
688. Slightly returned rim, mouth larger than 687, no neck, globular body*		+				+			–		–
Wide-mouthed bowls:											
689. Open returned rim, elongated round body*			+		+		+		+	+	–
690. Sharply returned rim, shoulder at middle of vessel*						+					–
691. Sharply returned rim, globular body*					+	+	+				–
692. Inturned rim, oval body widest near base*				+					+		–
693. Inturned rim with ears, compressed round body*		+			+	+	+	–	+		–
694. Slightly returned rim, hemispherical body*		+	+	+	+	+	+	+	+	+	–
695. "Duck-shaped" olla*	–	+		+	–	+	R	–			–
696. Straight sides, conical base*	–	–	–	–	–	–	–	–	–	–	+
Shallow dishes and trays:											
697. Plain round shallow dish or tray*	+		+	+		+		+		–	–
698. Elongated, with ears (parching tray)*	–	–	+	+	+	+	–	–		–	–
Ladles and scoops:											
699. Ovoid, without developed handle	+	+	+		+			(–)		+	
700. Ovoid, effigy handle ("quail spoon")*	–	–	+	+	+	–	+	–	–	–	–
Various:											
701. Small jar, constricted mouth, long neck, globular body*	+	+	–	–	–	R				+	–
702. Same, with double spout*	+	+	–	–	–	R				–	–
703. Effigy jars, features on neck of vessel*	–	–	–	–	+	+	+	–	–	–	–
Decoration											
704. Pottery slipped before firing	–	–	–	(+)	+	+	+	–	*+	–	–
705. Red slip (when applied)	–	–	–	(+)	+	+	+	–	*+	–	–
706. Red after firing	–	–	–	(+)	+	+	+	–	*+	–	–
707. White slip (when applied)	–	–	–		R	+	+	–		–	–
708. White after firing	–	–	–		R	+	+	–		–	–
709. Unslipped pottery	+	+	+	+	+	+	+	+	+	+	+
710. Cooking ware only	–	–	–	+	+	+	–	–	(+)	–	–
711. Pottery painted before firing	+	–	+	+	–	–	–	–	–	+	–
712. Pottery painted after firing	–	+	–	–	+	+	+	–	+	–	–
713. Refired to fix paint*	–	*–	–	–	+	+	+	–	+	–	–
714. Designs in red	+	–	+	+	+	–	–	–	*+	+	–
715. Designs in black	–	+	–	+	+	+	+	–	*+	–	–
716. Mesquite gum for black	–	*–	–	+	+	+	+	–	–	–	–
717. Designs in yellow	–	–					+	–	*+	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
718. Paint applied with brush	–	*(+)	–	+	–	*+	*+	–	–	–	–
719. Paint applied with stick	–	–	+	–	–	–	–	–	+	+	–
720. Paint applied with finger	+	–	+	–	+	–	–	–	–	+	–
721. Incised decoration	–		–	+	–	–	–		S	+	–
722. Scalloped rims	+		+	+	–	S	–		+	·	–
Miscellaneous											
723. Pot rims bound with bark for strength*	+	–	+	+			S		–	+	–
724. Pottery-mending with creosote-bush gum*	–	–	–	·	+	+	+		–	–	–
725. Pottery-mending with clay (refiring)	+	+	+	–					–	S	–
726. New pot rubbed with gruel to make impermeable*	–	–	+	+	+	(–)	+	–	–	+	–
727. New pot rubbed with prickly-pear leaf to make impermeable								+	–	–	–
728. Continence requisite of potter*		–	–	+	–		–	–	–	–	–
729. Dolls (figurines?) made of clay	+		+	+	+	+	–	–	+	+	+
730. Human forms	+		+	+	+	+	–	–	+	+	+
731. Animal forms	+		+	+	+	+	–	–	+	+	+
732. Fired	+		–	+	+	+	–	–	–	–	–
733. Unfired	–		+	–	–	–	–	–	+	+	+
734. Made by adults (for children)	+		+	+	+	+	–	–		–	–
735. Made by children							–	–		+	+
Basketry*											
736. Basketry made by men, women (M, W; +, both)	W	*M	M	*–	*W	W	W	+	W	W	W
737. Men make rough baskets (only)	–	–	–	–	–	–	–	+	–	–	–
Techniques											
738. Twined basketry made	+	+	(+)	–	–	–	+	+	+	+	+
739. Closework	+	+	–	–	–	–	–	–	+	+	+
740. Openwork			+	–	–	–	+	–			+
740a. Wrapped twine	–	–	–	–	–	–	–	+	–	–	–
741. Coiled basketry made	+	+	*	–	+	+	+	–	+	+	+
742. Single-rod foundation	–	*(+)	–	–	–	–	–	–	–	–	–
743. 2-rod foundation	–	–	–	–	–	–	–	–	–	–	+
744. 3-rod foundation	–	–	–	–	–	–	–	–	+	+	–
745. Bundle foundation	+	–	–	–	+	+	+	–	–	–	–
746. Clockwise coil	+	·	–	–	(+)		+	–	+	(+)	
747. Counterwise coil	–	·	–	–	*(–)	+	S	–	–	–	
748. Bone awl for sewing	–	–	–	–	·	+	–	–	+	*·	+
749. Wood awl for sewing	+	+	–	–	·	–	+	–	–	·	–
750. Awl hafted			–	–	·	+	R	–	–	*·	+
751. Wood, horn handle			–	–	·	–	R	–	–	·	+
752. Creosote-gum ball for handle*			–	–	·	+	–	–	–	·	–
752a. Checker and twill baskets made	–	–	–	–	–	+	+	+	–	–	–
Decoration											
753. Designs in red	+	+	–	–	–	–	+	–	+	+	R
754. Dyed elements inserted	+	+	–	–	–	–	–	–	–	–	–
755. Fiber elements inserted	–	+	–	–	–	–	+	–	+	+	R
756. Yucca root	–	+	–	–	–	–	+	–	+	+	R
757. Applied to twining	+	–	–	–	–	–	–	–	–	–	–
758. Applied to coiling	+	+	–	–	–	–	+	–	+	+	R

	Dieg	Akwa	Moh	Coc	Mar	Pim	Pap	Yaq	Yav	Wal	Shiv
	DM	Ak	Mo	Co	Ma	Pi	Pa	Yq	Yv	Wl	SS
759. Designs in black	+	+	–	–	+	+	+	–	+	+	+
760. Dyed elements inserted	·	–	–	–	–	–	–	–	–	–	–
761. Fiber elements inserted	·	+	–	–	+	+	+	–	+	+	+
762. Martynia	·	(+)	–	–	+	+	+	–	+	+	+
763. Applied to twining	+	+	–	–	–	–	–	–	+	+	–
764. Applied to coiling	+	+	–	–	+	+	+	–	+	+	+
Basket Types											
765. Burden baskets	–	–	+	*–	*+	*–	*+	+	+	+	+
766. Cylindrical	–	–	–	–	–	–	*+	+	–	–	–
767. Conical	–	–	*+	–	*+	–	–	–	+	+	+
767a. Buckskin reinforced bottom*	–	–	–	–	–	–	–	–	+	+	+
768. Wedge shaped	–	–	–	–	–	–	–	*+	–	–	–
769. Rectangular	–	–	–	–	–	–	–	+	–	–	–
770. Made in twined work	–	–	+	–	+	–	*+	–	+	+	+
771. Made in coiling	–	–	–	–	*–	*–	–	–	–	–	–
772. Made in "crisscross lacing" (wrapped twine?)	–	–						*+	–	–	–
773. Made in checker	–	–	–	–	–	–	–	*+	–	–	–
774. Storage basket	–	–	–	–	–	+	+	–	+	+	+
775. Cylindrical, flat base	–	–	–	–	–	+	–	–	–	–	–
776. Globular	–	–	–	–	–		+	–	–	–	+
777. Constricted mouth with neck and shoulder	–	–	–	–	–	*+	+	–	–	–	–
778. Conical burden basket for storage	–	–	–	–	–	–	–	–	+	+	S
779. Made in twined work	–	–	–	–	–	–	–	–	+	+	S
780. Made in coiling	–	–	–	–	–	+	+	–	–	–	+
782. Water bottle	–	–	–	–	–	–	–	–	+	+	+
783. Shoulder, constricted mouth with neck, conical base	–	–	–	–	–	–	–	–	+	+	+
784. Same, with rounded base	–	–	–	–	–	–	–	–	+	*–	+
785. Pitch coated	–	–	–	–	–	–	–	–	+	+	+
786. Inside	–	–	–	–	–	–	–	–		+	*+
787. Outside	–	–	–	–	–	–	–	–		+	*(+)
788. Pitch put on over red paint	–	–	–	–	–	–	–	–	*	+	+
789. Wad of bark, etc., for cork	–	–	–	–	–	–	–	–	+	+	+
790. Made in twined work	–	–	–	–	–	–	–	–	+	+	+
791. Made in coiled work	–	–	–	–	–	–	–	–	*–	+	+
792. Trays	+	+	+	–	+	+	+	–	+	+	+
793. Circular flat (or shallow) tray*	+	+	+	–	–	+	+	–	+	+	+
794. Simple ring for rim*	–	–	+	–	*	*+	–	–	–	–	–
795. Wide truncated cone	–	–	–	–	*+	+	+	–	–	–	–
796. Triangular tray											+
797. Made in twined work	–	–	+	–	*–	*+	–	–	+	+	+
798. Made in coiled work	+	+	*–	–	+	+	+	–	+	+	+
799. Cooking vessels	–	–	–	–	–	–	–	–	+	–	+
800. Hemispherical (straight sides)*	–	–	–	–	–	–	–	–	–	–	+
801. Globular (inturned rim)	–	–	–	–	–	–	–	–	+	–	–
802. Women's basketry cap	+	+	–	–	–	–	–	–	–	+	+
805. Twined	+	+	–	–	–	–	–	–	–	+	+
806. Coiled	*·	–	–	–	–	–	–	–	–		S
807. Basketry fish scoop*	–	–	+	–	–	–	–	–	–	–	–
808. Twined	–	–	+	–	–	–	–	–	–	–	–
809. Trinket and medicine baskets	–	–	–	–	–	+	+	*+	–	–	–
810. Rectangular*	–	–	–	–	–	+	+	+	–	–	–
811. Cylindrical	–	–	–	–	–	–	–	+	–	–	–
812. With fitted lid	–	–	–	–	–	+	+	R	–	–	–
813. Checker or twill	–	–	–	–	–	+	+	+	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
814. Carrying ring*	–	–	–	–	–	*	+	–	–	–	–
815. Twilled	–	–	–	–	–		+	–	–	–	–
816. Cradle hood of basketry	+	+	+	+	+	+	+	–	+	+	+
817. Wide cylindrical*	+	+	+	+	+	+	+	–	+	+	–
818. Triangular awning, attached at top*	–	–	–	–	–	–	–	–	–	–	+
819. Checker or twill	+	+	+	+	+	+	+	–	+	+	–
820. Twined	–	–	–	–	–	–	–	–	–	–	+
Cradles											
821. U-ladder type frame*	+	–	+	+	+	+	+	–	–	S	–
822. Oval-ladder type frame*	–	+	–	–	–	–	–	–	+	S	–
823. Widely spaced horizontal wood crosspieces*	–	–	+	+	+	+	+	–	–	–	–
824. Closely spaced horizontal wood crosspieces*	+	+	–	–	–	–	–	–	+	+	–
825. Rectangular frame of four sticks*	–	–						+	–	–	–
826. Vertically placed cross sticks*	–	–						+	–	–	–
827. Wedge-shaped frame of twined basketry*	–	–	–	–	–	–	–	–	–	–	+
828. Hoop handle	–	–	–	–	–	–	–	–	–	–	+
829. Cradle made by men, women (M, W; +, both)		W	M	M	*W	M	M	M	*W	M	W
830. Cradle hood: wide wicker cylinders*	+	+	+	+	+	+	+	–	+	+	–
830a. Cradle hood: single stick bent across cradle*	–	–						+	–	–	–
831. Cradle hood: triangular awning*	–	–	–	–	–	–	–	–	–	–	+
Mattress											
832. Shredded bark, bound in concentric loops*	–	–	+	+	+	+	–	–	.	+	–
833. Woven mat	–	–	–	–	–	–	+	+	.	–	–
834. Shredded bark, loose	+	+	–	–	–	–	–	–	.	–	+
835. Pillow: wrapped ring of bark, bound in middle*	–	–	+	+	+	+	+		+	*–	–
Binding Band											
836. Woven (or plaited) plant fiber (except cotton)	+	+	+	+	–	–	–	–	–	–	–
837. Woven of cotton	–	–	–	–	+	+	+	*+	–	–	–
838. Buckskin strip	–	–	–	–	–	–	–	–	+	+	+
839. Wound around cradle	+	+	+	+	+	+	+	+	–	–	–
840. Laced back and forth through loops	–	–	–	–	–	–	–	–	+	+	+
Ornamentation											
841. Painted designs on hood	+	+	–	*+	+	+	–	–	–	–	–
842. Indicate sex of child	–	–	–	*+	*–	+	–	–	–	–	–
843. Ornaments suspended from hood	+	+	+	+	+	+	*–	+	+	+	+
844. Indicate sex of child	–	–	+	+	.	+	*–	+	–	+	–
845. Feathers for boy	–	–	+	+	.	+	*–	*	–	*	–
846. Beads for girl	–	–	+	+	.	+	–	+	–	+	–
847. Woven designs on binding band	–	–	–	–	+	+	+	–	–	–	–
848. Indicate sex of child	–	–	–	–	*.	–	–	–	–	–	–
Carrying											
849. Carrying strap attached to cradle	+	+	–	–	–	–	–	–	+	+	+
850. Cradle carried on back vertically	+	+	–	–	–	–	–	–	+	+	+
851. Cradle on head, horizontally, crosswise	S	S	+	+	+	+	+	+	–		
852. Cradle on top of carrying frame, horizontal*	–	–				+	+	–	–	–	–
853. Cradle horizontal on hip, or in arms	+	S	+	+	+	+	+	+	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Usage											
854. Only one cradle for infant	+	–	–	–	R	+	+	–	+	–	–
855. Several cradles (successively larger)	–	+	+	+	+	–	–	+	–	+	+
856. Two cradles	–	–	+	+	+	–	–	–	–	–	S
857. Three or four cradles	–	+			–	–	–	+	–	+	S
858. First cradle of different type	–	–	–	–	–	–	–	–	–	–	*+
859. Cradles kept when outgrown	–	+	S	*+	+	+	–	S	+	*+	*–
860. Reused for other children	–	+	S	+	+	+	–	S	+	+	–
861. Swing of two parallel ropes	R	R	R	R	*+	R			R	–	–
Textiles*											
Rabbitskin Cloth											
862. Rabbitskin robes made	*–	+	*+	+	*(+)	–	*–	*(+)	+	+	+
863. Made by men, women (M, W; +, both)	–	M	M	+	·	–	–	·	M	+	W
864. Strips of skin wrapped on foundation	–	+	–	*–	·	–	–	·	–	–	–
865. Strips of skin twisted, no foundation	–	–	+	+	·	–	–	·	+	+	+
866. One-ply (twisted on self)	–	–	+	+	·	–	–	·	+	+	–
867. Two-ply	–	–	–	–	·	–	–	·	–	–	+
868. Horizontal weaving	–	+	–	*–	·	–	–	·	+		+
869. Warps over two horizontal bars	–	+	–	*–	·	–	–	·	(+)	–	S
870. Warps on two rows of pegs*	–	–	–	–	·	–	–	·	–	–	S
871. Warps laid out on ground (no frame)*	–	–	–	–	·	–	–	·	+	+	–
872. Vertical weaving	–	–	+	–	·	–	–	·	–	–	–
873. "Half loom"; two posts with horizontal cord	–	–	+	–	·	–	–	·	–	–	–
874. Circular blanket*	–	+	–	+	·	–	–	·	–	–	–
875. Continuous warp used	–	+	+	+	·	–	–	·	+	+	+
876. Wefts of plant-fiber string	–	+	+	+	·	–	–	·	–	+	+
877. Wefts of buckskin	–	–	–	–	·	–	–	·	+	–	–
878. Wefts of rabbitskin	–	–	–	–	·	–	–	·	S	–	–
879. Wefts twined	–	–	+	–	·	–	–	·	S	S	+
880. Wefts wrapped*	–	+	–	+	·	–	–	·	–	–	–
881. Wefts checker	–	–	–	–	·	–	–	·	S	S	–
882. Robes for dress	–	+	+	+	·	–	–	·	+	+	+
883. Robes for bedding	–	+	+	+	·	–	–	·	+	+	+
Shredded-Bark Cloth											
884. Bark robes woven	–	*–	+	+	*(–)	–	–	·	–	+	+
885. Willow bark	–	–	+	+	–	–	–	·	–	–	–
886. Cowania bark	–	–			–	–	–	·	–	*+	
887. Other bark	–	–			–	–	–	·	–	–	*+
888. Warps bunched or loosely twisted (not spun)	–	–	+	·	–	–	–	·	–	+	+
889. Warps suspended on half loom	–	–	+	+	–	–	–	·	–	–	–
890. Warps laid out on ground	–	–	–	–	–	–	–	·	–	+	+
891. Twined wefts	–	–	+	+	–	–	–	·	–	–	+
892. Checker (?) wefts	–	–	–	–	–	–	–	·	–	*(+)	–
893. Made by men, women (M, W; +, both)	–	–		+	–	–	–	·	–	+	W
Cotton Cloth*											
894. Cotton cloth woven	–	–	–	–	*+	+	+	*–	–	–	–
895. Ginning by whipping, rolling with stick*	–	–	–	–	+	+	·	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
896. Cotton plucking bow*	–	–	–	–	+	+	+	–	–	–	–
897. Spun with spindle	–	–	–	–	+	+	+	–	–	–	–
898. Spindle with cross-stick whorl, lashed*	–	–	–	–	+	+	+	–	–	–	–
899. Spindle with cross-stick whorl, perforated*	–	–	–	–		+	+	–	–	–	–
900. Spindle rolled on thigh*	–	–	–	–	+	+	+	–	–	–	–
901. Spindle held between toes*	–	–	–	–	*–	S	–	–	–	–	–
902. Weaving on horizontal loom	–	–	–	–	+	+	+	–	–	–	–
903. Two horizontal bars on pegs	–	–	–	–	+	+	+	–	–	–	–
904. Heddles	–	–	–	–	+	*–	+	–	–	–	–
905. Weaving sword	–	–	–	–	+	+	+	–	–	–	–
906. Belt loom	–	–	–	–	*+	S	–	–	–	–	–
907. Colored warps in borders*	–	–	–	–	+	+	+	–	–	–	–
908. Robes woven	–	–	–	–	+	+	+	–	–	–	–
909. Sashes woven	–	–	–	–	+	+	+	–	–	–	–
910. Weaving by men, women (M, W; +, both)	–	–	–	–	M	M	M	–	–	–	–
Wool Cloth											
911. Wool cloth woven (since white contact)								+			
912. Preparing by whipping with stick								+			
913. Cotton-plucking bow used								+			
914. Spun with spindle								+			
915. Spindle with gourd disk whorl								+			
916. Spindle rotated on ground								+			
917. Weaving on horizontal loom								+			
918. Two horizontal bars on pegs								+			
919. Heddles								+			
920. Weaving sword								+			
921. Weaving by men, women (M, W)								+			
922. Belt loom								–			
Matting											
923. Cane and tule mats	–	–	–	–	*–	+	–	+	S	–	–
924. Bark mats	–	–	–	–	–	–	–	–	+	–	+
925. Mescal- and yucca-fiber mats	–	–	–	–	–	–	+		–	+	–
926. Twined	–	–	–	–	–	–	–	–	(–)	–	+
927. Checker and twill	–	–	–	–	–	+	+	+	+	+	–
Skin Dressing*											
928. Buckskin made	+	+	–	+	+	+	+	+	+	+	*+
929. Skin soaked for dehairing	+	+	–	+	+	+	+	+	+	+	+
930. Two days	+	–	–	–	–	–	.	–	+	+	+
931. More than two	–	+	–	+	+	+	.	–	–	–	–
932. Short time only, in lye solution	–	–	–					*+	–	–	–
933. Slanting post for scraping	–	+	–	*–	+	+	+	–	+	+	+
934. Side-blade beaming tool (two hands)	R	+	–	*–	+	+	+	–	+	+	+
935. Bone beaming tool	R	+	–	*–	.	.	+	–	+	+	+
936. Deer cannon	–	–	–	–	.	.		–	(+)	+	+
937. Horse rib (modern)	R	R	–	–		R	R	–	R	R	
938. Wooden beaming tool	–	–	–	–	(+)	.		–	–	–	–
939. Stone scraper				+		(+)	–	–	–	–	–
940. Vertical sharp-bladed post; hide sawed over	*+	–	–	–	–	–	–	*+	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
941. Tanning agent applied.	+	+	–	+	+	+	+	+	+	+	+
942. Deer brains	+	+	–	S	S	*–	+	+	+	+	+
943. Hide soaked in		+				–	+		+	+	+
944. Rubbed on	+	+	–	+	+	–		+	+	S	+
945. Sprayed on with mouth	–	–	–		–	–	–	–	+	S	–
946. Sahuaro seeds	0	0	–	*0	S	S	S	*S	–	–	0
947. Hide wrung out by twisting with stick*	–	–	–		–	–	–	–	+	+	+
948. Hide worked in hands	+	–	–	–	+	+	+	–	+	+	+
949. Hands and feet used	–							*(+)		+	+
950. Hide pounded with stone	–	–	–	–	+	–	–	–	–	–	–
951. Hide sawed over edge of vertical post*	–	+	–	+	S	–	–	–	–	–	–
952. Skins left natural color	S	S	–	–	–	S	S		S	S	+
953. Skins dyed	S	S	–	–	–	S	S	+	+	+	–
954. Red	+	+	–	–	–	+	+	+	+	+	–
955. Yellow	–	–	–	–	–	–	–	–	+	+	–
956. Black	–	–	–	–	–	–	–	–	–	+	–
957. Hides tanned with hair on (i.e., furs)	+	–	+	*–	*–	+	*–	+	+	+	+
958. Skin dressing by men, women (M, W; +, both)	M	M	+	M	M	M	M	M	M	M	M
Dress and Ornament (Nonceremonial)											
Men's Clothing											
959. Breechclout worn	*+	R	+	*R	*R	+	+		+	+	+
960. Shredded willow bark	–	–	+	*–	*–	–	–		–	–	–
961. Cotton cloth	–	R	–	R	*+	+	+		–	–	–
962. Buckskin	*+	–	–	–	–	–	–		+	+	+
963. Kilt of skin (one-piece skirt).	–		–		–	–	–		–	S	–
964. Men naked (no pubic cover).	–	+	–	+	*+	–	–		–	–	–
965. Cotton shirt	–	–	–	–	–	+	–		–	–	–
966. Poncho-fashion, belted	–	–	–	–	–	*+	–		–	–	–
967. Sleeved and sewn	–	–	–	–	–	R	R		–	–	–
968. Buckskin shirt	–	–	–	–	–	+	*–		+	*+	*+
969. Long sleeves	–	–	–	–	–	+	–		+	*+	–
970. Fringed	–	–	–	–	–	+	–		+	+	+
971. Across chest	–	–	–	–	–		–		+	–	–
972. Down sides	–	–	–	–	–		–		+	+	+
973. Along sleeves	–	–	–	–	–		–		*+	+	–
974. Bone beads sewed on	–	–	–	–	–	–	–		–	*+	–
975. Painted designs	–	–	–	–	–	S	–		S	+	–
976. Sleeveless shirt of two hides sewn together.	–	–	–	–	–		–				*+
977. Ankle-length leggings	–	–	–	–	–	–	–		+	S	+
978. Fringed down sides	–	–	–	–	–	–	–			+	+
979. Knee-length leggings	–	–	–	–	–	S	–		S	S	–
980. Belt of buckskin	+	+	–	–	–	–	–		+	+	–
981. Belt of fiber	–	–	–	–	+	+	+		–	–	–
982. Cotton, woven	–	–	–	–	+	+	+		–	–	–
983. Twisted cord*	+	+	+	+	–	–	–		–	–	+
984. Sandals of woven fiber	+	+	–	–	–	–	–		S	S	+
985. Sandals of hide	R	*–	R	R	R	*+	*+		*–	–	–
986. Moccasins	–	–	–	–	–	*S	R		+	+	R
987. Two-piece	–	–	–	–	–	+			–	*+	–
988. Three-piece	–	–	–	–	–	–			+	*+	*+
989. Ankle-length	–	–	–	–	–	+			S	S	+
990. Long top, folded down*	–	–	–	–	–	–			+	–	–
991. Wrapped top*	–	–	–	–	–	–			–	S	–
992. Added hard sole	–	–	–	–	–	–			*–	+	+
993. Round guard-piece on toe*	–	–	–	–	–	–			*+	S	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
994. Barefootedness habitual	+	+	+	+	+	S*	S*		S*	S*	–
995. Woven-bark robe worn*	–	–	+	S	(–)	–	–	·	–	S	S
996. Rabbitskin robe worn*	–	+	S	S	+	–	–	(+)	+	+	+
997. Sewn-skin robe worn	S				+	–	–		S	+	+
998. Cotton robe worn*	–	–	–	–	+	+	+		–	–	–
999. Buckskin robe worn	+	+							S	S	S
1000. Buckskin cap worn*	–	–	–	–	–	–	–		+	–	–
1001. Old men only*	–	–	–	–	–	–	–		+	–	–
1002. Muffs for cold weather*	–	–	–	–	–	–	–		+	+	+
Women's Clothing											
1003. Two-piece shredded bark aprons	–	S	+	+	+	–	–		–	–	S
1004. Two-piece woven cotton aprons	–	–	–	–	–	*+	+		–	–	–
1005. One-piece woven cotton skirt	–	–	–	–	–	*+	R		–	–	–
1006. Two-piece buckskin aprons	+	S	–	–	*–	*–	–		+	+	+
1007. Both suspended from belt	+	+	–	–	–	–	–		–	–	+
1008. Long (breast to knee) front apron*	–	–	–	–	–	–	–		+	+	–
1009. Suspended around neck*	–	–	–	–	–	–	–		+	+	–
1010. Fringed*	–	–	–	–	–	–	–		+	+	–
1011. Belted*	–	–	–	–	–	–	–		+	+	+
1012. Rattles suspended from belt*	–	–	–	–	–	–	–		+	+	–
1013. Buckskin tunic or shirt	–	–	–	–	–	–	–		+	–	+
1014. Two hides sewn together	–	–	–	–	–	–	–		+	–	+
1015. Short sleeves (to elbows)	–	–	–	–	–	–	–		+	–	–
1016. No sleeves	–	–	–	–	–	–	–		–	–	+
1017. Rattles suspended from	–	–	–	–	–	–	–			–	+
1018. Shredded-bark robe worn	–	–	S	+	–	–	–	·	–	S	S
1019. Rabbitskin robe worn	–	+	S	+	S	–	–		S	+	+
1020. Buckskin robe worn	S	S							S	S	–
1021. Cotton robe worn	–	–	–	–	S	+	+		–	–	–
1022. Sandals of woven fiber	–	+	–	–	–	–	–		–	+	+
1023. Sandals of hide	–	–	R	R	+	+	+		–	–	–
1024. Moccasins	–	–	–	–	–	–	–		+	+	R
1025. Long uppers, folded*	–	–	–	–	–	–	–		+	+	–
1026. Barefootedness habitual	+	+	+	+	S	S	+		S	S	S
1027. Women's basketry cap	+	+	–	*–	–	–	–		–	+	+
1028. Worn only for carrying, grinding	+	+	–	–	–	–	–		–	+	+
Clothing Miscellaneous											
1029. Buckskin garments made by men	–	–	–	–	–	+	–		+	+	+
Men's Hairdress											
1030. Hair long	+	+	+	+	+	+	+		+	+	+
1031. Rolled in pencils*	–	–	+	+	+	S*	–		S	–	–
1032. False hair added	–	–	–	*+	*–	–	–		–	–	–
1033. Side hair loose, back hair in pencils	–	–	S	S	S	S	–		–	–	–
1034. Side hair braided or wrapped, back hair in pencils	–	–		S	S	S	–		–	–	–
1035. Hair loose*	+	+	–	–	–	+	+		S	+	–
1036. Rolled and wrapped in back*	–	–	–	–	–	–	S		S	S	+
1038. Forehead bangs	*–	+	+	+	*–	+	–		*–	+	+
1039. Small boys' hair trimmed short	*–	–	+	+	+	+	(+)		S	S	+
1040. Long locks left on top or sides	*–	–	+	+	+	+	(+)		S	S	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1041. Facial hair plucked	S			+	+	+	+		R	+	S
1042. With fingers	+			+	+	+	+		R	+	+
1043. "No beards formerly"	S	+	+						+		
Women's Hairdress											
1044. Hair long	+	+	*–	+	+	+	*+		+	+	+
1045. Hair short (about shoulder level)	–	–	*+	–	–	–	*–		*–	–	–
1046. Worn loose	*–	+	+	+	+	+	*+		+	+	+
1047. Side strands tied back when working	–	–	+	+	+	–	–		S	–	–
1048. Forehead bangs	*–	+	+	+	+	+	–		+	+	+
Hairdress Miscellaneous											
1049. Hair trimming by cutting	+	–	–	–	–	*S	*+		+	–	S
1050. Hair trimming by singeing with coals	·	+	+	+	+	S	–		–	+	+
1051. Mud plaster against lice	+	+	+	+	+	+	–		+	–	–
1052. Dye in mud plaster	*·	*·	+	+	+	+	–		+	–	–
1053. Mesquite-bark infusion	–	–	+	+	+	+			+	–	–
1055. Yucca root for washing hair	–	R	–	–	–	+	+		+	+	+
1056. Paint part on hair (in spots or lines)	–	–	+	+	+	+	S		+	–	+
1057. White	–	–	+	+	+	+	+		+	–	+
1058. Red*	–	–	–	–	–	–	–		–	–	+
1059. Cylindrical fiber hairbrush	+	–	+	+	+	+	+		+	+	+
1060. Doubled and wrapped*	+	*–		+	+	+	–		+	+	–
1061. Straight, wrapped and gummed	–	–		–	–	–	+		–	–	+
1062. Fingers for combing hair	+	+	+	+	+	+	+		+	+	+
1063. Feathers worn in hair (men, women: M, W; +, both)	–	M	M	M	M	M	*–		+	+	+
1064. Two pendent feathers attached to wood pin	–	(M)	M	M	M	–	–		–	–	–
1065. Single pendent feather	–	–	–	–	–	M	–		M	–	–
1066. Erect feathers	–	–	–	–	–	*M	–		–	M	M
1067. Small white feathers stuck in hair	–	–							W	W	W
Mutilations and Ornaments (Men)											
1068. Nasal septum pierced	+	+	+	+	+	+	*–		+	+	+
1069. By all	+	+	–	+	+	–	–		–	–	–
1070. As puberty rite (q.v.)	+	+	–	+	+	–	–		–	–	–
1071. Few only	–	–	–	–	–	+	–		+	+	+
1072. War leaders, brave men	–	–	–	–	–	+	–		+	+	–
1073. Anyone, at will	–	–	*+	–	–	–	–		–	–	*+
1074. Shell pendant	*+	*+	+	*+	+	–	–		–	+	*·
1075. Turquoise pendant	–	–	–	–	·	–	–		+	–	–
1076. Arrowhead pendant	–	–				*+	–		–	–	–
1077. Ears pierced	+	*–	+	+	+	+	+		+	+	+
1078. Lobe	+	–	+	+	+	+	+		+	+	+
1079. Helix	–	–	+	+	+	–	–		–	–	–
1080. Bead pendants	+	–	+	+	+	*+	*+		+	+	–
1081. Wooden pins	–	–	–	S	–	–	S		S	–	+
1082. Necklaces worn	–	–	+	+	+	+	+		R	+	+
1083. Beads	–	–	+	+	+	*+	+		*R	+	–
1084. Tubular bone beads	–	–	–	–	·	–	–		–	*+	*+
1085. Tooth, claw, etc., pendants	–	–	–	–	·	–	–		–	+	+
1086. Tattooing	+	+	+	+	+	+	+		R	*–	–
1087. Facial	+	+	+	+	+	+	+		R	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1088. Chin tattooed	–	–	+	+	–	–	–		–	–	–
1089. Forehead	+	S	+	+	+	S	–		R	–	–
1090. Line under eyes*	–	–	–	–	–	+	+		–	–	–
1091. Cheeks	–	S	S	+	–	–	–		–	–	–
1092. Body	+	–	+	+	–	–	–		–	–	–
1093. Arms	+	–	+	+	–	–	–		–	–	–
1094. Circle on point of shoulder	–	–	S	+	–	–	–		–	–	–
1095. Chest	–	–	S	+	–	–	–		–	–	–
1096. Legs	S	–	S	S	–	–	–		–	–	–
1097. Daily face painting	+	+	+	+	+	+	+		+	+	+
1098. Red	+	+	+	+	+	S	+		+	+	+
1099. Black	S	+	+	+	+	*+	*–		–	+	+
1100. White	S	–	–	+	+	+	*–		–	+	+
1101. Yellow	–	+	–	R	+	+	*–		–	–	–
1102. Solid (against sun, cold)*	+	+	+	+	+	+	+		+	S	S
1103. Designs*	+	+	+	+	+	+	–		–	+	S
1104. Black around eyes*	+	+		+	+	S	–		+	+	+
1105. Body painted	–	–	–	+	+	+	–		+	–	+
Mutilations and Ornaments (Women)											
1106. Ears pierced (all)	+	*–	+	+	+	+	+		+	+	+
1107. Lobe	+	–	+	+	+	+	+		+	+	+
1108. Helix	–	–	+	–	–	–	–		–	–	–
1109. Bead pendants	+	–	+	+	+	+	+		+	+	.
1120. Necklaces	*–	+	+	+	+	+	+		+	+	+
1121. Beads in single strands	–	+	+	+	+	+	+		+	+	+
1122. Frog-shaped shell pendants*	–	–	+	+	+	–	–		–	(+)	–
1123. Wide bead collars or capes*	–	–	R	R	R	–	–		R	R	–
1124. Imported	–	–	–	–	+	–	–		+	+	–
1125. Tattooing	+	+	+	+	+	+	+		+	*R	–
1126. Facial	+	+	+	+	+	+	+		+	R	–
1127. Chin	+	+	+	+	+	+	+		+	R	–
1128. Chin and corners of lip*	–	–				+	+		–	–	–
1129. Lines under eyes	–	–	–	–	–	+	+		–	–	–
1129a. Forehead	–	–	+	S	+	S	–		–	–	–
1130. Cheeks	S	–	–	S	–	–	–		–	–	–
1131. Body	–	+	–	+	+	–	–		–	–	–
1132. Arms	–	+	–	+	+	–	–		–	–	–
1133. Legs	–	+	+	+	+	–	–		–	–	–
1143. Tattooing with single needle	*+	–	–	–	–	–	*+		–	–	–
1144. Tattooing with bunch of needles, bound	–	+	–	+	+	+	–		+	R	–
1145. Tattooing with stone splinter	–	–	*+	–	–	–	–		–	–	–
1134. Daily face painting	+	+	+	+	+	+	+		+	+	+
1135. Red	+	+	+	+	+	+	+		+	+	+
1136. Black	S	–	+	+	+	–	–		–	+	+
1137. White	S	–	–	+	+	+	–		–	+	+
1138. Yellow	–	+	–	R	+	+	–		–	–	–
1139. Solid (against sun, cold)	+	+	+	+	+	+	+		+	+	+
1140. Designs*	+		+	+	+	+	*–		–	+	S
1141. Black around eyes	+	+		+	+	S	–		+	+	+
1142. Body painted	+	+	+	+	+	+	*–		+	–	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Weapons											
Bows											
1146. Self bow	+	+	+	+	+	+	+	+	+	+	+
1147. Length: 5 feet or more	+	+	+	+	–	–	–	+	+	+	+
1148. Length: under 5 feet	–	–	–	–	+	+	+	–	–	–	–
1149. Bow of half-section of pole	–	–	+	–	+	–	–	–	+	+	+
1150. Grip full round, arms elliptical	–	–		+	–	+	+	–	–	–	–
1151. Cross-section elliptical	+	+	–	–	–	–	–	+	–	–	–
1152. Simple curve with abruptly curved tips	+	+	+	+	+	+	+	–	+	+	+
1153. Double curve	–	–	–	–	–	–	–	+	–	–	–
1154. Bow sinew wound at points of stress	–	+	–	+	S	+	–	S	–	–	(+)
1155. Wrapped grip	–	–	–	–	–	–	–	S	–	+	+
1156. Quail tips on ends of bow	–	–		+	+	(+)	–	–	–	+	–
1157. Bow painted	–	–	+	+	+	+	+	–	–	+	–
1158. Belly painted	–	–	+	+	+	+	+	–	–	+	–
1159. Back painted	–	–	–	–	–	–	+	–	–	–	–
1160. Sinew-backed bow	–	–	–	–	–	–	–	S	–	+	–
1161. Form: same as self bow	–	–	–	–	–	–	–	+	–	–	–
1162. Short (3-4 feet)	–	–	–	–	–	–	–	–	–	+	–
1163. Recurved tips	–	–	–	–	–	–	–	–	–	+	–
1164. Compound bow	–	–	–	–	–	–	–	–	–	–	+
1165. Of mountain-sheep horn	–	–	–	–	–	–	–	–	–	–	+
1166. Of two lengths of horn, spliced	–	–	–	–	–	–	–	–	–	–	+
1167. Simple curve	–	–	–	–	–	–	–	–	–	–	+
1168. Sinew bowstring	+	S	R	S	R	+	+	+	+	+	+
1169. Buckskin bowstring	–	–	–	–	–	–	–	+	–	–	–
1170. Plant-fiber bowstring	–	+	+	+	+	–	–	–	–	–	–
1171. Cowpea fiber	–	–		+	+	–	–	–	–	–	–
1172. Bowstring one-ply	–	–	–	–	–	–	–	–	+	–	–
1173. Two-ply	+	+	–	–	–	+	+	–	–	+	+
1174. Three-ply	–	–	+	+	+	–	–	+	–	–	–
Arrows											
1175. Arrows of arrowweed (Pluchea)	–	–	+	+	+	+	+	·	S	–	–
1176. Untipped	–	–	+	+	+	+	+	·	+	–	–
1177. Arrows of cane	+	+	–	S	+	–	–	+	+	+	+
1178. Hardwood point	+	+	–	+	+	–	–	+	+	+	+
1179. Foreshaft and stone point	+	+	–	+	+	–	–	–	+	+	+
1180. Arrows of hardwood shoots	–	(+)	–	–	–	–	–	+	–	+	+
1181. Foreshaft and stone point	–	–	–	–	–	–	–	–	–	S	–
1182. Untipped	–	(+)	–	–	–	–	–	+	–	+	+
1183. Stone points used	+	+	–	+	+	+	+	–	+	+	+
1184. Not stemmed: triangular, two side notches (NBa1)	–		–	+	–	–	–	–	–		+
1185. Triangular, concave base (NBb)	+		–	–	+	–	–	–	–		–
1186. Triangular, concave base, two side notches (NBb1)	–		–	–	–	–	+	–	–		–
1187. Stemmed: parallel-sided stem, shouldered (SBa)	–	+	–	–	–	–	+	–	–		–
1188. Expanding stem, shouldered and barbed (SCb)	–	–	–	–	–	+	+	–	+		–
1189. Points firmly attached	+	+	–	+	+	+	+	+	+	(+)	+
1190. Arrow points "poisoned"	–	–	–	+	+	+	+	+	+	+	+
1191. Concoction of liver, snake venom, insects, etc.	–	–	–	–	–	(S)	–	+	+	+	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1192. Gall	–	–	–	+	+	–	–	–	–	–	+
1193. Rabbit blood*	–	–	–	–	*–	+	+	–	–	–	–
1194. Blunt-tipped bird arrows	–	–	–	S	*–	(S)+	+	+	+	–	–
1195. Corncob tip	–	–	–	–	–	(S)	–	+	–	–	–
1196. Cross-stick bird arrows	*R	+	+	+	*–	+	+	–	+	+	+
1197. One cross stick	–	–	–	–	–	+	+	–	–	–	–
1198. Four (two pairs at right angles)	+	+	+	+	–	–	–	–	+	+	+
1199. Foreshaft (or shaft of hardwood arrow) rilled	–	–	–	–	–	–	–	–	–	–	+
1200. Zigzag or spiral rills	–	–	–	–	–	–	–	–	–	–	+
1201. Feathering: triple, radial	+	+	+	+	+	+	S	+	+	+	+
1202. Recognized best (where other types co-occur)	*0	*0		+	+	–	–	*0	+	+	+
1203. Feathering: double radial*	–	–			+	+	+	–	*+	–	–
1204. Feathering: double tangential	–	–	+	S	–	–	–	–	–	+	+
1205. Arrowshaft painted	*–	+	+	+	+	+	+	+	S	+	+
1206. In feathering only*				+	+			+	+		+
1207. Black	–	+	+	+	–	–	–	+	+	+	+
1208. Red	–	+	+	+	+	*+	+	+	+	+	+
1209. Negative pyrographic ornament on shaft	+	–	+	+	–	+	–	–	·	+	–
Shooting											
1210. Bow held vertically	+	–	–	–	*–	*–	+	+	–	+	+
1211. Bow held diagonally, top to right*	–	–			S			S	+	S	–
1212. Bow held horizontally	–	+	+	+	+	*+	–	–	–	*–	–
1213. Back of hand up	–	+	+	+	+	+	–	–	–	–	–
1214. Arrow to left of bow (above when bow horizontal)	+	+	+	+	+	+	+	+	+	+	+
1215. Arrow release primary*	–	–	S	S	S	S	+	S	+	S	–
1215a. Considered inferior						+	–	+	+	+	
1216. Arrow release secondary	+	+	+	+	+	–	–	–	–	–	–
1217. Arrow release (modified) tertiary*	–	–	–	–	–	+	–	–	–	+	+
1217a. Arrow release Mediterranean	–	–	–	–	–	–	–	+	+	–	–
1218. Bow guard worn	+	+	+	+	+	+	+	+	*–	+	+
1219. Bark	–	–	+	–	–	–	–	–	–	–	–
1220. Hide	+	+	–	+	+	+	+	+	–	+	+
Quiver											
1221. Quiver of cased skin	–	–	+	S	+	+	+	–	–	–	–
1222. Quiver of cut and sewn skin	–	–	–	S	*S	*·	S	+	+	+	+
1223. Hard leather base (to protect points)	–	–						+	*		
1224. Reënforcing rod in quiver*	–	–	+	–	·	–	–	–	+	+	+
1225. Carrying string tied to	–	–	+	–	·	–	–	–	+	+	+
1226. Quiver carried at side	–	–	–	–	–	S	–	+	*–	S	+
1227. Quiver carried slanting across small of back*	–	–	–	+	–	S	+	–	*+	–	–
1228. Quiver carried at back (draw over shoulder)	–	–	+	S	+	–	–	*–	–	+	*–
1229. No quiver, arrows stuck in belt	+	+	–	–	–	–	–	–	–	–	–
Miscellaneous Weapons											
1230. Perforated arrow wrench	–	–	–	–	–	–	*+	–	*–	*+	+
1231. Horn	–	–	–	–	–	–	–	–	*–	*+	+
1232. Wood	–	–	–	–	–	–	*+	–	–	–	–
1233. Grooved straightener, heated*	+	+	–	–	–	–	+	–	+	+	+
1234. Stone	+	+	–	*–	–	*–	+	–	+	+	+
1235. Pottery*	–	–	*–	–	–	–	–	–	–	S	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1236. Curved potsherd, stone, etc.*	–	–	–	S	*–	–	–	+	–	–	S
1237. Hands and teeth for straightening	S	–	+	+	+	+	–	–	+	+	+
1237a. Bow kept strung	–	–	+	+	+	+	+	–	+	–	*+
Slings											
1238. Sling used by boys (for bird-scaring, small-game hunting)*	*R	+	+	+	+	+	+	+	+	*R	+
1239. Sling used in war	–	–	–	–	–	–	–	–	*R	–	–
War Clubs	*										
1240. Wooden war club		+	+	+	+	+	+	+	+	+	–
1241. Short "potato masher" type		+	+	+	+	+	+	+	S	+	–
1242. Cylindrical sharp-edged head*		–	+	+	–	*–	*R	–	–	*(+)	–
1243. Round head*		+	–	–	+	+	+	–	+	+	–
1244. Rectangular sharp-edged head*		–	–					+	–	–	–
1245. Wrist loop		+	+	+	+	+	+	+	+	+	–
1246. Short cylindrical club		–	–	–	–	–	–	–	+	–	–
1247. Long plain club		–	+	+	–	–	–	–	–	–	–
1248. Used two-handed		–	+	+	–	–	–	–	–	–	–
1249. Stone-headed club.		–	–	–	–	–	–	–	S	+	–
1250. Grooved hammer or ax (found)		–	–	–	–	–	–	–	+	+	–
Spears (For War)	*										
1251. Short pike*		–	–	+	*–	*+	*–	+	+	*–	–
1252. Untipped (plain wood point).		–	–	+	*–	+	–	+	+	–	–
Knives or Daggers (For War)	*										
1253. Hardwood dagger		–	–	+	–	–	–	–	–	+	–
1254. Stone-bladed dagger, hafted		–	–	–	–	–	–	–	–	–	+
1255. Steel machete								*+			
Armor	*										
1256. Round hide shield		–	+	+	+	+	+	.	*–	–	–
1257. Hoop rim		–	–	*–	–	–	+	.	–	–	–
1258. Painted		–	+	+	+	+	+	.	–	–	–
1259. Feather pendants		–	–	–	*+	*+	+	.	–	–	–
1260. Curtain shield of hide*		–	–	–	–	–	–	–	+	+	–
1261. Wide strip of hide, etc., around belly		–	+	–	–	–	+	–	–	+	–
1262. Rope wrapped around belly		–	–	–	*+	–	–	–	–	–	–
1263. Mescal slab armor*		–	–	–	–	–	–	–	+	*–	–
1264. Shields and body armor of iron								*+			
Grinding Devices											
Mortars										*	
1265. Wooden mortar	–	–	+	+	+	+	*R	+	–	–	–
1266. Cavity in end of log*	–	–	+	+	+	+	–	–	–	–	–
1267. Pointed base, set in ground	–	–	+	+	+	+	–	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1268. Cavity in side of log*	–	–	–	S	S	+	+	+	–	–	–
1269. Portable mortar	–	–	–	S	S	+	+	+	–	–	–
1270. Stone pestle	–	–	+	R	+	+	+	–	–	–	–
1271. Long, cylindrical	–	–	+	R	+	S	S	–	–	–	–
1272. Made	–	–				–	–	–	–	–	–
1273. Found and used	–	–				+	+	–	–	–	–
1274. Unshaped stone	–	–	–	–	–	+	+	–	–	–	–
1275. Wooden pestle	–	–	+	+	–	–	–	+	–	–	–
1276. Pit mortar*	–	–	+	+	+	+	(+)*	–	–	–	–
1277. Lined with arrowweed stems	–	–	+	(+)	–	–	–*	–	–	–	–
1278. Lined with meal	–	–	–	–	+	+	–*	–	–	–	–
1279. Long wooden pestle*	–	–	+	+	+	+	+	–	–	–	–
1280. Men grind in (usually)	–	–	+	+	+	–	–	–	–	–	–
1281. Women grind in (usually)	–	–	–	–	–*	+	+	–	–	–	–
1282. Stone mortar	+	+	+	–	+	+	+	+	+	–	+
1283. Portable type	–	–	+	–	+	+	+	+	+*	–	–
1284. Made	–	–	+	–	–*	–	–	–	–	–	–
1285. Found and used	–	–	–	–	+	+	+	+	+	–	–
1286. Bedrock mortar	+	+	–	–	–	–*	+	•	+	–	+
1287. Stone pestle	+	+	+	–	+	+	+	+	+	–	+
1288. Unshaped cobble	+	+*	–	–	–	+	+	(+)*	+	–	(+)
1289. Long, cylindrical	–	–	+	–	+	S*	S*	–	S*	–	(+)
1290. "Traveling mortar" of arrowweed*	–	–	+	+	+	–	–	–	–	–	–
1291. Conical, of twined stems	–	–	+	+	+	–	–	–	–	–	–
Metates and Manos											
1292. Squared block	–	+*	+*	–	–	S	S		+	–	–
1293. Trough type	–	–	–	–	–	+	+		+	–	–
1294. Found	–	–	–	–	–	+	+		+	–	–
1295. Oval type	+	–	–	+	+	+	+		+	+	+
1296. Narrow proximal end*	–	–		+	+	+	+		–	–	–
1297. Proximal end raised	+	+	+	+	+	+	+		+	–	–
1298. Dirt piled under*	–	–	+	+	+	–	–		–	–	–
1299. Stick, stone, etc., under*	+	+	–	–	–	+	+		+	–	–
1300. Made sloping (thicker at proximal end)		+*									
1301. Mano long (with metate)	–	–	+	+	+	S	–		+	–	–
1302. Cylindrical cross-section*	–	–	+	+	+	–*			+	–	–
1303. Mano short (less than width of metate)	+	+	–	–	–	+	+		–	+	+
1304. Rectangular form	+	+	–	–	–	+	+		–	+	+
1305. Manos made	+	+	+	+	+	S	–		–	+	+
1306. Manos found and used	–	–	–	–	S	S	+		+	–	–
1307. Two-hand grinding	+	+	+	+	+	+	+		+	+	+
1308. Direct (back and forth)	+	+	+	+	+	+	+		+	+	+
1309. Mealing brush used	+	+	–	–	+	–	–		–	+	–
1310. Cylindrical fiber bundle, doubled	+	+	–	–	+	–	–		–	+	–
Cordage and Netting											
1311. Cordage of mescal fiber	–	–	–	–	+	+	+	+	+	+	–
1312. Cordage of cotton fiber	–	–	–	–	+	+	+	+	–	–	–
1313. Cordage of cowpea-vine fiber	–	–	+	+	+	–	–	–	–	–	–
1314. Cordage of willow bark	–	–	+	–*	–	–	–	–	–	–	–
1315. Cordage of mesquite bark	–	–	+	+	–*	–	–	+	–	–	–
1316. Cordage of milkweed-bark fiber*	+*	–	+*	+	+*	•	•			+	+
1317. Cordage of yucca fiber	–*	–*	–	–	–	–*	–		+	+	+
1318. Cordage of human hair	–	–	–	–	+*	+*	+*	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1319. Scraper for plant fibers	–	–	–	–	·	*–	–	+	–	–	–
1320. Pounding to loosen plant fibers	+	+			·	+	+	–	+	+	+
1321. Cordage twisted on thigh	+	+	+	+	S	+	+	+	+	+	+
1322. Cordage twisted with spindle	–	–	–	*+	+	+	+	–	+	+	–
1323. Cordage twisted with taravilla*	–	R	–	R	·	R	R	R	–	–	–
1324. Cordage two-ply	+	+	+	+	+	+	+	+	+	+	+
1325. Four-ply (double two-ply)	S	–			+		+	+		–	–
1326. Cordage three-ply	–	–	+	+	+	–	+	+	+	–	–
1327. Bowstring only	–	–	+	+	+	–	–		–	–	–
1328. Cordage braided	–	–	+	S	+	S	R	+	–	S	+
1329. Netting made	+	+	+	+	+	*–	+	+	–	+	+
1330. True netting knot used	–	–	+	+	·	–	–	+	–		–
1331. Square knot	+	+	–	–	·	–	+	–	–		+
1332. One-stick "shuttle" (like kite-string)	–	+	(+)	·	–	–	–	–	–	+	+
1333. No shuttle (ball of twine used)	+	–	–	·	+	–	+	+	–	–	–
1334. Fingers for mesh gauge	+	+	+	+	+	–	+	+	–	*+	+
1335. Nets made by men, women (M, W; +, both)	+	W	M	M	M	–	M	M	–	+	M
Various Tools and Techniques											
Woodcutting											
1336. Woodcutting by fire	+	+	+	+	+	·	*–		+	+	–
1337. Sticks broken by dropping rock on*	–	–							+	+	+
Knives*											
1338. Stone knife	+	+	+	+	+	+	·		+	+	+
1339. Unhafted ("scrapers" and "choppers")	+	+	+	+	+	+	·		+	+	+
1340. Hafted	–	–	+	+	+	–	·		+	–	–
1341. For butchering	+	+	+	+	+	+	·		+	+	+
1342. For wood working*	–	–	+	+	–	–	·		+	+	+
Drills											
1343. Hafted drill, with stone tip	–	–	–	+	·	·	·			–	+
1344. Drilling by burning*	+	+	(+)			+				·	–
Flint Flaking											
1345. Flint flaking by percussion	*+	*+	+	+	*S	–	·		*–	*–	–
1346. Flint flaking by pressure	–	–	–	–	·	+	·		+	+	+
1347. Horn flaking tool	–	–	–	–		·	·		+	+	+
1348. Leather hand guard	–	–	–	–		·	·		+	+	+
Awls, Needles											
1349. Wooden awl	+	+	(+)	+	(–)	–	+		–	–	–
1350. Bone awl	–	–	(–)	–	(+)	+	–		+	+	+
1351. For sewing	–	–	+	+	–	·	·		+	+	+
1352. For basketry	+	+	–	–	+	+	+		+	·	+
1353. Eyed needle, wooden	*+	*+	–	–	·	+	–		–	–	–
1354. Distal eye	+	+	–	–	·		–		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Fire											
1355. Simple fire drill	+	*R	+	+	+	+	+		+	+	+
1356. Fire by percussion	*R	+	+	–	+	*R	+		+	+	+
1357. Slow match	–	–	–	–	–	–	–		+	+	+
1358. Bound "rope" of fiber	–	–	–	–	–	–	–		+	+	+
1359. Torch carried for warmth*	–	–	+	+	+	–	–		–	–	–
Burdens, Transportation											
Carrying											
1360. Carrying on head	+	+	+	+	+	+	+	+	+	–	–
1361. By women	+	+	+	+	+	+	+	+	+	–	–
1362. By men*	+	–	+	+	*+	+	+	–	–	–	–
1363. Wrapped fiber ring*	+	+	+	+	+	+	+	+	+	–	–
1364. Plaited ring*	–	–	–	–	–	–	+	–	–	–	–
1365. Carrying on back	+	+	+	+	+	+	+	+	+	+	+
1366. Burden basket*	–	–	+	–	+	–	+	+	+	+	+
1367. Kiaha*	–	–	–	–	–	+	+	–	–	–	–
1368. Hoop and four-stick frame	–	–	–	–	–	+	+	–	–	–	–
1369. Netting of Agave fiber	–	–	–	–	–	+	+	–	–	–	–
1370. Designs in red and black	–	–	–	–	–	+	+	–	–	–	–
1371. Human-hair lashing for frame	–	–	–	–	–	+	+	–	–	–	–
1372. Twilled back-pad	–	–	–	–	–	+	+	–	–	–	–
1373. Walking stick*	–	–	–	–	–	+	+	–	–	–	–
1374. Forked top	–	–	–	–	–	+	+	–	–	–	–
1375. Buckskin streamers	–	–	–	–	–	+	+	–	–	–	–
1376. Painted decoration	–	–	–	–	–	+	+	–	–	–	–
1377. Two U-shaped sticks, string-lashed*	–	–	+	–	–	–	–	–	–	–	*+
1378. Long type*	–	–	+	–	–	–	–	–	–	–	–
1379. Carrying net	+	+	*–	+	–	–	–	–	–	–	+
1380. Adjustable type*	+	+	–	+	–	–	–	–	–	–	+
1381. Skin bag for carrying	+	–	–	–	–	–	–	+	+	+	+
1382. Tumpline for carrying	+	+	+	+	+	+	+	+	+	+	+
1383. Woven-fiber tumpline	–	–	–	–		+	+	–	–		–
1384. Twisted fiber (i.e., cords or rope)	+	+	+	+		–	–	–	–		–
1385. Buckskin strip	–	–	–	–		–	–	+	+		+
1386. Head carry	+	+	+	+	+	+	+	+	+	+	+
1387. By men	+	+	–	+	+	–	–	+	S	–	–
1388. By women	+	+	+	+	–	+	+	–	+	+	+
1389. Cross-chest carry (men)	+	S	+	–	–	–	–	+	+	+	+
1390. Carrying on shoulder*	+	+	+	+	+	+	+	+	+	+	+
1391. By men	+	+	+	+	+	+	+	+	+	+	+
1392. Coolie yoke	–	–	–	+	+	–	–	+	–	–	–
1393. Canteen carried on journeys	+	+	+	+	+	+	+	+	+	+	+
1394. Gourd	–	*+	+	+	+	+	+	+	S	–	–
1395. Pottery	*+	–	–	–	–	–	–	–	–	–	–
1396. Basketry	–	–	–	–	–	–	–	–	+	+	+
1397. Slung at side, to belt	–	–	+	+	+	+	+	–	–	+	–
1398. Slung at small of back*	–	–	–	–	S	–	–	–	+	–	+
1399. Hand-held	+	+	S		S	–	–	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Navigation								*			
1400. Tule balsas	–	–	+	+	+	–	–	+	–	–	–
1401. Made of four bundles	–	–	+	+	.	–	–	–	–	–	–
1402. Made of five (three on bottom, two for sides)	–	–	–	–	.	–	–	+	–	–	–
1403. Wooden pins to hold together	–	–	+	+	+	–	–	+	–	–	–
1404. Square ends	–	–	+	+	+	–	–	+	–	–	–
1405. Large (support several people)	–	–	+	+	+	–	–	+	–	–	–
1406. Dugouts of cottonwood	–	–	–	*+	–	–	–	+	–	–	–
1407. Log rafts	–	–	R	+	+	+	–	+	–	–	–
1408. One-piece, single-bladed paddles	–	–	R	+	+	–	–	+	–	–	–
1409. Plain pole	–	–	+	+	+	–	–		–	–	–
1410. Balsa, raft pushed by swimmers	–	–	+	+	+	+	–	+	–	–	–
1411. Floats to aid swimmers	–	–	+	+	+	+	–	+	–	–	–
1412. Single log or pole	–	–	+	+	+	+	–	S	–	–	–
1413. Held under one arm	–	–	+	–	S	–	–	S	–	–	–
1414. Straddled	–	–		+	+	+	–	+	–	–	–
1415. Pole with bundle of tules*	–	–	–	–	–	–	–	+	–	–	–
1416. Straddled	–	–	–	–	–	–	–	+	–	–	–
1417. Large olla for ferrying children	–	–	+	+	*(1)	–	–	–	–	–	–
1418. Large basket for ferrying children	–	–				+	–	–	–	–	–
Musical Instruments								*			
Drums											
1419. Basket drummed	–	–	+	+	+	+	+	–	–	–	–
1420. With hands	–	–	+	S	+	+	+	–	–	–	–
1421. With stick	–	–	*–	S	+	R	+	–	–	–	–
1422. With bunch of twigs	–	–	*	S	+	–	–	–	–	–	–
1423. Over pit*	–	–	+	–	–	–	–	–	–	–	–
1424. With pot resonator*	–	–	+	–	–	–	–	–	–	–	–
1425. Pottery drum*	–	–	–	–	–	–	–	–	+	*R	–
1426. Skin head	–	–	–	–	–	–	–	–	+	R	–
1427. Contains water	–	–	–	–	–	–	–	–	+	R	–
1428. Looped drumstick	–	–	–	–	–	–	–	–	+	R	–
1429. Held under arm	–	–	–	–	–	–	–	–	+	R	–
1430. Skin-covered wooden drum	–	–	–	–	–	–	–	+	–	–	–
1431. Double head	–	–	–	–	–	–	–	+	–	–	–
1432. Floating gourd drum*	–	–						+	–	–	–
Rattles (hand-held)											
1433. Gourd rattle	*R	*+	+	+	+	*+	+	+	+	+	*R
1434. Holes in rows	R	+	+	S	+	+	+	–	–	+	*R
1435. Painted	R	–	+		+	–	–	–	–	–	–
1436. Deer-hoof rattle	+	–	*–	+	*–	–	–	–	–	–	–
1437. Hoofs in bunch	+	–	–	+	–	–	–	–	–	–	–
1438. Loop handle*	+	–	–	+	–	–	–	–	–	–	–
1439. Turtle-shell rattle	–	–	–	–	–	*–	*+	–	–	–	–
Rattle-belts, etc.											
1440. Belt with jinglers*	+	+	–	–	–	R	+	+	+	+	–
1441. String of cocoon jinglers*	–	–	–	–	–	*R	+	+	–	–	–
1442. Wrapped around legs	–	–	–	–	–	*R	+	+	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Rasps											
1443. Notched-stick rasp	–	–	–	–	*R	+	+	+	–	*–	*R
1444. Held on basket	–	–	–	–	R	+	+	–	–	–	*R
1445. Wooden scraper	–	–	–	–	R	*+	+	–	–	–	R
1446. Basket scraped	–	–	R	+	+	+	+	–	–	–	–
Flutes*											
1447. Flute of cane	*–	+	+	+	+	+	+	+	–	–	–
1448. Flute of elder	–	–	–	–	–	–	–	–	+	+	+
1449. Three-hole flute	–	+	*+	–	–	+	+	S	–	.	–
1450. Four-hole flute	–	–	*–	+	+	–	–	S	+	.	–
1451. Eight(!)-hole flute											*+
1452. For rituals	–	–	–	–	–	–	–	+	–	–	–
1453. For courting	–	+	+	+	+	+	*–	–	+	.	–
1454. Whistles made	–	–	R	*+	–	R	*(+)	.	–	–	–
Bull-roarers											
1455. Flat board for bull-roarer	–	*–	*R	+	+	+	+	–	+	+	+
1456. Painted	–	–	–	+	–	+	+	–	+	–	+
1457. Lightning designs	–	–	–	.	(–)	+	+	–	S	–	–
1458. Notched edges	–	–	–	+	–	–	–	–	–	+	+
1459. Used ritually	–	–	–	–	–	+	+	–	+	–	–
1460. By shamans	–	–	–	–	–	–	–	–	+	–	–
1461. As child's toy	–	–	R	+	*+	–	–	–	–	+	+
Musical Bow											
1462. Musical bow played	*–	*–	–	–	*+	*+	+	+	–	–	+
1463. Ordinary hunting bow	–	–	–	–	+	+	+	+	–	–	+
AMUSEMENTS											
Games											
Shinny											
1464. Shinny played	+	+	+	+	*+	+	+	+	+	+	+
1465. Single-ball shinny	+	+	+	+	–	+	+	+	+	+	+
1466. Ball or gourd stem	–	–	*+	*+	–	–	–	–	–	–	–
1467. Ball of wood	+	+	–	–	–	+	+	+	–	–	+
1468. Stuffed-buckskin ball	–	–	–	–	–	–	–	–	+	+	–
1469. Game played by men, women (M, W; +, both)	M	M	M	M	–	M	M	M	+	*+	+
1470. Double-ball shinny	–	–	–	*–	+	+	+	–	–	–	–
1471. Played by women	–	–	–	*–	+	+	+	–	–	–	–
1472. Stick for propulsion of ball	+	+	+	+	+	+	+	+	+	+	+
1473. Straight stick	–	–	–	–	+	+	+	–	–	–	–
1474. Bent stick	+	+	+	+	–	–	–	+	+	+	+
1475. Ball buried at start of game	+	+	+	+	–	–	–	–	–	+	+
1476. Ball on surface, or thrown in	–	–	–	–	+	+	+	+	+	S	–
1477. Thrown in air	–	–			+		+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1478. Goals marked by lines	−	−	+	+	−	+	−	+	+	−	+
1479. Goals marked by stakes	+	+	−	+	−	−	−	−	−	−	−
1480. Stakes paired; ball goes between	+	+	−	+	−	−	−	−	−	−	−
1481. Goals are natural landmarks (trees, etc.)					+		+			+	
1482. Definite number players per side	−	−	−	*+	−	*+	−	−	+	−	−
1483. Four per side	−	−	−	+	−	+	−	−	−	−	−
1484. Six per side	−	−	−	−	−	−	−	−	+	−	−
1485. Grappling permitted in play	−	*+	*+	R	−	−	−	−	−	−	−
1486. Grappling is foul	+	−	−	+	+	+	+	+	+	+	+
1487. Betting on game		+	+	+	+	*+	*+	+	+	+	−
Pelota											
1488. Pelota played	−	−			*			+	−	−	−
1489. Ball of corn husks	−	−						+	−	−	−
1490. Players form two opposing rows	−	−						+	−	−	−
1491. Ball batted back and forth	−	−						+	−	−	−
1492. With hands	−	−						+	−	−	−
1493. Letting ball drop loses point	−	−						+	−	−	−
Kickball Races											
1494. Kickball ("footcast ball") races	+	+	+	+	+	+	+	+	*−	*−	−
1495. Wooden ball	+	+	*−	+	S	S	+	+	−	−	−
1496. Gum-covered	−	−	−	+	+	−	−	−	−	−	−
1497. Fiber-wrapped		+	−						−	−	−
1498. Painted	−	−	−				+	−	−	−	−
1499. Stone ball*	−	−	−	−	+	S	−	−	−	−	−
1500. Gum-covered*	−	−	−	−	+	S	−	−	−	−	−
1500a. Natural pebble or clay "ball"	−	−	+	−	−	−	−	−	−	−	−
1501. Run by men, women (M, W)	M	M	M	M	M	M	M	M	−	−	−
1502. Course: to point and return	+	+	−	+	+	+	+	+	−	−	−
1503. One runner on side (two sides)	+	−	−	S	+	+	+	+	−	−	−
1504. Two runners on side*	−	+	−	S	−	−	S	−	−	−	−
1505. Relay each other*	−	+	−	S	−	−	+	−	−	−	−
1506. Intervillage races	+	S	−		*	+	+	+	−	−	−
1507. Interclan races	−	S	−	−	−	−	−	−	−	−	−
1508. Each runner has "referee" to watch opponent*	+	+	−	*		+	+		−	−	−
1509. Young men race on way to dance	−	−	*+	−	−	−	−	−	−	−	−
1510. Betting	+	+	−	+	+	+	+	+	−	−	−
Relay Races											
1511. Relay races intervillage	−	−	−	−	+	+	+	−	−	−	−
1512. Run by men, women (M, W; +, both)	−	−	−	−		+	+	−	−	−	−
1513. Each team in two groups	−	−	−	−	+	+	+	−	−	−	−
1514. One group at each end of course	−	−	−	−	+	+	+	−	−	−	−
1515. Marks made where opponents pass*	−	−	−	−	+	+	+	−	−	−	−
1516. Side whose marks meet (i.e., gain 1 length) wins*	−	−	−	−	+	*	+	−	−	−	−
1517. Betting	−	−	−	−	+	+	+	−	−	−	−
Hoop-and-Pole Game											
1518. Hoop-and-pole game played	−	*−	+	+	+	*−	*(+)	−	+	+	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1519. By men	−	−	+	+	+	−	(+)	−	+	+	−
1520. Wrapped hoop	−	−	+	+	+	−	(+)	−	+	+	−
1521. Poles notched on butt	−	−	+	+	+	−	·	−	−	+	−
1522. One notch, "man"; two, "woman"	−	−	+	+	+	−	·	−	−	+	−
1523. One player per side	−	−	+	+	+	−	(+)	−	+	+	−
1524. Throw simultaneously	−	−	+	+	+	−	(+)	−	+	+	−
1525. Pole under hoop counts one	−	−	+	+	+	−	(+)	−	−	+	−
1526. Pole through hoop counts zero	−	−	*−	+	+	−	·	−	−	+	−
1527. Pole over hoop counts zero	−	−	+	+	+	−	·	−	+	+	−
1528. Hoop on end of pole counts four	−	−	*+	−	(+)	−	·	−	−	*+	−
1529. Hoop on end of pole counts three	−	−	*−	+	(+)	−	·	−	−	−	−
1529a. Hoop on end of pole counts two	−	−	*−	−	*(+)	−	·	−	−	−	−
1530. Score according to turns of wrapping (or notches?) over pole	−	−	−	−	−	−	·	−	*+	−	−
1531. Four points for game	−	−	*−	S	*+	−	·	−	−	+	−
1532. Six points for game	−	−	+	S	−	−	·	−	−	−	−
1533. Score by subtraction*	−	−	+	+	+	−	·	−	(+)	+	−
1534. Betting	−	−	+	+	+	−	(+)	−	+	+	−
Ring-and-Pin Game											
1535. Ring-and-pin game played	−	*+	+	+	*−	+	−	−	*−	+	+
1536. By men, women (M, W; +, both)	−	+	+	+	*−	W	−	−	−	+	+
1537. Multiple rings	−	*+	+	+	*−	+	−	−	−	−	−
1538. Squash-rind rings	−	*+	+	+	*−	+	−	−	−	−	−
1539. Single ring	−	−	−	−	−	−	−	−	−	+	+
1540. Rabbit skull	−	−	−	−	−	−	−	−	−	+	+
1541. Score according to orifice pinned	−	−	−	−	−	−	−	−	−	*+	*+
1542. Spiral scoring circuit	−	+	+	+	−	−	−	−	−	+	−
1543. Straight scoring circuit										−	*+
1544. Kill when meet	−	+	−	(+)	−	−	−	−	−	−	S
1545. Count scores to meeting point	−	−	(+)	−	−	−	−	−	−	−	−
1546. Number of points decided*	+	+	+	+	−	+	−	−	−	+	+
1547. Betting	−	+	−	+	−	+	−	−	−	S	S
Dice Games											
1548. Stick dice	+	+	+	+	+	+	+	*+	+	+	−
1549. Four-stick dice game	+	+	*+	+	+	+	+	(+)	−	+	−
1549a. Played by men, women (M, W; +, both)	+	W	W	+	*+	*+	*+	·	−	W	−
1550. Split-stick dice	+	+	+	+	+	*+	*+	·	−	−	−
1551. Stave dice	−	−	−	−	−	*+	*+	·	−	−	−
1552. Deer-rib dice	−	−	−	−	−	−	−	·	−	+	−
1553. Decorated (designed) faces	*−	*+	*+	*−	+	+	+	·	−	−	−
1554. Solidly painted faces	+	−	+	+	*	+	+	·	−	+	−
1555. Red		−	+	+	*	+	S	·	−	+	−
1556. Black	+	−	+	−		−	S	·	−	−	−
1557. Dice named	−	−	+	−	+	+	+	·	−	−	−
1558. "Old man, old woman"	−	−	*+	−	−	*−	*−	·	−	−	−
1559. "Quince, sigo, six, four"	−	−	−	−	*(+)	+	+	·	−	−	−
1560. Struck with hand-held stone*	−	−	+	+	+	*+	*+	·	−	−	−
1561. Struck against flat stone on ground*	+	+	−	−		*+	*+	·	−	−	−
1562. Tossed in winnowing tray	−	−	−	−	−	−	−	·	−	+	−
Scoring method I*:											
1563. 4 face up = 4	+	+	−	*+	−	−	−	·	−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1564. 4 face down = 6.	+	+	–	+	–	–	–	.	–	–	–
1565. 2 up, 2 down = 2	*+	*+	–	*+	–	–	–	.	–	–	–
1566. Loses dice	*+	*	–	*	–	–	–	.	–	–	–
1567. 3 up, 1 down = 3	*+	*+	–	*+	–	–	–	.	–	–	–
1568. Loses dice	*+	*	–	*	–	–	–	.	–	–	–
1569. 1 up, 3 down = 1	*+	*+	–	*+	–	–	–	.	–	–	–
1570. No point, but keeps dice .	*+	*	–	*	–	–	–	.	–	–	–
1570a. Game = 15 points	+	+	–	.	–	–	–	.	–	–	–
Scoring method 2*:											
1571. Quince up, 3 down = 15	–	–	–	–	+	+	+	.	–	–	–
1572. Sigo up, 3 down = 14	–	–	–	–	+	+	+	.	–	–	–
1573. "Six" up, 3 down = 6	–	–	–	–	+	+	+	.	–	–	–
1574. "Four" up, 3 down = 4	–	–	–	–	+	+	+	.	–	–	–
1575. All up = 5	–	–	–	–	.	+	+	.	–	–	–
1576. All down = 10	–	–	–	–	(+)	+	+	.	–	–	–
1577. Two up, two down = 2	–	–	–	–	+	+	+	.	–	–	–
1578. Three up, one down = 3	–	–	–	–	+	+	+	.	–	–	–
1579. Game = 46 or 50 points	–	–	–	–	*+	*+	*+	.	–	–	–
Scoring method 3*:											
1580. Four up = 1	–	–	–	–	*.	+	+	.	–	–	–
1581. Four down = 2	–	–	–	–	.	.	+	.	–	–	–
1582. Other throws = 0	–	–	–	–	.	+	+	.	–	–	–
1583. Game = 3 points (by subtraction) .	–	–	–	–	.	*+	.	.	–	–	–
Scoring method 4*:											
1584. Scoring by either faces or backs, decided	–	–	+	–	–	–	–	.	–	–	–
1585. One die laid down to indicate choice	–	–	+	–	–	–	–	.	–	–	–
1586. Only three dice cast . . .	–	–	+	–	–	–	–	.	–	–	–
1587. 3 of kind = 1	–	–	+	–	–	–	–	.	–	–	–
1588. Keeps one die	–	–	+	–	–	–	–	.	–	–	–
1589. Opponent casts two	–	–	+	–	–	–	–	.	–	–	–
1590. 1 up, 1 down wins third die* . . .	–	–	+	–	–	–	–	.	–	–	–
1591. Casts for points with 3	–	–	+	–	–	–	–	.	–	–	–
1592. Game = 4 points	–	–	+	–	–	–	–	.	–	–	–
Scoring method 5*:											
1593. One point for each face up	–	–	–	–	–	–	–	–	–	+	–
1594. Number of points for game	–	–	–	–	–	–	–	–	–	.	–
Tallying:											
1595. Scoring circuit	–	–	–	*+	*+	*+	*+	.	–	–	–
1596. Rectangular	–	–	–		+	+	+	.	–	–	–
1597. "Pockets" of "starting boxes". . .	–	–	–		+	+	+	.	–	–	–
1598. Called "houses"	–	–	–		(+)	+	+	.	–	–	–
1599. Opponent's marker "killed" when met	–	–	–	+	+	+	+	.	–	–	–
1600. Stick counters for tallying . . .	+	+	–	–	–	–	–	.	–	+	–
1601. Marks on ground for tallying . . .	–	–	–	–	*+	*+	*+	.	–	–	–
1601a. Betting	+	+	+	+	+	+	+	(+)	–	+	–
1602. Three-stick dice game	–	–	–	–	–	–	–	.	+	+	–
1603. Split sticks	–	–	–	–	–	–	–	.	+	+	–
1604. Painted solid on faces	–	–	–	–	–	–	–	.	+	+	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1605. Struck against flat stone on ground	–	–	–	–	–	–	–	·	+	+	–
1606. Played by men, women (M, W; +, both)	–	–	–	–	–	–	–	·	+	*M	–
Scoring*:											
1607. 3 face up = 5	–	–	–	–	–	–	–	·	+	+	–
1608. 3 face down = 10	–	–	–	–	–	–	–	·	+	+	–
1609. 2 face up, 1 down = 3	–	–	–	–	–	–	–	·	+	+	–
1610. 1 face up, 2 down = 1	–	–	–	–	–	–	–	·	+	+	–
1611. Game = 44 points	–	–	–	–	–	–	–	·	*+	–	–
1612. Game = 40 or 50 points	–	–	–	–	–	–	–	·	–	*+	–
1613. Scoring circuit	–	–	–	–	–	–	–	·	+	+	–
1614. Circular	–	–	–	–	–	–	–	·	+	+	–
1615. Pockets in circuit	–	–	–	–	–	–	–	·	+	–	–
1616. Called "water-holes"	–	–	–	–	–	–	–	·	*+	–	–
1616a. Marker "killed" when met	–	–	–	–	–	–	–	·	+	*+	–
1617. Betting	–	–	–	–	–	–	–	·	+	+	–
1618. Six-stick dice game	–	–	–	*+	–	–	–	·	–	–	–
1619. Split sticks	–	–	–	+	–	–	–	·	–	–	–
1620. Painted solid on faces	–	–	–	+	–	–	–	·	–	–	–
1621. Score according to number of faces up	–	–	–	+	–	–	–	·	–	–	–
1622. Game 15 points	–	–	–	+	–	–	–	·	–	–	–
1623. Score by subtraction	–	–	–	+	–	–	–	·	–	–	–
Hidden-Ball Game											
1624. Hidden-ball game played	–	–	+	+	+	+	+	*+	+	+	+
1624a. Stick, pebble, etc., hidden	–	–	+	+	–	–	–	+	–	–	+
1625. Red "bean" hidden*	–	–	–	–	+	+	+	–	–	–	–
1626. Yucca-root ball hidden	–	–	–	–	–	–	–	–	+	+	–
1627. Hiding in four canes	–	–	–	–	+	+	+	S	–	–	–
1628. Filled with sand	–	–	–	–	+	+	+	·	–	–	–
1629. Marked: end, middle, both, all-over	–	–	–	–	+	+	+	·	–	–	–
1630. Named	–	–	–	–	+	+	+	·	–	–	–
1631. Old man, old woman, etc.*	–	–	–	–	+	+	+	·	–	–	–
1632. Tubes arranged by guesser	–	–	–	–	*	*	+	·	–	–	–
1633. One pair crossed, one pair parallel	–	–	–	–	*	*	+	·	–	–	–
1634. Three guesses, find ball on third.	–	–	–	–	(+)	(+)	–	·	–	–	–
1635. Scoring 10-6-0-4*	–	–	–	–	*(–)	*	+	·	–	–	–
1636. Scoring according to value of canes*	–	–	–	–	(+)	+	–	·	–	–	–
1637. Hiding in four dirt piles*	–	–	+	+	+	+	+		+	+	–
1638. Hiding in three dirt piles	–	–	–	–	–	–	–		–	–	+
1639. Single mound or ridge, divided into four (three)	–	–	+	+	+				S	+	+
1640. One guess for ball	–	–	+	+	S	+	+	·	+	S	+
1641. If misses, hider scores 1	–	–	+	+	+	+	+	·	+	+	+
1642. Second guess allowed	–	–				+	+	·	+	+	–
1643. Third guess allowed	–	–				–		·	S*	S*	–
1644. Hider scores 1 each miss	–	–				+	+	·	+	+	–
1645. Three guesses, find ball on third*	–	–	S	(–)	S	S	(–)	·	(–)	S	–
1646. Game played by men	–	–	+	+	+	+	+	+	+	+	+
1647. Two opposing "teams"	–	–	+	+	+	+	+	S	+	+	+
1648. Game = 80 or 100 points*	–	–	–	–	+	+	+	–	–	–	–
1649. Game = 12 points	–	–	*+	–	–	–	–	–	*+	–	–
1650. Game = 20 points	–	–	–	–	–	–	–	–	–	–	+
1651. Game points variable, decided	–	–	–	+	–	–	–	+	–	*+	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1652. Sticks for counters	−	−	+	*−	−	*−	−	(+)	+	+	+
1653. Corn grains for counters	−	−	−	−	+	+	+	−	−	−	−
1654. Counters in middle at start	−	−		−	+	+	+		+	+	−
1655. Counters divided at start	−	−		−	*−	*−	*−		−	−	+
1656. Sing during play	−	−			*	*	*		+	+	+
1657. Betting	−	−	+	S	+	+	+	+	+	+	+
Hand-game (Peon)											
1658. Hand-game played	+	+	+	+	+	*R	+	−	*+	*R	*R
1659. Pieces made of bone	*+	−	*−	*+	−	−	−	−	−		+
1660. Pieces made of wood	−	+	+	*+	+	+	+	−	S		−
1661. Stones, walnuts, etc., used	−	−	−	−	−	−	−	−	+		−
1662. Pieces in pairs (white and marked)	+	+	+	+	+	*+	−	−	−		+
1663. White guessed for	+	+	+	+	+	*−	−	−	−		+
1664. Single piece to player	−	−	−	−	−	*−	+	−	+		−
1665. Finger or wrist loops on pieces*	+	+	+	+	+	+	+	−	−		R
1666. One holder	−	−	−	−	−	−	−	−	+		−
1667. Two holders	−	−	−	−	−	−	−	−	−		+
1668. Three holders	−	−	*+	−	+	+	+	−	−		−
1669. Four holders	+	+	−	+	−	−	−	−	−		−
1670. All guessed for simultaneously	+	+	+	+	+	+	+	−	−		+
1671. Holding side sings	+	+	+	+	+	+	+	−	−		+
1672. Played by men, women (M, W; +, both)	M	M	M	+	M	M	M	−	−		+
1673. Played by children (only)	−	−	−	−	−	−	−	−	+		−
1674. Game = 12 points	−	−	+	−	−	−	−	−	*−		−
1674a. Game = 14 points	−	−	−	−	−	−	−	−	−		+
1675. Game = 15 points	+	+	−	+	−	−	−	−	−		−
1676. Game = 20 points	−	−	−	−	−	+	−	−	−		−
1677. Game = 40 or 50 points	−	−	−	−	+	−	+	−	−		−
1678. Counters divided	−	−	−	−	−	−	−	−	−		+
1679. Counters in center	+	+	+	+	+	+	+	−	−		+
1680. Held by "referee"	+	+	*−	+	+	+	+	−	−		+
1681. Referee called kōīmɛ*	+	+	−	+	+	+	+	−	−		+
1682. Betting	+	+	+	+	+	+	+	−	−		+
Various Games and Amusements											
1683. Archery games	+	+	+	+	+	+	+	+	+	+	+
1684. For accuracy	+	+	+	+	+	+	+	+	+	+	+
1685. Arrows bet	+	+	+	S	+	S	+	+	+	+	+
1686. For distance	S	−	+	+	S	−	+		+	+	−
1687. Throwing mud balls with sticks*	−	−	+	+	+	+	+	+	+	*−	+
1688. Two opposing sides	−	−	+	+	+	+	+	+	+	−	+
1689. Jacks with stones	−	+	−	−	+	+	+	+	+	R	+
1690. Five usual number	−	+	−	−	+	+	+	+	−		−
1691. More than five	−	−	−	−	−	S	−	S	*+		*+
1692. Pick up jacks	−	+	−	−	+	+	+	+	+		+
1693. Throw under hand*	−	+	−	−	+	+	+	+	+		−
1694. Played by women	−	+	−	−	+	+	+	+	*−		+
1695. Tops spun (boys)	R	+	+	+	+	−	+	+	+	+	+
1696. Pottery-disk top	−	−	(+)	+	+	−	+	−	−	+	+
1697. Wood-disk top	R	−	−	−	−	−	S	−	+	−	−
1698. Squash-rind-disk top	−	−	−	−	−	−	−	+	−	−	−
1699. Root, etc., for disk	−	+	−	−	−	−	−	−	−	−	−
1700. Juggling	+	+	+	+	+	+	+	+	+	+	+
1701. By men, women (M, W; +, both)	W	W	W	+	W	W	W	*W	W	W	W

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1702. As game (contest)	+	+		+	+	–	*+	–	–	+	+
1703. As pastime (no counting)	–	–		–	–	+	–	+	+	–	–
1704. Small melons used	–	–	+	+	+	+	–	+	(+)*	+	–
1705. Baked clay balls	+	+								–	–
1706. Pebbles	–	–					*+	–	–	–	+
1707. Two to three objects	+	+	+	+	+	+	+	S	S	+	+
1708. More than three	–	–	–	S	–	–	–	+	S	–	–
1709. Popgun toy*	R	–		+	–	+	+		–	+	+
1710. Cat's cradles	*–	+	+	+	+	+	+	+	+	+	+
1711. Played by men, women (M, W; +, both)	–	+	+	W	+	+	+	W	+	+	+
Smoking*											
1712. Cultivated tobacco smoked	–	–	+	–	+	+	+	+	+	–	–
1713. Wild tobacco smoked	+	+	S	*+	*+	S	+	S	+	+	+
1714. "Coyote's tobacco"*	+	+			*	*		+	+		–
1715. Clay pipes	+	+	+	–	*–	–	–	–	+	+	+
1716. Tubular	+	+	+	–	–	–	–	–	+	+	–
1717. Elbow	–	–	–	–	–	–	–	–	–	–	+
1718. Cane stem	–	–	–	–	–	–	–	–	–	–	+
1719. Wooden pipes (tubular)	+	+	–	–	–	–	–	–	–	–	–
1720. Stone pipes	–	–	–	–	–	–	–	–	–	–	+
1721. Cane stem	–	–	–	–	–	–	–	–	–	–	+
1722. Cane cigarettes (or pipes)	+	+	*–	+	+	+	+	–	–	+	–
1723. Corn-husk cigarettes	–	–		*	*		*	+	–	*+	–
1724. Smoking by men only*	+	.	+	–	+	+	(+)	+	+	+	*–
1725. Ceremonial smoking*	+	+		+	+	+	+	+	+	+	+
1726. Pipe (or cigarette) passed	+	+		+	+	+	+	+	+	+	+
1727. To right only	(*–)	+		+	–	+	+	+	–	+	*–
1728. Kin term exchanged		+			+	+	+	(+)	+	*+	–
Pets											
1729. Dogs kept	R	R	+	R	+	+	+	+	*–	R	*(R)
1730. Eaten	–	–	+	*–	–	–	–	–	*–	R	–
1732. Mockingbirds kept		+	*–	+	+	*+	+		+	+	+
1733. Doves kept	+	+	+	+	+	+	–		+	+	+
1734. White-winged doves kept				+	+	+	+		+		
1735. Cribwood cages	*–	+	*–	+	+	+	+		+	+	+
1736. Rectangular*		+		+	+	S	–		+	–	–
1737. Cylindrical*		–		–	–	S	+		–	+	+
Eagles											
1738. Eagles kept	+	+	+	+	+	+	+		+	+	+
1739. Young taken from nests	+	+	+	*–	+	+	+		+	+	+
1740. Caged	+	+	+	+	+	+	+		+	+	+
1741. Plucked and released	–	–	+	+	+	+	+		S	S	+
1742. Killed and plucked	+	+	–	–	–	–	–		+	–	–
1743. Killed ritually*	+	+	–	–	–	–	–		–	–	–
1744. Hawks kept similarly*		S	+	+	+	+	+		–	+	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
SOCIAL CULTURE											
The Structure of Society*											
Political Organization											
1745. True tribal organization*	–	–	*+		*+	*R	*R		–	–	–
1746. One headman for tribe	–	–	+		+	R	R		–	–	–
1747. Tribe acts as unit in war	–	–	+		+	R	R		–	–	–
1748. Tribe acts as ceremonial unit	–	–	*–		*–	*R	*R		–	–	–
1749. Band organization	–	–	–		–	–	–		+	+	+
1750. Bands are geographical divisions	–	–	–		–	–	–		+	+	+
1751. Bands consist of several camps	–	–	–		–	–	–		+	+	+
1752. One or more headmen in band	–	–	–		–	–	–		+	+	+
1753. Band acts as unit in war	–	–	–		–	–	–		(+)	(+)	(+)
1754. Autonomous village organization	+	+	*–		*–	(+)	(+)		–	–	–
1755. Village with headman	+	+	–		–	+	+		–	–	–
1756. Village is ceremonial unit	+	+	–		–	*(+)	*(+)		–	–	–
Clans and Moieties*											
1757. Patrilineal clans	+	+	*+	*	*+	*–	*–		–	–	–
1757a. Localized	+	+	–		–	–	–		–	–	–
1758. Nonlocalized	–	–	+		+	–	–		–	–	–
1759. Exogamous	+	+	*(+)		*(+)	–	–		–	–	–
1760. Named	+	+	*+		+	–	–		–	–	–
1761. Names of totemic reference*	–	–	+		+	–	–		–	–	–
1762. Clan names used for women	–	–	+		+	–	–		–	–	–
1763. By all	–	–	+		–	–	–		–	–	–
1764. By in-laws only	–	–	–		+	–	–		–	–	–
1765. Numerous clans	+	+	+		+	–	–		–	–	–
1766. Father-name groups*	–	–	–		–	+	+		–	–	–
1767. Four groups	–	–	–		–	–	(+)		–	–	–
1768. Five groups	–	–	–		–	+	–		–	–	–
1769. Used special term for father	–	–	–		–	+	+		–	–	–
1770. Nonexogamous	–	–	–		–	+	+		–	–	–
1771. Patrilineal	–	–	–		–	+	+		–	–	–
1772. Patrilineal moieties*	–	–	–		–	+	+		–	–	–
1773. Nonexogamous	–	–	–		–	+	+		–	–	–
1774. Totemic names	–	–	–		–	+	+		–	–	–
1775. Coyote, Buzzard	–	–	–		–	+	+		–	–	–
1776. Color associations	–	–	–		–	+	*–		–	–	–
1777. Red and white (also, red and white "cowkiller")	–	–	–		–	+	*–		–	–	–
1778. Intermoiety rivalry: boasting	–	–	–		–	+	+		–	–	–
Chiefs and Headmen											
1779. Tribal chief	–	–	*+		+	*R	*R		–	–	–
1780. Hereditary	–	–	+		+	*R	R		–	–	–
1781. Males only	–	–	+		+	R	R		–	–	–
1782. Chief of leading village	–	–	–		*–		*R		–	–	–
1783. Consults with other village chiefs	–	–	–		–	*(R)	*R		–	–	–
1784. Called "stick-owner"*	–	–	–		–	R	R		–	–	–
1785. Village chief	*R	*R	–		–	*R	*R		–	–	–
1786. Hereditary	–	–	–		–	R	R		–	–	–
1787. Called "stick-owner"	–	–	–		–	R	R		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1790. Messenger assistant	–	–	–		–	*	R		–	–	–
1791. Kohota festival chief*	–	–	+		*+	–	–		–	–	–
1792. Position from dreams	–	–	+		·	–	–		–	–	–
1793. Position from recognized ability	–	–	+		+	–	–		–	–	–
1794. Keeps enemy scalps	–	–	+		+	–	–		–	–	–
1795. Has big house	–	–	+		+	–	–		–	–	–
1796. Good speaker	–	–	+		*+	–	–		–	–	–
1797. Ceremonial official	–	–	–		*–	+	+		–	–	–
1798. Hereditary	–	–	–		–	+	+		–	–	–
1799. Called "(tobacco-)smoke-keeper"	–	–	–		–	*(–)	+		–	–	–
1800. Cares for assembly house	–	–	–		–	+	+		–	–	–
1801. Cares for ceremonial bundle*	–	–	–		–	+	+		–	–	–
1802. Calls for men to assemble	–	–	–		–	+	+		–	–	–
1802a. Tends fire at assemblies	–	–	–		–	+	+		–	–	–
1803. Band headmen*	–	–	–		–	–	–		+	+	
1804. Hereditary	–	–	–		–	–	–		*–	*+	
1805. Bravery requisite*	–	–	–		–	–	–		+	*–	
1806. Must have slain foe	–	–	–		–	–	–		+	–	
1807. Wears nose ornament	–	–	–		–	–	–		+	–	
1808. Daily addresses to people	–	–	–		–	–	–		S	+	
1809. One or more per band	–	–	–		–	–	–		+	+	
1810. Hunt master	+	+			+	+	+		+	(±)	(±)
1811. Hereditary	–	(–)			–	+	+		–	–	–
1812. Casually selected	+	(±)			+	–	–		+	–	–
1813. Owner of net, or grounds										*+	*+
1814. Whoops to announce hunt	+	+			+	+	+		·	+	+
1815. War chief (as definite office)	–	–	+	+	+	–	–		*+	+	+
1816. From dreaming	–	–	+	+	+	–	–		–	–	*+
1817. On record of bravery, etc.	–	–	–	–	–	–	–		+	+	+
1818. Anyone may lead war party	–	–	–	–	–	+	+		–	–	–
1819. Must have permission of chiefs	–	–	*–	–	*–	*+	*+		–	–	–
Real Property, Law*											
1820. Agricultural lands individually owned	–	–	+	+	+	*+	+	+	+	+	+
1821. Inherited	–	–	+	–	+	*+	+	+	–	+	+
1822. Abandoned at owner's death	–	–	–	+	–	–	–	–	+	–	–
1823. Abandoned for short time only	–	–	+	–	*+	–	–	–	–	–	–
1824. Push of war to settle boundary disputes*	–	–	+	+	*–	–	–	–	–	–	–
1825. Stick fight to settle boundary disputes*	–	–	+	+	–	–	–	–	–	–	–
1826. Gathering rights privately owned	–	–	+	+	+	–	–	–	–	–	*+
1827. Individual trees (mesquite, etc.) owned	–	–	+	+	+	–	–	–	–	–	–
1828. Bunch of arrowweed to mark*	–	–	+	+	+	–	–	–	–	–	–
1829. Mescal patches owned	–	–	–	–	–	–	–	–	–	–	+
1830. Edible grass patches owned	–	–	–	–	–	–	–	–	–	–	+
1831. Hunting areas owned	–	–	–	–	–	–	–	–	–	–	+
1832. Eagle nests privately owned	*	+	+	*(±)	+	+	*–		+	+	+
1833. Compensation paid after murder*	–	–	–		–	S			–	S	
1835. Revenge taken after murder	·	+	(–)		S	S			+	+	
1836. Stick fight by relatives after murder*	–	–	+		+	–			–	–	–
1837. Adultery: wife and/or paramour killed	S	–	–		–	S	S		S	S	–
1838. Adultery: wife and/or paramour beaten	S	–	–		–	S			S	S	S
1839. Adultery: no action taken but divorce	S	+	+		+	S	S			S	S

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Warfare											
Preparations											
1840. Expedition initiated by war chief	*	*	+	+	+	−	−		+	+	+
1841. Dream sanction requisite*			+	+	+	−	−		*−	*−	−
1842. Fasting before war party*			−	+	(−)	−	−		−	−	−
1843. Meat, fat, salt taboo*			−	+	−	−	−		−	−	−
1844. Continence before war party*			−	+	−	−	−		+	+	−
1845. Dance of incitement			+	+	*−	*−	*−		+	+	S
1846. Men dance			+	+	−	−	−		+	+	+
1847. Women dance			+	+	−	−	−		+	+	+
1848. Song cycles used*			+	*−	*−	−	−		−	−	−
1849. Old scalps danced with			+	+	−	−	−		−	−	S
1850. Ordinary circle dance*			−	−	−	−	−		+	+	+
1851. Dance in two rows*			−	−	−	−	−		+	−	−
1852. Dog dance*			−	−	−	−	−		+	−	−
1853. Sham battle before set out*			−	−	−	−	−		−	+	−
Conduct of Party											
1854. Formal speeches at nightly camps*			−	*(+)	+	+	*+		−	−	−
1855. By leader			−	.	+	−	*−		−	−	−
1856. By special speaker			−	*(+)		+	*+		−	−	−
1857. Warriors sing nightly			−	−	.	+	+		−	+	+
1858. Shamans lead singing			−	−	.	+	+		−	.	−
1859. War leaders lead singing			−	−	.	−	−		−	−	+
1860. Warriors dance: round dance*											+
1861. Warriors smoke ritually			−	−	.	+	*−		+	+	+
1862. Warriors eat little			+	+	+	−	−		+	+	+
1863. Warriors drink little			+	+	+	−	−		+	+	+
1864. Use drinking tube			−	−	−	−	−		*+	(−)	−
1865. Use scratching stick			−	−	−	−	−		+	+	−
1866. Shaman accompanies parties			+	+	+	+	+		+	+	+
1867. Works magic against foe			*−	+	+	+	+		−	−	−
1868. Heals own wounded			+	+	+	+	+		+	+	+
1869. Finds foe (magically)				+		+	+		+	+	+
1870. Families of warriors go about quietly						+	*−		+	+	−
Armament and Regalia											
1871. Armament divided*			+	+	+	+	+		*−	*−	−
1872. Bowmen			+	+	+	+	+		−	−	−
1873. Clubmen			+	+	+	+	+		−	−	−
1874. Lancers			−	+	−	+	−		−	−	−
1875. War paint black			+	+	+	+	+		+	+	+
1876. War paint red			−	−	−	S	S		+	+	+
1877. Face painted half red, half black				*						+	S
1878. Hair painted red			+	+	−	−	−		−	−	−
1879. Feather hairdresses worn			+	+	+	+	+		+	+	+
1880. Feathers on netting foundation			+	+	*+	−	−		−	−	−
1881. All over, radiating feathers			+	+	+	−	−		−	*.	−
1882. Erect bunch on top											+
1883. Worn by war chief			+	+	+	−	−		−	−	−
1884. Feathers on buckskin cap					*	*+	+		+	+	+
1885. Erect row across front						+	+		+	.	−
1886. Pendent feathers on sides						+	+		−	.	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1887. Non-flight obligation			−	−	−	+	+		−	−	−
1888. Worn by "Ashes men" *						+	·		−	−	−
1889. Anyone might wear						−	·		+	+	+
1890. Feathered staves carried *			+	+	+	−	*		−	−	−
1891. Two			+	+	*	−	−		−	−	−
1892. One black, one white			+		+	−	−		−	−	−
1893. Both black				+	−	−	−		−	−	−
1894. Non-flight obligations			+	+	+	−	−		−	−	−
1895. Feathers worn in hair*			+	+	+	+	S		−	+	−
1896. Old scalps carried to war			+	+	+	−	−		−	−	−
1897. To taunt enemy				+	+	−	−		−	−	−
Tactics, Trophies											
1898. Pitched battles*			(+)	S	+	−	−		−	−	−
1899. Night raids			+	+	+	+	+		+	+	+
1900. Slain enemy scalped			+	+	+	+	+		+	+	+
1901. All those slain			−	−	−	+	+		−	+	*
1902. Slayer scalps			−	−	−	+	+		−	+	−
1903. Few only scalped			+	+	+	−	−		+	−	+
1904. "Those with good-looking hair"			+	+	+	−	−		+	−	+
1905. Special scalper			+	+	+	−	−		+	−	+
1906. Power from dreams			+	+	+	−	−		−	−	−
1907. War leader scalps									+	−	+
1908. Skin of whole head for scalp			+	+	+	+	+		+	+	+
1909. Scalp includes ears*			+	+	+	−	(+)		−	*	−
1910. Ears cut off separately*					R	S	R		−	−	−
1911. Scalp kicked in air four times			+	+	(−)	−	−		−	−	−
1912. Captives taken			+	+	+	+	+		S	S	−
1913. Young women			+	+	+	+	−		S	S	−
1914. "Given to old men" *			+	*	+	S	−		−	−	−
1915. Children			+	+	+	+	+		*	S	−
1916. Kept			+	S	+	+	+		*	S	−
1917. Sold				+		R	+				
1918. Captives killed			−	−	S	*	−		S	S	−
1919. Eaten			−	−	−	−	−		S	−	−
Return of War Party											
1920. Enemy slayers march separately			−	*	+	+	+		−	−	+
1921. Enemy slayers (only) restricted on return journey.			−	*	+	+	+		−	−	+
1922. Fast			−	−	+	+	+		−	−	*
1923. Given little pinole only			−	−	+	+	+		−	−	
1924. Little water			−	−		+	+		−	−	+
1925. Use scratching stick			−	−	+	+	+		−	−	+
1926. All returning warriors restricted			+	*	−	−	−		+	+	−
1927. Eat, drink little			+	+	−	−	−		*	+	−
1928. Use scratching stick			−	·	−	−	−		+	+	−
1929. Use drinking tube			−	·	−	−	−		+	−	−
1930. Warriors bathe when arrive home			+	+	+	−	−		+	−	+
1931. Warriors sweat when arrive home on return journey.			−	−	−	−	−		−	+	−
1932. Warriors' hair washed with soapweed			−	−	−	−	−		+	+	+
1933. Enemy slayers secluded			−	+	+	+	+		−	−	−
1934. In hut			−	*	+	*	+		−	−	−
1935. Old man attendant			−	−	+	+	+		−	−	−
1936. Four days			−		−	*	−		−	−	−
1937. Eight days			−		*	−	−		−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1938. Sixteen days			–		*–	*–	+		–	–	–
1939. Bathe daily			–		*+	*–			–	–	+
1940. Bathe every four days			–		*+	*–	+		*–	–	–
1941. Enemy slayers: food restriction			+	+	+	+	+		*+	+	+
1942. Meat taboo			+	+	+	+	+		*+	+	+
1943. Salt taboo			+	+	+	+	+		*+	–	+
1944. Use scratching stick			·	+	+	+	+		*–	+	+
1945. Use drinking tube				–	+	–	–		–	–	–
1946. Emetic (at beginning of fast)				–	+	–	–		–	*+	*+
1947. Enemy slayer's family restricted			+	+	+	+	+		–	–	–
1948. Wife's head covered					·	–	+		–	–	–
1949. Fasting (meat, salt taboo)			+	+	+	+	+		–	–	–
1950. Scratching stick						–	*–		–	–	–
1951. Bathe after four days					+	+	+		*–	–	–
1952. Scalper (official) restricted			+	+	+	–	–		–	–	–
1953. Same individual as enemy slayer			+	+	+	–	–		–	–	–
1954. "Tans," dresses scalp			+	+	+	*–	–		–	–	–
1955. Enemy slayer gets vision, songs, during seclusion.			*	*	*	S	+		–	–	S
1956. Cures sickness from Apache scalp						*–	+		–	–	–
Victory Celebration											
1957. Women go to meet war party*					+	*–	+		S	–	–
1958. Women dance with scalp						*–	+		–	–	–
1959. Run in ahead of war party with scalp					*+	*–	+		S	–	–
1960. Young women take warriors' weapons, dance.						*–	+		–	–	–
1961. Old people go to meet war party*			+	+							
1962. Sing, dance, shout			+	+							
1963. Victory dance held			+	+	+	+	+		+	+	*+
1964. Outdoors			+	+	+	+	+		+	+	+
1966. Men dance			+	+	*+	+	+		+	+	+
1967. Women dance			+	+	*+	+	+		+	+	–
1968. Song cycles used*			+	–	+	–	–				
1969. Special victory songs			–	*+	*–	*+	+		*	*	*
1970. Scalp(s) put on post			+	+	+	*+	+		*+	+	+
1971. Scalp(s) danced with			–	*–	–	–	S		*+	+	+
1972. By old women									+	–	–
1973. By men									*–	+	+
1974. Captives present at dance*			+	+	+	+			S	+	–
1975. Beaten, abused*					*	+			+	S	–
1976. Circle dance used			–	*+	–	+	+		+	+	+
1977. Square dance (two lines)			+	*–	+	–	–		+	–	–
1978. "Dog dance"			–	–	–	–	–		+	–	–
1979. Speeches made			+	+	+	+			–	*–	–
1980. Warriors take part in dance			+	+	*+	–	–		+	+	+
1981. Enemy slayers' families stay away from dance						+	+		–	–	–
1982. Slayers sit in pits near dance ground*			–	–	–	+	+		–	–	–
1983. Face eastward			–	–	–	+	*–		–	–	–
1984. Face westward			–	–	–	–	+		–	–	–
1985. Stake behind pit			–	–	–	+	*(+)		–	–	–
1986. Weapons, feathers hung on.			–	–	–	+	–		–	–	–
1987. Face paint: white with horizontal black stripe			–	–	–	+	*–		–	–	–
1988. Young men dance with slayers' weapons*			–	–	–	+	+		–	–	–
1989. "Paid"*			–	–	–	+	+		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
1990. One night only			−	−	−	+	+		−	−	−
1991. Tobacco smoke blown over slayer			−	−	−	+	+		−	−	−
1992. Slayer bathed			−	−	−	+	+		−	−	−
1993. Slayer brushed by singer*			−	−	−		+		−	−	−
1994. Victory dance repeated			*	*+	*−	−	−		+	+	−
1995. Month or so later						−	−		+	+	−
1996. When large number of people can be assembled*						−	−		+	+	−
Preservation of Scalps											
1997. Scalps kept			+	+	+	+	+		−	*−	+
1998. Sealed in olla			+	+	+	−	−		−	−	−
1999. Taken out, washed, combed			+	+	*−	−	−		−	−	−
2000. At irregular intervals				+	*−	−	−		−	−	−
2001. Dance with, two nights				+	*−	−	−		−	−	−
2002. Kept in twilled basket			−	−	−	*+	+		−	−	−
2003. Made into effigy*			−	−	−	−	+		−	−	−
2004. Offerings put with			−	−	−	+	+		−	−	−
2005. Feathers			−	−	−	+	+		−	−	−
2006. Warriors' scratching sticks			−	−	−	+	+		−	−	−
2007. Prayer sticks			−	−	−	+	+		−	−	−
2008. Fed tobacco, meal			−	−	−	−	+		−	−	−
2009. Kept in buckskin sack			−	−	−	−	−		−	−	+
2010. Scalps bring rain			−	−	−	+	+		−	−	−
2011. Scalps give power, good fortune*			−	−	−	+	+		−	−	−
2012. Scalps kept by kohota			+	−	+	−	−		−	−	−
2013. Scalps kept by war chief			−	+	−	−	−		−	−	+
2014. Scalps kept by ceremonial official			−	−	−	+	−		−	−	−
2015. Scalps kept by enemy slayer			−	−	−	−	+		−	−	−
2016. Kept in house (dwelling)			+	−	+	−	+		−	−	+
2017. Kept outside, in special structure*			−	+	−	−	−		−	−	−
2018. Kept in ceremonial house			−	−	*−	+	−		−	−	−
2019. Scalps not kept			−	−	−	−	−		+	+	−
2020. "Hung up" out in brush			−	−	−	−	−		S	−	−
2021. Burned			−	−	−	−	−		S	+	−
Defensive Tactics											
2022. Sentinels posted when raids expected			+	+	*−	+	−		*−	S	−
2023. Defensive walls built			−	−	−	−	*−		−	S	−
2024. Of stones			−	−	−	−	*−		−	+	−
Marriage											
2025. Marriages arranged by parents	S	−	*−		S	+	+		*+	S	−
2026. Girl's family takes initiative*	*+	−	−			S	+		−	−	−
2027. Marriage arranged by couple themselves	S	+	+		+	*S	*−		−	S	+
2028. Informally (begin living together)	+	+	+		+	+	−		−	+	+
2029. Bride purchase	−	−	−		R	*R	−		*+	*+	−
2030. Gifts in indeterminate amount	−	−	−			*R	−		*+	*+	−
2031. Bridegroom visits bride at night (at her home)*	−	−			*	*+	+		−	+	−
2032. Leaves before dawn	−	−				+	+		−	+	−
2033. Four nights	−	−				+	+		−	−	−
2034. Longer (as much as a month)	−	−				−	−		−	*+	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2035. Bride brought to bridegroom's home at end of time	−	−				+	+		−	+	−
2036. Bridegroom's mother gives dress to bride	−	−				+	+		−		−
2037. No formal marriage rite*	+	+	+		*+	*+	*+		*+	+	+
Residence											
2038. Initial residence with wife's parents (other than 2031-2034)	−	−	S		S	S	S		*+	*S	+
2039. Initial residence with husband's parents	+	+	S		+	+	+		−	S	−
2040. Final residence with wife's parents	−	−	S		S	S	S		S	−	S
2041. Final residence with husband's parents	+	+	S		+	+	+		S	⊕	S
2042. No fixed rule	−	−	+		*−	*−	*+		+	⊕	+
2043. Establish separate camp											S
Types of Marriages											
2044. Marriage to cousin (x or //) taboo	+	+	+		+	+	+		+	*+	+
2045. Kin cut hair, burn house, at incestuous union*	−	−	+		+	−	−		−	−	−
2046. Polygynous marriages	*−	+	+		+	+	+		+	+	+
2047. To woman and her daughter	−	−	.		*−	−	*−		*+	*+	−
2048. To two or more sisters	−	−	.		+	+	+		*+	+	+
2049. To nonrelated women	−	+	*+		+	+	+		*+	+	+
2050. Polygyny infrequent	−	+	+		+	+	+		+	+	+
2051. By anyone*	−	+	+		+	+	+		+	+	+
2052. Polyandrous marriages	−	−	−		−	−	−		−	−	S
2053. Fraternal	−	−	−		−	−	−		−	−	+
2054. Successive sororate	+	−	−		+	+	+		+	+	+
2055. Optional	+	−	−		+	+	+		−	+	−
2056. Mandatory	−	−	−		−	−	−		+	−	+
2057. Levirate	+	−	+		+	+	+		+	+	+
2058. Optional	+	−	+		+	+	+		−	+	−
2059. Mandatory	−	−	−		−	−	−		+	−	+
Divorce											
2060. Divorce for infidelity (by either mate)	S	+	+		+	+	S		+	+	S
2061. Divorce for laziness, etc.	+	+	S		+	S	S		+	+	+
2062. Children to husband on divorce	−	S	−		S	S	S		S	+	S
2063. Children to wife on divorce	+	S	+		⊕	S	S		S	−	S
2064. Older children allowed to choose						+	+				
Kinship Usages											
2065. Parent-in-law avoidances	−	−	−		−	−	−		+	−	−
2066. Mother-in-law son-in-law	−	−	−		−	−	−		+	−	−
2067. No speech	−	−	−		−	−	−		+	−	−
2068. Turn aside on trail	−	−	−		−	−	−		+	−	−
2069. Privileged familiarity	−	−	−		−	−	−		+	−	−
2070. Siblings-in-law of opposite sex	−	−	−		−	−	−		+	−	−
2071. Remote ("2d, 3d") cousins	−	−	−		−	−	−		*+	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
INDIVIDUAL DEVELOPMENT											
Birth Customs*											
Pregnancy Restrictions											
2072. Dietary restrictions (female)	−	+	+		+	*+	−		*+	*+	+
2073. Eats sparingly	−	+	+		+	+	−		+	+	+
2074. Head of animal taboo			−		−		−		+	+	+
2075. Fat taboo	−	+	−		*−	−	−		−	*−	+
2076. Salt taboo	−	−	−		−	−	−		−	−	+
2077. Staring or laughing at "ugly" things taboo*	*−	−	+		+	+	+		+	+	+
2078. Scratching-stick used	−	−	−		−	−	−		+	−	−
2079. Restrictions applied to husband	−	+	+		−	−	+		+	+	+
2080. Dietary taboos	−	+	+		−	−	−		+	+	+
2081. Same as wife's	−	+	+		−	−	−		+	+	+
2082. Hunting taboos	−	*−	−		*	−	*+		−	−	−
2083. Scratching-stick used	−	−	−		−	−	−		+	−	−
Parturition											
2084. Parturition in dwelling	+	+	+		−	−	−		*+	*−	−
2085. Parturition in special hut	−	−	−		+	+	+		−	+	+
2086. Midwife attendants	+	+	+		+	+	+		+	+	+
2087. Usually kinswomen	+	+	+		+	+	+		+	+	+
2088. Shaman called for difficult births (only)	−	−	+		*−	+	+		+	+	+
2089. Woman's husband excluded	+	+	*−		+	+	−		−	−	−
2090. Woman's husband must be present	−	−	−		−	−	−		+	+	(+)
2091. Woman's husband gets wood for fire, etc.	−	−	+		−	−	+		−	−	(+)
2092. Umbilical cord cut by midwife	+	+	+		+	+	+		+	+	+
2093. With ordinary stone knife	·	−	+		·	+	*+		*+	·	+
2094. With yucca-leaf "knife"	·	+								·	−
2095. Placenta buried	+	+	+		+	*+	−		+	+	+
2096. Placenta wrapped up, placed in cholla fork	−	−	−		−	−	+		−	−	−
2097. Placenta disposed of by midwife	+	+	+		S	+	+		+	S	S
2098. Placenta disposed of by child's father	−	−	−		S	−	−		*−	*S	S
Postnatal Treatment											
2099. Parturient confined	+	+	+		+	+	+		+	*+	+
2100. In birth hut	−	−	−		+	+	+		−	+	+
2101. In house	+	+	+		*−	−	−		+	−	−
2102. Parturient placed in warming pit*	+	+	+		−	−	−		+	+	+
2103. Four days	−	−	+		−	−	−		−	*+	−
2104. Six days	+	(+)	−		−	−	−		−	−	−
2105. "Two or three days"	−	−	−		−	−	−		*+	−	−
2106. Until child's umbilical cord detaches	−	−	−		−	−	−		−	−	*+
2107. No pit; warm stones put on belly	−	−	−		+	−	−		−	−	−
2108. Parturient fasts	+	+	+		+	+	+		+	+	+
2109. Eats sparingly	+	+	+		+	+	+		+	+	+
2110. Meat taboo	+	+	+		+	+	+		+	+	+
2111. Salt taboo	+	+	+		+	+	+		+	+	*−
2112. Cold water taboo	+	+	+		+	+	−		+	+	+
2113. Fasting for four days	−	*−	−		+	*+	*−		*(+)	−	−
2114. Fasting for eight days	−	−	−		−	−	+		−	−	−
2115. Fasting for six days	+	−	−		−	−	−		−	−	−
2116. Longer fast for first child	−	−	+		−	−	−		−	+	+

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2117. Twenty days	−	−	+		−	−	−		−	−	−
2118. "Month"	−	−	−		−	−	−		−	+	+
2119. Subsequent children: ten days	−	−	+		−	−	−		−	*−	*−
2119a. Scratching-stick used	+	+	+		*+	−	(−)		+	+	+
2120. Parturient bathes during confinement		+	−		*−	*−	+		−	−	+
2121. Daily		(+)	−		*−	*−	−		−	−	+
2122. Fourth and eighth days		−			−	−	+		−	−	−
2123. Face painted during confinement	−	−	+		*+	−	S		−	+	+
2124. Red paint used	−	−	+		*+	−	·		−	+	
2125. Red and white paint used											+
2126. Child's face painted also	−	−	+		+	−	−		−	S	−
2127. Wide belt worn by parturient*	+	+	−		+	+	−		+	+	+
2128. Bathes at end of confinement	+	+	+		+	+	+		+	+	+
2129. With warmed water	+	+	+		+	−	+		+	+	+
2130. Paints self with white paint*	+	+								−	−
2131. Hair washed with yucca	−	−	−		−	−	−		+	+	+
2132. Fumigates self at end of confinement*	+	+				+	−		·	+	−
2133. Restrictions extended to husband	+	+	+		+	−	+		*(+)	+	+
2134. Confined	−	−	−		−	−	−		(+)	+	−
2135. One day	−	−	−		−	−	−		*(+)	−	−
2136. Four days	−	−	−		−	−	−		−	+	−
2137. Food restrictions	+	+	+		+	−	+		*−	+	+
2138. Meat taboo	+	+	+		+	−	+		*−	+	+
2139. Salt taboo	+	+	+		+	−	+		*−	+	+
2140. Cold water taboo	+	+	−		−	−	−		−	+	+
2141. Food taboos for four days	−	*−	+		+	−	−		*−	−	−
2142. Food taboos for six days	+	−	−		−	−	−		−	−	−
2143. Food taboos for eight days	−	−	−		−	−	+		−	−	−
2144. Food taboos for "month"	−	−	−		−	−	−		−	+	+
2145. Scratching-stick used	+	+	+		−	−	−		*−	+	+
2146. Bathes daily	−	−	+		+	−	−		−	−	+
2147. Bathes every fourth day	−	+	−		−	−	+		−	−	−
2147a. Bathes four times during restriction	−	−	−		−	−	−		−	+	−
2148. Runs daily										*	+
2149. Toward east										*	+
2150. Until child's umbilical cord detaches										*	+
2151. Bathes to end restrictions	+	+	−		−	−	+		+	+	−
2152. Fumigate self to end restrictions	+	+								+	−
Treatment of Child											
2153. Ears pierced	+	−	+		*+	+	+		+	+	+
2154. Four days after birth	−	−	+		*+	+	−		−	−	−
2155. Few months after birth	*+	−	−		−	−	*+		*+	−	−
2156. Few years after birth	−	−	−		−	−			−	*+	*+
2157. Umbilical cord tied to cradle hood	−	−	−		−	−	−		+	+	+
2158. Umbilical cord buried	+	+	−		(+)	+	−		−	−	−
2159. Umbilical cord discarded	−	−	+		(+)	−	+		*−	*+	−
2160. Umbilical cord kept	−	−	−		−	−	−		+	−	−
2161. Umbilical cord put in tree	−	−	−		−	−	−		−	−	+
2162. Occipital head-flattening (accidental)	−	+	+		*−	−	−		+	S	−
2163. Child's purification rite*	−	−	−		−	+	+		−	−	−
2164. Second moon after birth	−	−	−		−	−	+		−	−	−
2165. "Few months" after birth	−	−	−		−	+	−		−	−	−
2166. Singer performs rite	−	−	−		−	+	+		−	−	−
2167. Sings	−	−	−		−	+	+		−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2168. Brushes child with feathers	–	–	–		–	+	+		–	–	–
2169. Blows tobacco smoke over	–	–	–		–	+	*–		–	–	–
2170. Drink of water and medicines	–	–	–		–	+	+		–	–	–
2171. "Ocean foam"*	–	–	–		–	+			–	–	–
2172. White clay and owl feathers*	–	–	–		–		+		–	–	–
2173. Mixture drunk by child*	–	–	–		–	+	+		–	–	–
2174. Mixture drunk by child's parents	–	–	–		–		+		–	–	–
2174a. Gives name to child	–	–	–		–	*–	+		–	–	–
2175. Child's parents fast	–	–	–		–	+	+		–	–	–
2176. Meat taboo	–	–	–		–	+	+		–	–	–
2177. Salt taboo	–	–	–		–	+	+		–	–	–
2178. Four days	–	–	–		–	+	*S		–	–	–
Twins											
2179. Twins kept (not killed)	+	+	+		+	+	+		*+	+	+
2180. Twins wanted	+		+		+	+	*–		·	–	–
2181. Twins from special heaven	–	–	+		*–	–	–		–	–	–
2182. Reincarnated	–	–	+		*–	–	–		–	–	–
2183. Twins always treated same	·	+	+		+	+	+		+	·	+
2184. Deformed killed at birth			+		+	+	–		–	+	*·
Names											
2185. Names bestowed in childhood	+	+	+		+	+	+		+	+	+
2186. At few months	–	–	+		–	–	*S		(+)	–	–
2187. At few years (after weaned)	+	+	–		+	+	S		*+	+	+
2188. Name selected by singer*	–	–	–		–	+	+		–	–	–
2189. Word or phrase of song chosen	–	–	–		–	+	+		–	–	–
2190. Naming feast: kin assemble, suggest name*	+	–	–		*–	*–	–		–	–	–
2191. Name casually bestowed	–	+	+		*–	–	–		+	+	+
2192. According to incident, child's peculiarity	–	+	+		–	–	–		+	+	+
2192a. According to parent's dream					–	–	–			S	S
2193. New names taken when adult	–	–	*S		*S	S	*S		–	*–	–
2194. Amusing name may be bought	–	–				+	+		–	–	–
2195. Nicknames commonly used*	–	–	*		*+	*+	*+		+	+	+
2196. Obscene nicknames common	–	–	*		+	+	+		+	+	S
2197. "Given by mother-in-law"*	–	–			+	*–	–		–	–	–
2198. Person does not mention own name*	–	–	*		*+	+	+		–	–	–
2199. Names not used in reference	(+)	+			+	+	+		–	–	*S
2200. In immediate family	+	+			+	+	+		–	–	*+
2201. Name of dead taboo	+	+	+		+	+	+		+	+	+
Girls' Puberty											
Restrictions											*
2202. Girl confined	+	–	*+		+	–	–		*–	+	
2203. In dwelling	+	–	+		–	–	–		–	–	
2204. In separate hut	–	–	–		+	–	*–		–	–	
2205. Sits up (may not lie down)	–	–	–		+	–	–		–	–	
2206. In warming pit	–	–	–		–	–	–		–	+	
2207. Girl goes about with proctor	–	–	–		–	*+	*+		–	–	
2208. Assists proctor at tasks	–	–	–		–	*+	*+		–	–	

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2209. Proctor instructs in conduct, etc.	−	−	−		−	*+	*+		−	−	
2210. Girl sent out into mountains all day*	−	+	−		−	−	−		−	−	
2211. Duration of confinement, proctoring: 4 days	+	−	+		*+	+	+		−	+	
2212. Duration of confinement, proctoring: 5 days	−	+	−		−	−	−		−	−	
2213. Dietary restrictions in force	+	+	+		+	+	+		+	+	
2214. Meat taboo	+	+	+		+	+	+		+	+	
2215. Fat taboo	+		+		+	+	+		+	+	
2216. Salt taboo	+	+	+		+	+	+		+	+	
2217. Cold water taboo	+	+	+		+	−	−		*−	+	
2218. For four days	+	−	*+		*+	+	−		+	−	
2219. For five days	−	+	−		−	−	−		−	−	
2220. For "about ten days"	−	−	−		−	−	−		−	*+	
2221. For one moon	−	−	−		−	−	+		−	−	
2222. Scratching-stick used	+	+	+		+	*−	+		+	+	
2223. Drinking tube used	−	−	−		−	−	−		+	−	
2224. Special woven belt worn*	+					−	−		+	+	
2225. Laughing taboo	+	+	−		+	(+)	−		+	+	
2226. Talking taboo	+	+	*−		+	*+	*−		+	+	
2227. Girl's face covered	+	−	−		−	−	−		−	−	
2228. Hair combed over face	+	−	−		−	−	−		−	−	
2229. Girl works during period	−	+	*−		−	*+	*+		+	+	
2230. Makes baskets	−	−	−		−	+	+		−	−	
2231. Carries water	−	−	−		−	−	−			+	
2232. Carries wood	−	+	−		−	−	−		+	+	
2233. Girl runs	−	−	−		*	−	−		*−	+	
2234. Toward east, early morning	−	−	−			−	−		*−	*+	
2235. Race with (related) boy	−	−	−			−	−		−	S	
2236. "Pit-roasting" at girl's puberty	*−	+	+		+	−	−		−	+	
2237. Familial rite (not public rite)*	−	+	+		+	−	−		−	*+	
2238. Girl put in in daytime	−	+	−		+	−	−		−	+	
2239. Girl put in at night	−	−	+		−	−	−		−	+	
2240. Short time only (first day of period)	−	+	−		−	−	−		−	−	
2241. Four days	−	−	+		*+	−	−		−	+	
2242. After four-day confinement in hut.	−	−	−		*+	−	−		−	−	
2243. Returns to hut at night	−	−	−		*+	−	−		−	−	
2244. Girl's back stepped on	−	+	+		+	−	−		−	+	
2245. By man	−	+	−		−	−	−		−	−	
2246. By woman	−	−	+		+	−	−		−	+	
2247. To make girl straight, strong	−	+	+		+	−	−		−	*−	
Public Rite at Girls' Puberty											
2248. For each girl individually*	−	−	−		*R	+	+		−	−	
2249. At end of four-day proctoring	−	−	−		R	+	*S		−	−	
2250. Starts before four-day proctoring over	−	−	−				*S		−	−	
2251. Dancing	−	−	−		R	+	+		−	−	
2252. Outdoors, at dance ground	−	−	−		R	+	+		−	−	
2253. Men dance	−	−	−		R	+	+		−	−	
2254. Women dance	−	−	−		R	+	+		−	−	
2255. Two opposing rows	−	−	−		R	+	+		−	−	
2256. Men, women alternately in row	−	−	−		−	*−	+		−	−	
2257. Men one row, women other	−	−	−		R	+	−		−	−	
2258. Arms over each other's shoulders	−	−	−		R	+	+		−	−	
2259. Rows advance and retreat	−	−	−		R	+	+		−	−	
2260. One singer	−	−	−			+	+		−	−	
2261. Uses gourd rattle	−	−	−		R	+	+		−	−	

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2262. Dances in line	–	–	–			S	+		–	–	
2263. Sits by, singing	–	–	–			+	–		–	–	
2264. Girl dances	–	–	–		R	+	+		–	–	
2265. Dance four nights	–	–	–		R	+	–		–	–	
2266. Dance nightly, up to one moon	–	–	–			–	*+		–	–	
Conclusion of Ritual Period											
2267. Girl bathed	+	+	+		*	*+	+		+	*+	
2268. Warm water	+	+	S			–	–		+	*+	
2269. Cold water (water poured over)	–	–					+		–	(+)	
2270. River	–	–	*S			+	–		–	–	
2271. Paints with white clay before bath	+	+								–	
2272. Girl fumigates self	+	+								–	
2273. Girl's hair dressed	–	–	+		+	*–	+		+	+	
2274. Mud plaster put on	–	–	+		*+	–	–		+	–	
2275. Washed with yucca suds	–	–	–		–	–	+		+	+	
2276. Deloused		–	+		–	–	–		–	+	
2277. Lice put in olla in river		–	+		–	–	–		–	–	
2278. Hair cut (adult woman's style)	–	–	–		+	*–	+		+	+	
2279. Hair saved for kiaha frame	–	–	–		–	–	+		–	–	
2280. Purification by singer*	–	–	–		–	–	+		–	–	
2281. Girl sits facing west	–	–	–		–	–	+		–	–	
2282. Singer blows over girl	–	–	–		–	–	+		–	–	
2283. Singer brushes girl with feathers	–	–	–		–	–	+		–	–	
2284. Singer mixes drink of clay, feathers	–	–	–		–	–	+		–	–	
2285. Girl drinks mixture	–	–	–		–	–	+		–	–	
Subsequent Puberty Rites											
2286. Puberty seclusion repeated	–	–	*+		*	–	*+		–	–	
2287. Two times	–	–	*+			–	–		–	–	
2288. Four times	–	–	–			–	*+		–	–	
2289. Pit-roasting repeated	–	–	+		*	–	–		–	–	
2290. Dance repeated	–	–	–		*	–	*+		–	–	
2291. Four times	–	–	–			–	+		–	–	
2292. Girls' group rite, with tattooing	+	+	–		–	–	–		–	–	
2293. Several girls together	+	+	–		–	–	–		–	–	
2294. Postpubescent	+	+	–		–	–	–		–	–	
2295. In conjunction with boys' nose-piercing	+	+	–		–	–	–		–	–	
2296. In conjunction with mourning ceremony	–	+	–		–	–	–		–	–	
2297. Rite performed in mourning-ceremony structure	–	+	–		–	–	–		–	–	
2298. Rite performed in roofless circular enclosure ("corral")	+	–	–		–	–	–		–	–	
2299. Preceded by dancing	+	+	–		–	–	–		–	–	
2300. Circle dance	+	+	–		–	–	–		–	–	
2301. Counterclockwise	+	+	–		–	–	–		–	–	
2302. Men one side, women on other	–	+	–		–	–	–		–	–	
2302a. Double circle, men inside, women out	+	–			–	–	–		–	–	
2303. Girls dance		+	–		–	–	–		–	–	
2304. In center of circle, near singers		+	–		–	–	–		–	–	
2305. Girls run when tattooed	+	+	–		–	–	–		–	–	
2306. In group	+	+	–		–	–	–		–	–	
2307. Toward east	+	+	–		–	–	–		–	–	
2308. Return to corral	+	–	–		–	–	–		–	–	

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2309. Stay in "camp" with proctors	–	+	–		–	–	–		–	–	
2310. Four-day seclusion	+	+	–		–	–	–		–	–	
2311. Fasting	+	+	–		–	–	–		–	–	
2312. Meat taboo	+	+	–		–	–	–		–	–	
2313. Fat taboo	+	+	–		–	–	–		–	–	
2314. Salt taboo	+	+	–		–	–	–		–	–	
2315. Scratching-stick used	+	+	–		–	–	–		–	–	
2316. Daily bathing	+	+	–		–	–	–		–	–	
2317. Daily fumigating	+	+	–		–	–	–		–	–	
2318. Daily running	+	+	–		–	–	–		–	–	
2319. Sleep in warming pit	–	+	–		–	–	–		–	–	
2320. Hold leaves in mouth*	+	+	–		–	–	–		–	–	
Individual Tattooing (Not as puberty rite)											
2321. Girl tattooed between puberty and marriage (usually)	–	–	+		*+	*+	*+		+	–	
2322. Individually	–	–	+		+	+	+		+	–	
2323. One line, right after puberty	–										
2324. Rites	–	–	+		–	–	–		–	–	
2325. No restrictions	–	–	*+		–	–	–		–	–	
2326. Full tattoo later, at convenience.	–	–	+		–	–	–		–	–	
2327. All at one time	–	–	–		+	+	+		+	–	
2328. Fast till healed	–	–	+		+	+	*–		+	–	
2329. Meat taboo	–	–	+		+	+	–		+	–	
2330. Fat taboo	–	–	+		+	·	–		+	–	
2331. Salt taboo	–	–	+		+	+	–		+	–	
2332. Scratching-stick used	–	–					–		+	–	
2333. Hold leaves in mouth	–	–	+								
Menstrual Customs (Postpubescents)											
2334. Menstruant secluded	+	–	–		+	+	+		–	–	
2335. In house	+	–	–		–	–	–		–	–	
2336. In separate hut	–	–	–		+	+	+		–	–	
2337. Food restrictions applied	+	+	+		+	+	+		+	+	
2338. Meat taboo	+	+	+		+	+	+		+	+	
2339. Fat taboo	+	+	+		+	+	+		+	+	
2340. Salt taboo	+	+	+		+	+	*–		+	+	
2341. Cold water taboo	+	+	+		+	+	*–		*–	+	
2342. Scratching-stick used	+	+	+		+	–	*–		+	+	
2343. Drinking-tube used	–	–	–		–	–	–		+	–	
2344. Bathes daily	+	–	+		+	–	–		–	–	
2345. Woman cooks for husband	–	+	+		–	–	–		+	+	
2346. Restrictions for four days	+	+	+		+	+	+		+	+	
2347. Bathing at end of restrictions	+	+	+		+	+	+		+	+	
2348. Fumigation at end of restrictions	+	+								–	
2349. Hair washed with yucca suds	–	–	–		–	·	·		+	+	
2350. Restrictions extended to husband	–	+	+		+	·	*–		+	+	
2351. Meat taboo	–	+	+		+	·	–		+	+	
2352. Fat taboo	–	+	+		+	·	–		+	+	
2353. Salt taboo	–	+	+		+	·	–		+	+	
2354. Scratching-stick used	–	+				·	–		+	+	
2355. Husband may hunt	+	+	–		–	·	+		–	+	
2356. Husband bathes after four days	+	+	S		+	·	–		+	+	

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Boys' Puberty											
2357. Formal rite at boys' puberty	+	+	–	+	*+	–	–		–	*+	–
2358. Group rite	+	+	–	+	+	–	–		–	–	–
2359. With nose-piercing	+	+	–	+	+	–	–		–	–	–
2360. In conjunction with girls' tattooing	+	+	–	–	–	–	–		–	–	–
2361. In conjunction with mourning ceremony	–	+	–	–	–	–	–		–	–	–
2362. Rite performed in mourning-ceremony structure	–	+	–	–	–	–	–		–	–	–
2363. Rite performed in roofless circular enclosure	+	–	–	–	–	–	–		–	–	–
2364. Rite performed under ramada	–	–	–	+	+	–	–		–	–	–
2365. Preceded by dancing	+	+	–	+		–	–		–	–	–
2366. Circle dance	–	+	–	*		–	–		–	–	–
2367. Counterclockwise	–	+	–			–	–		–	–	–
2367a. Men one side, women on other	–	+	–			–	–		–	–	–
2368. Double circle, men inside, women out	+	–	–			–	–		–	–	–
2369. Boys dance		+	–			–	–		–	–	–
2370. In center near singers		+	–			–	–		–	–	–
2371. Boys run	+	+	–	+	+	–	–		–	+	–
2372. In group	+	+	–	+	+	–	–		–	–	–
2373. Toward north	–	–	–	+	–	–	–		–	–	–
2374. Toward east	+	+	–	–	+	–	–		–	+	–
2375. Circle shade four times on return			–	+		–	–		–	–	–
2376. Bathed, fumigated on return	+	+	–			–	–		–	–	–
2377. Confined four days	+	+	–	+	+	–	–		–	+	–
2378. Daily running		+	–	+	+	–	–		–	+	–
2379. Fasting	+	+	–	+	+	–	–		–	+	–
2380. Meat taboo	+	+	–	+	+	–	–		–	+	–
2381. Fat taboo	+	+	–	+	+	–	–		–	+	–
2382. Salt taboo	+	+	–	+	+	–	–		–	+	–
2383. Cold water taboo	+	+	–	+	(+)	–	–		–	+	–
2384. Scratching-stick used	+	+	–	+	+	–	–		–	–	–
2385. Drinking-tube used	–	–	–	+	(+)	–	–		–	–	–
2386. Daily bathing, fumigating	+	+	–	–	–	–	–		–	–	–
2387. Sleep in warming pit	–	–	–	+	+	–	–		–	–	–
2388. Nightly	–	–	–	+	+	–	–		–	–	–
2389. Backs stepped on	–	–	–	+	+	–	–		–	–	–
2390. Bathing at end of rite	+	+	–	+	+	–	–		–	+	–
2391. Fumigation at end of rite	+	+	–			–	–		–	–	–
2392. Hair mud-packed at end of rite	–	–	–	+	+	–	–		–	–	–
2393. Hair washed with yucca suds	–	–	–	–	–	–	–		–	+	–
2394. Shooting at deer bone at end of rite			–			–	–		–	+	–
2395. Rite prerequisite to marriage	+	+	–	+	+	–	–		–		–
2396. Rite prerequisite to eating own game			–			–	–		–	+	–
2397. Tests for boys	–	–	–	–	*+	–	–		–	–	–
2398. Any time (not formal puberty rite)	–	–	–	–	+	–	–		–	–	–
2399. Bee-killing ordeal	–	–	–	–	+	–	–		–	–	–
2400. Ant-hill ordeal	–	–	–	–	+	–	–		–	–	–
2401. Individual nose-piercing, with no ritual	–	–	+	–	–	+	–		+	+	(+)

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
First-Game Usages											
2402. First game taboo to boy	+	+		+	+	*+	+		+	+	+
2403. To parents also	+	+		(+)	.	−	*−		−	+	−
2404. First of each kind killed	−	−		−	(+)	.	−		−	−	−
2405. First four kills	−	−		−	−	*+	+		−	−	−
2406. All, till maturity	+	+		+	(+)	−	−		+	+	+
2407. First-gathered products taboo to girl	−	−		−	−	−	−		−	−	+
Mortuary Customs											
Burial											
2408. Mourning songs begin before death*	−	−	S		*−	−	−		−	R	−
2409. Corpse "dressed," feathers put on, etc.*	−	−	+		R	−	−		+	+	+
2410. Corpse's face painted	−	+	+		*+	(+)	+		+	+	+
2411. Special paint for warrior	−	−			*+	.	*+		−	−	−
2412. Corpse flexed and tied	−	−	−		−	+	−		−	−	−
2413. Corpse prepared extended	+	+	+		+	−	+		+	+	+
2414. Corpse removed at death	−	−	+		+	+	+		+	+	−
2415. Corpse kept in house overnight	+	+	−		*−	−	−		−	−	+
2416. Corpse removed through door	+	+				+	+		+	+	+
2417. Four pallbearers	+	+	+		S	+	+		+	(+)	+
2418. Ladder-like stretcher for packing		+	+			+				−	+
2419. Packed on back by one man	−	−	−		−	−	−		−	*+	−
2420. Four ritual halts*	−	−	+		+	−	−		−	−	−
2421. Cremation	+	+	+		+	S	S		+	+	S
2422. Regularly practiced	+	+	+		+	−	−		+	+	−
2423. For those slain on warpath (only).	−	−	−		−	*+	*+		−	−	−
2424. For old, uncared for (only)	−	−	−		−	−	−		−	−	+
2425. Same day as death	−	−	+		+	−	−		+	+	S
2426. Following day	+	+	−		−	.	−		−	S	
2427. Pyre over pit	+	−	+		−	−	−		.	−	−
2428. Pyre on level ground	−	+	S		+	−	−		+	+	+
2429. Corpse laid head south	−	−	+		−	−	−		*−	−	−
2430. Corpse laid head east	+	+	−		+	−	−		−	−	−
2431. Corpse laid head west	−	−	−		−	−	−		−	+	+
2432. Corpse laid on side*	+	+	−		(+)	−	−		*−	−	−
2433. Corpse laid face down*	−	−	+		(+)	−	−		−	+	−
2434. Corpse laid on back	−	−	−		(+)	−	−		−	−	+
2435. Possessions on pyre	*−	S	+		+	−	−		+	+	(+)
2436. One man tends fire	+	+	+		+	−	−		(+)	−	−
2437. Special official	−	−	(+)		+	−	−		−	−	−
2438. Kinsman official	+	+	−		−	−	−		−	−	−
2439. Funeral orations	−	−	*+		+	−	−		−	*+	−
2440. Songs during burning	−	−	*+		+	−	−		−	−	−
2441. Wailing during burning	−	+	*+		+	−	−		−	*+	−
2442. Spectators throw gifts on pyre	−	−	+		+	−	−		−	−	−
2443. Grain strewn about pyre	−	−			+	*(+)	*(+)		−	−	−
2445. People do not stay at burning	+	−	*−		−	−	−		+	*+	+
2446. Ashes (when cool) put in pit	+	+	+		*+	−	−		−	S	−
2447. By firetender	+	+	+		−	−	−		−	−	−
2447a. By relatives	*−	*−	−		+	−	−		−	S	−
2448. Interment	−	−	−		−	+	+		S	*R	+
2449. Dug grave (except modern)	−	−	−		−	+	−		−	−	−
2450. With recess*	−	−	−		−	+	−		−	−	−
2451. Poles, mats over recess.	−	−	−		−	+	−		−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2452. Rock-slide burial	–	–	–		–		+		–	–	–
2453. Burial in rock shelter or crevice	–	–	–		–	S*	+		S*	R*	+
2454. Corpse oriented	–	–	–		–	+	–		–	–	+
2455. Head west	–	–	–		–	+	–		–	–	+
2456. Personal property, etc., in grave	–	–	–		–	+	+		–	R	+
2457. Ramada torn down, piled over grave*	–	–	–		–	+	+		–	–	–
2458. Special burial for shaman	–	–	–		–	+	–		S	–	+
2459. Interred	–	–	–		–	+	–		+	–	+
2460. Sitting up, in ritual posture*	–	–	–		–	+	–		–	–	–
2461. Laid face down	–	–	–		–	–	–		–	–	+
2462. Withe arches put over grave	–	–	–		–	+	–		–	–	–
2463. One in each direction	–	–	–		–	+	–		–	–	–
2464. Rectangle of stones around grave	–	–	–		–	+	–		–	–	–
2465. Grave swept at intervals	–	–	–		–	+	–		–	–	–
2466. Offerings put on	–	–	–		–	+	–		–	–	–
2467. Special burial for enemy slayer	–	–	–		–		+		S	–	–
2468. Interred	–	–	–		–		+		+	–	–
2469. Sitting up, in ritual posture*	–	–	–		–		+		–	–	–
2470. Property destroyed at death	+	+	+		+	+	+		+	+	+
2471. House burned	+	+	+		+	+	–		+	+	+
2472. At time of burial	+	+	–		–	+	–		+	–	+
2473. After from one to four days	–	–	+		+	–	–		–	+	–
2474. House torn down, rebuilt*	–	–	–		–	–	+		–	–	–
2475. Personal property of dead burned	–*	S*	+		+	–	–		+	+	–
2476. Personal property taken out near grave, left	–	–	–		–	+	+		–	–	+
2477. Standing crop given away	–	–	S		S	S	–		S	–	–
2478. Standing crop destroyed*	–	–	S		S	S	–		S	–	–
Mourning											
2479. Mourners cut hair*	+	+	+		+	+	+		+	+	+
2480. Close cropped	–	–	–		–	–*	–		+	+	–
2481. Spouse, siblings of dead	–	–	–		–	–	–		+	+	–
2482. To ear level	+	+	+		+	+	–			+	+
2483. Men	–	–	–		–	–	–			–	–
2484. Women	+	+	+		+	+	–			+	+
2485. To shoulders	+	+	+		+	+	+			+	+
2486. Men	+	+	+		–	–	+			+	+
2487. Women	–	+	–		+	+	+			+	+
2488. Little off ends (men)	+	+	*		+	+	S		+	S	–
2489. At time of death	+	+	–		–	–	–		–	–	+
2490. At funeral	–	–	–		+	+	–		–	S	–
2491. Few days after funeral	–	–	+		–	–	+		–	S	–
2492. Four (when house burned)	–	–	+		–	–	–		–	–	–
2493. Mourners fast	–	+	+		+	–	–		–	–	–
2494. Meat taboo	–	+	+		+	–	–		–	–	–
2495. Fat taboo	–		+		+	–	–		–	–	–
2496. Salt taboo	–	+	+		+	–	–		–	–	–
2497. Cold water taboo	–	+	–		(+)	–	–		–	–	–
2498. Mourners bathe daily	–	+	+		+	–	–		–	–	–*
2499. For four days	–	+	+		+	–	–		–	–	–
2500. Arrowweed root infusion	–	–	+		+	–	–		–	–	–
2501. Mourners bathe after four days	(+)*	–	–		–	+	+		(+)	–*	–
2502. Hair washed with yucca suds	–	–	–		–	–	+		+	–*	–
2503. Mourners fumigate selves	+	+	+		+	+	–		–	–	+
2504. Smoke of arrowweed root	–	–	+		+	+	–		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2505. Smoke of chamisso brush.	+	+	−		−	−	−		−	−	−
2506. Smoke of piñon gum											+
2507. Daily.	−	+	*+		+	−	−		−	−	−
2508. After four days	−	−	−		−	+	−		−	−	−
2509. Once after funeral	+	−	−		−	−	−		−	−	+
2510. Special restrictions for widow	−	+	−		+	+	−		+	+	+
2511. Hair washing taboo (after purificatory washing)	−	−	−		+	+	−		+	−	−
2512. Widow mourns one to two years		+	−		+	−	−		+	+	+
2513. Widow mourns four years		−	−		−	+	−		−	−	−
2514. Firetender bathes over pit where ashes buried	+	+	−		−	−	−		−	−	−
Souls and Ghosts											
2515. Land of dead in south	+	+	+		*−	−	−		.	−	−
2516. Land of dead in west	−	−	−		*+	−	−		.	+	+
2517. Land of dead in east	−	−	−		−	+	+		.	−	−
2518. Twins' souls go to sky world	−	−	+		*−	−	−		.	−	−
2519. Souls die four times	−	−	+		+	−	−		.	−	−
2520. Souls turn to charcoal	−	−	+		+	−	−		.	−	−
2521. Soul of man with unpierced nose goes into rat hole		−	*	*	*+	−	−		.	−	−
2522. Soul of man with unpierced nose goes into badger hole.		+			−	−	−		.	−	−
2523. Heart (or pulse) turns to owl	−	−			+	*−	+		.	.	−
2524. Shadow turns to owl											+
2525. "Owl songs" sung when dream of dead	−	−				+	+		.	−	−
2526. Ghost travels in whirlwind	*(+)		+		*+	*−	−		+	+	S
2527. Offerings to past dead (put on graves) *	−	−	−		*−	R	R		−	−	−
CEREMONIALS (except puberty ceremonies)											
Mourning Ceremony											
2528. Called keruk (or variant).	+	+	*−		*−	−	−		−	*R	*−
2529. Held for all dead	+	+	−		−	−	−		−	R	R
2530. Held for prominent men only	−	−	+		*+	−	−		−	−	−
2531. "Year" after death	−	−	*+		−	−	−		−	−	−
2532. At funeral	−	−	−		*+	−	−		−	−	−
2533. After several members of clan have died	+	+	−		−	−	−		−	−	−
2534. Given late summer or fall.	+	+	*+		−	−	−		−	R	
Equipment											
2535. Special structure built	+	+	+		−	−	−		−	R	R
2536. Ramada	+	+	+		−	−	−		−	R	R
2537. Rectangular	+	−	+		−	−	−		−	R	R
2538. Nine-post frame	+	−	−		−	−	−		−	−	−
2539. No fixed number.	−	−	+		−	−	−		−	R	R
2540. U-shaped	−	+	−		−	−	−		−	−	−
2541. Ten-post frame	−	*+	−		−	−	−		−	−	−
2542. Enclosed sides	+	*+	−		−	−	−		−	*R	−
2543. Offerings put in post-holes	−	+	−		−	−	−		−	−	−
2544. Tobacco	−	+	−		−	−	−		−	−	−
2545. Faced to south	+	+	*(+)		−	−	−		−	−	
2546. Faced to east	−	−	(+)		−	−	−		−	R	
2547. Posts painted.	+	−	−		−	−	−		−	R	

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2548. Red and black.	+	–	–		–	–	–		–	–	
2549. "Represent" deceased	+	–	–		–	–	–		–	–	
2550. White.	–	–	–		–	–	–		–	R	
2551. Feather bunches hung from beams.	–	–	+		–	–	–		–	R	
2552. Food piled up in center of house	+	+	–		–	–	–		–	–	–
2553. Images made.	R	–	–		*	–	–		–	*	–
2554. One only	R	–	–		–	–	–		–	–	–
2555. Of sticks and willow bark	R	–	–		–	–	–		–	–	–
2556. "Face" painted in red and black	R	–	–		–	–	–		–	–	–
2557. Cape of eagle plumes and deer hoofs	R	–	–		–	–	–		–	–	–
2558. U-shaped withe frame made	–	+	*		–	–	–		–	–	–
2559. Feather bunches tied to	–	+			–	–	–		–	–	–
2560. One for each dead	–	+			–	–	–		–	–	–
2561. Deer hoofs fastened to	–	+			–	–	–		–	–	–
2562. Feathered staves made	–	–	+		+	–	–		–	R	–
2563. Eight staves	–	–	+		–	–	–		–	R	–
Accompanying Rites											
2564. Mourning ceremony with ritual eagle-killing	+	+	–		–	–	–		–	–	–
2565. Eagle-killing as preparatory rite	–	+	–		–	–	–		–	–	–
2566. Eagle-killing on first night of ceremony proper	+	–	–		–	–	–		–	–	–
2567. Eagle killed by blowing tobacco smoke at	+	+	–		–	–	–		–	–	–
2568. Plucked	+	–	–		–	–	–		–	–	–
2569. Skinned	–	+	–		–	–	–		–	–	–
2570. Buried	+	+	–		–	–	–		–	–	–
2571. Feathers used for U-shaped frame	–	+	–		–	–	–		–	–	–
2572. Feathers used for dancers' hair ornaments.	+	–	–		–	–	–		–	–	–
2573. Mourning ceremony with boys' nose-piercing	–	+	–		–	–	–		–	–	–
2574. Mourning ceremony with girls' tattooing	–	+	–		–	–	–		–	–	–
Ritual Procedure											
2575. Rite begins with eagle-killing	+	–	–		–	–	–		–	–	–
2576. Givers mourn, kill eagle	+	–	–		–	–	–		–	–	–
2577. Guests (only) dance	+	–	–		–	–	–		–	–	–
2578. Outside house, around fire	+	–	–		–	–	–		–	–	–
2579. Twice nightly	+	–	–		–	–	–		–	–	–
2580. Deer-hoof rattles used	+	–	–		–	–	–		–	–	–
2581. Dance with image	R	–	–		–	–	–		–	–	–
2582. Givers dance with	R	–	–		–	–	–		–	–	–
2583. Guests dance with	R	–	–		–	–	–		–	–	–
2584. Around fire in front of house	R	–	–		–	–	–		–	–	–
2585. Alternate crying and dancing on subsequent nights.	+	–	–		–	–	–		–	–	–
2586. Image danced with nightly.	R	–	–		–	–	–		–	–	–
2587. Last two nights dance around house	+	–	–		–	–	–		–	–	–
2588. Rite begins with nose-piercing, tattooing	–	+	–		–	–	–		–	–	–
2589. Dance in house	–	+	–		–	–	–		–	–	–
2590. Circle dance	–	+	–		–	–	–		–	–	–
2591. Boys and girls dance	–	+	–		–	–	–		–	–	–
2592. Center of circle	–	+	–		–	–	–		–	–	–
2593. At night, givers cry	–	+	–		–	–	–		–	–	–
2594. Guests enter to cry	–	+	–		–	–	–		–	–	–
2595. Guests speak	–	+	–		–	–	–		–	–	–
2596. No group singing, dancing	–	+	–		–	–	–		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2597. U-shaped frame danced with	–	+	–		–	–	–		–	–	–
2598. On last night	–	+	–		–	–	–		–	–	–
2599. Rite begins with reception of guests	–	–	+		–	–	–		–	R	R
2600. Guests approach in rows	–	–	+		–	–	–		–	R	R
2601. Givers in line before shade	–	–	+		–	–	–		–	R	R
2602. Speeches made	–	–	+		–	–	–		–	R	R
2603. Alternate singing and crying	–	–	+		–	–	–		–	R	R
2604. Song cycles used	–	–	+		–	–	–		–	R	R
2605. Many used	–	–	+		–	–	–		–	–	–
2606. Salt	–	–			–	–	–		–	R	R
2607. Bird	–	–			–	–	–		–	R	R
2608. Circle dance	–	–			–	–	–		–	R	–
2609. Ceremonial sham battle	–	–	+		+	–	–		–	R	–
2610. Feathered-stave carriers	–	–	+		+	–	–		–	R	–
2611. Eight	–	–	+		–	–	–		–	R	–
2612. Number varies	–	–	*–		+	–	–		–	–	–
2613. Face paint black	–	–	+		+	–	–		–	R	–
2614. Bowman	–	–	+		*	–	–		–	–	–
2615. Dramatized raid	–	–	+		–	–	–		–	–	–
2616. "Scouts" sent out	–	–	+		–	–	–		–	–	–
2617. Four springs	–	–	+		–	–	–		–	–	–
2618. Scouts circle shade	–	–	+		–	–	–		–	–	–
2619. Scouts "report"	–	–	+		–	–	–		–	–	–
2620. Group marches up to shade, through it	–	–	+		–	–	–		–	–	–
2621. Set up staves in front	–	–	+		–	–	–		–	–	–
2622. Running with staves	–	–	+		+	–	–		–	R	–
2623. Rest every sixteen circuits	–	–	+		–	–	–		–	·	–
2624. Running continues all night	–	–	+		–	–	–		–	*R	–
2625. Run around cremation fire.	–	–	–		+	–	–		–	–	–
2626. Clockwise	–	–	–		+	–	–		–	–	–
2627. Ceremonial stops, with shouting.	–	–	–		*+	–	–		–	–	–
2628. Four circuits	–	–	–		*+	–	–		–	–	–
Conclusion of Rite											
2629. Structure burned	+	+	+		*–	–	–		–	R	*–
2630. Feathers, other equipment thrown on	+	+	+		–	–	–		–	R	–
2631. Runners circle burning shade	–	–	+		–	–	–		–	R	–
2632. Throw feathered staves on.	–	–	+		–	–	–		–	R	–
2633. Runners bathe.	–	–	+		+	–	–		–	R	–
2634. Mourners fast during rite	+	+	–		–	–	–		–	–	–
2635. Mourners fast after rite	–	–	+		–	–	–		–	–	–
2636. Director fasts after rite	–	–	+		–	–	–		–	–	–
2637. Runners fast after rite	–	–	+		–	–	–		–	–	–
2638. Meat taboo	+	+	+		–	–	–		–	–	–
2639. Salt taboo	+	+	+		–	–	–		–	–	–
2640. Rite lasts one day, one night	–	–	+		–	–	–		–	R	R
2641. Rite lasts part of day only	–	–	–		+	–	–		–	–	–
2642. Rite lasts eight days	+	–	–		–	–	–		–	–	–
2643. Rite lasts four days	–	+	–		–	–	–		–	–	–
Vikita Harvest Festival*											
2644. Held irregularly	–	–	–		–	+	–	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2645. Held every four years.	–	–	–		–	–	+	–	–	–	–
2646. Held November-December	–	–	–		–	+	+	–	–	–	–
2647. Held at one village only	–	–	–		–	–	*+	–	–	–	–
2648. Each village gives own	–	–	–		–	+	–	–	–	–	–
2649. Other villages invited to participate	–	–	–		–	–	*+	–	–	–	–
2650. Prayer sticks sent	–	–	–		–	–	+	–	–	–	–
2651. Ten days before rite	–	–	–		–	–	+	–	–	–	–
2652. Navitco go about in ten-day period	–	–	–		–	+	+	–	–	–	–
2653. Assemble singers by sprinkling corn meal on them	–	–	–		–	+	–	–	–	–	–
2654. Gear taken from village medicine basket (bundle) .	–	–	–		–	–	+	–	–	–	–
2655. Prayer sticks, feathers	–	–	–		–	–	+	–	–	–	–
2656. Bundle opened nonritually	–	–	–		–	–	*+	–	–	–	–
2657. Ceremonial enclosure made	–	–	–		–	+	+	–	–	–	–
2658. At village dance ground	–	–	–		–	+	+	–	–	–	–
2659. Rectangular	–	–	–		–	+	+	–	–	–	–
2660. Open on eastern side	–	–	–		–	+	+	–	–	–	–
2661. Separate place for each participant village	–	–	–		–	–	+	–	–	–	–
2662. Walls of corn stalks	–	–	–		–	+	+	–	–	–	–
2663. Unroofed	–	–	–		–	+	+	–	–	–	–
2664. Practice enclosures made at each participant village	–	–	–		–	–	+	–	–	–	–
2665. Images made	–	–	–		–	+	+	–	–	–	–
2666. Of wild food plants	–	–	–		–	+	+	–	–	–	–
2667. Of domestic food plants	–	–	–		–	+	+	–	–	–	–
2668. Of game	–	–	–		–	+	+	–	–	–	–
2669. Of clouds	–	–	–		–		+	–	–	–	–
2670. Of sun and moon	–	–	–		–	–	+	–	–	–	–
2671. Singers practice till rite begins	–	–	–		–	+	+	–	–	–	–
2672. Representations of fields made	–	–	–		–	–	+	–	–	–	–
2673. Prayer sticks (from medicine bundle) used for markers	–	–	–		–		+	–	–	–	–
Dramatis Personae*											
2674. Navitco dancers (clowns)	–	–	–		–	+	+	–	–	–	–
2675. Vipinyim	–	–	–		–	+	+	–	–	–	–
2676. In groups of eight	–	–	–		–	+	+	–	–	–	–
2677. Eight from each participant village . . .	–	–	–		–	–	+	–	–	–	–
2678. Kokcpakam	–	–	–		–	+	+	–	–	–	–
2679. Two for each squad of singers	–	–	–		–	+	+	–	–	–	–
2680. Tcüiwotàm (attendants)	–	–	–		–	–	+	–	–	–	–
2681. Four	–	–	–		–	–	+	–	–	–	–
2682. Singers	–	–	–		–	+	+	–	–	–	–
2683. Eight from each village	–	–	–		–	–	+	–	–	–	–
Ritual Procedure											
2684. Singers and dancers march into enclosure	–	–	–		–	*	+	–	–	–	–
2685. Just before dusk	–	–	–		–		+	–	–	–	–
2686. Make one counterclockwise circuit	–	–	–		–		+	–	–	–	–
2687. Carry images	–	–	–		–		+	–	–	–	–
2688. Place images in enclosure	–	–	–		–		+	–	–	–	–
2689. Each village puts in own place	–	–	–		–		+	–	–	–	–
2690. Bull-roarers swung as procession enters enclosure	–	–	–		–		+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2691. All-night singing.	–	–	–		–	+	+	–	–	–	–
2692. Kokcpakâm dance on west side	–	–	–		–	+	–	–	–	–	–
2693. Vipinyim dance on south side	–	–	–		–	+	–	–	–	–	–
2694. Kokcpakâm, vipinyim dance before each village's place	–	–	–		–	–	+	–	–	–	–
2695. Vipinyim hold images in hands during song.	–	–	–		–	–	+	–	–	–	–
2696. Songs in groups of fours	–	–	–		–	+	–	–	–	–	–
2697. Each village sings eight songs	–	–	–		–	–	+	–	–	–	–
2698. Notched-stick rasp on basket accompaniment	–	–	–		–	+	+	–	–	–	–
2699. Singers stop, paint, in morning	–	–	–		–	–	+	–	–	–	–
2700. Dramatization of children's sacrifice	–	–	–		–	–	+	–	–	–	–
2701. Four children come from enclosure just before dawn	–	–	–		–	–	+	–	–	–	–
2702. Two boys, two girls	–	–	–		–	–	+	–	–	–	–
2703. Painted: right side body yellow, left black	–	–	–		–	–	+	–	–	–	–
2704. Boys carry bows and arrows	–	–	–		–	–	+	–	–	–	–
2705. Girls carry ears of maize	–	–	–		–	–	+	–	–	–	–
2706. Two attendants (tcuĭwatâm)	–	–	–		–	–	+	–	–	–	–
2707. March to shade near enclosure	–	–	–		–	–	+	–	–	–	–
2708. Children, attendants stand all day	–	–	–		–	–	+	–	–	–	–
2709. Two singers sit under shade	–	–	–		–	–	+	–	–	–	–
2710. Children dance to songs*	–	–	–		–	–	+	–	–	–	–
2711. May stop only when singer stops*	–	–	–		–	–	+	–	–	–	–
2712. Sun, moon images (worn by men) appear at dawn	–	–	–		–	–	+	–	–	–	–
2713. Preceded, followed by attendants (tcuĭwatâm)	–	–	–		–	–	+	–	–	–	–
2714. Procession to children's ramada	–	–	–		–	–	+	–	–	–	–
2715. Followed by vipinyim	–	–	–		–	–	+	–	–	–	–
2716. Attendants sprinkle corn meal on images.	–	–	–		–	–	+	–	–	–	–
2717. Four times	–	–	–		–	–	+	–	–	–	–
2718. Attendants sprinkle meal on children	–	–	–		–	–	+	–	–	–	–
2719. Sun, moon images make circuit of enclosure, reënter	–	–	–		–	–	+	–	–	–	–
2720. Procession with images of foods	–	–	–		–	–	+	–	–	–	–
2721. Vipinyim march, carrying images	–	–	–		–	–	+	–	–	–	–
2722. Two ceremonial halts	–	–	–		–	–	+	–	–	–	–
2723. North and south of enclosure	–	–	–		–	–	+	–	–	–	–
2724. Sing during halts	–	–	–		–	–	+	–	–	–	–
2725. One song for each circuit	–	–	–		–	–	+	–	–	–	–
2726. One singer leads	–	–	–		–	–	+	–	–	–	–
2727. Four of each sing (successively) in morning	–	–	–		–	–	+	–	–	–	–
2728. Procession lasts all morning	–	–	–		–	–	+	–	–	–	–
2729. Procession repeated in afternoon	–	–	–		–	–	+	–	–	–	–
2730. Different songs (second four of each village sing)	–	–	–		–	–	+	–	–	–	–
2731. Different images carried	–	–	–		–	–	+	–	–	–	–
2732. Cloud image brought out	–	–	–		–	–	+	–	–	–	–
2733. Navitco pretend to cultivate gardens	–	–	–		–	–	+	–	–	–	–
2734. Vipinyim run about with bull-roarers	–	–	–		–	–	+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Conclusion of Rite											
2735. All masked dancers bathe	–	–	–		–	+	+	–	–	–	–
2736. In river	–	–	–		–	+	–	–	–	–	–
2737. In fields, "to make rain"	–	–	–		–		+	–	–	–	–
2738. Dance director fasts afterward	–	–	–		–	+	·	–	–	–	–
2739. Four days	–	–	–		–	+	·	–	–	–	–
2740. Images put in enclosure	–	–	–		–	+	+	–	–	–	–
2741. Participant villages take home to practice enclosures	–	–	–		–	–	+	–	–	–	–
2742. Images left in enclosures*	–	–	–		–	+	+	–	–	–	–
Miscellaneous											
2743. Invitation prayer sticks kept by recipients	–	–	–		–	+	+	–	–	–	–
2744. Kept in homes	–	–	–		–	+	+	–	–	–	–
2745. Used in case of Vikita sickness	–	–	–		–	+	+	–	–	–	–
2746. Kept with food, to make last long	–	–	–		–		+	–	–	–	–
2747. Navitco called to cure Vikita sickness	–	–	–		–	+	+	–	–	–	–
2748. Brushes self with feathers, then patient	–	–	–		–	*+	+	–	–	–	–
2749. Shakes disease from feathers toward north.	–	–	–		–	+	+	–	–	–	–
2750. Vipinyim assist	–	–	–		–	+	+	–	–	–	–
Ceremonial Drinking for Rain, Crops											
2751. Annual festival	–	–	–		*R	+	+	+	–	–	–
2752. To bring rain	–	–	–		*–	+	+	+	–	–	–
2753. Held before rainy season	–	–	–		–	+	+	+	–	–	–
2754. Spring	–	–	–		–	–	–	+	–	–	–
2755. Midsummer	–	–	–		–	+	+	–	–	–	–
2756. Fall	–	–	–		*R	–	–	–	–	–	–
2757. Sahuaro wine made	–	–	–		R	+	+	–	–	–	–
2758. Made in ceremonial house	–	–	–		R	+	+	–	–	–	–
2759. All bring ollas of syrup	–	–	–		R	+	+	–	–	–	–
2760. Mixed with water ritually	–	–	–		–	+	+	–	–	–	–
2761. Four mixers	–	–	–		–	+	+	–	–	–	–
2762. Mix with hands, in basket	–	–	–			+	+	–	–	–	–
2763. Prayer invocation as pour into ollas	–	–	–		–	+	+	–	–	–	–
2764. Ollas set in circle	–	–	–		R	+	+	–	–	–	–
2765. Ritual smoking	–	–	–		–	+	(+)	–	–	–	–
2766. Watchers (while ferments)	–	–	–		R	+	+	–	–	–	–
2767. Rain-making rite while wine ferments*	–	–	–		–	S	S	–	–	–	–
2768. At dance ground*	–	–	–		–	+	+	–	–	–	–
2769. Men (only) sit in circle	–	–	–		–	+	–	–	–	–	–
2770. Circle dance*	–	–	–		–	–	+	–	–	–	–
2771. Men, women dance	–	–	–		–	–	+	–	–	–	–
2772. Counterclockwise	–	–	–		–	–	+	–	–	–	–
2773. Shamans inside circle	–	–	–		–	+	+	–	–	–	–
2774. Face east	–	–	–		–	+	+	–	–	–	–
2775. Singers north of shamans	–	–	–		–	+	+	–	–	–	–
2776. Gourd rattles	–	–	–		–	+	+	–	–	–	–
2777. Shamans perform sleight-of-hand*	–	–	–		–	+	*–	–	–	–	–
2778. Continued nightly till wine ready.	–	–	–		–	+	+	–	–	–	–
2779. Men sing outside ceremonial house if no rite	–	–	–		–	+	+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2780. Ritual drinking of wine*	–	–	–		–	S	+	–	–	–	–
2781. People sit in circle	–	–	–		–	+	+	–	–	–	–
2782. Men	–	–	–		–	+	+	–	–	–	–
2783. Women	–	–	–		–	–	+	–	–	–	–
2784. In ceremonial house	–	–	–		–	+	–	–	–	–	–
2785. Outdoors, in front of house	–	–	–		–	–	+	–	–	–	–
2786. Singers at cardinal points	–	–	–		–	+	+	–	–	–	–
2787. Shamans sit inside circle	–	–	–		–		+*	–	–	–	–
2788. Use paraphernalia from bundle*	–	–	–		–		+	–	–	–	–
2789. Eagle feather rope*	–	–	–		–		+	–	–	–	–
2790. Sleight-of-hand performed.	–	–	–		–*		+	–	–	–	–
2791. Wine served by four waiters	–	–	–		–	+	–	–	–	–	–
2792. Wine served by eight waiters	–	–	–		–	–	+	–	–	–	–
2793. Baskets of wine set before singers	–	–	–		–	+	+	–	–	–	–
2794. Singers bless wine*	–	–	–		–	+	+	–	–	–	–
2795. Singers sing in turn	–	–	–		–	+	+	–	–	–	–
2796. East, north, west, south	–	–	–		–	+	+	–	–	–	–
2797. One round of wine served	–	–	–		–	+	+	–	–	–	–
2798. People take own wine home, drink there	–	–	–		–	+	+	–	–	–	–
2799. Nonritual drinking	–	–	–		–*R	+	+	–	–	–	–
2800. Men invite friends to home	–	–	–		R	+	+	–	–	–	–
2801. Maize wine made	–	–	–		–	–	–	+*	–	–	–
2802. Procession in honor of San Ysidro.	–	–	–		–	–	–	+	–	–	–
2803. Through fields	–	–	–		–	–	–	+	–	–	–
2804. Wine carried, drunk during procession	–	–	–		–	–	–	+	–	–	–
2806. Men, women drink	–	–	–		–	–	–	+	–	–	–
2807. Dances performed	–	–	–		–	–	–	+	–	–	–
2808. Matachin	–	–	–		–	–	–	+	–	–	–
2809. Pascola	–	–	–		–	–	–	+	–	–	–
2810. Deer dance	–	–	–		–	–	–	+	–	–	–
Social Dances*											
"Mountain Killdeer Dance"*											
2811. Dance in daytime	–	–	–		*	+	+	–	–	–	–
2812. Outdoors	–	–	–			+	+	–	–	–	–
2813. Equal numbers men and women	–	–	–			+	+	–	–	–	–
2814. Four men, four women	–	–	–			+		–	–	–	–
2815. "Eight or ten" of each	–	–	–			–	+	–	–	–	–
2816. Square-dance routines	–	–	–			+	+	–	–	–	–
2817. Circle-dance routines	–	–	–			+	+	–	–	–	–
2818. Songs refer to birds	–	–	–			+	+	–	–	–	–
2819. Dancers carry wands with images of birds	–	–	–			+	+	–	–	–	–
2820. Clown participates	–	–	–			S	S	–	–	–	–
2821. Masked	–	–	–			+	–*	–	–	–	–
2822. Painted	–	–	–			+	+	–	–	–	–
2823. Carries bow or lance	–	–	–			+	+	–	–	–	–
2824. Belt with long ends	–	–	–			+	+	–	–	–	–
2825. Women pursue	–	–	–			+	+	–	–	–	–
2826. Dance with if catch	–	–	–			+	+	–	–	–	–
2827. Paid if catch	–	–	–			+	+	–	–	–	–
2828. Money tied to clown's belt	–	–	–			R		–	–	–	–
2829. Two women catch, dance with	–	–	–			S		–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2830. Performed as part of Begging dance	–	–	–				+	–	–	–	–
"Deer Dance"											
2831. Deer dancer with mask	–	–	–		*–	*–	*–	*+	–	–	–
2832. Other men dance with	–	–	–		+	–	–	+	–	–	–
2833. Pascolas	–	–	–		–	–	–	+	–	–	–
2834. Make obscene gestures	–	–	–		+	–	–	+	–	–	–
2835. Deer dancer may not laugh.	–	–	–		+	–	–	+	–	–	–
2836. Burlesque hunt	–	–	–		*.	–	–	+	–	–	–
2837. Deer "killed"	–	–	–		*.	–	–	+	–	–	–
2838. Butchered, skinned, etc.	–	–	–		*.	–	–	+	–	–	–
Round Dance											
2839. Dancers form circle	–	–	*–		*+	+	+	*+	+	+	
2840. Men, women, alternately	–	–	–		.	+	+	+	+	+	
2841. Hold hands	–	–	–		.	+	+	+	+	+	
2842. Singer in center of circle	–	–	–		.	+	+	+	–	–	
2843. Dance counterclockwise	–	–	–		.	+	+	+	–	–	
2844. Dance clockwise	–	–	–		.	–	–	+	+	+	
Square Dance											
2844a. Dancers in two rows, facing	–	–	*		*	*	*		+	*+	*+
2845. Men one row, women in one	–	–	*		*	*	*		+	+	+
2846. Rows advance, retreat	–	–	*		*	*	*		+	+	+
"Dog Dance" *											
2847. Two women dance with one man	–	–	–		–	–	–		+	*–	
2848. Link arms, face opposite direction	–	–	–		–	–	–		+	–	
2850. Bear dance*										–	R
Begging Dance*											
2851. Visitors go to another village	–	–	–		*–	+	+		–	–	–
2852. Sing, dance for host village	–	–	–		–	+	+		–	–	–
2853. Make songs naming hosts*	–	–	–		–	+	+		–	–	–
2854. Hosts give to those who sang their names	–	–	–		–	+	+		–	–	–
2855. Hosts' wives give to singers	–	–	–		–	+	+		–	–	–
Masked Dancers*											
Sack-Type Masks											
2856. Dancers with sack-type mask	–	–	–		*	+	+	+	*–	–	–
2857. Mask of buckskin	–	–	–			–	+	+	*	–	–
2858. Mask of cloth	–	–	–		*	+	R	R		–	–
2859. Mask painted	–	–	–			+	+	+		–	–
2860. Grotesque features	–	–	–			–	–	+		–	–
2861. Beard	–	–	–		*	–	–	+		–	–
2862. Big ears, long nose	–	–	–		*	–	–	+		–	–
2863. Hornlike appendages on mask*	–	–	–			+	+	+	*	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2864. Long plumes, one to each side*	–	–	–			+	+	*–		–	–
2865. Small feathers fastened to top of mask	–	–	–			+	+	–		–	–
2866. Bright-colored rags on horns	–	–	–			–	–	+		–	–
2867. Body covered with robe (only arms, lower legs exposed)	–	–	–			+	+	+		–	–
2868. Wide belt	–	–	–		*	+	+	+		–	–
2869. With deer-hoof jinglers.	–	–	–			–	–	+		–	–
2870. With sea-shell jinglers.	–	–	–			+	+	–		–	–
2871. Long string of cocoon rattles wrapped around legs	–	–	–			R	+	+		–	–
2872. Carry wooden sword	–	–	–				*	+		–	–
2873. Carry (crooked) bow and arrows	–	–	–			+	+	–		–	–
Functions											
2874. Clown functions (ludicrous behavior)	–	–	–		* *	+	+	+		–	–
2875. Reverse actions	–	–	–		*	*–	*–	*+		–	–
2876. Begging	–	–	–			+	+	+		–	–
2877. Dance, clown, for gift when asked for	–	–	–				+	+		–	–
2878. Speaking in mask taboo	–	–	–			*	+	+		–	–
2879. Use falsetto voice	–	–	–			+	*–	–		–	–
2880. Directing or policing rite	–	–	–			*+	*–	+		–	–
2881. Carries whip in processions	–	–	–			–	–	+		–	–
2882. Chases people with bullroarer	–	–	–			*+	*–	–		–	–
2883. Curing functions	–	–	–			*+	*+	–	*	–	–
2884. Exorcises disease from ritual (i.e., caused by error, breach of taboo)	–	–	–			+	+	–		–	–
2885. Brushes with feathers	–	–	–			+	+	–		–	–
Miscellaneous											
2886. Office hereditary	–	–	–			+	+	–		–	–
2887. Office by vow	–	–	–			–	–	+		–	–
2888. Office by capture	–	–	–			–	–	+		–	–
2889. Mask, regalia kept sealed in olla	–	–	–			+	+			–	–
Gourd Mask											
2890. Dancer with gourd mask*	–	–	–		–	+	+	–	–	–	–
2891. Rows of small perforations for eyes	–	–	–		–	+	+	–	–	–	–
2892. Mask painted	–	–	–		–	+	+	–	–	–	–
2893. Torso bare	–	–	–		–	+	+	–	–	–	–
2894. Torso painted	–	–	–		–	+	+	–	–	–	–
2895. Red with white dots	–	–	–		–	S	+	–	–	–	–
2896. Kilt worn	–	–	–		–	+	+	–	–	–	–
2897. Belt with cocoon jinglers	–	–	–		–	–	+	–	–	–	–
2898. Long string of cocoon rattles on legs	–	–	–		–	R	+	–	–	–	–
2899. Hand-held willow wands	–	–	–		–	+	–	–	–	–	–
2900. Hereditary office	–	–	–		–	+	+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Sack-and-Gourd Mask											
2901. Dancer with sack-and-gourd mask*	–	–	–		–	+	+	–	–	–	–
2902. Mask of cloth	–	–	–		–	+	+	–	–	–	–
2903. Bunch of feathers on top	–	–	–		–	+	+	–	–	–	–
2904. Long noselike appendage of gourd stem*	–	–	–		–	+	+	–	–	–	–
2906. Mask painted	–	–	–		–	+	+	–	–	–	–
2907. Torso bare	–	–	–		–	+	+	–	–	–	–
2908. Torso painted	–	–	–		–	–	+	–	–	–	–
2909. Red with white dots	–	–	–		–	–	+	–	–	–	–
2910. Kilt or breechclout	–	–	–		–	+	+	–	–	–	–
2911. Hand-held willow wands	–	–	–		–	+	–	–	–	–	–
2912. Ritual shout after each song	–	–	–		–	+	+	–	–	–	–
2913. Danced by youths	–	–	–		–	+	+	–	–	–	–
2914. Hereditary office	–	–	–		–	+	+	–	–	–	–
Wooden Mask											
2915. Dancer with wooden mask*	–	–	–		–	–	–	+	–	–	–
2916. Mask with hair, beard	–	–	–		–	–	–	+	–	–	–
2917. Torso bare, unpainted	–	–	–		–	–	–	+	–	–	–
2918. Kilt	–	–	–		–	–	–	+	–	–	–
2919. Belt with bells or deer hoofs	–	–	–		–	–	–	+	–	–	–
2920. Long cocoon rattles on legs	–	–	–		–	–	–	+	–	–	–
2921. Necklace of beads (pseudo-rosary)	–	–	–		–	–	–	+	–	–	–
2922. Rattle with metal disks*	–	–	–		–	–	–	+	–	–	–
2923. Clown functions	–	–	–		–	–	–	+	–	–	–
Coyote Dancers											
2924. Coyote dancers*	–	–	–		–	–	–	+	–	–	–
2925. Coyote skin suspended from headband (down back)	–	–	–		–	–	–	+	–	–	–
2926. Feathers attached to coyote skin	–	–	–		–	–	–	+	–	–	–
2927. Carry bow and three cane arrows*	–	–	–		–	–	–	+	–	–	–
2928. Three dance together	–	–	–		–	–	–	+	–	–	–
2929. Imitate coyotes	–	–	–		–	–	–	+	–	–	–
2930. Imitate crows	–	–	–		–	–	–	+	–	–	–
2931. Danced by warriors (soldiers)	–	–	–		–	–	–	+	–	–	–
SHAMANISM											
Types of Shamans*											
2932. General practitioner		+	*+		*+	–	–	+	+	+	+
2933. Cures any disease		(+)	–		–	–	–	(+)	–	*+	+
2934. Cures according to nature of guardian spirit or dream		(–)	+		+	–	–	(–)	+	S*	–
2935. Rattlesnake shamans (cure snake bite)		+	+		+	–	*–		+	+	+
2936. "Wound doctors"		+	+			–	–		+	+	
2937. Hunting shamans		*+	–		–	–	–	+	+	+	+
2938. Specialists*		–	–		–	+	+	–	–	–	–
2939. Clairvoyant shamans		–	–		–	+	+	–	–	–	–
2940. Diagnose disease		–	–		–	+	+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
2941. Extract cause of disease		−	−		−	−	+	−	−	−	−
2942. Weather control (bring rain)*		−	−		−	+	+	−	−	−	−
2943. War functions (find enemy, etc.)		−	−		−	+	+	−	−	−	−
2944. Hunting functions (find game)		−	−		−	+	+	−	−	−	−
2945. Separate class of disease-extracting shamans		−	−		−	+	−	−	−	−	−
2946. Singing (exorcising) shamans*		−	−		−	+	+	−	−	−	−
2947. Herbalists		+			+	+	+		+	+	
2948. No power, simply know remedies		+			+	+	+		+	+	
2949. Shamans male		+	+		+	+	+	+	+	+	+
2950. Shamans female		+	+		S	+	S		+	*R	+
2951. Mostly male, some female		+	−		+	(−)	+		+	*R	+
Source of Power											
2952. Power from dreaming		+	*+		*+	S	S	S	+	+	+
2953. Prenatal dreaming		−	+		−	−	−	−	−	−	−
2954. Dreaming in childhood (usual)		+	*+		+	−	*−	−	−	*−	*−
2955. Dreaming at any time (usually after maturity)		−	−		−	+	+	S	+	+	+
2956. Dreams come unsought		+	+		+	+	+	+	+	S	+
2957. Dreams sought		−	−		*−	−	−	−	−	+	−
2958. Sleep in cave, etc.		−	−		*−	−	−	−	−	+	−
2959. Power from vision		−	−		−	+	+	+	−	S	+
2960. Encounter powers		−	−		−	+	S	−	−	+	+
2961. Sought powers		−	−		−		+	+	−	−	−
2962. Vision during salt expedition		−	−		−	−	+	−	−	−	−
2963. Vision during war purification		−	−		−	−	+		−	−	−
2964. Seeker enters cave of serpents		−						+	−	−	−
2965. Dreaming subsequent to vision		−	−		−		+		−	−	
2966. Shamanism taught or given		−	−		−	S	S	.	*+	−	−
2967. By older shaman		−	−		−	*−	+	.		−	−
2968. Nonrelative, paid		−	−		−	−	−	.		−	−
2969. By older singer (teaches songs)		−	−		−	+	−	.		−	−
2970. Instructor "throws" power into novice		−	−		−	*−	+	.		−	−
2971. Instructor sings over novice		−	−		−				+	−	−
2972. Instructor teaches songs, curing methods		−	−		−	+	−		+	−	−
2973. Novice dreams after schooling		−	−		−	−	+	.	−	−	−
2974. Novice has dreamed before schooling						−	−	.	+	−	−
2975. Shamanism the result of predisposition*			+			S	S	−	−	S	S
2976. Hereditary			−		*−	S	S	−	−	*S	S
2977. Born with dreams			+		.	−	−	−	−	−	−
2978. Because of object in body			−		−	*−	S	−	−	−	−
2978a. Crystal			−		−	*−	+	−	−	−	−
2978b. Animal			−		−	−	*S	−	−	−	−
2978c. Power from object in body received miraculously*			−		−	+	*S	−	−	*+	−
2979. Dream of sacred mountain			*+		*+	−	−	−	−	(+)	−
2980. Dream of time of creation			+		+	−	−	−	−	(+)	−
2981. Power given by deity			+		.	−	*S	−	*+	(+)	−
2982. Power given by monsters								*+			+
2983. Power given by animal spirit		+	−		*(+)	+	+	−	+	+	+
2984. Any kind of animal spirit		−	−		.	+	+	−	−	−	−
2985. Restricted number		+	−		*.	−	−	−	+	+	+
2986. Power given by ghost		S	−		−	−	−	−	−	S	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Miscellaneous											
2988. Novice reveals power by curing		+	+		+	+	+	+	+	+	+
2989. Begins on sick relative		–	+		+	+	+	+	+	+	+
Shaman's Paraphernalia											
2990. Gourd rattle		–	–		*R	+	+	–	*+	+	–
2991. Feathers tied to handle		–	–			+	+	–			–
2992. Bull-roarer		–	–		–	–	–	–	+	–	–
2993. To call spirit impersonators*		–	–		–	–	–	–	+	–	–
2994. Shaman paints		–	S		–	–	–	–	–	S	–
2995. Shaman uses medicine kit		–	–		–	+	+	–	–	–	–
2996. Twilled basket		–	–		–	+	+	–	–	–	–
2997. Contains feathers, tobacco, crystals		–	–		–	+	+	–	–	–	–
2998. Shaman uses cane						*+					+
Disease and Curing											
Causes of Disease											
2999. Disease caused by intrusive object			–		*R	+	+	+	*+	+	+
3000. Sent by magicians (special class)		+	–		–	–	–	+	*+	–	–
3001. Sent by evil shamans		–	–		*R	+	+	–	–	S	S
3002. Tobacco smoke blown by shamans		S								–	–
3003. Shaman's familiar sends "arrow"											S
3004. Disease object sucked out		+	–		–	+	+	+	+	+	+
3005. With mouth (direct)		+	–		–	+	+	+	+	S	S
3006. Through arm			–		–					*+	–
3007. Through cane			–		–						+
3008. Patient lies across shaman*											+
3009. Displayed		*–	–		–	+	+	+	+	+	+
3010. Material object: worm, pebbles, etc.		*–	–		–	+	+	+	*+	S	+
3010a. Apache hair			–		–		+		–	–	–
3011. "Bad blood"		S	–		S	S	+	+	+	+	
3012. Pain (not an object) sucked out*		*–	+		+	–	–	–	–	–	–
3013. Disease object "sent away"		*–	–		–	S	S			*–	+
3014. Disease object destroyed		*–	–		–	S	S	+	+	*–	–
3015. Burned		–	–		–	–	+	+	–	–	–
3016. Put in water		–	–		–	+	–	–	–	–	–
3017. Buried		–	–		–	–	–	–	+	–	–
3018. Sender killed thereby		–	–		–	–	+	+	+	–	–
3018a. Apache hair "blown to north"			–		–		+		–	–	–
3019. Disease caused by dream-poisoning*		(+)	+		+						
3020. Disease caused by animals*		–	–		*+	+	+	–	–	–	–
3021. Result of malhandling, injuring*		–	–			+	+	–	–	–	–
3022. Disease sent by spirit animals*		–	–		–	–	–	–	+	+	+
3022a. Bear									+	+	
3023. Mountain lion, buzzard		–	–		–	–	–	–	–	+	
3024. Disease caused by soul loss		–	+		+	–	*(S)	*(+)	–	*+	*(+)
3026. Soul stolen by shaman		–	+		–	–	S		–	–	–
3027. Soul stolen by spirit, ghost		–	S		+	–	–		–	–	–
3028. Soul loss from fright		–	+		+	–	–		–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Curing Methods											
3029. Diagnosing by specialist		−	−		−	+	+	−	−	−	−
3030. House darkened (no fire)		−	−		−	+	−	−	−	−	−
3031. Diagnostician smokes		−	−		−	+	+	−	−	−	−
3032. Blows smoke on patient		−	−		−	+	−	−	−	−	−
3033. Diagnostician does not sing		−	−		−	+	+	−	−	−	−
3034. Blows saliva on patient		−	−		−	+	+	−	−	−	−
3035. Brushes patient with feathers		−	−		−	+	+	−	−	−	−
3036. Diagnostician sucks out disease object		−	−		−	−	*+	−	−	−	−
3037. Extraction of disease object by specialist		−	−		−	+	−	−	−	−	−
3038. Sucking doctor sings		−	−		−	+	−	−	−	−	−
3039. Sucking doctor smokes		−	−		−	+	−	−	−	−	−
3040. Sucking doctor blows smoke on patient		−	−		−	+	−	−	−	−	−
3041. Curing by exorcising*		−	−		−	+	+	−	−	−	−
3042. Singing shaman called		−	−		−	+	+	−	−	−	−
3043. Smokes over patient		−	−		−	+	+	−	−	−	−
3044. Sings over patient		−	−		−	+	+	−	−	−	−
3045. Brushes patient with feathers		−	−		−	+	S	−	−	−	−
3046. From head to feet		−	−		−	+	+	−	−	−	−
3047. Brushing with image of animal		−	−		−	+	+	−	−	−	−
3048. Brushing with part of animal		−	−		−	+	+	−	−	−	−
3049. Diagnosing and curing by general practitioner		+	+		+	−	−	+	+	+	+
3050. Diagnosing with singing and dancing		−	−		−	−	−	−	−	−	+
3051. Diagnosing with singing (only)		+	*−		*R	−	−	−	+	+	−
3052. Sleight-of-hand displays		−	−		−	−	−	−	S	*+	+
3053. Smoking to diagnose		+	+		+	−	−	+	+	+	+
3054. Feeling with hands to diagnose		+	+		+	−	−	(+)	+	+	+
3055. Patient lies head to east		−	−		+	−	−	+	(−)	+	−
3056. Patient lies head to west		+	−		−	−	−	−	−	−	−
3057. Patient lies head to north		−	−		−	−	−	−	(+)	−	−
3058. Shaman sits on patient's right (− = no rule)		(−)	+		−	−	−	+	+	−	−
3059. Shaman sits on patient's left		(+)	−		*−	−	−	−	−	−	−
3060. Blows smoke over patient		+	+		+	−	−	+	+	+	+
3061. Blows saliva over patient		−	+		+	−	−	+	*R	+	−
3062. Blows breath over patient		+	*			−	−			+	
3063. Paints patient with paint and "medicines"		−	−		−	−	−	+	−	−	−
3064. Puts eagle down on patient's hair											+
3065. Sucks at seat of pain		+	+		+	−	−	+	+	+	+
3069. Cuts cross over seat of pain		−	−		−	−	−	−	+	−	−
3071. Shaman possessed at séances*		·	−		−	−	−	−	·	*(+)	+
Special Cures											
3072. Snake bite cured by one with snake familiar or dream		+	+		+	+	S		+	+	+
3073. Snake bite cured by someone previously bitten		−				*	S		−	−	−
3073a. Cure: sing over patient		−	−		−	*+	−		+	+	+
3074. Ligature applied		−	−		−	−	*−		*+	−	*(+)
3075. Painted "ligature"*		−	−		−	+	+		−	−	−
3076. Poison sucked out		−			−	*−	S		−	+	+
3077. Snake extracted		−	−		−	−	−		−	*−	*+
3078. Saliva rubbed on bite		−			+	−	−		−	−	−
3079. Walks around patient (does not touch)		+	+		+	−	−		−	−	−
3080. Makes rain "to cool patient"		−	+		−	−	−		−	−	−

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
3081. Drinking water taboo to patient and family		.	+							+	+
3082. Sand painting made		*+	–		–	–	*		–	–	–
3083. "Wound doctors" suck wound		+			–	–	–			–	
3084. Sing over		–			*	–	–			+	
3085. Wave notched eagle feather over		–				–	–			+	
3086. Dance around patient		–			–	–	–			+	
3087. Lost soul recovered		–	+		+	–	–	–	–	+	+
3088. Patient faces Land of Dead		–	+		·	–	–	–	–	–	–
3089. Shaman sings		–	–		–	–	–	–	–	–	+
3090. Shaman walks around patient (ritually)		–	+		+	–	–	–	–	–	–
3091. Shaman smokes*		–	+		+	–	–	–	–	–	+
3092. Blows smoke in patient's ears, nose, mouth		–	+		–	–	–	–	–	–	–
3093. Sends own soul for		–	·		+	–	–	–	–	+	–
3094. Swallows 4 dirt piles, feigns death*		–			+	–	–	–	–	+	–
3095. In sweat house		–	–		–	–	–	–	–	+	–
3096. Sends spirit (power) for		–	–		–	–	–	–	–	–	+
3097. Two doctors toss back and forth to purify*		–	–		–	–	–	–	–	–	+
3097a. Ashes rubbed on patient		–	*+		–	+	+	+	*	–	–
3097b. In curing "ghost sickness"		–	*		–	+	+		+	–	–
Shaman's Pay											
3098. Shaman paid for cure		–	+		+	+	*+	+	+	+	+
3099. Paid (or price set) when called		–	–		–	–	*	*+	+	R	+
3100. Indeterminate amount given		–	+		+	+	+	*	–	+	–
3101. Partial payment if patient dies		–	–		–	+	+	+	–	–	–
Public Performances											
3102. Shamans perform publicly in epidemic		–	–		–	+	+	–	+	+	*
3103. Sing		–	–		–	+	+		+	*+	–
3104. People sing and dance		–	–		–	+	+		+	–	–
3105. Sleight-of-hand displays		–	–		–	+	+		–	–	–
3106. Search for disease object*		–	–		–	+	+		–	–	–
3107. Special cure for "deer sickness"*		–	–		–		+	–	–	–	–
3108. Two deer killed ritually		–	–		–		+	–	–	–	–
3109. Heads and tails carried down on sticks (by runners)		–	–		–		+	–	–	–	–
3110. Vegetable products gathered		–	–		–		+	–	–	–	–
3111. Sickness sucked from them.		–	–		–		+	–	–	–	–
3112. Boys and girls dance		–	–		–		+	–	–	–	–
3113. Feast of venison and vegetables.		–	–		–		+	–	–	–	–
3114. Shamans sweep house with cholla branches		–	–		–		+	–	–	–	–
3115. People pound on walls to shake sickness out		–	–		–		+	–	–	–	–
3116. Cholla branches ritually disposed of		–	–		–		+	–	–	–	–
3117. Deer heads, tails, offal ritually disposed of		–	–		–		+	–	–	–	–

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
Black Magic											
3118. Black magic by regular practitioners		+	*+		+	+	+	–	–	+	+
3119. Black magic special power		S	–		–	–	–	+	+	S	–
3120. Usually performed by women*		–	–		–	–	–	·	+	–	–
3121. Black magic: disease object sent		+	–		–	+	+	+	+	+	+
3122. Magicians killed when detected		+	+		+	+	+		+	S	+
MISCELLANEOUS CUSTOMS AND BELIEFS											
Toloache											
3123. Toloache taking by individuals	*–	*R	+		+	S	–		+	+	+
3124. For narcotic experience*	–	–	R			+	–			+	+
3125. To foresee one's fate*	–	–	+		+	–	–		–	–	–
3126. For gambling luck	–	*R	*–		–	–	–		–	–	–
3127. For hunting luck	–	–	–		–	–	–		*+	–	–
3128. Shamanistic power acquired	–	–	–		–	–	–		–	–	*–
3129. Root used	–	R	*+		+	+	–		+	–	+
3130. From north side	–	R	–		·	–	–		–	–	–
3131. From west side	–	–	+		·	–	–		–	–	–
3132. From east side	–	–	–		·	–	–		–	–	+
3133. Leaves used	–	–	*–		–	–	–		+	S	–
3134. Seeds used	–	–								S	S
3135. Toloache not taken, carried by hunters for luck	–	–	–		–	–	*+		–	–	–
Ritual Expedition for Salt											
3136. Fasting during journey*	–	–	–	–	–	*–	+	–	–	–	–
3137. Meat taboo	–	–	–	–	–	–	+	–	–	–	–
3138. Fat taboo	–	–	–	–	–	–	+	–	–	–	–
3139. Salt taboo	–	–	–	–	–	–	+	–	–	–	–
3140. Eat only pinole	–	–	–	–	–	–	+	–	–	–	–
3141. Mix with water in basket cup*	–	–	–	–	–	–	+	–	–	–	–
3142. Eating only at order of leader	–	–	–	–	–	–	+	–	–	–	–
3143. Scratching-sticks used	–	–	–	–	–	–	+	–	–	–	–
3144. Little sleep on journey	–	–	–	–	–	–	+	–	–	–	–
3145. Sing at nightly camps	–	–	–	–	–	–	+	–	–	–	–
3146. Ritual smoking at nightly camps	–	–	–	–	–	–	+	–	–	–	–
3147. Ritual speeches at nightly camps	–	–	–	–	–	–	+	–	–	–	–
3148. Races on journey	–	–	–	–	–	–	+	–	–	–	–
3149. Novices race to ocean on arrival	–	–	–	–	–	–	+	–	–	–	–
3150. Prayer-stick offering to ocean*	–	–	–	–	–	–	+	–	–	–	–
3151. Fasting on return journey	–	–	–	–	–	–	+	–	–	–	–
3152. Same as outgoing	–	–	–	–	–	–	+	–	–	–	–
3153. Walk, lead horses (riding taboo)	–	–	–	–	–	–	+	–	–	–	–
3154. Ritual halt and speech on return	–	–	–	–	–	–	+	–	–	–	–
3155. Met by small boys with bull-roarers*	–	–	–	–	–	–	+	–	–	–	–
3156. Assemble in ceremonial house	–	–	–	–	–	–	+	–	–	–	–
3157. Salt-gatherers sit in row	–	–	–	–	–	–	+	–	–	–	–
3158. Ten singers called	–	–	–	–	–	–	+	–	–	–	–
3159. Notched-stick rasps with basket resonators	–	–	–	–	–	–	+	–	–	–	–
3160. Corn meal sprinkled on basket resonators	–	–	–	–	–	–	+	–	–	–	–
3161. Singers are "noted men"*	–	–	–	–	–	–	+	–	–	–	–

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3162. Between songs each singer purifies, blesses salt-gatherers .	–	–	–	–	–	–	+	–	–	–	–
3163. Paid in salt	–	–	–	–	–	–	+	–	–	–	–
3164. Each salt-gatherer contributes parcel of salt.	–	–	–	–	–	–	+	–	–	–	–
3165. Salt for singers in two baskets	–	–	–	–	–	–	+	–	–	–	–
3166. Remainder divided among spectators	–	–	–	–	–	–	+	–	–	–	–
3167. Singing, purification lasts all night . .	–	–	–	–	–	–	+	–	–	–	–
3168. Novice salt-gatherers secluded	–	–	–	–	–	–	+	–	–	–	–
3169. Four days*	–	–	–	–	–	–	+	–	–	–	–
3170. Restrictions still in force	–	–	–	–	–	–	+	–	–	–	–
3171. Guardian spirits often obtained on salt expeditions*	–	–	–	–	–	–	+	–	–	–	–
Berdaches, etc.											
3172. Male berdaches	+	–	+	+	+	+	+		*–	*+	+
3173. Transformation caused by dreaming	–	–	+	+	+		*+				
3174. Dream of Berdache mountains . . .	–	–			+		–				
3175. Cause unknown ("born thus")	+	–	–	–	–	+	–		–	+	+
3176. Tests to see if berdache*	–	–				(–)	+		–	–	–
3177. Child put in windbreak with basket, bow	–	–					+		–	–	–
3178. Windbreak set afire, watch what he brings out	–	–					+		–	–	–
3179. Berdache-making ritual*	–	–	+	*+	*–	–	–		–	–	–
3180. Sing over	–	–	+	·	–	–	–		–	–	–
3181. Bath ritually	–	–	+	·	–	–	–		–	–	–
3182. Put dress on	–	–	+	·	–	–	–		–	–	–
3183. Male berdache marries man	–	–	+	+	+	–	*S		–	–	–
3184. Female berdaches	–	–	+	+	+	–	+		–	–	–
3185. Female berdache marries woman	–	–	+	+	*–	–			–	–	–
3186. Belief in person marrying snake*	–	–				+	+		–	–	–
3187. Bewitched (snake appears as attractive human being)	–	–				+	+		–	–	–
3188. Symptom: convulsive seizures	–	–				+	+		–	–	–
3189. "Backwards": group using reverse speech and actions*	–	–				+	+	–	–	–	–
3190. "Those born without foreskins"*	–	–				+	–	–	–	–	–
3191. Those who have intercourse with a berdache	–	–					+	–	–	–	–
3192. Membership recruited by offering tobacco* .	–	–				+	–	–	–	–	–
3193. Myth about battle charge when told to retreat	–	–				+	·	–	–	–	–
Time, Directions, Beliefs											
3194. Descriptive moon count	·	·	(±)	·	*(±)	*+	*		–	*	
3195. Twelve- to thirteen-month round.			(±)	·	–	*+			+		
3196. Six-month-calendar round			(–)	·	+	–			–		
3197. Numerical moon count			(–)	·	–	–			*+		
3198. Year begins in harvest season.			(±)	(±)	·	(±)			*–		
3199. Calendar stick year round*	–	–	–	*+	+	+	*		–		–
3200. Four cardinal directions	+	+	+	+	*+	+	+		+		

	Dieg DM	Akwa Ak	Moh Mo	Coc Co	Mar Ma	Pim Pi	Pap Pa	Yaq Yq	Yav Yv	Wal Wl	Shiv SS
3201. Color-direction symbolism	·	·	+	+	·	·	+		·		
3202. N = white, S = black, W = red, E = yellow	·	·	+	−	·	·	−		·		
3203. N = red, S = black, W = yellow, E = blue-green	·	·	−	+	·	·	−		·		
3204. N = red, S = blue-green, W = black, E = white	·	·	−	−	·	*·	*+		·		
3205. Comet is dangerous omen	+	+	+	+	+	·	·				−
3206. Prominent man will die	−	−	−	+	+	·	·				−
3207. Defeat in war	−	−	+	−	−	·	·				−
3208. Sickness, general misfortune	+	+	−	−	*−	·	·		·		−
3209. Shooting stars: indifferent	+	+	+	*S					−		+
3210. Shooting stars are star feces											+
3211. Sun, male; moon, female	·	·	−	+	+	+			*+		−
3212. Coyote in moon	·	+	(+)	·	+	*+			·		
3213. Eclipse of moon: "moon dies" *	·	·	+	*·	+	+			+		+
3214. Shouting, crying at eclipse	+		−	+	*	·			·		−
3215. Singing.	−		−	+		·			·		−
3216. New-moon observances	+	−	−	+	−	−			+		−
3217. Running	+	−	−	+	−	−			+		−
3218. Toward east	−	−	−	−	−	−			+		−
3219. Shouting and singing	+	−	−	+	−	−			+		−
3220. Myth telling in summer taboo	*−	+				+	+		+	+	+
3221. Snake will bite teller	−	+				+	+		+	+	+
3222. Left-handedness esteemed	−		+		+	−			+	+	−
3223. Good marksman	−		+		+	−			+	+	−
3224. Active, ambitious, "like Coyote" *										+	−
3225. Left-handedness deprecated	−		−		−	*+			−	−	*+
3226. Indifference to left-handedness	+		−		−	−			−	−	−
Shrines and Offerings											
3227. Sacred spring as ritual center*	−	−	−	−	−		+		−	−	−
3228. Associated with myth of sacrificed children	−	−	−	−	−		+		−	−	−
3229. Fenced	−	−	−	−	−		+		−	−	−
3230. Feathers, beads offered	−	−	−	−	−		+		−	−	−
3231. Offerings at caves, places of mythical association	−	−	+			*+	+		−		
3232. Trail-side offering places	−	−	+		+	+	+				+
3233. Food, tobacco, arrows put on	−	−	+		−	+	S				+
3234. Stones piled on	−	−	−		+	+	+		−		−
3235. Prayer sticks made*	−	−	−		−	+	+		−	−	−
3236. Painted (blue or green)	−	−	−		−	+	S		−	−	−
3237. Used as mnemonics for war party *	−	−	−		−	+	+		−	−	−
3238. Kept in scalp basket after	−	−	−		−	+	+		−	−	−
3239. Made in preparation for Vikita	−	−	−		−	−	+		−	−	−
3240. Kept for curing	−	−	−		−	−	+		−	−	−
3241. Kept with food	−	−	−		−	−	+		−	−	−
3242. Made for salt expedition	−	−	−		−		+		−	−	−
3243. Offered to ocean	−	−	−		−		+		−	−	−
3244. Medicine baskets	−	−	−		−	+	+		−	−	−
3245. Village owned	−	−	−		−	+	+		−	−	−
3246. Kept in ceremonial house	−	−	−		−	+	+		−	−	−
3247. Ritual paraphernalia kept in	−	−	−		−	·	+		−	−	−
3248. Scalps kept in	−	−	−		−	+	−		−	−	−
3249. Shamans' medicine baskets (distinct from above).	−	−	−		−	+	+		−	−	−
3250. Enemy slayers' privately owned medicine (scalp) basket	−	−	−		−	−	+		−	−	−

ELEMENTS DENIED BY ALL INFORMANTS

SUBSISTENCE

Agriculture

Dibble planter with footrest, or with cross-handle, or horn shod. True hoe (except Yaqui iron hoe). Maize planted in hills.

Wild Vegetable Products

Grass patches burned over. Wild grass patches irrigated.

Hunting

Nets, pitfalls for deer. Deer hunted with dogs. Fences, corrals, or nets for antelope drive. Deadfalls or other traps for large carnivores. Eagle catching from pit.

Salt

Salt from grass (burned).

Cooking and Eating

Stone vessels (except mortars). Wooden dishes (other than recent). Grasshopper, rattlesnake, frog, horned toad eaten.

Storage and Storehouses

Meat pulverized for storage.

Food-Quest Beliefs and Minor Rites

Certain parts of deer taboo to women, or to children. Antelope charming (other than pre-hunt singing).

MATERIAL CULTURE

Dwellings

Multiroom, multistory houses. Tipi of skins. Hogan (any type). Semisubterranean dwelling. Smoke-hole entry.

Sweat Houses

Mud-plastered doorway. Sweating for purification. Assembly house for sweat house. Dancing in sweat house. Competitive sweating.

Pottery

Vessel bottom made by coiling. Polychrome ware (except recent). Corrugated ware. Handles (except on ladles). Potter's food restrictions.

Basketry

Feather-decorated baskets.

Cradles

Sitting cradles. Wooden cradles. V-frame cradles. Buckskin-covered cradles.

Textiles

Weaving on vertical (full-) loom (in any material).

Skin Dressing

Skin dressing women's work. Hafted end scraper. Buckskin smoked, or buried, to color.

Dress and Ornament

Men's skirt of shredded fiber. Men's apron. Men's hats or caps (except buckskin cap). Women's leggings. Men's hair in two braids; women's ditto. Men's hair short (except in mourning). Eyebrows plucked. Compound wooden comb (but see Gifford, 1936, 278). Women's nose-piercing. Alae pierced. Labrets worn.

Weapons

Snakeskin-covered bow. Simple bow with recurved tips. Bowstring of human hair. Bow case. Bone or horn tips for arrows. True arrow poison. Multiple-tipped arrows. Slings for war (except "recent" [sic!]). Throwing spear. Stone-tipped pike. Throwing board. Twined rod or slat armor. Long hide tunic (armor). Helmets of any type.

Grinding

Metate for rotary grinding. Metates graduated in fineness. Singing while grinding.

Various Tools and Techniques

Ax or adz for woodcutting. Hammer and wedges for splitting wood. Cane knife for butchering.

Fire

Bow drill. Jointed fire drill.

Transportation

Snowshoes (any type).

Musical Instruments

Foot drum. Hollow log drum (cf. Spier, 1928, 264). Hand-held cocoon rattle.

AMUSEMENTS

Games

Kickball race with plain stick for "ball." Hoop and pole with netted hoop, or notched hoop. Nut-shell dice. Spear-throwing games (except hoop-and-pole). Moiety competition in games.

SOCIAL CULTURE

Structure of Society

Matrilineal organization. Exogamous moieties. Chiefs' speakers. Hereditary war chiefs. Formal war societies. Head taking.

Marriage

Formal marriage rites, marriage tests. Any preferential mating. Polygyny by chiefs (i.e., restricted).

Kinship Usages

Avuncular relationship.

INDIVIDUAL DEVELOPMENT

Birth Customs

Midwife paid. Placenta burned. Offerings put with placenta. Twins killed at birth.

Names

Names bestowed at puberty. Feast to change name (cf. Gifford, 1933, 292).

Girls' Puberty

Pit-roasting as public rite, group of girls (except Akwa'ala tattooing rite). Round dance at girl's puberty. Deer-hoof rattle at girl's puberty.

Mortuary Customs

Dying removed from house. Interment in dwelling. Corpse removed through wall. Reciprocal burial functions of clans or moieties. Special burial for chief, or twin. Mourners pitch or scratch faces. Widow (widower) secluded. Mourners purified by shaman.

CEREMONIALS

Mourning Ceremony

All preliminary rites: ritual clothes burning; ritual house burning; "ceremonial road." Mourning ceremony at regular intervals. Regalia from medicine bundle. Images made (except "recent"). Dances of Toloache complex used. Feathered shields (Forde, 240).

Miscellaneous

Entire Toloache-initiation complex. Initiation rituals into dancing societies.

ETHNOGRAPHIC NOTES ON THE ELEMENT LIST

SUBSISTENCE

Agriculture

2. A few families lived in favorable places and habitually planted small gardens. In none of these cases however was agriculture a major source of subsistence, even to the planting families. The products were regarded as luxuries, and their ripening was the signal for feasts and "good times." This desultory cultivation of the soil is more fully described in Walapai, 57 ff. and Gifford, 1936, 262-263. Shiv: A few Shivwits, living at a place called tacai, planted; the rest did not. At tacai there is apparently a spring or series of springs down a slope that waters a small area. The informant stated quite emphatically that the economic importance of the planting was slight, even to the families engaging in it.

3. Mar: Agriculture here was of the Lower Colorado River type, as Spier brings out clearly (Spier, 1933, 58 ff.). The informant stated that the floods on the Gila were less regular than on the Colorado, and some years were not sufficient for the usual planting. The people would try to find low places, "like sand tanks," and if digging revealed dampness, planted there. Apparently not all could find these places. They never went out on the desert looking for places to plant, like the Papago. Pap: There were dry years, now and then, in which there was not enough water to plant.

4. Yaq: There were two types of fields, wahwɛtcīa, along the river, and yūkūwɔsâm, on the terraces back from the river. The former, as I understood, were inundated annually, and watered as well by the heavy mists that rise from the river each morning. The latter depended on rain for their moisture. If the rainfall was insufficient, they were watered by hand, water being carried up from the river in ollas (see note 7 Yaq.).

5. The caption indicates fields situated near a river, distinct from those in overflow basins, and from temporales. Actually, the line of distinction is not so sharp as it appears: a good part of the Pima cultivated land was subject to flooding. The chief point of difference is in the presence or absence of ditches.

6. Wal, Shiv: The "ditches" seem to have been little more than shallow scratches from the stream or spring to the planting place. They were certainly crude affairs compared to the irrigation systems of the Pima. The Walapai made little rectangular basins of earth, which they filled with water shortly before planting.

7. Water was carried for young plants in dry years; this "irrigation" was nowhere standard practice. Yaq: The fields away from the river were so watered (see note 4). Yav, Wal: Baskets, not pottery ollas, were used for this purpose.

8. Temporale agriculture refers to the utilization of ephemeral stream waters. The fields ("temporales") are in aggraded plains over which the runoff of adjacent rocky hills spreads in a silt-laden sheet. Once well soaked, the finely divided adobe of which the plains are composed retains its moisture long enough to grow crops. The ponds which form on these "flats," or the earth dams commonly constructed, supply water enough for human needs in the farming season. (The structure of these plains and their ponds is well described by Bryan, pp. 120 ff., 144 ff.; see also Sauer and Brand, 1931, 74.) In principle this temporale farming is very like the overflow-basin farming of the Lower Colorado Valley.

Crops

10. Yaq (and 11 Yaq): There were three varieties of white corn, but the characteristics of the third were not made clear to me. These three were economically the most important. The colored corns were said to have been grown in small quantities only, and used chiefly for "remedios."

10. Wal: This small white corn, "Mohave corn," was formerly the only variety grown. Colored maize was obtained from the Havasupai, it is said.

22-23. Yaq: Brown and black beans were not cultivated, but grew wild.

25. Cowpeas (Vigna sinensis) are of course Old World domesticates. They are considered to be aboriginal by the tribes of the present study, which suggests lack of feeling for history, if nothing else. Coc: Cowpeas were planted and tended by women, chiefly. Wal: Cowpeas were obtained from the Mohave at some unknown time in the past.

27. I was not able to equate the varieties of "pumpkins" described by the several informants.

30. Kroeber (1925, 736) names four varieties of grasses planted by the Mohave; my informant could recall only three. The Cocopa planted two kinds. Mar: My informant did not know the "ikcamac" mentioned by Spier (1933, 62). The negative is probably an error.

31. Wheat was considered to be aboriginal by some informants. It was introduced in early times (see Forde, 110; Russell, 76) and became an important crop. Pap: Wheat was grown by the Papago ever since the informant could remember. He was trying to restrict his answers to the period of which he had first-hand knowledge, so I pressed him no further on the point.

38. Mar: Cotton planting was known to have been borrowed from the Pima after the people moved from the Gila Bend region to Sacate.

39. Moh: Tobacco seed was obtained from the Chemehuevi. Coc: The denial of tobacco planting

is substantiated by Gifford's information (1933, 269); nor did the Yuma plant it (Forde, 117). Mar: One of Spier's informants affirmed, others denied, the planting of tobacco (1933, 333 ff.).

40. The gourds were nonedible, and grown to use for rattles, dippers, etc.

Agricultural Tools, Techniques, Etc.

41. Yaq: Only very poor folk planted with the dibble. All who could afford it had hoes (with iron blades) and the well-to-do had plows and oxen. When the plow was used, one man plowed a furrow, and another walked along behind, dropping seeds three at a time in the furrow and covering them with his foot. The field was not worked and then planted in our way. The plows seem to have been identical with those of the Tarahumara (Bennett and Zingg, 19-20).

42. This planting differs from the planting in hills practiced in some regions. A small circular area of ground was loosened, the seed grain dropped into it or poked down with the fingers. The planter with hand or foot, according to convenience, scraped a little earth over the corn and pressed it down lightly. Later, the growing corn was sometimes hilled to keep it from being blown down by the wind.

Another method of planting used for early corn or in dry seasons was described by Maricopa and Papago informants. Pits 1-2 feet in diameter were dug in sand tanks down to the moisture line, and seeds were planted there but not covered deeply. Sand was filled in around the growing plants. This corn did not grow tall, but ripened early. Apparently it was not of the deep-rooting type of Pueblo maize.

43. 4+ means 4 or 5; 3+, 3 or 4; etc.

44-45. Moh: Kroeber (1925, 735) states corn was planted irregularly, and the "rows" the informant described must have been rows only in the broadest sense. He said the holes were made diagonally, first right, then left, thus: . . . . . Good true rows could be made thus, of course, but the chances are that Mohave stands of corn were pretty uneven and ragged-looking.

48. This trait is not to be interpreted to mean a strict division of labor, but that as a rule the entire family pitched in to do the planting. Men would do the harder work of digging, usually. An old man or boy, as well as a woman, might plant the seeds. The essential point is that planting was considered to be a two-person task: one to dig and one to plant. The Yaqui had a similar custom, whether planting with dibble, hoe or plow (see note 41), except that it was the men who worked in pairs; women did not engage in planting.

50. Moh: Negative is probably an error. Some other Mohave with whom I conversed casually spoke of two plantings a year being an ancient practice. Yaq: Two crops were usual; in good years there might be three.

52. Most informants agreed that teparies were planted separately to make them easier to harvest (by pulling up the vines and threshing the beans with flails, see elements 89 ff.). If planted among the maize the vines would entwine themselves on the cornstalks.

56-57. The grass seeds were sown on the surface of basins of wet mud and not covered, that is, in the same manner that we seed a lawn. One kind that the Mohave sowed--anki (Kroeber's ankithi ?)--was broadcast from the hand; the others, finer and lighter, could be scattered more evenly by blowing them from the mouth. It is interesting to compare this planting complex with that described by some informants for the fine light seeds of tobacco (note 59-61).

59-61. The basins for tobacco were formed by scraping up a low bank around the plot, working the soil within it, filling it with water which was allowed to percolate down. The Mohave watered the basin by means of ollas, the Pima made a ditch. When the water had seeped away the seeds were broadcast on the wet ground.

62. Pap: The method of planting tobacco was similar to that described for dry-season corn (note 42), that is, in pits in sand tanks.

64. Yaq: Transplanting of tobacco seedlings does not sound like an aboriginal trait, but the informant insisted it was an indispensable step in the growing.

69. This the typical Lower Colorado implement. See Kroeber, 1925, pl. 67,a. Yaq: It was not quite clear whether the implement described was similar to that reported elsewhere or a wooden imitation of the postcontact sickle. Beals cites a reference to the weaving-sword hoe from Sinaloa (Beals, 1932, table 18).

71. Yaq: The hoe used was the European implement with an iron blade.

72. See Russell, 97.

73. Described as "a small shovel of mountain-sheep horn" (Walapai, 60), the implement seems to have been a kitchen utensil--the familiar mountain-sheep-horn ladle--temporarily put to another use.

75. Slings, bows with cross-stick arrows, etc., were used by the children for this purpose.

77. These fences may be postcontact innovations. What utility they could have had before livestock was introduced is hard to see.

80. Pim: Both individual holdings, and within them the irrigation units, were reported marked off by low ridges of earth. The latter units were designated by a term referring to these ridges: Wuas, something shallow enclosed by a raised border. (GH.) Yav: Plus is probably erroneous.

82. Coc: The informant thought that a row of sugar cane, or something of the sort, might be planted at the edge of one man's field to mark it off from his neighbor's.

83. Pim: Within the cultivated areas, individual fields were bounded by irrigation ditches.

84. Construction of these "represos" is one of the typical features of cultivation of the temporales.

Harvesting

86. Yaq: The stalks were cut with a machete; otherwise the process was similar to that among the other groups.

87. For final drying, for storage. Sometimes the ears were partially dried on the pulled-up stalks (see element 86).

88. I was unable always to determine if the husks were braided together Pueblo-fashion, or simply bunched and tied.

93. Pap: Cowpeas were pulled, vines and all, dried, and rubbed between the hands rather than threshed with flails, such as were teparies.

95. Mar, Pim: Pumpkins were put in the storehouses, not piled up in the open.

Wild Vegetable Products

102. Dieg: Mesquite occurs infrequently in the vicinity of La Huerta; what little there is is said to be bitter.

103. Hooks were used to pull down the higher branches to pick the "beans." The fruit that ripened and fell off itself was of course picked up from the ground.

105-106. Wal: The informant denied that his people had any proper mortars (q.v.). Mesquite beans were pounded fine on the metate, not ground by rubbing.

108. The usual manner of using mesquite was to steep the meal in cold water, drink the sweet liquor, and discard the meal. People might casually eat a handful of meal, or spit it out after sucking the juice from it, but this was not a regular practice.

111. Yaq: The informant may not have recognized the tree from my description. Wal: Present in "extreme southwestern part of area" (Walapai, 33), but not in territory of informant's band.

112. See Kroeber, 1925, 737.

113. Pim: Russell (p. 75) corroborates this.

115. Moh: Mescal grows far back on the mesas above the river valley, but the Mohave did not exploit the uplands. Coc: The mountain Cocopa were said to dig mescal, but not the river people. Mar: Mescal is not common. See Spier, 1933, 55. Shiv: There are two varieties (?) of mescal, a very large and a small kind. Only the large ones were dug.

117. See Walapai, fig. 1. Mar: Spier's informants described a mescal cutter with the blade on the side (Spier, 1933, 55), which my informant denied.

120. Dieg, Akwa: The thorns and bitter tips of the leaves burned off in the cooking process.

121. Yaq: A machete was used for this. Wal: The usual implement had an iron blade, mounted, however, just like the stone blades of other groups. The Walapai were reported to have obtained iron tools "from over in the Navaho country" long before white settlement in their territory.

122. This is the "mescal hatchet." It was probably used for cutting or sawing rather than for chopping.

124. Each person cut leaves or stalk in a distinct manner, to identify his heads after the communal cooking. Informants denying this practice said that each person put his heads in the pit oven in a separate pile, or row, or such. Yav: Gifford reported this present, also separate piling in oven (1936, 259).

127-128. See note 124.

130-132. Yaq: The cooked mescal heads were dried whole, it was reported. This is certainly erroneous if the statements of most other informants, that the heart or center of the head does not keep well even when dried separately, are correct.

133. Pap: Perhaps erroneous, at least for aboriginal times.

134. The stalks were gathered when young and tender only. Mar: See note 115 Mar. They had to go some distance for mescal; it was probably not worth while to make the trip just for the stalks.

136. Moh: Tunas were not an important food, and only occasionally gathered. This probably accounts for the absence of tongs and of drying (elements 137, 144).

138-139. Yav: The entries are probably in error, through misunderstanding. The "bent" tongs of the other groups were often a split half-section of a pole. See Gifford, 1936, pl. 10, a.

142. Tunas were usually brushed with a bunch of twigs, or the like, after picking, then spread on a clean sandy place and brushed and rolled about to remove the finer spines.

144. Shiv: The fruits were split open "like peaches" and dried separately, not pounded into a cake.

145. Mar: When the fruits were not fully ripe the seeds were utilized; later, they became too hard.

145-146. Wal: The informant's reply was not altogether clear. Use of the seeds is confirmed, however, in Walapai, 50.

148. Shiv: Perhaps erroneous.

149. The pulp could be boiled and eaten. Sometimes the whole plant was roasted in a pit oven.

150. I am not certain that these are really fruits; the information may apply to the new joints.

153. Yaq: There was one kind of sahuaro that had many large seeds, for which the fruit was gathered. With this exception, sahuaro fruit was seldom picked, for pitahaya was plentiful along

the Yaqui River. Yav: There was no sahuaro in the informant's band's territory, but the people went south into the desert for the fruit. Wal: Sahuaro grows on the Big Sandy; the people of that section notified friends and relatives in other bands when the fruit ripened, and all assembled there.

154. The techniques, etc., for sahuaro- and pitahaya-gathering differed little, so far as I could determine. Pitahaya, having larger sweeter fruit, was preferred wherever it was plentiful. Dieg: Informant (1) affirmed pitahaya-gathering, but the others denied it. He must have been thinking of visits to the Cocopa; pitahaya is not present in the local flora.

155-156. Yaq: The equivalence of the Yaqui implement is not certain; it was at least more precisely made than those of the other groups. A T-shaped stick was lashed across the end of a pole a short distance from the sharpened end. Very ripe fruits were skewered on this point and dislodged by pushing with the crossbar of the T, so that they would not fall and get smashed.

156. Pim: Confirmed by Russell (fig. 18, b).

158. A refreshing drink was made by boiling down the fruit into syrup (such as was done in wine-making) and adding water. All the groups who had access to sahuaro or pitahaya did this whether or not they made wine. It should be noted that this making of sweet beverages was very characteristic of the area; besides mesquite, many other plants were so used: tunas by Pima, Papago (present informants), Walapai (Walapai, 50); mescal by SE Yavapai (Gifford, 1932, 207), Walapai (Walapai, 53); yucca fruits by Walapai (Walapai, 52); juniper berries (see element 185). Unfortunately the frequent application of this pattern was noted too late to be incorporated in the lists.

160. None of the informants would admit the "re-eating" of sahuaro seeds (Russell, 71).

161. The fruits which had completely ripened and dried on the plants were treated thus; the fresh ones could not be dried. The Yaqui minus may be due to misunderstanding on this point.

162. Several kinds of yucca occur in the area; some are edible, some not. Confusion on the kind to which my question referred arose in some instances, hence the blanks. The Maricopa, according to Spier (1933, 55), and the Pima (Russell, 72) ate the fruit of Y. baccata.

171. Yav: There were some piñons in Wipukupa country, but they seldom bore a good crop of nuts; usually the people went to the region around Williams for piñon gathering.

182. Yellow pine occurs in the territories of both Yavapai and Walapai, though probably not in the normal range of either informant's band. I neglected to inquire about it, however. It is not found in the remainder of the region.

185. Not all trees bear sweet berries. Gatherers went to trees they knew to be sweet, or went about sampling till they found some.

191. Pap: Ironwood nuts were not used extensively. Yaq: Children gathered ironwood nuts to eat. The seeds were not important.

198. The variety of techniques depend on the kind of grass seed harvested.

199. Moh, Coc: Pottery trays were used.

202. See Spier, 1928, fig. 3.

205. Shiv: A "mountain-sheep rib" was used to cut grass. Sheep-horn sickles were denied.

Hunting

206. Moh: Deer were scarce and rarely hunted. The informant himself had never hunted deer.

208. Mar: Reported by Spier, 1933, 69. My informant said this was known to be a Papago device, but they did not use it.

208-209. Wal: Reported present in Walapai, 61. The informant described this disguise for antelope hunting.

210. Pap: The bow and arrows might be used for "front legs"; no weight was put on them.

214. Mar, Pim, Yaq: Maricopa and Pima hunters ran down deer on horseback; before they had horses they never ran them down. This same method was used by Yaqui vaqueros, more for sport than for subsistence.

215. Mar: The informant thought that this device was used, but was not positive. He may have been in error. Yaq: The snare was an important deer-hunting device.

216. The hunter made a noise, like the bleat of a fawn, to call the doe. Yav: Reported present by Gifford, 1936, 264. My informant probably erred.

219. Pim: When a wounded deer gave out and fell, the hunters raced to it. This was a common practice when several men hunted together, although perhaps not invariable. The informant recalled that, on his first group hunt, the deer went down close to him. He started toward it, but someone shouted, "Look out, it has horns!" He faltered, the rest beat him to the quarry, and he got no share of the meat. Pap: Denied by informant (1), but affirmed by (2).

222. The kill was not divided by the hunters, but was brought home to share with all in the camp.

223. Dieg, Akwa: I am not certain whether there were no antelope in the vicinity of La Huerta, or whether my description of the animal was misunderstood. The Akwa'ala informant's statement that her people had to go down into the desert to hunt antelope makes the former seem more likely. Yaq: There were antelope, but "they were too swift; one couldn't catch them."

235. Mar: Spier reports this concept (Spier, 1933, 69). Yaq: Perhaps so, but the informant would say only that it was impossible to kill mountain sheep.

245. This and similar devices were of course useful only when the burrow was shallow, or when a rabbit ran into a cranny in the rocks. The

hook, stick, or such, was twisted into the animal's fur.

248. See Spier, 1933, fig. 4.

250. The hunter made a noise, like a young rabbit, to call the doe. Shiv: Few hunters only knew how to do this.

251. Akwa: The pocket net was borrowed in latter days from the neighboring Diegueño. Mar: See Spier, 1935, 67. Shiv: Pocket nets were used for cottontails.

259. Moh: Reported present by Kroeber (1925, 632).

260. This was apparently a substitute for painted decoration.

261. Pim: A fire was lit by the hunt master to signal the start of the drive. This is a southern Californian practice (see Drucker, CED: V, element 1132).

262. Pim: Herzog's chief informant believed the office was not hereditary, but was obtained by dreaming. (GH.)

269. By prop release is meant a simple stick or splint supporting the weight and dislodged by attempts to get the bait.

270. Yav: See Gifford, 1936, 266.

272. Pim: Dr. Herzog pointed out that bear were known to the Pima, the animal appearing in myths, and a particular disease being attributed to its influence. His informants stated however that bear were not deliberately hunted, though a man might kill one in self-defense. (GH.) Perhaps the present informant had in mind the proper Pima territory along the river, which bear probably did not frequent, as opposed to the near-by mountains. Pap: Bryan mentions that the Sonora grizzly formerly occurred in the mountains bordering the Santa Cruz Valley, but they may not have been common throughout Papago country. Yav, Wal: Apparently when a group of hunters happened on a bear they might try to kill it, but ordinarily the animals were not molested. Bear were not common in the area.

276. Yaq: To kill a bayed peccary with a club required a steady nerve and a disregard of personal welfare. Some men hunted this way for sport.

279. Dieg: Mountain-lion meat was considered to be one of the finest procurable. Wal: People with young children might not eat mountain lion. Shiv: Mountain lions were rare in Shivwits territory, which is expectable from the absence of deer.

280. Yav: Eaten, according to Gifford (1936, 267).

281. Akwa: Plus probably an error.

282. Coc: The informant had heard that the Mohave ate coyotes, but thought that his people were more fastidious. Pap: Coyotes were eaten only in late winter when deer were poor and the coyotes fat. Yav: See Gifford, 1936, 266, for method of taking.

283. Wal: Reported eaten (Walapai, 63).

284. Mar: Reported not eaten (Spier, 1933, 65). Yav: Reported eaten (Gifford, 1936, 267); "meat believed to give strength to eaters." My informant said badgers were too malodorous to be eaten. There were other Yavapai foods that smelled worse than badgers, certainly.

285. Mar: The kind of animal asked about may not have been understood. Raccoons occurred in the region, but were scarce (see Russell, 82).

287. Skunk was eaten in times of famine, and probably more widely than informants admitted. There seems to have been no taboo on it in the area, but "people don't eat it because it stinks."

288. Pim, Pap: Porcupines were found only rarely.

289. Mar: Spier lists prairie dogs as eaten (1933, 65), but I am not aware that there are or were any in Maricopa territory.

290. Mar: To eat ground squirrel would cause deafness, according to Spier (1933, 71). Pim, Pap: There were few ground squirrels formerly, the informants said. Russell (p. 81) reports there are at least six species in the Pimería, and that their flesh was taboo to women.

291. Mar: Not eaten, according to Spier (1933, 65).

292. Shiv: Tortoises were found only in the region about tacai. The people there ate them.

293. Yaq: The informant was referring to the great sea turtle, it turned out. To the other people represented by lists, any turtle was "poisonous."

294-295. Akwa: Minuses may be erroneous.

294. Pim: The ritual name of the caterpillars means "Shaman's ornaments," suggesting some ritual importance of the creatures. (GH.) Yav: Big caterpillars were not so plentiful as in the regions in the west of the Verde Valley. Shiv: The people of the tacai district got more caterpillars than other Shivwits.

296. Yaq: Large lizards ("iguanas") were eaten. I am not sure that these are the same as the chuckawalla.

296-297. Yav: Both reported present by Gifford (1936, 268).

298. Dieg, Akwa: The people could not catch ducks, except for mud hens (see elements 300-301). Pap: It was only rarely that ducks alighted on a pond. The few that did were not molested.

309. It is said that in wet weather the birds' feathers become wet and heavy so that they tire easily.

312. See Spier, 1933, fig. 4.

314-315. See Spier, 1933, fig. 5.

316. Mar: Reported absent by Spier, 1933, 72.

317. Mar: Spier reports wild turkeys hunted (1933, 65), but so far as I could learn there were no turkeys anywhere near Maricopa territory. Russell does not mention turkeys in the Pimería, nor does Bryan include them in his sketch of fauna of the Papago country.

322. Pim: Not for food, but for "medicine" to cure stuttering.

323. Mar: To eat road runner was unlucky. One

would always be thin and hungry. Pim: Old people sometimes ate road runners; no young person would.

326-327. Yaq: Crow and owl were sometimes eaten for medicine.

Fishing

330. Gifford (1933, 268) and Russell (83, footnote) list the fish of Lower Colorado and Gila. The Cocopa, on their visits to the Gulf, and the Yaqui of the coastal towns had a wider selection. Dieg, Akwa: Fish of course do not occur in the arid habitat of these groups, but both informants spoke of frequent journeys down to the coast for shellfish. Nonetheless both denied any method of catching fish.

332. See Forde, fig. 3, a. Large fish, such as the Colorado River "salmon," were simply dragged out, whereas humpbacks, bony tails, and the like, are said to have gilled in these nets.

333. Yaq: Lead weights were usually used, but stones were sometimes used.

335. Mar: This was known to be a Yuma practice. "They could catch fish that way because the Colorado is always muddy. The Gila however was clear; fish would see the net and avoid it." Yaq: People went to the river mouth to set nets at slack high water. The ebb left the net full of fish.

336. See Forde, fig. 3, b.

337. This was a small bag net, with two separate stick "handles," fastened one on each side of the bag. In dipping up a fish, the user clapped the sticks together to close the mouth so that his catch could not wriggle out.

338. See Kroeber, 1925, pl. 59. Mar: The informant knew this device, but said it could only be used successfully in the muddy water of the Colorado. Spier reports it present (1933, 76).

339. Moh, Coc, Mar: Probably all minus.

340. See Gifford, 1933, 268.

341. See Forde, 120.

345. Coc: Gifford (1933, 268) reports a spear used on the Gulf for sea bass. Mar: Probably an error; the informant was not very certain. Spier states the Halchidhoma (and presumably the Maricopa) did not use fish spears (1933, 76).

346. Yaq: The points were of the dense brazilwood; some, however, were of iron. The implement was called, in Spanish, an "arpón," but from the description was simply a spear.

348. Moh: Sometimes ordinary arrows were used (probably for fish at or near the surface). Pim: These arrows were also commonly used by children; in fact, in myths they seem to have been a symbol of childhood. (GH.)

349. See Spier, 1933, 76. Some sort of cactus-spine hooks are mentioned by Forde, 119.

352. The fisherman reached into holes and crannies in the rocks where fish hid. This simple but effective mode of fishing (sometimes known as tickling) seems from informants' statements to have yielded a large part of the fish eaten. It was used by Maricopa and Pima more than by the other groups.

354. Coc: The informant did not know of the willow-leaf "poisoning" described by Gifford (1933, 268). Yaq: The informant did not know the Spanish name of the "yerba" used.

355. See Gifford, 1933, 268.

356-357. Dieg, Akwa: Mollusks were obtained on special trips to the coast.

Salt

360. Coc: The mountain Cocopa got salt from beds near Volcan.

360-362. Dieg, Akwa: There were places on the Pacific coast at which salt could be scraped up. Some salt was also obtained on visits to the Cocopa country (element 362). Shiv: Salt came from deposits in Moapa country. Sometimes the Shivwits got it themselves, sometimes they got it from the Moapa.

362. Mar, Pim: Salt was obtained from the Papago.

Cooking and Eating

364. Moh: Men sometimes assisted. Elsewhere cooking was said to be a woman's task only--an overstatement, certainly, for hunters and traveling parties of men undoubtedly cooked for themselves.

371-372. Pim: It is of interest, though it may or may not be of significance in this connection, that being watertight was a mark of excellence in basketry. (GH.) Wal: Denial of stoneboiling corroborated in Walapai, 72.

375. Pim: The Papago were known to roast meat thus, but the Pima did not.

382. Wal: Prickly-pear tongs were reported used. This is a strange habit for a people who did not use stone boiling--it sounds as though alien influence were a stronger factor than convenience even in such minutiae. Walapai, fig. 2, corroborates this information.

383. Dieg: See Kroeber, 1925, pl. 44, b.

386. The element began the journey as "wafer bread made," but was altered when I was unable to distinguish between "wafer bread" and tortillas. Coc: Tortillas were made, and cooked on ashes. This probably should be considered a modern (Mexican) innovation.

388. Mar: Spier reports this trait present (1933, 63). The present informant thought this a custom borrowed from the Mexicans. The Pima affirmative also may refer to a Mexican (recent) innovation.

389. Yaq: This is of course the familiar Mexican "nistamal" (or "nixtamal").

396. Wal: This was a makeshift device.

397. Russell, fig. 13, d.

399. Akwa: Gourds were imported from the Cocopa for ladles, rattles, and such.

400. Pim: Russell pictures an "ancient ladle of Pima manufacture" (pl. 20, a), but implies that they were not in common use.

402. Russell, fig. 14, b. Pap: Probably recent.

405. Coc: Pieces of shell were used for eating melons, "to scrape close to the rind."

407. A very common "swab" was a bit of dried mescal, dunked in soup or mush and eaten.

Storage and Storehouses

409. Kroeber, 1925, 699, and pl. 60; Russell, fig. 4.

418. A large mat was rolled up into a cylinder, tied securely, and set on a made floor of packed clay. It was filled with corn and covered with mats, grass or brush, and earth. The striking similarity to the northerly bird's-nest granary (element 409) should be noted.

425. See Russell, pl. 35, e. Thatched storehouses were built down in the fields; those of poles, such as Russell figures, in the village near the dwelling.

426-428. Yaq: Apparently these were very similar to the "corn-drying" structures of the Tarahumara (Bennett and Zingg, 58 ff.).

429. See Spier, 1933, 89.

444. See Spier, 1928, 129.

450. Dieg, Akwa: The Diegueño informant denied that meat was ever dried; "whenever they got any meat they ate it all up at once." His statement was thus consistent with a previous one (affirmed also by the Akwa'ala), that deer were brought home whole, and a feast was given (element 221). Probably the truth lay somewhere between the two statements: that meat was sometimes dried, but not in great amounts, nor to be kept for a long time (the Akwa'ala said the dried meat was "stored" by hanging it up in the house, not in a cave, etc.). This would conform to the general southern Californian pattern.

452. Shiv: Jack rabbits and cottontails were not really jerked, but hung up "to dry out a little" so they would keep for a few days.

Food-Quest Beliefs and Minor Rites

The following section deals with various observances connected with the food quest, with the exception of major rituals such as the Pima-Papago wine festival and the Vikita, and the Yaqui rain ceremonials, which are treated elsewhere.

454a. Wal: "The Havasupai have songs to use when planting corn, because they grow much more [i.e., it is a more important product] than the Walapai did."

456-458. Coc: Information may be erroneous; Gifford states that planting restrictions were absent, except for the planted grass seeds (which the informant denied received any ritual treatment).

460. This was grain which was made to sprout by the songs of the shamans at the wine-drinking festival (q.v.). Both Pima and Papago informants denied that prayer sticks were put in the fields.

466. That is, in each of the cardinal directions, which were not necessarily the corners of the pumpkin or melon patch.

470. This is a peculiar concept, if concept it is, for informants insist on its verity when describing the uses of this important fruit. To correlate their statements, some say that the sickness comes from eating "too much" of the fruit (Mar), others that "people not used to eating them" get sick (Pap) or that it is only certain kinds of tunas that cause sickness (Yaq). According to the Pima, the expressed juice, or syrup, may make one ill. (Russell reports this last notion, 75.)

471 ff. Mar: Spier's data corroborate this absence of restrictions on deer hunters (1933, 69).

474. Akwa: The informant said that because of the group singing before the hunt continence was not requisite. (The singing lasted all night.) Pap: A deer hunt usually involved several days. "Men never took their wives along" on a hunting trip, apparently thus enforcing continence.

475. Dieg: The peculiar situation with respect to shamanism (q.v.) in this group is probably responsible for the negative. Mar: The ritual preliminary to the hunt described by Spier (1933, 69) was not a Maricopa rite, but simply an imitation of the Yaqui Deer dance. My informant denied that it had anything to do with hunting (though as a matter of fact the Yaqui so used it); it was danced for amusement only, at harvest feasts. If my informant was correct, the Maricopa conform to the river Yuman pattern, as one would expect them to since neither they nor the river groups had the "hunting shamans" (shamans with special power over deer or other game) such as their neighbors had.

477. Pap: Smoke was blown upward with a prayer to the sun for success.

483. Yaq: This (and the other purificatory preliminaries to a hunt) varied somewhat with the individual. One who had "medicines" of one sort or another would not have to fast, bathe, etc.

484-485. Yaq: When he killed a deer, the hunter threw a pinch of powdered chile pepper and plant "medicines" in its eyes, with a benediction.

486-487. Pap: When a deer was killed for the ceremony to cure Deer-sickness (q.v.), it was turned head westward before butchering. The head and tail were used in the rite, then carefully hidden in the brush, as was the rest of the offal. Ordinarily these things were not done. Wal: The "marrow guts" were hung up in a tree as an offering "to the land" for giving the hunter the deer.

489-491. Akwa: Negatives may be erroneous.

489 ff. Yaq: Mountain sheep were never hunted (see element 233).

494. Shiv: The hunters knelt, resting their knuckles on the ground, and moved their bodies

in time to the songs, without moving from their places.

497. Shiv: The shaman might call on a man to throw his quiver of cane arrows on the floor, and dance on them--not a one would be broken, so strong was the shaman's power.

499. Dieg: The horns were hidden so that other mountain sheep would not see them.

500. Mar, Pim, Pap: There was a very strong association of mountain sheep with weather. To kill a mountain sheep often caused violent storms; this is the reason they were so seldom hunted (see element 235). Horns that were brought home were treated with the greatest care, and handled only when a change in the weather was desirable. In late times, the horns were usually used (as in element 501) to make a breeze for winnowing wheat.

503. Pim, Pap: This performance was not specifically an antelope-charming of Great Basin type. The chief function of the shamans was to "find" the whereabouts of the game "by means of their power"--a common Pima-Papago shamanistic practice. In the same fashion shamans "found" the rain during the wine drinking, and "found" the enemy when with a war party. Yaq: Antelope were not hunted. See element 223. Shiv: It would seem that the usual "antelope-charming" performances of Basin Shoshoneans have been transferred to an animal of greater importance in Shivwits economy, the mountain sheep (see elements 492-498).

508. Pap: Bears were not hunted (see element 272).

515. Yaq: Bears sometimes carried off women, and kept them for wives. (Men might be "stolen" [by female bears], but the male bears would kill them.) Bears were the only animals to espouse humans. Other creatures, particularly wolves who were believed endowed with great magical power, killed people, but never kept them captive.

516. Wal: Reported eaten (Walapai, 74).

518-519. Pap: One had to wash his hands after eating quail, on pain of blindness. This applied to young and old.

519. Yav: A child would become spotted or "freckled" should he eat quail eggs.

520. Pap, Wal: It was taboo for a man with a pregnant wife, or a small child, to kill a rattlesnake, lest harm come to the child.

523. Yaq: If a rattler is not killed quickly and neatly, it complains to the Snake People in in their council (they are like humans, have houses, etc.), and they retaliate.

MATERIAL CULTURE

Dwellings

For purposes of clarity, the several house complexes of our area are listed separately. This should not be taken to mean that there were no points of similarity, however. Despite outward differences of form (on which the classifications into complexes are based) there were a series of secondary features which linked the several types. It should be noted too that the summer dwellings of some groups were very like the rude sort of dwellings of the Yavapai, Walapai, and others.

Colorado River Complex

The type description is that by Kroeber, 1925, 731-735, and plate 56.

525. Coc: The informant stated that large houses were round; the diagram he drew was neither round nor yet quite square. My impression is that in building the larger houses there was a tendency to round off the corners. Gifford (1933, 271) describes the houses as rectangular. Mar: See note 540 Mar.

528-530. The number of posts and the arrangement seems to have been a matter of expediency, depending on the intended size of the house, the stoutness of posts, and so on, rather than a hard-and-fast pattern.

533. Moh: This question has been misunderstood. Kroeber (1925, 734) states the walls were inclined inward. The usual Cocopa construction had vertical walls of poles lashed horizontally to the main posts (Gifford, 1933, 271; also Yuma, Forde, 121).

Gila River Complex

The type description is that by Russell, 154-155.

540. Mar: The informant insisted that the real Maricopa houses were rectangular, not round. "Some people built round houses like the Pima, but that is something they learned in recent times." This might be interpreted to mean that there were minor differences between Maricopa and Pima houses, but more likely the informant had in mind references of his elders to Lower Colorado type houses used before the Maricopa left that river. In all other respects his description accorded with that of Spier (1933, 82 ff.), who reports a house type identical with that of the Pima. Specifically, he denied use of a hip-roof, and double sand-filled front wall, which are, along with the rectangular form, diagnostic features of the Colorado River complex.

541-542. Pap: The winter houses had a pit 1 to 2 feet deep for warmth. The informant told also of pit houses 5 or 6 feet deep, the roof only slightly above ground level, entered by a sloping trench. They were constructed for use in cold seasons. I doubt this last piece of information.

547. The material used for thatch depended on the locale. Maricopa and Pima obtained arrowweed; the Papago used long grasses.

548-549. The thatch of the side walls was bare.

This sort of covering is not identical, by a long way, with the all-over covering of the Lower Colorado, though it may be distantly related. Mar: Bartlett reports however that "in the most westerly village of the Coco Maricopas....the wigwams are wholly plastered with mud" (2:234).

Domed-to-Conical Hut Complex

The domed or conical hut is, on the basis of outward form, similar to the Gila River type of dwelling, or rather, the latter can be classed as one form of the domed hut. However, on the basis of type of supporting frame, size, and type of thatching (i.e., thatch in courses as opposed to thatch piled on irregularly) the "Gila River" type seems sufficiently distinct to be separated as a complex, but the similarity of the two complexes should not be disregarded. It must be noted too that a rudely made domed hut was built in or near the fields for a summer dwelling by the Cocopa, Maricopa, and Pima (element 563b).

557-558. Wal: Variation was according to the materials available. When green poles could be obtained, a domed house was built; otherwise dry poles were leaned in against the central structure.

559. See Gifford, 1936, 271.

563. See Spier, 1928, 176.

Rectangular, Gabled, Thatched House Complex

As pointed out elsewhere (Drucker, CED:V, note on Houses) this type of structure though now common in southern California and the Southwest may not be an aboriginal type. It was the only type of which the Akwa'ala and Yaqui informants knew, however.

570b. This type of construction is common at the present time throughout most of the region, and is considered a "Mexican style."

570c. Houses were sometimes built in this manner in the hills back from the river "where there were many stones." The trait may not be aboriginal.

Secondary Features

571-572. Yaq: It was considered better, but not essential, to have the door facing south or east.

572. Moh: Mohave "south"--toward The Needles--was really southeast from the informant's home.

575. Moh: Willow or mesquite bark was used. Shiv: Juniper bark was woven into a mat for a door.

582a. Use over a period of time of course resulted in the forming of a shallow basin, but there was no deliberate digging of a fireplace. Coc: Negative (= pit present) may be erroneous.

582b. Coc, Mar: Gifford (1933, 271) reports smoke hole present among the Cocopa; Spier (87) states "most" Maricopa houses had none. The smoke holes described by present informants were complicated devices with a sort of flue which ran under the earth covering of roof on a slant so that its outer opening (the intake) was lower than its opening into the smoke hole (the thick coverings of thatch and earth made this construction possible). This same device was specifically stated to be recent by Pima and Papago informants and perhaps should be reckoned so among Cocopa and Maricopa. Russell (p. 155) mentions the Cocopa as a people who built houses without smoke holes, though he does not give the source of this information.

582f. Pap: However the informant previously stated the winter houses were made over a pit (elements 541-542).

Shades, Shelters, and Camps

The complexes under this head exclude the domed huts in the fields used for summer dwellings by the Cocopa, Maricopa, and Pima.

583. The shade was, and still is, an indispensable feature of any native dwelling in our region. In warm weather it, rather than the dwelling house or camp, was the center of daily activity. Russell's excellent picture of its use by the Pima (p. 156) applies to all the present groups.

586-588. Coc: Both these entries should probably be negatives, or better still, R (recent). The informant for the most part failed to distinguish between old native traits and recent borrowings, even when the latter were fairly obvious.

589. The side toward the prevailing wind might be closed in winter; in hot weather, the west side was often walled in with brush and such to give shelter from the afternoon sun.

594. A common function of the windbreak was its use for a kitchen. Russell remarks (p. 156) that one end it served was to keep some of the windblown sand out of the cook pot. On clear windy winter days, which can be raw and unpleasant, people lounged about in the shelter of the windbreaks, warming themselves in the sun.

596. See Gifford, 1936, 271 (reported for W Yavapai).

597. See Walapai, 77.

Assembly Houses

607-614. The type of construction was essentially that of the dwellings (q.v.), except that the building was much larger.

609. See Spier, 1933, fig. 6, d.

616. Spier has described the men's meetings among the Maricopa (1933, 158-159); his sketch would apply equally well to Pima or Papago. Among all three groups men assembled to talk, smoke, tell myths, and the like. Spier however indicates that the structure was a sweat house

"like those of central California and the Pueblo estufa-kiva" (1933, 92). I was unable to obtain any indications of a function such as this. It is true a fire was built in the structure, but as well as I could make out, comfort, not sweating, was the goal (see element 621). I should like to point out that the assembly house or men's house of this type was definitely denied by Lower Colorado River informants (see Spier, 1936).

618. Pap: Lumholtz (p. 52) states that the house was used for a dwelling.

619. See element 3244. Pap: Affirmed by informant (2).

620. Mar: Spier reports firetender as present (1933, 159).

621. See note 616.

622. Several names may have been in use among each group, but the designation "(tobacco-) smoking house" was known to all Maricopa, Pima, and Papago informants. Mar: Spier gives mata' luwe'vâs (1933, 92). My informant called it "tobacco-smoking house" (ōsip). Pima: djiH̃tckī. Pap: djœntc kī. The term "big house" (va'a ki) was sometimes used.

623-625. The meetings referred to were deliberative assemblies (to discuss war, plan rituals, consider moving, etc.) rather than the predominantly social gatherings of Maricopa, Pima, and Papago.

623. Yaq: The leading men met to discuss matters of policy in the chief's house. General meetings often took place in the plaza or under a shade.

Sweat Houses

626. Dieg, Akwa, Coc: The information on the sweat houses of the Diegueño and Cocopa undoubtedly refers to a structure introduced in historic times. I have indicated my reasons for this opinion elsewhere (CED:V, note on Sweat Houses); chief points in addition to informants' declarations of its recency, are: the uniformity of type and usage, absence of the structure among the few nonmissionized groups of Desert Diegueno, absence of a native name (other than compounded phrases such as "house for sweating," etc.)--the Mexican-Spanish "temescal" is the only name known to informants. There was a great deal of southern Mexican Indian influence in southern (and Lower) California in mission times (cf. Heizer's interpretation of the Santa Barbara atlatl as a result of postcontact diffusion). The reported presence of the sweat house among the Cocopa--anomalous on the Lower Colorado--would be just another indication of the greater Mexican influence on them than on other river tribes. Mar: Spier (1933, 92) reports a small domed sweat house with direct-fire heating used for minor curing. The present informant denied such a structure. The only group with whom the Maricopa were in close contact who had a sweat house were the Cocopa with their temescal (see above); presumably Spier's description refers to this innovation. Shiv: The informant knew the sweat house of the Walapai and Havasupai, comparing it to the Navaho structure, for which he is probably to be credited with above-average ethnographic insight.

637-638. Yaq: This sounds like a misconception of the method of steam sweating with hot stones. The informant insisted however that steam was not used, and that the method he described was intended to eliminate (or at least decrease) the amount of smoke within the house.

647. Yav: Reported present by Gifford, 1936, 272.

648. Wal: Bear songs were used because the sweat house was first made by Bear (Walapai, 118 ff.).

649. Yav: Used by both men and women, according to Gifford, 1936, 272.

651. The hotbed was a device similar to that used ritually for the girls' pit-roasting ceremony (q.v.) of some of the Yumans. Its use as a therapeutic device is interesting. Unfortunately I heard of it too late to check its distribution among the groups lacking sweat houses. Spier, in his description of the Maricopa sweat house (see note 626 Mar) mentions that the sweater covered the fire (in the temescal) with dirt and sat on it (1933, 92), which is very reminiscent of the hotbed.

Pottery

652. Mar: Data on pottery from informant (2). Wal, Shiv: The universality of pottery making among sedentary and roving groups alike is a noteworthy aspect of the regional culture. The relative importance of the art of course varied. Walapai and Shivwits informants volunteered statements on this point. According to the former, his people made little pottery because they were continually moving from one place to another, and pottery was difficult to transport. "We weren't like the Mohave, and Hopi, who stay in one place and have lots of pottery." The Shivwits stated that there were only a few old women, one or two in a locality, who understood pottery making. They made vessels for those who requested them. The Yavapai likewise probably made but little pottery (see Gifford, 1936, 280).

Techniques

661. See Walapai, 87.

667. Shiv: The pottery maker molded a low solid cone of clay which was placed in a pit made to receive it and formed the base on which the coils were laid up. Use of a shallow hole in which the base was placed to steady it is confirmed by Walapai, 88, but the solid conoidal base sounds like an improvisation to me.

673-674. The entries "R" following the captions

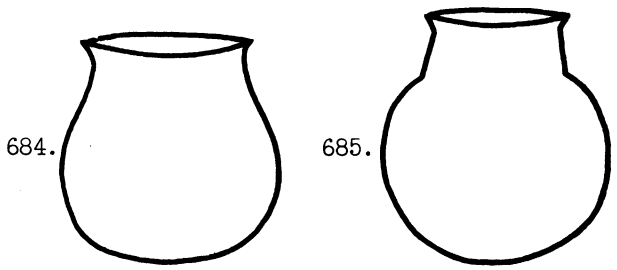
indicate attempts of informants to be consistent with their statements of lack of wood-working tools in ancient times. Perhaps they were right.

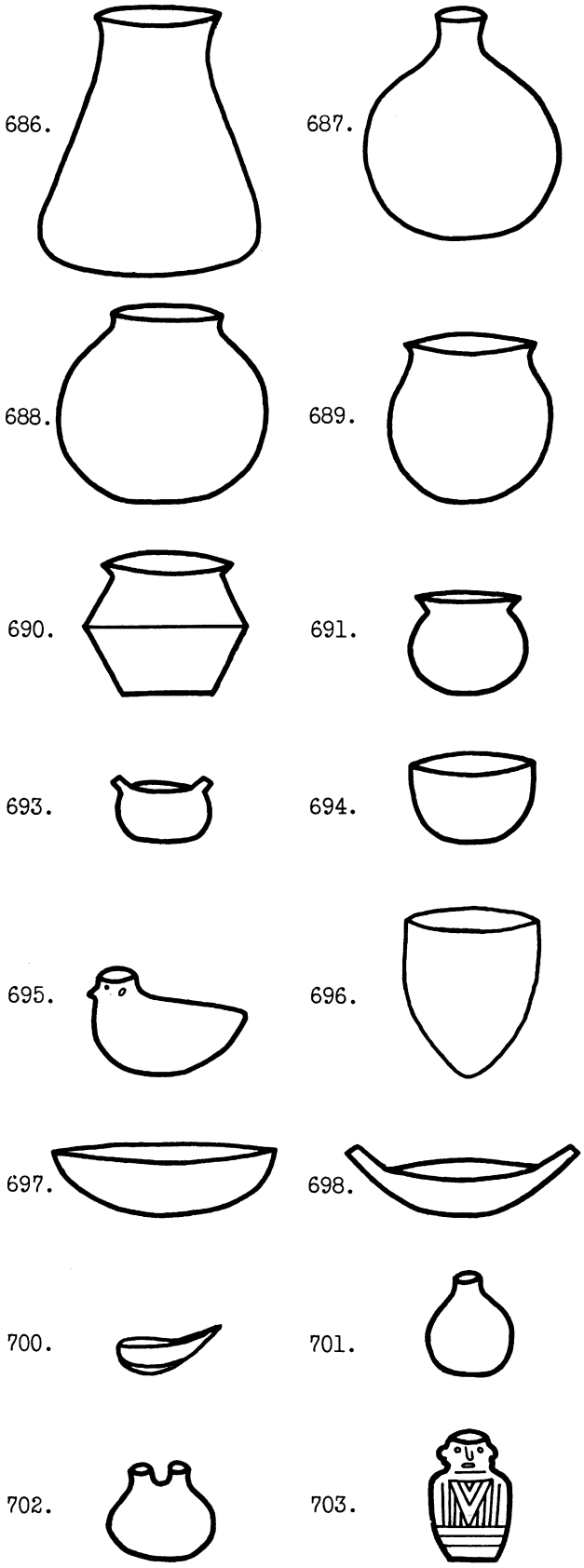
683. See Russell, fig. 52.

Vessel Shapes

The data under this head are rather poor and incomplete. The difficulty lay chiefly in field technique. In an attempt to avoid the usual vague oral descriptions of shapes of pottery vessels, the writer drew a series of forms (from pictures in existing literature), which were handed to informants with the request that they select the types made by their respective groups. The entries correspond to their choices. One difficulty with this method was that there were too many types depicted, which appeared to confuse some informants; another was that it was not always certain that the informant noted the particular feature that seemed significant in classifying pottery shapes. This was particularly true of the negatives. Often, after his selections had been noted, an informant in reply to a direct query would state that the type inquired for was "just the same" as some other, thus equating, for example, 685 and 687, or 684 and 688. Obviously, he was being impressed by generic similarities rather than diagnostic traits. The negatives gave the most trouble in this respect, and for that reason I present here only those which appeared in the field lists to be decisive and convincing. Typologies based on more or less fine distinctions should be worked out on the basis of actual material rather than verbal identifications.

Nonetheless, the salient features of ceramic forms appear from the data. Rather simple shapes were used. Legs, lugs, and handles, except for the ears of the cooking pot (element 693) and the parching tray (element 698), were absent. The vessels, with the lone exception of the Shivwits' conical pot (asserted to be the only type made by this group), were round bottomed, and there was a decided preference for open recurved rims. Narrow-mouthed necked jars were common (though there were doubtless local differences within this category); they were usually vessels for carrying water.





Decoration

704-706. Yav: The entries by this informant suggest lack of knowledge on this topic, which agrees with Gifford's data (1936, 280). In other words, pottery-making was a minor art among these people, and probably relatively little was produced by them.

713. The "refiring" consisted in holding the olla over a bed of coals for a short time. Akwa: The decoration was applied while the pot was still quite hot, so refiring was not necessary. This information may be in error.

714, 715, 717. Yav: See note 704-706 Yav.

716-718. Akwa: Use of pigment was denied. It was stated that designs were marked on with a feather, the heat of the pot scorching the feather and causing it to leave a black mark on the vessel. I am skeptical of the practicability of this method, but it was insisted on.

723. See Kroeber, 1925, pl. 68.

724. Gum was used to mend water ollas (see Russell, 130; Hrdlička, 1906, 44). Of course, it could not be used for cooking-ware, and such, which were subjected to heat, for it would melt or burn out. Some of the negatives may be due to misunderstanding of the kind of vessels that were meant.

726. See Hrdlička, 1906, 43-44. I am not sure whether this is a magical or practical procedure. The local pottery is all rather porous; this is the means by which the ollas cool water. It may be that an application of this gruel coats over or fills the apertures just as the interstices of a finely woven cooking basket become filled. Gifford (1933, 272) evidently considered the custom a ritual one; Spier (1933, 108) accepted it as practical.

728. Throughout the region, potters seem to have been subject to few or no taboos. Most informants categorically denied any restrictions whatsoever, nor are restrictions mentioned at any length in the literature. It is possible that male informants were unaware of these rules.

A belief (or saying) reported for the Cocopa by Gifford (1933, 320) was volunteered by the Yaqui informant: If the potter, or someone watching, breaks wind during the manufacture or firing, the vessels will crack.

Basketry

Except "bird's-nest" granaries (elements 409-417) and cradle frames (elements 821 ff.).

736. Akwa: Entry "M" may be erroneous. Coc: The informant denied that his people made any baskets whatsoever, but said they obtained the few they had from Dieguefio and Akwa'ala neighbors. Gifford however describes a twined cylindrical burden basket and a roughly coiled storage basket (1933, 270, and pls. 35, 38). Mar: Data on basketry from informant (2).

741. Moh: Kroeber reports a rudely made coiled basket from the Mohave (1925, 738, and pl. 55, b). The present informant's denial indicates the lack of interest in the craft. See Forde, 1931, 124-5.

742. Akwa: The entry is probably due to a misunderstanding. Single-rod coiling is not reported from anywhere in the vicinity.

748. Mar, Wal: The only awls which the informants had ever seen were of iron.

750. Wal: Metal awls were hafted in bone or horn; the informant surmised that the ancient ones might have been equipped with handles also, but admitted he did not know.

752. See Russell, fig. 22, b.

Basket Types

765. Coc: But see Gifford, 1933, 270.

765-771. Mar, Pim, Pap: The truncated-conical coiled trays (element 795) were sometimes used for burden baskets (e.g., for wild seeds, fruits). They were carried on the head, not back. See also note 795 Mar.

766. Pap: A rudely twined cylindrical basket was made for gathering the (dry) sahuaro fruit. It was thrown away afterward.

767. Moh, Mar: These entries refer to a roughly twined conical basket of arrowweed stems used for fish. (See Spier, 1933, 76.)

770. Pap: See note 766 Pap.

767a. See Spier, 1928, 137; Walapai, pl. 10.

772. Yaq: The rectangular and cylindrical baskets were made in a technique that sounded, from the description, like a wrapped twining. The former type was of sticks, laid up crib fashion and wrapped together at the corners (in what Bennett and Zingg, speaking of the same type of "baskets" or crates of the Tarahumara, call "a continuous crisscross lacing" [p. 25]). (This is the common "cacasti," frequently used for carrying fowls to market, etc.) The latter was made of lengths of cane wrapped to wooden hoops with mesquite bark.

773. Yaq: The wicker or checker burden basket was wedge-shaped, and used chiefly for the sun-dried pitahaya fruits.

774. Wal: Reported present by Walapai, 80.

786-787. Shiv: The pitch was said to be put inside and worked (by melting with hot pebbles and shaking) till it came through to the outside, when it was smeared over the outer surface.

788. Yav: Reported absent by Gifford (1933, 282).

791. Yav: Coiled water jars are stated to have been made, but rare, by Gifford (1933, 282).

793. The investigator neglected to distinguish between flat and slightly concave trays; both are included under this caption.

794. See Kroeber, 1925, pl. 55, b.

794-797. Mar: Reported present by Spier (1933, 124). Pim: This is said to be a modern type by Russell (146 and fig. 69). The parallel sticks of the bottom were held together by a few widely spaced rows of twining.

795. Mar: These wide deep "trays" were used for burden baskets (for gathering mesquite beans, etc.). Informants denied any burden basket such as figured by Spier (1933, fig. 11). Trays were an all-purpose type, used for winnowing also, and by Pima, Papago for serving sahuaro wine.

798. Moh: Reported present by Kroeber (1925, 738, and pl. 55, b).

800. See Spier, 1928, fig. 9.

806. Dieg: The investigator did not understand whether coiled as well as twined caps were made. Kroeber reports (1925, 700; pl. 73, d) both types for Diegueño (and Cahuilla); Spier states among the "Southern" Diegueño twined caps were worn by women, coiled ones by men (1923, 340). Quite possibly both were used by informant's division.

807. See element 338.

809. Yaq: Most of the everyday baskets were of the types indicated by the subheads under this caption. In this way the Yaqui differed from Pima and Papago, who made relatively few checker and twilled baskets (for shaman's kits, scalp containers, tribal bundles, etc.). These Yaqui baskets were made by women, whereas the types previously listed were made by men.

810. See Russell, 145.

814. Excluding the wrapped carrying rings (see under Transportation). Pim: Russell states the twilled rings are occasionally seen, but are supposed to have come from the Papago.

817. See Kroeber, 1925, pl. 39, b.

818. See Lowie, 1924, fig. 33, a.

Cradles

821-823. See Kroeber, 1925, pl. 39, b.

822-824. See Walapai, pl. 6.

825-826. See Hrdlička, 1904a, pl. 9, fig. 1.

827-828. See Lowie, 1924, fig. 33, a.

829. Pap: Entry may be erroneous. Yav: Confirmed by Gifford (1926, 283).

830. See Kroeber, 1925, pl. 39, b.

830a. See Hrdlička, 1904a, pl. 9, fig. 1.

831. See note 818.

Mattress

832. See Spier, 1933, pl. 15, c; Gifford, 1933, pl. 37, b.

835. See Gifford, 1933, pl. 37, a. Wal: A nearly identical "pillow," lacking only the middle binding, appears on one of the cradles shown in Walapai, pl. 6.

Binding Band

837. Yaq: Elsewhere the informant stated that cotton-weaving was a recent art among his people.

Ornamentation

841-842. Coc: Red painted designs (or red elements woven in ?) were put on the hood of a cradle of a female infant; hoods of boys' cradles were plain.

842. Mar: Reported present by Spier (1933, 316, and fig. 13).

843-845. Yav: Toy bow and arrows were suspended from a boys' cradle hood, Gifford reports (1936, 283).

845. Yaq: "Things pertaining to a man" were tied to the hood. I failed to ask specifically what they were. Wal: Toy bow and arrows were tied to the hood of a boys' cradle.

Carrying

848. Mar: Reported present by Spier, 1933, 316.

852. See Underhill, 1936, 7.

Usage

858. Shiv: The first cradle was a simple flat section of twined work, without hood or hoop handle.

859. Coc: The second cradle was saved and reused, the first was thrown into the river when outgrown. Wal: The last cradle was saved; being large, it was some trouble to make. The early small ones were thrown away. Shiv: Outgrown cradles were hung up on the west side of trees.

861. Mar: Reported present by Spier also (1933, 319). However, in view of the consistency of reports of recency among neighboring groups, probably both Spier's and my informants erred.

Textiles

This section deals with the weaving of fabrics other than baskets (elements 736-820), sandals (elements 984, 1022).

Rabbitskin Cloth

862. Dieg: The informant insisted that his people wove no robes or cloths of any sort. This is probably to be interpreted as an early loss of the art rather than true absence, since other Diegueño wove rabbitskin robes (Spier, 1923, 346; Drucker, CED:V, 684 ff.), as did the Akwa'ala to the south. Moh: Only a few people had rabbitskin robes, for it took a great number of rabbits to make one. Those that were made were short capes, not large robes. Mar: Informant (1) knew only of robes of rabbitskins sewn together, not woven; (2) knew of the woven blankets (kwulol, cf. Moh. kulol) but did not know how they were manufactured. Spier (1933, 96) confirms their presence, and describes the process by which the Maricopa made these robes. Probably, as among the Mohave, but few were made. Pap: "To use the hides of rabbits would cause sickness." The belief in a dangerous or poisonous essence in rabbits was common to Pima, Papago, and Maricopa (see Spier, 1933, 135; also element 1193). (Velarde, however, mentions a Pima women's cape of many rabbitskins: "adobado y con pelo, unidos"

[p. 312]. Whether this was sewn or woven cannot be made out from the text.) Yaq: The informant stated that he had heard of these robes, but knew no details of their manufacture.

864. Coc: Gifford (1933, 276) states strips of skin were wrapped around willow-bark string.

868-869. Coc: Gifford describes a robe of this type (1933, 276). The present informant knew only of the circular robes (see element 874); his denials of the rectangular forms are probably erroneous.

870. See Spier, 1928, 188.

871. See Gifford, 1936, 272.

874. Gifford (1936, 272) describes Western Yavapai "loop-coiled rabbitskin blankets, circular in form, coiling without foundation"; all present informants denied them. The circular blanket reported by Akwa'ala and Cocopa was made by coiling a long warp of rabbitskin "string" in a spiral (on the ground) and fastening the turns together with wefts of mescal-fiber string, or occasionally a short length of rabbitskin string (Akwa) or willow-bark string (Coc). The wefting was not in a twine, but in a wrap stitch, the single weft elements making a turn about each warp in passing over it (see element 880).

880. Described by Gifford for the Cocopa rectangular robes (1933, 276). (See note 874.)

Shredded-Bark Cloth

884. Akwa: The "river people" (i.e., Cocopa) were known to have made willow-bark blankets, but the Akwa'ala never did. Mar: Informant (1) believed these blankets were absent, but was uncertain; (2) denied their use. Spier's more reliable informant also denied the presence of the trait (1933, 96, xii).

886. Wal: This was recorded under the native name tcōkīala; the identification is from Walapai, 35.

887. Shiv: The material used was from one of the innumerable plants of the western United States, which is called "buck brush." The native name was given as cūnapH.

892. Wal: This is probably a misunderstanding. Twined wefts are more likely to have been used. See Walapai, 82.

Cotton Cloth

See element 38 for growing of cotton.

894. Mar: The informant believed cotton weaving to be of late introduction, that is, adopted since the Maricopa lived in proximity to the Pima. Yaq: The informant believed that his people did no weaving till Hispanic times, and described weaving methods solely for wool (see elements 911-922). According to Obregon (145, 157) the Yaqui had "but little" cotton and woven cloth; we likely should credit them with a limited amount of weaving anciently.

895. See Spier's description of the process (1933, 113).

896. Spier (1933, 113) describes the Maricopa implement, and points out the fact that it resembles an Asiatic device, and may have been introduced in the period of missionization.

898. See Russell, 149.

899. See Bartlett, 2:225.

900. See Spier, 1933, 114.

901. The yarn was wrapped about the spindle as it was spun. When the spindle became heavy the left leg was doubled to bring the foot under the right thigh, and the end of the spindle was placed between the toes to steady it. See Russell, 149. Mar: Reported absent by Spier (1933, 114).

904. Pim: The informant stated that he had never seen heddles used, the weaving sword alone being used to separate the warps. This may be simply faulty observation on his part. He had seen weaving, but had never done it himself.

906. Confirmed by Spier (1933, 115).

907. See Russell, 150; Spier, 1933, 115.

Wool Cloth

This section records the postcontact wool weaving of the Yaqui, to bring out the remarkable similarity to the Pima-Papago cotton-weaving complex.

Matting

923. Mar: Informant (1) denied, but (2) affirmed the manufacture of checker mats of split cane. Spier denies the occurrence of this trait (1933, 125). It may be that (2) had in mind a recently borrowed Pima trait.

Skin Dressing

Although skin dressing was universally present among our groups (the Mohave informant denied buckskin-making on the grounds that there were so few deer and no other sizeable animals in Mohave Valley, but described a rude tanning of furs) it should not be overlooked that the importance of the craft--and the skill with which it was done--varied tremendously. The river Yumans and Pima-Papago had little use for dressed hides, and prepared but few of them (see Russell's remarks on Pima tanning [pp. 117-118], Spier's on the Maricopa [1933, 125]). The Walapai and Yavapai on the other hand were highly proficient at the craft.

928. Shiv: The entries refer to tanning of mountain-sheep skin, not of deerskin.

933-935. Coc: Gifford reports these implements present (1933, 275).

940. Dieg, Yaq: For both I understood the informant to say that the soaked buckskin was pulled back and forth over the end of a post to remove the hair. This may have been a misunderstanding however; the informants may have been referring to a later step in the tanning process. (See element 951.)

932. Yaq: Cf. the Tarahumara mode of dressing cowhide (Bennett and Zingg, 19).

942. Pim: Reported present by Russell (118); also by Herzog (GH).

946. Coc: The informant believed "some kind of seeds"--pumpkin, melon, or the like--were used for substitutes for deer brains. Yaq: Soap was also used for a tanning agent.

950. Yaq: The hide was usually pounded with a wooden club.

957. Coc: Quivers were tanned with hair on (Gifford, 1933, 279). Mar: Present, according to Spier (1933, 125). Pap: Quivers were tanned with hair on.

Dress and Ornament

Men's Clothing

959-962. Dieg: These entries are probably in error with regard to aboriginal times, referring rather to the historic period. See Spier, 1923, 340; Drucker, CED:V, 607.

959-960. Coc: Gifford states that Cocopa men sometimes wore willow-bark breechclouts.

959-961, 964. Mar: By "recent" the informant meant since the adoption of cotton and cotton weaving from the Pima. Before this men went about nude. Spier, however, describes and figures a model of a willow-bark breechclout (1933, 94 ff., pl. 4, a).

966. Pim: This may be a misinterpretation of a cotton robe worn over the shoulders (see Bartlett, 2:229).

968. Pap: Negatives are probably erroneous. Underhill's informant refers to deerskin shirts (element 41). Wal, Shiv: Although shirts were worn, both informants stated that among their (respective) people, not all men had them. Wal: "A poor man would wear a breechclout, and wrap a few coyoteskins around his body to keep warm. He would not have buckskin clothes." (By "poor man" the informant meant one who was not a good or lucky hunter.) (See also Walapai, 99.) Shiv: "Mountain sheep are difficult to kill. Few men only could kill enough for clothes. Poor hunters covered themselves with any small skins they could get."

969. Wal: Elbow-length sleeves are described in Walapai (p. 105). My informant said both elbow- and wrist-length sleeves were made.

973. Yav: Denied by Gifford (1936, 274).

974. Wal: Tubular beads of bobcat bone were used to ornament the skin shirts.

976. Shiv: The prized shirts were rude sack-like affairs of two mountain-sheep hides (apparently with a minimum of trimming, and no fitting) sewn together leaving holes for the wearer's head and arms.

983. These belts were lengths of ordinary spun cord, wrapped 2-3 times around the waist.

985. Akwa, Yav: Hide sandals are sometimes used at present, but the informants apparently considered them too obviously recent for comment. Pim, Pap: The hide sandals probably should be considered recent, but the informants did not say so.

987. Pim: The native term for moccasins has been lost; at present the articles are designated by a word compounded from English "shoes" plus a descriptive element in Pima. (GH.)

987-988. Wal: According to my informant, there were two types of moccasins made, one on a two-, one on a three-piece pattern.

988. Shiv: The informant insisted his people's moccasins differed in pattern from those of the Walapai, but I could not make out just where the difference lay, from the description.

990. See Gifford, 1936, pl. 9, d.

991. The upper was a strip long enough to make one or two turns about the wearer's leg above the ankle. The Walapai informant compared this to Pueblo women's leggings, describing it as similar but much shorter.

992. Yav: The informant said an extra sole was added when a hole wore in the moccasin; perhaps he was referring only to patching. Gifford figures Yavapai moccasins with added soles (1936, pl. 9).

993. See Gifford, 1932, 228. The same writer denies the element for NE Yavapai (1936, 275). Perhaps the Wipukupa division differed in this respect from the divisions from which Gifford's informants came.

994. Pim, Pap, Yav, Wal: People went barefoot at home, frequently, putting on moccasins or sandals for traveling.

995. See element 884 ff.

996. See element 862 ff.

998. See element 895 ff.

1000-1001. See Gifford, 1936, 274.

1002. These muffs were cased skins of small animals, such as bobcat, coon, and others, worn attached to a string around the neck. Sometimes two were used mitten-fashion.

Women's Clothing

1004-1005. Pim: The two-piece skirt was said to have been worn by girls, the one-piece by women. This is probably the attire that Russell describes as a cotton blanket, doubled, wrapped around the waist and belted (p. 157).

1008-1012. See Spier, 1928, 188.

1025. See Spier, 1928, 191.

1027. Coc: The woman wearing a twined cap figured by Densmore (1932, pl. 16) was said to have been an Akwa'ala woman married to a Cocopa, not herself a Cocopa.

1006. Mar, Pim: Early accounts refer to buckskin "skirts" of some sort worn by both Maricopa and Pima women (see Font, 53, 49).

Men's Hairdress

1031. See Kroeber, 1925, 729. Pim: Some men dressed their hair thus (see elements 1033, 1034) in imitation of the Maricopa. It was not considered to be Pima style.

1032. Spier refers to this custom as a typical Lower Colorado trait (1933, 98), but I have not been able to identify it as such from informants' statements. Coc: The positive reply is to be doubted. Gifford specifically denies the presence of the trait (1933, 279). Mar: The informant maintained that this was not a Maricopa custom: "Hair grew long naturally in the old days; there was no need to add false hair to it."

1035. This caption refers to wearing hair with or without a headband. Pima and Papago men usually wore headbands of woven cotton. Among other groups headbands were more or less sporadically used, apparently at convenience, not for a definite style.

1036. This is the "bun" or "chongo" style commonly seen among modern Navaho. See Gifford, 1936, 278; Walapai, 108.

1038. Dieg: Negative may be erroneous. See Spier, 1923, 340; Drucker, CED:V, 518. Mar: Probably erroneous; Spier reports bangs present (1933, 98). Yav: Probably erroneous. Gifford reports trait present (1936, 278).

1039-1040. Dieg: This was a practice of the Diegueño to the north however. See Spier, 1923, 341.

Women's Hairdress

1044-1045. Moh: Kroeber states women wore their hair long (except for the bangs)(1925, 729). The informant may have confused the rather common modern style with aboriginal custom. Pap: Women's hair was worn shoulder length, according to a specific statement in Underhill's account (p. 33).

1045. Yav: Some women wore their hair at shoulder length, according to Gifford (1936, 277).

1046. Dieg: Women wore their hair tied up in some fashion; the informant was not clear just how. This is probably erroneous. Pap: Some women wore their hair braided. This may refer to a late innovation.

1048. Dieg: Spier reports forehead bangs for the divisions to the north (1923, 340).

Miscellaneous

1049. Pim, Pap: Hair (e.g., from pubescent girls) was cut and saved to use in the carrying frame (q.v.).

1053. Dieg, Akwa: Other things: juniper bark (Dieg), mistletoe (Akwa), were mixed with the mud, for the avowed purpose of killing lice. (Gifford mentions mistletoe used thus by the Cocopa [1933, 279]). These mixtures may have been as effective for dyes as for delousing.

1058. The custom of painting the hair red for war is not included under this caption.

1060. See Spier, 1933, pl. 4, c. Akwa: This implement was made and used for a mealing brush, not for the hair.

1063 ff. Pap: Negatives may be in error.

1066. Pim: The erect feathers were fastened to holders of devil's claw to make them stand erect. These are doubtless the "runners' hair ornaments" spoken of by Russell (163 and fig. 79), but my informant stated that while they were for wear on festive occasions, such as games and races, any man might wear them. They were not restricted to the contestants.

Mutilations and Ornaments (Men)

1068. Pap: Negatives may be in error.

1073. Moh: "Men with good-looking noses" usually had them pierced, i.e., to call attention to their charms.

1073-1074. Shiv: The informant could recall only two old men with pierced noses (it was not a common practice of his people). Sometimes they wore little sticks in the perforation. He did not know if other ornaments were so worn.

1074. Dieg, Akwa, Coc: Haliotis pendants were used. (Other informants were unable to give recognizable descriptions of the kind of shells used. This same difficulty occurred in connection with other beads and pendants for other purposes: elements 1080, 1083.)

1076. Pim: These were said to have been points imbued with supernatural power, which were found near ruins. The informant may, however, have had in mind some legendary incident, rather than an actual custom. Russell speaks of more prosaic turquoise or shell pendants and bone pins (p. 163).

1077. Akwa: The negatives are probably erroneous.

1079. Pim: Turquoise beads (found in the ruins) were worn by some. (Other informants denied use of turquoise.) Pap: "Stone beads" of some sort were worn anciently.

1083. Pim: Turquoise beads were found and strung for necklaces. Yav: The only necklace beads of which the informant knew were glass trade beads.

1084. Wal, Shiv: Bobcat bones were used for making these bone beads.

1086. Wal: The informant stated tattooing, by both men and women, was a very late introduction from the Mohave. Tattoo styles are described in Walapai (104 ff., fig. 12), but these informants too state that tattooing is a Mohave introduction (p. 110).

1090. See Russell, 162.

1099. Pim: Black paint was war paint, properly (GH). Cf. element 1136.

1099-1101. Pap: These colors were used for ritual painting only, specified the informant.

1102. Use of paint for protection was general, though more extensively by women than men. The Pima informant phrased it thus, "In winter, when it was cold, they painted all the time. In summertime they painted only for dances, because paint wouldn't stay on when they sweat."

1103. For some regional styles of facial painting, see: Kroeber, 1925, figs. 60, 61, 62; Russell, pl. 38, d; Walapai, fig. 11.

1104. This type of painting was said to be for embellishment, "to make the eyes appear large" rather than protection against glare.

Mutilations and Ornaments (Women)

1106. Akwa: See note 1077 Akwa.

1120. Dieg: Negatives are probably erroneous.

1122. See Kroeber, 1925, 739.

1123. See Kroeber, 1925, 740.

1125. Wal: See note 1086 Wal.

1128. See Russell, 162.

1140. See note 1103.

1140-1142. Pap: However, see Underhill, 6, 30.

Miscellaneous

1143. Dieg, Pap: Perhaps erroneous.

1145. Moh: The informant described a cutting or scratching technique with a sharp stone chip. If correct, it is anomalous for the region.

Weapons

Bows

1147-1148. The measures are of course approximate only.

1147. Akwa: A full fathom was the proper length for a bow. Moh: The bow length should equal the height of the user's chin when standing erect. Yaq: The bow should reach from the ground to user's mouth. A short man made his bow longer, however.

1149. See Spier, 1928, fig. 22.

1150. Coc: In a bow owned by the informant, the rather heavy grip was cut away in a steep bevel at either end to meet the arms, whose inner surface was about at the center of the pole. A bow such as this was probably made only after efficient cutting tools became available, however.

1152. See Spier, 1933, pl. 12, c. Akwa: The ends of the arms were turned back very sharply.

1152-1153. Pim: Russell, however, states the war bow was double-curved (p. 95, pl. 13, a) though a hunting bow might be plain.

1154. See Russell, 95. This type of reënforcing should be distinguished from true sinew lining or backing (see element 1160).

1157. Dieg: Rabbit blood was smeared on the bow, from time to time, as one happened to kill the animals. No real paint was used.

1160. Mar: Spier, however, reports sinew-backed bows of the same length and shape as the self bows, with the sinew seized by wrappings at intervals, but not glued (1933, 132, 133). Font's only descriptive comment on Maricopa bows is that they were "somewhat inferior" to those of the Pima (p. 52). Pim: The Pima are sometimes mentioned as having sinew-backed bows (e.g., Bennett and Zingg, tabular analysis in The Tarahumara), presumably on the basis of Russell's mention of wrapped sinew reënforcing (see element 1154, and note). Yaq: This was emphatically stated to be a true backed bow, not merely wrapped at weak points (this was sometimes done to self bows; see element 1154). This information is doubtful, unless it can be interpreted to be a reference to a late introduction, learned perhaps from the Apache during the years of Apache raids. Yaqui seem to have been used for soldiers from early times (whenever they were not themselves in arms against the Mexicans). Hrdlička figures and describes a sinew-wound Yaqui bow (Hrdlička, 1904a, pl. 7).

1164. Shiv: The informant had heard of, but never seen, a compound bow. I gather that they were not in common use, and may in fact have been only trade pieces from northern kin.

1168. Moh, Mar: The entries refer to the use of horse sinew.

1172. Yav: Gifford states two-ply sinew string was used (1936, 285).

Arrows

1175. Wal: Arrowweed is mentioned in Walapai (p. 92); the plant is said to occur along the Sandy River (id., 34), and perhaps was not ordinarily available to the present informants' band.

1177. Pap: Underhill's account mentions "reed arrows with the stone tip" (p. 26). My informant spoke of the hard dried stems of yucca being used for arrows. Russell mentions arrows of this latter type which the Pima got from the Papago and Kwahadk (p. 96).

1178. Yaq: The points were of brazilwood, in two forms, one plain, one with two opposed barbs. The informant claimed these points could be driven through a small mesquite tree, an exaggeration, of course, but the heavy dense points probably had a high index of penetration.

1180. Akwa: Arrows were sometimes made of "some kind of chamissa" which did not grow in Akwa'ala country but was brought from the vicinity of the river. This material may really have been arrowweed.

1180-1181. Wal: Hardwood arrows are not noted in section on weapons in Walapai. The statement that they were used with foreshafts may imply a misunderstanding; perhaps the plants of which the informant was speaking were not hardwood.

1183. The types of points listed under this entry are taken from Strong's classification of

projectile points (1935, 88-89). Drawings were made of major types (to avoid confusing informants, all variations of the primary types were not included), and informants were requested to point out the forms made by their people. The series of types used was longer than that indicated in the captions, for some types were universally denied: NAa, NAb1, NAb3, NBa, NBa3, ND, NDa. Most informants selected one type, and stated it was "the only kind made," which is doubtless incorrect in every case. Wal: The informant's blindness made the method of inquiry impossible. Pim: Russell states most of the stone points used by the Pima were found about the ruins, though a few were made. He figures a small series, all NB forms, with straight and concave bases, one with side notches (NBa, NBb, NBa1).

1189. The points are not deliberately left loose (to detach within the body of the quarry, animal or man).

1191. See for example, Gifford, 1936, 287; Walapai, 94-95.

1193. Rabbit blood was considered to be poisonous. See note 862. Mar: This trait is reported for the Maricopa by Spier, 1933, 135.

1194-1196. Mar: Negatives corroborated by Spier, 1933, 137.

1196. Dieg: This trait was introduced when the people began to plant crops. That is, the arrow was primarily for bird scaring, such as among the Lower Colorado tribes--a nice instance of diffusion of a native trait in historic times. The Akwa'ala entry is liable to question, for it too may be late.

1202. Dieg, Akwa, Yaq: To avoid confusion the symbol "0" has been used to indicate that other types of feathering were denied.

1203. See Russell, pl. 13, c; Spier, 1933, 134 and pl. 12, d. Yav: Gifford reports feathering "with 2 or 3 half-feathers" for Western, but not Northeastern Yavapai (1936, 287).

1205. Dieg: Negative may be erroneous.

1206. This may have been a more sharply defined custom than indicated; I failed to note it consistently. Russell states that the Pima painted the two ends of their arrows (p. 96, and footnote b).

1208. Pim: Sometimes a "blue" or "purple" paint, made of corn silk, was used.

Shooting

1210. Mar: Spier states "the bow was held nearly vertically" (1933, 133).

1210-1212. Pim: For the typical shooting position Russell figures a bowman with bow held vertically (pl. 7, b).

1211. This mode of holding the bow may be a variant, for example, for a quick offhand shot, of the vertical or horizontal positions. Actually the two latter differed but little, for the grip was the same (back of hand to left when bow vertical, above when bow horizontal), with the arrow invariably to the left (or above) the bow.

1212. Wal: The bow is reported to have been held horizontally when used with the curtain shield (Walapai, 96). The present informant, however, insisted that bowmen did not use the curtain shield; it was carried by club bearers when they ran in to close quarters.

1215. See Kroeber, 1927, 284.

1217. The arrow was held between 1, 2, and 3, that is, steadied with the thumb, the pull chiefly on 3 and 4. There was little or no pull on the arrow itself, in which this release differs from the secondary.

1218. Yav: Negative corroborated by Gifford, 1936, 285.

Quiver

1222. Mar: Spier speaks of deer and mountain-lion skins used for quivers (1933, 135); these skins would be cut to size and sewn. Bobcat, fox, and other skins were cased. Pim: Mountain-lion skins, cut and sewn, were sometimes used for quivers. (GH.)

1223. Yav: Gifford reports a piece of buckskin sewn into the bottom of the quiver for strengthening it (1936, 286). Some reënforcing such as this may have been widespread (though of course the hard-tanned leather used by the Yaqui is modern), but I neglected to enquire for it.

1224. See Spier, 1928, 153.

1227. See Spier, 1933, 135. The draw is under the arm, not over the shoulder.

1226-1227. Yav: Gifford reports the quiver carried at the right side (1933, 286); according to the present informant, it was carried across the back, mouth to right. Either way would seem to result in an awkward draw for anything as long as an arrow.

1228. Yaq, Shiv: The quiver was sometimes slung on the back for traveling, that is, when one did not expect to need an arrow quickly.

Miscellaneous

1230-1232. Pap: The implement was used for the yucca-stalk arrows.

1230-1231. Yav: Gifford reports a perforated wrench, used not for straightening, but as a sizer, for tightening the junction of the cane arrow and foreshaft (1936, 286). According to the present informant the Wipukupa people made their arrows in a different way, and did not need a sizer. The tip of the cane was split by three short cuts, compressed so that the edges overlapped a trifle, and securely wrapped with sinew. The tapered butt of the foreshaft could be forced in firmly without danger of splitting the cane. Wal: The implement is denied in Walapai (p. 93), but the present informant gave a circumstantial account of the tool and its use.

1233. Grooved straighteners served chiefly for

cane arrows, the heat from the stone (which was warmed in the fire) being sufficient to soften the fibers to permit straightening. Wood or arrowweed shafts probably require more heat than a section of cane could be subjected to without burning.

1234. Coc: Gifford reports grooved-stone straighteners (1933, 274), instead of the makeshifts described by the present informant. Pim: Russell figures an archaeological grooved-stone straightener with the remark that: "The Pima used them [the straighteners] scarcely at all" (p. 111, and fig. 31).

1235. Moh: Kroeber figures a ridged clay arrow straightener from the Mohave (1925, pl. 49, f).

1236. This caption refers to a makeshift sort of device: any convenient stone, or large curved sherd, was heated and used to straighten arrows. Mar: Spier reports "any odd stone" used to straighten arrows (1933, 134).

1237a. Shiv: Wooden bows were kept strung, but the horn bow, so the informant had heard, was carefully unstrung when not in use.

Slings

1238. See Russell, fig. 44. Dieg: The sling was considered recent by most southern Californian informants (Drucker, CED:V, 503). Wal: Reported to be aboriginal (Walapai, 96).

1239. Yav: Slings were "sometimes [used] by men in war or rabbit hunt" (Gifford, 1936, 288).

War Clubs

Dieg: The informant denied the presence of this and other equipage of war, saying that his people had never had any wars, and kept no weapons of offense or defense. He was probably exaggerating the pacific natures of his people. The near-by Akwa'ala, who likewise have had nothing worthy of the term "war" (except the rebellion of 1840) within the range of folk-memory, kept their war clubs about, just in case.

1240. See Gifford, 1933, pl. 34, b. It should be noted that although the typical club bore a sharp point on the handle which with a backhand thrust could be used for a dagger, present informants all held for plain blunt-handled clubs. This widespread forgetfulness is hard to understand unless both forms were in use, the simpler (blunt) type being more common. Russell speaks of the dagger-like butts of Pima clubs, but figures two blunt-ended ones (p. 96, fig. 9). Pim, Pap: Although Russell describes clubs with cylindrical sharp-edged heads (p. 96, fig. 9), both Pima and Papago informants maintained that the real aboriginal type had a roughly globular head. To clinch their point, both stated that it would have been impossible to cut the angular edges without steel tools. It is difficult to know whether to credit the statements, or to interpret them as overemphasis of the primitiveness and crudity of the ancient days. Wal: See Walapai, pl. 11, d.

1243. See Spier, 1933, 135, and pl. 13, e.

Spears (For War)

Dieg: See note under head "War Clubs", this page. Spears were probably not used by these people.

1251 The ceremonial feathered spears or staves are not included under this caption. Mar: Spier describes a short untipped pike used by Maricopa (1933, 137). Pim: The spear was called "langs" (probably Spanish "lanza") and was used by cavalrymen only. Russell's statement confirms its recency (p. 96). Pap: Underhill's account confirms this negative (p. 45). However, a short stone-bladed lance was used for a staff in making war speeches, that is, for a ritual object. Wal: Informants disagreed on the presence of the spear (Walapai, 93, 95).

Knives or Daggers (For War)

Dieg: See note under head "War Clubs", this page.

1255. Yaq: This is of course recent (historic), but has become a characteristic weapon and all-purpose tool among these people, as elsewhere in Mexico.

Armor

Dieg: See note under "War Clubs."

1256. Yav: Gifford reports a circular unpainted shield was sometimes used (1936, 288).

1257. Coc: Gifford reports a hoop rim used (1933, 275). The efficacy which the shield had against arrows would probably be nullified if it were thus held rigid, however.

1259. Mar: Spier denies feathers were used (1933, 136). Pim: Two feathers were attached to the bottom of the shield, it was said. The shields figured by Russell lack these appendages (figs. 45, 46, 47).

1260. See Spier, 1928, 250.

1262. Bartlett describes this type of armor: "Such as had their own cotton blankets, placed them around their bodies in folds, and over this wound their lariats as tightly as possible..." (2:216).

1263. See Gifford, 1928, 225. The same writer reports the trait unknown to his Northeastern Yavapai informant however (1936, 288). Wal: The informant's reaction to this question was to the effect that the mescal carried there was "lunch," not armor.

1264. Yaq: The metal armor was that stripped from slain white foes. Some Yaqui who had none made imitations of wood and hides.

Grinding Devices

Mortars

Wal: The informant steadfastly denied use of any kind of mortars by his people. Both wooden and stone mortars are mentioned in Walapai (p. 50), with the qualification that: "The loose-slab metate seems to have been far more common than the mortar, although informants knew of the latter."

1265. Pap: The informant denied the antiquity of this element on the grounds that his people had no tools with which to make things of wood.

1266-1268. See Russell, 99, and fig. 13, a, b.

1275. See Gifford, 1933, pl. 34, f; Kroeber, 1925, pl. 67, c.

1276. The pit mortar was used chiefly for grinding large quantities of mesquite beans.

1276-1278. Pap: The informant denied the element for mesquite grinding. He stated that a pit lined with stones (!) served for a mortar for pulverizing cooked mescal for drying. Perhaps he meant that the pit oven was so used.

1279. See Spier, 1933, 128-129.

1281. Mar: Spier, however, states that women ground mesquite in the pit mortar.

1283. Yav: Gifford mentions only the bedrock mortar which was "used only at low altitudes where mesquite available" (1936, 280). The Yavapai had relatively little use for mortars, and probably had but few of the portable kind.

1285. Mar: Spier states portable mortars were made, occasionally (1933, 128).

1286. Pim: Bedrock mortars (which the Papago were known to use) are fairly common in the mountains, but the informant's people never used them.

1288. Akwa: Long smooth stones, as nearly cylindrical as could be found, were brought from the seacoast for pestles. Yaq: The pestle was described as short and heavy, with an expanded head, but it was not clear whether a stone that shape was found and a few rough places knocked off, or whether it was worked down to shape.

1289. Pim, Pap, Yav: Pestles of this type were found and used.

1290. See Spier, 1933, 129.

Metates and Manos

1292. Akwa, Moh: The informants' statements likely refer to metates of a recent type, dressed with an ax.

1296. See Kroeber, 1925, pl. 66, a.

1298. A shallow depression was scooped out to fit the distal end of the metate, and the dirt removed put under the near end.

1300. Akwa: This is undoubtedly a late-style metate.

1302. See Kroeber, 1925, pl. 66, a. Pim: A longish stone of about the right thickness was found and used, but not dressed to shape.

1310. This is the same type (perhaps the same brush) as the hairbrush (elements 1059-1060).

Cordage and Netting

1314. Coc: Gifford states willow bark was made into cordage (1933, 275).

1315. Mar: Strips of green mesquite bark, untwisted, were often used for lashings; they dried hard, like rawhide.

1316. I am not exactly certain to which of the numerous plants colloquially designated "milkweed" the entries refer. The same name, apparently, was used by Dieg (ahoRL), Moh (ihūli), Mar (ixoR) for a fiber-yielding plant.

1317. Dieg, Akwa: Yucca leaves were "cooked" over the fire and used (whole) for lashing, for example, the poles and posts of a house. Pim: The informant said yucca fiber was used by Papago (the Papago informant denied this however). Russell mentions Y. elata among other "available" fiber plants, but does not state specifically that it was used, or by whom (p. 142).

1318. Mar, Pim, Pap: The Maricopa entry may be in error. The two latter groups used hair cord only for attaching the hoop of the kiaha to frame sticks.

1319. Pim: Russell, however, describes use of a deer-scapula scraper for mescal fibers (p. 142).

1322. Coc: The spindle was used "for making reatas," and if so is probably a recent element. Gifford speaks only of twisting cordage on the thigh (1933, 275).

1323. This is the "spindle with revolving whorl" described by Russell (p. 106). The negatives probably mean that some informants considered it of obviously alien origin, not that it was unknown to them. Gifford mentions its use by Yavapai (1936, 281).

1329. Pim: Neither informant nor investigator was thinking of the kiaha carrying frame as having a kind of netting at this point. Other kinds of nets were said to be absent; the netted carrying bags ("saddle bags") described and figured by Russell (p. 113, fig. 35) were said to be made by Papago, not Pima, the latter merely traded for them. Yav: Gifford's informants likewise denied manufacture of nets (1936, 281).

1334. Wal: Sometimes a rabbit skull would be used to measure the meshes in making a rabbit net.

Various Tools and Techniques

Woodcutting

1336. Pap: The negative is probably an error.

1337. See Gifford, 1936, 280.

Knives

The mescal "knives" or "choppers" are not included in this section. See elements 121-123.

1340. Stone blades were reported used in a scraping or shaving technique, not, of course, for whittling.

Drills

1344. A hardwood coal was put on the place at which a hole was desired in a wooden object and by blowing made to burn through.

Flint Flaking

1345. Dieg, Akwa: The informants knew very little about techniques of working stone. Their replies represent guesses rather than knowledge, and are probably wrong. Mar: The informant had seen old men improvise a cutting tool by shattering a cobble and selecting a fragment with a sharp edge. Yav, Wal: Both informants specified that nodules of stone were broken by pounding to get suitable pieces to work.

Awls, Needles

1353-1354. Dieg, Akwa: These people had so little to sew that it seems very doubtful that they should have had eyed needles, anciently.

Fire

1355. Akwa: This is probably erroneous. The informant, overemphasizing the poverty of aboriginal culture, said cutting and notching a hearth was possible only with steel knives.

1356. Dieg, Pim: Both informants were referring to the postwhite flint-and-steel.

1359. See Font, 106. This custom was the source of the early name of the Colorado, "Rio de los Tizones."

Burdens, Transportation

Carrying

1362. Firewood, poles, etc., were sometimes carried thus by Lower Colorado tribes. See Winship, 426. Mar: Spier denies this custom among the Maricopa (1933, 330).

1363. See Russell, fig. 36, b (the legend is transposed; "b" is of willow bark, wrapped).

1364. See Russell, fig. 36, a (see above).

1366. See elements 765-773 for types.

1367. See Russell, 140 ff., fig. 63, pl. 34.

1377. See Kroeber, 1925, 738. Shiv: This was a makeshift device, rough and of different proportions than the Mohave device.

1378. The Mohave kupo was quite long and narrow, with a flaring mouth.

1379. Moh: The informant stated that this was a Chemehuevi device, but not used by Mohave.

1381. See Kroeber, 1908, pl. 11.

1390. Men often carried firewood logs and other things on the shoulder, often using a bark pad or a carrying ring for protection against abrasion. Sometimes these burdens were carried on the head (see element 1362).

1394. The gourds used for canteens were, in late times at least, commonly of the "hourglass" shape. The constricted waist permitted a secure attachment for the carrying cord. These canteens were used well south into Mexico (see, e.g., Lumholtz, 1902, 2:219). Akwa: The gourds used were imported from the Cocopa.

1395. Dieg: "A small olla" was carried on journeys down into the desert.

1398. See Spier, 1928, 128.

Navigation

Yaq: The Yaqui, at least those of the present informant's division, were not waterfarers. Most of their navigation consisted in crossing back and forth over the river. Neither their balsas nor their dugouts were used for fishing, either in the river or offshore. Once in awhile a hardy soul would make a trip to Guaymas in one of the small cranky canoes. This was considered to be quite a feat.

1406. Coc: Probably a recent innovation; Gifford states that there were "no real boats" (1933, 272).

1415. See Forde, 127.

1417. Mar: Spier states the Maricopa (proper) did not have this custom, but that the Halchidhoma did (1933, 77).

Musical Instruments

Yaq: The well-made Yaqui harps and violins have not been included in this section. See Densmore, 1932, passim.

Drums

1421. Moh: Kroeber reports present (1925, 763).

1422. Moh: Kroeber reports present (1925, 763).

1423-1425. See Kroeber, 1925, 764-765.

1425. See Gifford, 1932, 230; Spier, 1928, 264. Wal: The informant believed that his people had borrowed this instrument from the Havasupai quite recently. There is reference to a "makeshift drum" in connection with the (Havasupai-derived) rain dance in Walapai, p. 121.

1432. A half-gourd floating in a large olla of water is drummed with a stick. This is a common southern Mexican instrument (GH). The blanks (Moh to Pap) should doubtless be negatives.

Rattles

1433. Herzog pointed out a distinguishing feature of gourd rattles which I failed to note: whether or not the wooden handle goes clear through the gourd projecting from the upper end. The Mohave (Densmore, 1932, pl. 24), Yuma (GH),

Walapai (Walapai, pl. 11), Akwa'ala (observation by author) merely insert the handle at one end; the Pima (GH), Papago (Densmore, 1929, pl. 15, a, fig. 4), Maricopa (Spier, 1933, pl. 12, a), Cocopa (Densmore, 1932, pl. 23), Yaqui (GH), and Havasupai (Spier, 1928, 284) allow the handle to project through the upper end. Dieg: Gourd rattles, with palm-seed sounders, were introduced in relatively recent times from the north. Before, they tapped two sticks together to keep time to the songs; "that was the only musical instrument they had." Akwa: The gourds were imported from the Cocopa. Pim: Dance rattles were large gourds; shamans' rattles were small (GH). Shiv: Gourd rattles have been introduced in recent times by Chemehuevi and "Mission Indians" (i.e., southern Californians).

1436. Moh: The informant knew the deer-hoof rattle as a Yuma instrument. Mar: Bartlett (2:223) speaks of a Maricopa deer-hoof rattle, but no other account confirms this occurrence. (GH.)

1438. See Forde, 131.

1439. Pim: Russell states that he heard of only one of these (p. 169). It was used for curing "turtle sickness." Pap: These rattles were used only for curing sickness caused by turtles.

Rattle-Belts, etc.

1440. The jinglers were of the following materials: deer hoofs (Dieg, Akwa, Yaq, Yav, Wal), cocoons (recent) (Pim). Russell describes a belt with brass cartridges on it. Pap: Sea shells.

1441-1442. Pim: The informant stated that these rattles were borrowed from the Yaqui in recent times. Russell remarks that the cocoons of which they are made were obtained from Yaqui or Papago (p. 169). (Papago informants were all certain the device was an ancient one in their culture.)

Rasps

1443. Mar: The rasp was borrowed from the Pima; in fact, the songs with which it is used in accompaniment are in Pima, not Maricopa. Spier confirms this, stating that the rasp is not a Maricopa instrument (1933, 235). Wal: The instrument is reported to be a child's toy (Walapai, 121). Shiv: The instrument was borrowed recently from the Ute, as part of the Bear Dance complex.

1444. Shiv: The (recently acquired) equivalent of the basketry sounding board is a washtub over a pit.

1445. Pim: Russell mentions deer-scapula scrapers as well as wooden ones (p. 167). The present informant denied these.

Flutes

Herzog pointed out that I failed to differentiate between true flutes and flageolets in my inquiries. According to data which he has assembled, the Pima (Russell, fig. 80), Papago (Densmore, 1929, pl. 1), Maricopa (Spier, 1933, 131, 219), Yuma (Densmore, 1932, pl. 25), and Mohave (Kroeber, 1925, 824) had flageolets of cane in which the internode between two sections blocked the air column; holes were cut from the outside and covered over to form an external air channel. The Walapai flageolet differed from the preceding in that the external channel was at the end, not middle. In addition, the Yuma (Kroeber, 1925, pl. 43), perhaps the Mohave, and perhaps the Southeastern Yavapai (Gifford, 1932, 236) had true flutes. (GH.)

1447. Dieg: Informant denied use of any flute.

1449-1450. Moh: The informant pointed out that Mohave flutes had three, Yuma flutes four holes (see Forde, pl. 54), although he was of the opinion that the Mohave learned to make flutes from their downstream relatives. Kroeber refers to the Mohave instrument as a flageolet (1925, 824); the Yuma had both flutes and flageolets, according to Forde (131).

1450. Yav: Both four- and six-hole flutes are reported by Gifford (1936, 288). Wal: "Four- or six-hole" flutes are reported (Walapai, 121).

1451. Shiv: This is doubtless an error; "six holes" was probably meant.

1453. Pap: Negative is erroneous. Underhill's account describes this use so fully as to be beyond question (pp. 28, 30).

1454. Coc, Pap: Positive entries may be erroneous.

Bull-roarers

1455. Akwa: Bull-roarer later reported in connection with puberty rites. Moh: The informant insisted that this was a recently acquired toy. Formerly, the Mohave had a similar toy (buzzer ?) of a gourd whirled around by a string (cf. Gifford, 1933, 284).

1461. Mar: Children played with this instrument, "but they weren't supposed to, for it might make them sick. Their parents made them stop when they caught them at it."

Musical Bow

1462. Dieg, Akwa: Though Spier has determined the musical bow among the northern neighbors of these people, both present informants stated that "the bow was made for killing, not to be played with." Mar: The informant, when a lad, was so intrigued with the musical possibilities of a bow that on rabbit hunts he walked along playing his bow and paying no attention at all to the rabbits. Pim: The bow was sometimes rubbed with an arrow in deer-hunting songs (GH).

AMUSEMENTS

Games

Shinny

1464. Mar: Spier's account of the "men's shinny game" (1933, 336-337) is discussed below (note 1488 Mar).

1466. This type of ball was made of the large stemmed gourd (or pumpkin), dried, and trimmed down round. Moh: Kroeber states that a wooden ball was used (1925, 740). Coc: Gifford states that the ball was of willow bark wrapped with string of cowpea vines (1933, 281).

1469. Wal: According to Walapai (169), data on women's participation in the game is from a mythical reference only.

1470-1471. Coc: Gifford describes women's double-ball shinny as a Cocopa game (1933, 281).

1482. The irregularity of positive statements makes them seem doubtful. Coc: Gifford reports three on a side in both men's and women's games (1933, 281). Pim: Reported for men's game, not for women's (for which see Russell, 172).

1485. Akwa, Moh: Question perhaps was misunderstood by informants. Holding may have been practiced, but illegally, as for example, in our basketball.

1487. Pim, Pap: Men's shinny was a minor pastime, but the women's game was a major affair, nearly always intervillage or intertribal and accompanied by heavy betting. The principal men's events were the kickball and relay races.

Pelota

1488. Mar: The game described by Spier as a "lackadaisical, unorganized" kind of shinny (1933, 334, 336-337) seems to the present writer to be more likely a marginal form of pelota. My informant denied any kind of men's shinny--the usual and the "modified" form--but that may have been because I asked about a game in which a ball was driven with a club. (Spier, loc. cit., describes a wooden ball 2 1/2 inches in diameter, a club 30 inches long, 1 1/2 inches in diameter. The players formed two lines, about fifty yards, "those on one side threw the ball or kicked it through the air to their opponents, who attempted to hit it back over the opposite line. It scored for them if they succeeded, or against them if they missed striking the ball entirely.") Probably the reported use of wooden ball and clubs is a misunderstanding. Fifty yards is center field of a baseball diamond; to place a lopsided wooden ball that distance with an uneven bat would require no ordinary degree of skill and coördination; to return it yet more. At fifty feet instead of fifty yards, it would still be difficult, and at this short range, a healthy cut at the ball that connected would like as not kill one of the opponents. On the other hand, without the clubs (and the burying of the ball at the start--which is an element of the River tribes' shinny), the similarities to pelota are close: ball batted (with the hands, and possibly feet), side dropping ball loses, players remain in position. The present writer would interpret the game as pelota, and a form borrowed, as some other complexes seem to have been, in very late times--since the Yaqui settlement in Arizona.

1494. Yav: Gifford mentions a mythical reference to this game (1936, 288). Wal: The informant stated that in mythical times these races were run, but since the beginning of the human era they have been discarded. Walapai (169) mentions an informal variant of the race being "sometimes" run.

1495. Moh: (See also 1509 Moh.) The informant's account may refer to a minor variant of the kickball race; his denial of the more normal variety may be in error. Kroeber (1925, 740) describes a race run by two opponents each with a wooden ball.

1499-1500. See Russell, 173.

1504-1505. The positive entries may be the result of misunderstandings. The informants may have been referring to the "referee" accompanying each racer (see element 1508), and it is even possible that the referee may have helped ("relayed") his own man when he had the opportunity, though of course this was highly illegal.

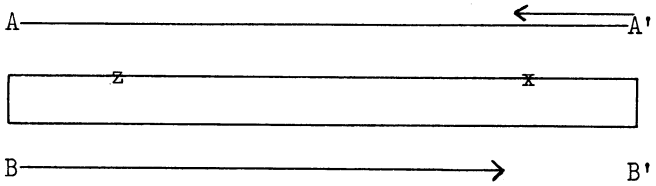
1506. Mar: The Maricopa contested with the Pima "frequently," according to Spier (1933, 335).

1508. See Gifford, 1933, 282. Cheating, by practical and magical means, was a standard feature of these races. Spier gives a spirited account of the latter type of hazard to which racers were subject. Coc: See Gifford, loc. cit.

1509. Moh: See note 1495 Moh.

Relay Races

1515-1516. The method of running the race is that described by Russell (p. 174), albeit not too clearly. The diagram below represents the course and the two teams, A and B, each divided into two groups (A and A', B and B'):



If the runner from A outruns the one from B so that A's relief man, A', meets B on the course, a mark is put at the point of meeting (x). If A' maintains his lead, his relief man (the next runner from A) should meet B' on the course, and the judges place a second mark at that point (z).

If team A gains steadily, the two marks, x and z, approach each other, and finally meet about the middle of the course, in which event team A wins, having gained one lap on the opponents (the runners start from their original stations each time, not from the marks). Of course if the teams were anywhere near evenly matched, a race such as this could seesaw back and forth all day--in fact, informants state that this often happened.

1516. Pim: In the face of Russell's account, the informant said that the usual procedure was to consider that the side farthest ahead when dusk fell had won; if one team gained a great deal, the opponents would simply concede the victory. It was considered all right to quit this race, although it was bad form to drop out in the kickball race, no matter how badly beaten.

Hoop-and-Pole Game

1518. Akwa: The informant knew this game as a Cocopa pastime. Pim: This was a Maricopa game, said the informant, but not played by the Pima. Pap: The informant, after attempting to describe the game, admitted that he had never seen but only heard of it. Altogether, he was so vague about it that I suspect he was trying to describe the Maricopa pastime, not a game played by his own people.

1526. Moh: The informant said that transfixing the hoop counted two points. There may have been a misunderstanding.

1528. Wal: There is some variation in the accounts of scoring in Walapai. That of one informant, K, tallies well with the count given here.

1528-1529a. Moh: Kroeber states that this cast was worth two; the account of an actual game that he cites values it at two or three (1925, 740). Likely there were several ways of counting, one being decided on beforehand.

1529a. Mar: Spier states that this cast was worth two points (1933, 336).

1530. Yav: The count was far from clear; as I understood, the number of turns of the wrapping which lay across the pole were counted. The informant denied colored notches of the sort reported for the Southeastern Yavapai. (Gifford, 1932, 231.)

1531. Moh: Kroeber's data indicate four- and five-point games were played. Perhaps any reasonable score might be set. Mar: The game was set at "four or three" points, according to the desires of the players. Spier, 1933, 336.

1533. See Gifford, 1932, 231.

Ring-and-Pin Game

1535-1538. Akwa: This game, played with squash-rind rings obtained from the Cocopa, is obviously an importation. Mar: Spier, however, describes a ring-and-pin game with squash-rind rings as a common Maricopa pastime (1933). The negatives are probably erroneous. Yav: Gifford's informants attributed the game to the Verde Valley groups (1936, 289), but the present informant steadfastly denied it.

1541. Wal: The present informant had forgotten the details and was unable to tell the mode of scoring. A count is given in Walapai (p. 171). Shiv: The scoring given differs somewhat from the Walapai count referred to above: hole "between eye and nose" (holes were made, one on each side, apparently corresponding to the "depression for muscular attachment between the first premolar and anterior border of the zygomatic arch" [Walapai, 171]), 10 points; incisor alveoli, 6; nasal apertures, 2; foramen magnum, 2; eye sockets, all other apertures, 1 each.

1543. Shiv: The scoring circuit was described as a straight row of pits or markers; one went to the end and back (such as on our cribbage boards). The opponents started at opposite ends.

1544. Coc: When the men met, both returned to the starting point, and raced to the point of meeting (which was marked). The first there won.

1545. Moh: See Kroeber, 1925, 741. The informant's account was not clear; at times they seem to have played like the Cocopa (see note 1544 Coc).

1546. In the instances in which pluses are recorded there was said to have been no fixed number of points; the game was a diversion rather than a serious gambling game, and one could play a long or a short game, as he wished.

1547. Wal: Small bets were sometimes placed. This was probably true in the other cases as well (see note 1546).

Dice Games

1548-1549. Yaq: The informant knew of the game, which was played with, he thought, four dice, but had forgotten the details. The name of the game was "kinsem" in Yaqui (sic, cf. Sp. "quince").

1549. Moh: I have included this game with the other four-stick varieties because it was essential that there be four to a set. Actual play was only with three, however (see scoring method 4, below, and note).

1549a. Mar, Pim, Pap: There were two games, a men's game (quince) in which scoring was according to marked faces as well as faces vs. backs, and a women's game in which the count depended on the number of faces showing on the throw.

1550-1551. Pim, Pap: The two types of dice indicated refer to the two different games, "quince" and the women's four-stick game (see note 1549a).

1551. Moh: Apparently both split-stick and flat (stave) dice were made; see Culin, 205.

1553. Dieg: The Diegueño to the north had dice with designs marked on them (Culin, 204). Akwa, Moh: The designs had nothing to do with the scoring. Coc: Culin figures a set of Cocopa dice with

a simple band of red lengthwise of the faces (p. 199). One would expect them to use designs sometimes, at least.

1554-1555. Culin figures a set of Maricopa women's dice; four split canes painted red on the inner (face) side (p. 201).

1558. Moh: The names given by the informant were as follows: die marked in center, "old woman"; solid black (?), "old man"; solid red (?), "girl"; all-over zigzag or chevrons, "rainbow." The solid red and solid black designs are not represented in Culin's figures (figs. 271-274), and may be erroneous information. Kroeber states that on the four dice, three designs were painted (1925, 741, two of Culin's sets [271, 273] are thus decorated), by which he may mean the "old man," "old woman," and a pair of like sticks. Pim, Pap: Culin's account (from information by McGee) states that the Papago used equivalents of these terms for their dice (p. 146), but Russell specifically denies this nomenclature for the Pima (p. 175), as did the present Papago informant. Culin's source may be in error.

1559. See Russell, 175, for the Piman terms. Mar: The informant stated that this was properly a Pima game, although the Maricopa played it often. The names of the dice were "in Pima"; he recalled but two: kints and si:k (cf. 1559; the names he forgot were probably "six" and "four"). Presumably he was correct, rather than Spier's informant, according to whom the dice "were known by the numbers they scored," the values being given as 25, 15, 6, 4 (1933, 342). The present informant's account of the scoring, type of scoring circuit, and such, is in better agreement with the Pima-Papago play.

1560. See Culin, fig. 166.

1561. The dice were held loosely in the hand, so that when the (lower) ends were struck sharply against a flat stone (usually in the center of the scoring circle) they would bounce off and fall fairly. The purpose is obviously the same as our method of throwing dice against a backboard--to eliminate tampering with the laws of chance.

1560-1561. Pim, Pap: Men's dice were struck with a hand-held stone; women's against a stone on the ground. See note 1549a.

Scoring method 1: See Gifford, 1933, 284.

1563. Coc: In beginning the game, a player had to throw 1 up, 3 down before he could count his points. He got one point for this throw. (Reported also by Gifford, 1933, 284.)

1566-1570. Dieg, Akwa, Coc: There is some confusion in these entries, which is probably due to incomplete questioning rather than plain error. From Gifford's data on the Cocopa, it appears that throws of 2 and 3 won points but lost the dice. That the Akwa'ala and Diegueño used the same system is suggested by its recurrence among the Kamia (Gifford, 1931, 46).

Scoring method 2: See Russell, 175.

1579. Mar, Pim, Pap: See 1595 and note.

Scoring method 3: See Russell, 180.

1580. Mar: The informant did not know the method of scoring, but was certain that the women's game differed from that of the men in that the scoring "was by low numbers, just one or two points at a time." In this he was once more consistent with the Pima-Papago pattern, but at variance with Spier's informant, who gave the scoring as 10, 5, 2 (and added a scoring circuit, which the present informant denied) (1933, 341). Culin's account of the game (p. 201) makes it conform to the Piman one (giving 6 points, "or as many as are agreed on" for the game, however) (elements 1580-1583).

1583. Pim: Russell states the game point is four.

Scoring method 4: See Culin, 207.

1590. If the player fails to make this throw, she loses her turn; making it, she may toss for points.

Scoring method 5: The count given in Walapai, 172 ("four points for each painted side that turns up") does not agree with the present informant in detail, but the general idea, a score according to the number of faces cast, is the same in both.

1595. Coc: Gifford states stick counters were used in the Cocopa game, not a scoring circuit (1933, 284). The present informant probably had another game in mind. Mar, Pim, Pap: The form of the scoring circuit is that described by Russell, 176. The rectangular circuit is formed by 36 pits, 9 on each corner (the corner pit is fifth from the end), with "houses" of 5 pits at the lower left and upper right corners, making 46 in all. The Maricopa informant said that there should be 50 pits (see element 1579) after a moment's calculation--his error was probably one of mathematics, that is, through counting the corner pits twice.

1601. Mar, Pim, Pap: This scorekeeping was for the women's dice game.

1606. Wal: Formerly men only played, but in recent times women also take part in the game.

Scoring: See Gifford, 1936, 289.

1611. Yav: The game was 44, including the "water holes." Sometimes they decided that if a marker "fell into the water" it was dead, and had to go back to the starting point.

1612. Wal: 40 points is considered the older style of play (cf. Walapai, 171).

1616. Yav: See note 1611 Yav.

1617. Wal: In the older form of the game this was always the rule, but sometimes they set it aside nowadays.

1618. Coc: I am not sure of this information; the informant was somewhat vague about the entire game.

Hidden-Ball Game

1624. Yaq: The informant described what was

apparently an informal form of the hidden-ball game in which a small object was concealed in one of several baskets, hats, or anything else at hand. Sometimes, he thought lengths of cane might have been used. He was unable to give an account of a system of play, but the form of game with the marked canes probably occurred, since it is reported from the related Zuaque to the south on the Rio Fuerte (Culin, 356-357). When Yaqui boys played, the winners thumped the losers' head or wrists with their knuckles. Men bet on the play.

1625. The "red Mexican bean" is probably the seed of the "chilicote" mentioned in Culin as used by both Papago and Zuaque (pp. 354, 357). Pim: Russell states that the Pima used a ball of mesquite gum (p. 177).

1631. See Russell, 177; Spier, 1933, 340.

1632-1633. Mar: This method of play is mentioned by Spier (1933, 341). Pim: Described by Russell for the Pima (p. 177).

1634. This is essentially what is done in arranging the canes as described above (elements 1632-1633). The crossed pair are indicated as empty; the guesser selects one of the two remaining. Sometimes (instead of arranging the reeds--apparently a variant procedure) the guesser simply tossed two canes to the hider, saying "These are empty" and selected the one with bean, that is, on third choice.

1635. See Culin, 355, 356. Mar: Spier mentions the 10 and 6 values of the crossed pair of reeds (p. 341). Pim: This mode of scoring was practiced by the Pima (Russell, 177).

1636. Spier reports this as a Maricopa variant (1933, 341). No two informants agreed on the values thus assigned the canes, and I suspect that these statements are the result of confusion on the method of play.

1637. See Kroeber, 1925, 741.

1643. Yav, Wal: This third guess was at the option of the hider. If he felt very sure of himself he would allow it.

1645. This refers to a variant mode of play. The guesser might indicate two piles, saying, "There is nothing in these," then select the one containing the object. If the object was in one of the two first piles, the hider won one point.

1648. Apparently the number of counters was variable, but always fairly large. The entries under Mar, Pim, Pap refer to the cane game only; I neglected to ask about the score for the dirt-pile form of the game among these groups.

1649. Moh: Kroeber states that five points was game (1925, 741). Yav: Gifford states that "14 to 24" counters were used (1936, 289). When playing for high stakes, according to my informant, they "went through the 12 counters twice" [i.e., played 24 points].

1651. Wal: 16 and 18 are given as the number of counters in Walapai (p. 172).

1656. Mar, Pim, Pap: I failed to ask about this point. There is no mention of singing in the various published descriptions of the game played by these groups (Culin, Russell, Spier).

Hand-Game (Peon)

1658. Pim: This game was learned from the Maricopa, said the informant, "about the time that the Maricopa moved over here to Casa Blanca." Yav: The game described in the following entries is a child's game, or pastime, scarcely recognizable as a variant of peon. Gifford (1936) makes no mention of the hand-game; he reports it absent among the Southeastern Yavapai (1932, 231). Wal: The informant insisted that the game, adopted in late time, was "not a real Walapai game --just something new." He did not want to give any details for fear that I might get things mixed up; we were to confine our discussion to topics that "really belonged" to the Walapai. Shiv: The Shivwits learned this game after they left their old home on the canyon rim and began to move in around Saint George.

1659. Dieg: Eagle (leg?) bones were sometimes used, presumably because of the supernatural power within them. Moh: Pieces made of bone, as well as wooden ones, are described by Culin (pp. 326-327). Coc: A pair of game pieces usually consisted of a piece of crane leg bone, and a charred piece of arrowwood.

1662-1664. Pim: There appears to be some confusion in these entries. Culin figures a set of three peon sticks, one held by each player under his arm (p. 296, and fig. 387).

1665. See Culin, figs. 430, 431. The obvious purpose of these loops was to prevent cheating. Most informants considered this a late improvement, but I failed to record their opinions, except in the case of the Shivwits. There, the loops were said to be much more recent than the acquisition of the game itself (see 1658 Shiv).

1668. Moh: Kroeber states that there were four holders (1925, 741); my informant insisted on three, contrasting the Mohave with heighboring tribes, such as the Yuma, who played with four pairs.

1674. Yav: There was no series of points for game. See note 1658 Yav.

1680. Moh: Kroeber speaks of a referee in charge of the twelve counters (1925, 741).

1681. The wide occurrence of the institution of the referee, and the term by which he was designated, kōimɛ, or an easily recognized variant (e.g., Cocopa, kōim; Shiv, kōyūmɛ), is an interesting feature, and obviously indicates a recent diffusion. The recorded distribution extends into southern California (see Drucker, CED:V, element 854).

Various Games and Amusements

1687. See Kroeber, 1925, 775. Wal: As an equivalent, the informant described a method of flipping pebbles by pressing them against the pad of the upraised index finger and releasing quickly.

1691. Yav: "Eight or ten" pebbles were used. Shiv: Ten pebbles were used.

1693. See Russell, 179.

1694. Yav: The game was played by children, not adults of either sex.

1691. Moh: The informant did not make clear whether the top had a pottery (i.e., sherd) disk or a ball of dried mud for a body.

1701. Yaq: Some men juggled with small objects (but not melons). They juggled in a manner different from that of the women, using both hands rather than one.

1702. Pap: The informant thought that juggling was a part of the jacks game, but he may have been confused.

1704. Yav: The informant spoke of "small wild melons"--perhaps he referred to wild gourds.

1706. Pap: See note 1702 Pap.

1709. See Culin, 758 ff.

1710. Dieg: The negative is probably in error.

Smoking

See also data on tobacco growing (elements 39, 59-64).

1713. Coc: Gifford reports that tobacco was not gathered, but obtained from the Akwa'ala (1933, 269). The present informant thought that his people sometimes gathered it themselves. Mar: The informant believed that most of the tobacco used was cultivated; the wild tobacco came from the Akwa'ala via the Cocopa. Spier's informants, however, stress the importance of the wild tobacco (1933, 332 ff.).

1714. The term "coyote's tobacco" was used to refer to wild species. It is not clear whether this was a separate variety, or merely coarse overripe plants (see Spier, 1933, 333). Mar: Spier reports the term as a Maricopa usage (1933, 333). Pim: Russell reports the designation for the Pima (p. 119, note a).

1715. Mar: Spier's informants reported clay pipes as recent (1933, 333).

1722. Moh: The informant said that this was a Yuma, not a Mohave, custom.

1723. Coc: Reported present by Gifford (1933, 270). Mar: Reported present by Spier (1933, 333). Pap: Mentioned in Underhill's account (p. 8). Wal: Positive entry may refer to a recent custom, rather than a truly aboriginal one.

1724. Female shamans smoked, usually. The trait refers only to ordinary women, not "doctors." Shiv: Old women sometimes smoked, it is said.

1725. The caption refers to smoking as a ritual or semiritual act, for example, at men's meetings, before hunts, war, and such. The emphasis on ceremonial use of tobacco was greater among Pima and Papago than among the other groups, it seems, but everywhere in the region the plant was regarded as a proper adjunct to solemn or sacred deliberations.

1727. Shiv: The pipe was usually passed around a circle and back the way it had come, that is, right then left. It was passed with the left hand--the one used in smoking.

1728. Dieg: One did not speak when passing the pipe, but touched the hot end against the bare leg of one's neighbor. (The Akwa'ala informant believed that this was done only when the neighbor had dozed off.) Wal: The term for man's male cross-cousin was used for nonrelatives (the proper term was used by kin).

Pets

1729. Yav: The people to the west (the Mathaupapaya) had big dogs that they used for hunting, but the Verde Valley people had none. (Some of Gifford's informants denied existence of dogs in prehistoric times, [1936, 264].) Wal: Three informants, according to the published account, gave three different answers to the question of the occurrence of dogs (Walapai, 69-70). Shiv: The informant insisted that "in old times" the Shivwits had no dogs. Later it developed that he had in mind a tale according to which all dogs lived in a great cave up north somewhere. They were all wild; no one had any dogs in those days. Finally, some men decided that they wanted dogs. They burned some fat outside the cave, and when a dog or two smelled it and came out the men caught them. Thus the people first came to have dogs. The episode is said to have antedated the coming of the whites by quite a while.

It is not impossible that this myth may be widely current in the region, and responsible for the assertions that dogs are "recent" acquisitions. Not being aware of this yarn, I failed to ask specifically whether dogs were obtained from Europeans in instances when they were reported absent.

1730. Coc: The negative is contradicted by Pattie's explicit account (p. 198). Yav: Gifford states (1936, 264), that young dogs were eaten (reported apparently by informants who did not deny occurrence of dogs; see 1729 Yav).

1732. Moh: The negative is probably erroneous; apparently the informant did not know the bird meant. Pim: Parrots also were kept by the Pima (Velarde, 310).

1735. Dieg, Moh: The negatives are probably in error.

1736. See Gifford, 1931, pl. 2, B.

1737. See Russell, fig. 17.

1739. Moh: Most of the young birds were obtained in trade from the Walapai. Coc: The young eagles were obtained by Mountain Cocopa and Akwa'ala, and traded to the River people.

1743. See under Ceremonials, 2564 ff.

1744. Hawks were commonly kept for their feathers, but were not so highly regarded as the eagles since they had little supernatural power compared with the latter.

SOCIAL CULTURE

The Structure of Society

The entries under this head represent not replies by informants to direct questioning, but syntheses of (1) their comments on these topics and (2) material drawn from published sources (modern ethnographies and early accounts). Since my interpretations are not altogether in accord with those hitherto advanced, I shall present my evidence on the various points in the following.

Political Organization

1745. For present purposes, the term "tribe" has been taken to mean a sociopolitical unit coextensive with a dialectic division. (See Kroeber, 1925, 727; Spier, 1933, 154 ff.) The characteristic sociopolitical division of our present tribes was the local group (village) or band (elements 1749-1754)--fundamentally the only difference between these two terms relates to the type of economy and relative sessility of the groups. Only among the River Yumans did larger groupings prevail. Kroeber has discussed this unique feature of Lower Colorado and Lower Gila culture (Kroeber, 1925, 727). It seems at least possible that a combination of unique circumstances may lie at the root of this peculiar social order; one might point to the very rich but restricted setting of River Yuman culture as a significant factor. The groups could increase, but could not disperse; the people were confined within the narrow gorge of the river. To leave it would mean a complete revision of food habits, industries, and all related activities. This enforced density of population, plus relative isolation and marked cultural differences from those alien neighbors whom they did meet now and again, might foster a group feeling--what Linton calls an "esprit de corps"--transcending the limits of the local group. This is precisely what happened, as best as we can judge, among many Southwestern groups during the historic period. Following the "reducciones" of the aboriginal small and scattered settlements by the early missionaries, community of interest, particularly a common cause against a culturally and linguistically different foe, led to the formation of real tribal entities among Pima, Papago, and Yaqui. The recent disintegration of these tribal units among the first two peoples was the result of the cessation of the need for concentration (in this instance, the Apache wars). The factor enforcing concentration of population among the River Yuman--geographical environment--was, however, a constant. From this point of view, then, the River tribes were anomalous. The areally typical division was the band or village--a condition not especially distinctive for any one section of western North America.

Moh, Mar: Of the political organization of the Lower Colorado peoples we have information dating back to 1540. The point to be noted is that, unlike so many Indian "tribes," these people had true national designations for themselves: Hamakhava, Haltcadom, Kaveltcadom, Kiwitcan, and others. Only the Maricopa (proper) seem to have had no name but the term "man," or "person." As Kroeber has pointed out in his analysis of the early records, the greater number of these groups can be identified from the earliest reports, those of Alarcón and the Oñate expedition (1925, 793-803). It is true that these and other accounts mention some group names no longer identifiable, and the Yuma cannot be recognized (unless they are the Bahacechas), but in the main the stability of these national groupings since the sixteenth and early seventeenth century is beyond question. In this regard the River Yumans are to be differentiated from their Pima-Papago neighbors, as will be brought out below. (Apropos of these early accounts, a remark by Mange concerning the cotton-growing, hair-braiding Ocaras or Ozaras mentioned by Oñate as at the Gila-Colorado confluence is of interest: "...á la nación le los indios Osaras o Seulos..[que] hablan en Tepehuan..." [p. 127].)

Pim, Pap: The interpretation of Pima tribal unity, and that of the Papago, as an historic phenomenon is based directly on the early sources. Besides, we have documentary evidence of a process of concentration of the early scattered villages into a few centers during the years of the Apache wars, which might be presumed to have led to the development of a national sense.

First of all it should be noted that the designation "Pima" which the Spaniards applied since the latter part of the seventeenth century is a linguistic designation, not an adaptation of a tribal name; cf. Velarde: "La nación Pima cuyo nombre han tomado los españoles (en su nativo idioma se llama Otama y en plural Ootoma [that is, "man," "person"]) de la palabra Pim, repetida en ellos por ser su negación" [p. 298]. All early sources use the word in a linguistic sense without implying thereby that all "Pima" composed a political entity. To differentiate among them, Kino, Mange, and their successors referred to geographical divisions: Pimas Sobaipuris, Pimas Gileños, Pimas Papabotas, Pimas de Caborca. There is no hint of formal units larger than the village. Finally we have Velarde's explicit statement (p. 314): "gobierno no tienen alguno, ni leyes; tradiciones costumbres con que gobernarse y así cada uno vive en su libertad, sin conocer en cada pueblo más superior que algun indio, él que más habla, más le incita a pelear con las naciones enemigas, o les señala tiempos de cazar; [here follows mention of several village chiefs who had large followings].... Otros capitanes ha habido y hay en otras partes de algun nombre entre ellos, más todo este reconocimiento se queda en lo dicho, sin más feudo, obediencia y sujeción

que hacer cada uno lo que quiere; a estos llamó alguno régulos o caciques y al del Poniente el gran Soba, y así lo publicó y escribó a Europa no sé con qué razón, pues nada menos tienen que esto" (underlining mine). One could scarcely ask for a more definite statement.

The concentration is recorded in eighteenth century accounts; Russell has sketched it briefly (pp. 20-23). The withdrawal on the eastern frontier is noted in 1762 in the Rudo Ensayo when the Sobaipuri remnants abandoned their fertile valley, moving into Pima villages to the west. The same source states that the Gileño groups had villages on both sides of the river at that time, and Garcés found villages on the north bank in 1774 (p. 389); the retreat to the south bank may have occurred in the closing years of the century. Font recounts (p. 46) of the village of Sutaquison (Casa Blanca, according to Bolton's identification): "The Indians were asked why they lived so far from the river, since formerly they had their pueblo on the banks whereas now they had moved it to a place apart. They replied that they changed the site because near the river, with its trees and brush, they fared badly from the Apaches, but now being far away they had open country through which to follow and kill the Apaches when they came to their pueblo." Russell's informants reported eight inhabited villages in the early nineteenth century; by his time they had once more begun to spread out (he says principally because of water shortage). Russell's list of extant villages (in 1902) comes to eighteen (pp. 20-23).

The present writer's Papago informants had much the same story to relate. There were "in the old days" but seven or eight villages. The people were afraid to live in small groups, as they do now, because of the Apache. (Apparently these "villages" were centers of settlement, based on a permanent water supply and the greatest possible amount of farm land.) Hoover's information is in the main corroborative: he lists ten parent villages or centers (twelve including the Sonora and Sand Papago divisions, of which my informants knew little) prior to 1860 "some of these...no doubt sprang from a few of the very oldest villages as Kaka, Achi (Santa Rosa), Anegam, Tecolote and Gue Va (Quitovac)" (Hoover, 1935).

All in all, it is clear that there was a period of concentration of population during the height of Apache raids. That the latter were responsible is apparent both from natives' statements, and the prompt reaction to cessation of these raids--dispersal to outlying sites. During this period of enforced concentration, when for defensive and offensive action campaigns by large troops were found most effective, the national spirit of the Pima, and as much as there is of it among the Papago, must have been founded. Before, the village must have been the functional unit.

1748. Moh, Mar: The absence of tribal ceremony activity is an expression of lack of mass ritualism rather than lack of unity. Pim, Pap: Although there seems to be a trend, in the times of which informants tell, for rituals to be performed on a tribal scale (this is more true of Papago than of Pima) the function of the village as the primary ritual unit is easily perceived. Each major village had its own ceremonial house and bundle, and in the Viikita festival (q.v.) each participating village (not all participated) danced separately. The sahuaro-wine drinking was a village rite.

1754. Moh, Mar: Kroeber makes clear that among the Mohave nothing that could properly be called a village existed (1925, 727). Spier pictures the Maricopa settlements as straggling and continually shifting (1933, 22).

1756. Pim, Pap: See note 1748 Pim, Pap.

Clans and Moieties

As regards other social groupings, our part of the Southwest appears to have been a region of unilateral descent groups (elements 1757, 1766, 1722). Only Shivwits, the Upland Yumans, and the Yaqui lacked them entirely. If we consider the immediate neighbors: the Pueblos, the Athabascans, and the Shoshonean-speaking Southern Californians --the strength of this unilateral descent pattern is brought out more emphatically. At the same time we must note that to lump these social orders together under the term "clan" is to force a lot of very different institutions into the same pigeonhole. Even if we disregard particular line of descent, a Hopi or Zuñi clan has little in common with a Pima-Papago "father-name group," or the so-called moieties among the same people; still less is it like a River Yuman clan. Differences are to be found in composition, structure (i.e., localized or diffused) and function--which about exhausts the possibilities for differences. The most important similarity is the one noted by Strong: the Pueblan-Southern Californian concept of the clan as the ceremonial unit, with specific associations such as the clan priest, clan-owned ceremonial structure, and clan-owned fetish bundle (Strong, 1927). In the intermediate province the significance of the clan appears to have been lost. It was the village which was the house- and bundle-owning unit among the Pima and Papago, and apparently among the Mexican tribes to the south; the Yumans lacked the priest-house-bundle complex entirely (Drucker, 1939).

1757. The clan organization of the River Yumans seems to have been fundamentally the same everywhere. Moh: See Kroeber, 1925, 741 ff. Coc: See Gifford, 1933. Mar: See Spier, 1933, 186 ff. See also Forde, 141 ff. Pim, Pap: See below, note 1766 Pim, Pap.

1759. Moh, Mar: Neither informant was very sure of this. They may have had in mind recent

violations of the rule. The published sources are explicit on this point.

1760. Moh: Although Kroeber states that the clans were nameless (1925, 741), the present informant said it was customary to use the "women's name" to designate the whole group. Thus, he said his own group was hipa, that of the interpreter, owitc. This resembles Yuma usage, which Forde describes (p. 143).

1761. See Kroeber, 1925, 741; Forde, 142 ff.; Spier, 1933, 187.

1766. See Parsons, 1928, 455. As Parsons makes clear, these father-names are the sole outward indication of the existence of the so-called Pima clans; the fact that they are determined patrilineally is the only excuse for comparing them with clans. Spier's suggestion strikes at the root of the whole matter: "This raises the question...whether the essential Pima unit is not the moiety rather than the sib" (1933, 194). My construction of the evidence is that for both Pima and Papago the moiety was the essential unit (so far as there was one other than the village), and that these father-name groups are not properly to be reckoned sibs at all. Pim, Pap: Spier (1936) has pointed out the evident confusion in the grouping of the father-name groups into moieties. The statements of my informants, as well as those of previous investigators, are not in agreement. They are as follows: Pim: Buzzard (Red) moiety, vafH, mamH; Coyote (White) moiety, apapH, apkiH, okulH. Russell (p. 197): A'kol, A'pap, A'puki, Ma'am, and Va'af. "The first three are known as the Vulture or Red People, the last two as the Coyote or White People." Parsons (1928, 456): Buzzard, vaaf, Ma'm, ikalt; Coyote, apkya, a'pap. Pap 1: Buzzard, vaav, maam, ōkul; Coyote, apki, apap. Pap 2: Buzzard, mamH, vaav (?); Coyote, apap, apki. Lumholtz (p. 354): "Red ants" (= Buzzard), mam, vav; "White ants" (= Coyote), ōkul, apap, apki. Gifford (1918) gives a still different account of the Papago system, based on information from Mr. Juan Dolores, of the University of California Museum of Anthropology. Mr. Dolores gave me the same description in 1938. The multiplicity of discrepancies is somewhat startling, to say the least. Yet it seems improbable that one of the five varying lists is right, all the rest wrong. Some comments by the Papago (2) informant and interpreter shed some light on the problem. First of all, it was stated very specifically that there neither is nor ever was an ōkul group (ōkulgâm) among the people residing at or near Santa Rosa. Nor were there many vavagam; the informant was not certain that the few individuals of this group now at Santa Rosa "really belong" there. The logical inference to be drawn from all the accounts is that the alignment of the groups varied from one locality to the next--there was no single Pima-Papago system. Little confusion would result from this in daily life for the reason that the name groups were of very minimal consequence.

A word may be added in regard to Papago usage of the terms. No one but a man's children used them in address. One could, however, ask a child "Where is your [e.g.] mamH?" (instead of the ordinary term of reference, ookH). If one were a stranger, and did not know the word the child used, he could use any of the designations. The child would understand perfectly well, and would probably reply (e.g.), "Not my mamH, my apkH!"

1772. The Pima-Papago "moieties" like the "clans" are but pallid counterparts of the type of social order usually designated by that term. Parsons' description (of the Pima institution) once more brings out the salient facts concerning their functional rôle. The "moieties" had nothing to do with either marriage or ceremonialism. Their chief service lay in providing a theme for joking and good-natured invective. One bragged about the noble qualities of his moiety animal, and maligned that of the other group (see Parsons, 1928, 456-457; also Herzog, 1936).

1776. Pap: Both Papago informants (1 and 2) consistently denied the color associations of the moieties. Asked, in connection with salt expedition rites, whether red and white paint was used according to moiety affiliation (as described by Lumholtz, 1902, 270 or 354) they (and Pap 3 also) emphatically stated nothing but white paint was permitted. (Lumholtz's data on the subject of clans and moieties may be Pima, therefore; note that his alignment of the father-name groups duplicates the Santan Pima one obtained by the present writer.)

Chiefs and Headmen

1779. Moh: See Kroeber, 1925. The chief, I was told, was always from the Northern (Upstream) Mohave (mathalyadōm). He had two "captains" (itcakwaR) under him, one from the Upper and one from the Lower divisions. Pim, Pap: The "R's" in the following entries are mine, not the informants'. See note 1745 Pim, Pap (particularly the quotation from Velarde).

1780. Pim: Russell, however, states (p. 196), "The office of head chief is not hereditary... He is elected by the village chiefs."

1782. Mar: Spier states that "the Maricopa tribal chief was in reality the chief of the strongest village" (1933, 155), but this situation differed from that among the Pima-Papago, for this "strongest village" was the only one to have a chief (loc. cit.). Among the latter, there was a chief in each major settlement (see element 1785). Pap: The chief at Achi was regarded as the "head chief of all the Papago" (except the Sonora and Sand Papago).

1783. Pim: Russell does not say so specifically, but presumably the assembly of village chiefs who elect the head chief constitute the "tribal council" to which he refers (p. 195). Pap: The chief at Achi would notify the chiefs of the other seven (major) villages to assemble to dis-

cuss matters of general import (e.g., a campaign against the Apache).

1784. This term (Pim: osyagakåm; Pap: ōskakåm) doubtless refers to the canes of office, which Mange tells us so frequently that he distributed. There is another word applied to a chief (of tribe or village)--kóvenal--which both Papago and Pima informants thought was a more recent term, and a derivative of the "Spanish word for 'governor'" ("Gobernador." I do not know whether or not "gobierno" could have been used in colloquial or pidgin Spanish; it sounds more like the Piman form. The Yaqui say "kōvōnao," also deriving it from the Spanish).

1785. Dieg, Akwa: The chief is an elected official, whom informants were sure had no counterpart in former times. "There were no chiefs at all." Pim, Pap: The village chief referred to here, with his hereditary position and name (stick owner), is a recent functionary, along with the tribal chief. Underhill specifies the origin of the office (pp. 2-3), and her account describes typical activities, such as ordering offenders whipped and the like (pp. 8, 27, etc.).

1790. Pim: The civil chief had a messenger assistant called The Leg (GH). (Cf. Underhill, 1936, 8. Herzog also recorded a term "Very High" (u'ktcu'k) for the civil chief, one who had such an aide, and who also was said to have had some directorial functions at rituals. This combination of function is probably late, or a confusion of older concepts.)

1791. See Kroeber, 1925, 745. Mar: Spier reports (1933, 158) the "kwaxot" was simply a "'good man' (that is, good-natured, kindly), not the name of an official." However, see below, note 1797.

1797. Mar: According to Spier (1933, 158-159), most of the functions of the Pima-Papago ceremonial official (clearing out the house, starting the fire, calling the men, etc.) were performed by the chief. There was an old man, however, who tended the fire (once it was started, apparently). Note however that this could apply only to "the strongest village" (the only one to have a chief, according to Spier's evidence [1933, 155]). The present informant stated that the house of the kohota (kwaxot, in Maricopa) was used for the nightly meetings (see element 1791). He was very certain of this; he regarded possession of a house large enough for assemblies to be one of the distinguishing marks of the kohota. If his views are correct, and they seem reasonable enough, we have an instance of a neat fusion of Lower Colorado and Piman concepts: from the former, the kohota chief; and from the latter, the formalized men's nightly assemblies in the smoking-house.

1799. Pim: The title of this man was recorded as "One who tends the fire" (naatatciktcim), but this may be an alternative designation, or indeed, not a proper one. (This once important office has been overshadowed by the posthistoric "chiefs"; I must own that the fault was mine for not recognizing him until the real nature of his office came out in discussions with Papago informants.) Russell states, "In each village there is also a 'ceremony talker' or master of ceremonies..." (p. 196); in another context the present informant pointed out that the term for ceremonial or formal speaking contained the word for "smoking" (djĭHanyigit, "speaking to me," literally, "smoking to me," was the form he gave), so Russell's "ceremony talker" may be "smoke keeper" (the Papago form is djūūtcktcåktcim). (Russell states that a war leader was called "TcUnyĭm or TcY'yĭnyĭm, Smoker, or War Speaker [p. 196]).

Incidentally, there is an interesting series of terms formed of the root for "tobacco smoke": ceremonial (assembly) house, djĭHtckĭ (Pim), djuntcki (Pap); ceremonial chief, ceremonial speaking (see above); rain-making ceremony (the magical performances and singing sometimes accompanying the sahuaro-wine drinking), djūūtckĭ (Pim, Pap); war orator, (Pim, see above), djunyĭotam (Pap).

1801. It was as keeper of the bundle that he was the director of ceremonies.

1803. The position of "band headman" referred to is one of vaguely defined authority and mode of succession. A Yavapai or Walapai who distinguished himself in one or more fields deemed important by his people--war, oratory, and the like--came to be regarded as a leader. The son of a leader had certain advantages over his contemporaries in regard to succession: people felt that he was likely to have inherited some of the qualities of leadership, and been taught the wisdom, that had made his father prominent in group affairs. That is about all that "hereditary succession" means among these bands. The Yavapai informant denied heredity as a factor, meaning thereby a hard-and-fast rule of hereditary succession; the Walapai informant affirmed it probably because he happened to recall a few instances in which a son succeeded his father, and there was "a feeling that the position should be kept in the family" (Walapai, 154).

1804. Yav, Wal: See preceding note.

1805. See Gifford, 1936, 297-298. Wal: Bravery was less essential than some other qualities, but no doubt it played a part in raising a man to prominence, despite the denial by the present informant. See Walapai, 153 ff.

1815. Yav: The war leader and band headman was one and the same person.

1813. Wal: The owner of the rabbit net was the hunt master, in so far as there was one. Walapai (p. 63) mentions a "hunt leader" who had no permanent status. Shiv: The person who owned a tract of land would initiate a drive and direct it.

1816. The proof of the pudding, of course, was the empiric record of the man's bravery and war success. The Lower Colorado native theory was

that he must have dreamed his power. The Mohave informant stated that a war chief was such from the moment of his birth (i.e., he had already dreamed his power); subsequent dreaming served to reënforce, or somehow validate, the prenatal dreams. Shiv: The war leader dreamed, among other things, the songs sung by the outgoing war party.

1818. Pim: The instigator or organizer of a war party was one who had lost a kinsman to the Apache, who dreamed that he should avenge this loss. He was called "the Smoker." (GH.)

1819. Moh, Mar: The advice of the chiefs and prominent men was supposed to be (but was not always) sought. Pim, Pap: The chiefs referred to are the (historic) "stick owners," not the aboriginal ceremonial chiefs.

Real Property, Law

Legalistic principles were but little developed among the present groups. Land ownership was at a minimum; criminal law unformalized. To this lack of formalization the apparent vagueness of the data on criminal procedure (elements 1833-1839) is attributable, rather than to lack of knowledge on the part of informants.

1820-1821. Pim: See Hill, 1936.

1823. Mar: Spier states (1933, 60-61) that the field was usually left fallow six to twelve months (i.e., one or two cropping seasons).

1824-1825. See Kroeber, 1925, 744-745.

1824. Mar: The informant knew of the Mohave custom, and thought it most quaint; "we didn't ever do that."

1826. Shiv: To judge by the present informant's account, the Shivwits differed vastly from the other groups of the present study in the way in which most of the areas producing foodstuffs--vegetable or animal--were claimed by individuals. Other Shivwits might utilize these resources only with the consent of the owner. Apparently he usually took the initiative, announcing to the people that they should assemble to drive rabbits, dig mescal, gather piñons, or whatever was to be had.

1828. See Kroeber, 1925, 737.

1832. Dieg: Trait probably present (Spier, 1923, 307-308, reports eagle nests gens-owned among the northern groups). Coc: The informant meant that Mountain Cocopa owned eagle nests. The River people had none. Pap: Negative may be in error.

1833. The wergild concept was certainly at a minimum of elaboration, and indeed, its recorded presences may not refer to truly native times. Wal: Sometimes, the kin of a murderer if they were a strong numerous family, might try to buy off the family of the deceased with buckskins, and such. If they were a small group, they sometimes sat back and did nothing while the dead man's relatives exacted their revenge on the killer. (Walapai, 157 ff., reports this latter procedure, but makes no mention of the possibility of wergild.)

1836. See Kroeber, 1925, 779. The stick fight seems to have been a common mechanism for settling disputes among the Mohave and their congeners.

Warfare

Preparations

Dieg, Akwa: Both informants stated that to their knowledge their people never engaged in wars, and consequently professed themselves unable to give any account of war customs. The columns are therefore left blank. The informants were probably correct in the general trend of their ideas, for undoubtedly warfare never had, even relatively, the interest and importance to them that it did among the Arizona tribes. Yet the early mission reports speak of hostility of the natives (Meigs, 1935, 121. The statements may refer chiefly to the Kiliwa and Cocopa, however). The Akwa'ala informant's account of the 1840 rebellion suggests that there was a war pattern available (in fact, her account reads more like a relation of a feud between two local groups than a revolt against the mission authorities): when the leader was finally caught and slain, he was scalped. The one who scalped him fasted and bathed for "a few days" while he "tanned" the scalp. The successful party danced with the scalp when they first took it, and afterward, before they sent it to the Mexican authorities. Gifford's description of Cocopa warfare mentions a campaign in which Akwa'ala aided the Cocopa (1933, 302).

1841. See Spier, 1933, 164-165. Pim: The organizing of a war party came about as the result of someone's dream that vengeance should be taken on the foe (see note 1818 Pim) (GH). The negative in the list reflects the absence of a war-chief official who dreamed, not of dreaming itself. Yav, Wal: The war leader himself did not dream, but shamans might be consulted about the advisability of setting forth to war.

1842-1844. The writer's impression is that the concept that fasting and continence were necessary was more common than appears from the following entries, but was obscured by a particular set of circumstances. The journey to the enemy country occupied several days, and it was during this time that the fasting and such took place. That it was conceived of as a four-day ceremonial period by at least some groups appears from the four ritual speeches of the Maricopa and Pima-Papago (see element 1854).

1845. Mar: Spier states a dance of the same type as that of Mohave and Cocopa was used (1933, 166). Pim, Pap: Absence of an incitement dance or rite is explicitly confirmed for the Pima in the Rudo Ensayo (p. 89), and indicated for the Papago in Underhill's account (p. 12). Shiv:

Dances of incitement seem not to have been customary, but were sometimes danced, apparently to arouse the people and bring out recruits.

1848. Ordinary song cycles, used at any festive gathering, were sung. The performances were really less incitement dances than farewell parties, "a last good time for those who were going to be slain by the enemy," informants say. This seems to have been the essential spirit of Yavapai and Walapai "incitement dances" also. Coc: The informant thought there were special songs, but did not know what they were. He suggested they might be of the type used at the victory dance. Gifford states ordinary song cycles were used (1933, 299-300). Mar: See Spier, 1933, 166.

1850-1852. These dances are the ones used by these groups at any festival, that is, ordinary social dances. For descriptions, see Gifford, 1936, 291; also elements 2811-2855.

1853. See Walapai, 174.

1854. See Russell, 201, 363 ff.; Spier, 1933, 167-168. Coc: The positive entry is probably a misunderstanding. The informant may have been referring to exhortations by the war chiefs, but these could scarcely have been the highly formalized speeches of the tribes to the east.

1855-1856. Pap: Informant (1) believed it was the leader of the party who spoke, but (2), who was on the whole better informed, declared it was a special speaker, the "smoker" (djunyiotam, tobacco smoke person). This seems more plausible, in view of the absence of permanent war chiefs.

1860. Apparently the warriors did not dance in their nightly camps among any group but the Shivwits. None other of the present informants mentioned it, nor is it mentioned in the literature on the region. The Shivwits dance seems to have been a real incitement performance. The warriors danced it the first night or two out, while still on the outskirts of enemy (usually Walapai) territory and unlikely to be heard.

1861. Pap: Negative may be in error, although Underhill's account suggests that most of the ritual smoking was done by the shamans who accompanied the party (p. 13).

1864. Yav: Gifford states it was the novice warriors only who used this device (1936, 303).

1867. Moh: The negative may be in error.

1869. Spier describes the manner in which this was done by Maricopa shamans in some detail (1933, 176); Underhill recounts the Papago method (p. 13).

1870. Pap: See Underhill, 12.

Armament and Regalia

1871. The trait refers to the division of warriors into groups or "companies" according to their armament. See, for example, Spier, 1933, 166. Pap: Underhill's account indicates a bowman might carry and use a club as well (p. 13). Yav, Wal: Some men carried only clubs, these were the leaders and bravest. Others carried bows. The differently armed men were not separated however.

1877. Coc: Reported present by Gifford, 1933, 299.

1878. Mar: Spier reports (1933, 165) that the feathered lance bearer had his bangs painted red.

1880-1884. Mar: Spier describes the feather bonnets as on a buckskin foundation, not netting (1933, 100, 163).

1881. Wal: This seems to be the mode described in Walapai, 177.

1884. Pim: Russell figures and describes a "war headdress" which appears to be a headband with pendent feathers and scalps (p. 166, fig. 40). If this were fastened around the edge of a buckskin cap, with four erect feathers on the front, it would fit exactly the description given by the present informant.

1888. The Pima "Ashes men" (mamt , or mamt ootam) were men of outstanding bravery and considerable war experience. One joined the order of his own initiative. It was quite informal; the men did not meet as a society or undergo any initiation, or such. Nor were these men the leaders of the expedition; they could be, but my informant believed that ordinarily "they just went along." To be an Ashes man, one was expected to show an indifference to pain at all times: if he stepped on a thorn he stamped it in, instead of removing it. These were the men who were likely to be dangerous during the sahuaro-wine drinking; they were the sort who became gun toters and hard cases in late times. In the days of warfare, they seem to have been under a non-flight obligation (although this was not as clearly formalized a concept as the non-flight duty of the Yuman feather lance bearers). The name, it was believed, referred to the fact that they expected to be killed on the warpath sooner or later and cremated. The Papago informants had heard vaguely of men designated by this term, thought they were supposed to be brave in war time, but knew no more about them.

1890. See Forde, 167. Pap: There was a "spear" of ocotillo stalk with a stone blade, with feathers attached to the shaft, held by the one making the four formal speeches (see element 1854). It was not carried into battle, however.

1891. Mar: Spier states that usually only one feathered lance was carried to war (1933, 165).

1895. This refers to ordinary warriors who did not wear headdresses.

1896. Mar: Spier specifically denies presence of this trait (1933, 186) but the present informant gave a graphic account of Maricopa warriors flaunting a Yuma scalp before the Yuma in the last disastrous battle in Yuma territory.

Tactics, Trophies

1898. The present informants all felt, and

Spier's and Gifford's statements confirm this attitude, that the open combats were not deliberately planned. Surprise attacks were more effective. If the enemy learned of the impending attack, and prepared for it, the attackers went through with their plan as best they could, preferring to risk open battle to turning back without a blow. (See Spier, 1933, 168; Gifford, 1933, 300.)

1901. Shiv: No matter how many they killed, they took the scalp of one only.

1909. Forde states that this was an eighteenth century Spanish mode of scalping (p. 165, fn. 187). He also cites a mention by Alarcon of ceremonial cannibalism in the region. Mar: Spier denies that the ears were included (1933, 177). Pap: Positive entry is probably in error. Wal: Three informants denied, one affirmed that the ears were taken (Walapai, 174).

1910. This was done at the behest of the Mexican authorities, to whom Apache ears were sent.

1912. Yav: Captives were taken sometimes, but their captors "usually killed them on the way home."

1914. This appears to have been done by way of insulting the foe. Coc: Reported practiced (Gifford, 1933, 302-303). Pim: Russell states "Somewhat rarely the [Apache] girls were married into the tribe" (p. 197). The custom may not have been the same as among the Yumans. Among the Pima only old people, "who would soon die anyhow," would dare handle loot from the Apache.

1915-1916. Yav: Only one captive was kept, so far as the informant could recall: a Walapai boy, who was brought up by the family of his captor. Amusingly enough (to the informant) he was ambushed and killed by a party of Walapai raiders, after growing to manhood. (Gifford recounts this incident, 1936, 330. Gifford mentions the keeping of an occasional captive child, 1936, 304-332.)

1918. Pim: Russell cites a case of captive killing, however (p. 203).

Return of War Party

1920. Coc: Reported present (Gifford, 1933, 300).

1921. Coc: Reported present (Gifford, 1933, 301).

1922. Shiv: Meat, salt, cold water were taboo. The same was true in the other cases reported present, but those informants made a positive rather than a negative statement: pinole only was eaten (and not much of that).

1926. Moh: Although there is no corroborative material, the fact that among the Yuma all returning warriors were subject to restrictions lends some support to the present Mohave data (Forde, 168). Coc: See note 1921 Coc.

1927. Yav: Negative is probably erroneous.

1934. Coc: The informant stated the enemy slayer stayed out in the bush all day. This is reported as the Yuma custom also. Pim: Russell states the slayer wandered around in the bush during his seclusion.

1936-1938. Pim: The period of seclusion was sixteen days, according to Russell (p. 204).

1937-1940. Mar: The informant stated that the slayer bathed daily for four days, then again at the end of the second four. Spier states that he bathed daily the whole time (1933, 181).

1940. Pim: Russell states that the slayer bathed every fourth day.

1941-1944. Yav: Meat and salt were taboo, and the scratching-stick was used, according to Gifford (1936, 304). Why the present informant should have denied these taboos is not clear, unless he misunderstood to whom the questions referred.

1946. Wal: A long splinter of yucca leaf was poked down the throat. Shiv: A feather was used to produce vomiting to remove the blood of the slain foeman "which settled around one's heart" after the killing.

1950. Pap: Reported present by Underhill (p. 14).

1951. Yav: Both the man who did the scalping and his wife were subject to special restrictions (Gifford, 1936, 304). There was, of course, no official scalper (with dream power) of the River Yuman type.

1954. Pim: The enemy slayer's proctor performed this task (GH).

1955. Moh, Coc, Mar: Probably negative, at least if the pattern was consistently adhered to. One would have his dreams for war and any other kind of power long before. Shiv: Sometimes a man got war-power dreams (i.e., from which he became a war leader) during his fasting.

1956. See Underhill's account of this curing (p. 21). Pim: Russell reports this concept present (p. 265). The informant stated singers cured these diseases (but presumably one would dream songs of this type during the seclusion).

Victory Celebration

1957. It is difficult to say in regard to the two sets of customs (elements 1957 and 1961), whether the meeting of the victorious war party by the "old people" is simply a typically loose unformalized River Yuman version of the Pima-Papago rite, or whether it represents a display of uninhibited emotionalism which is so characteristic of the River peoples. The details of the formal type of meeting were entered in the lists too late to be recorded for any River group (the Maricopa informant volunteered the items presented). Underhill gives a graphic description of the Papago usage (pp. 14-15).

1957-1960. Pim: In view of the similarities between Papago and Opata (Rudo Ensayo, 90) greeting ritual, the Pima negatives are open to question. Russell gives some songs used by the

women on the warriors' return, but no mention of the type of performance (p. 338).

1959. Mar: The woman (one whose relatives had been slain by Apache or Yavapai previously) met the party, naked, and ran in ahead of them. (The context of the performance was an account of troubles with the Apache; it was not stated whether or not the same thing was done in the wars with Mohave and Yuma. It may have been; the same purifactory rites were used for those who killed Mohave as for those who killed Apache or Yavapai, though the informant stated the Yumans "were not quite so bad" [magically potent when slain] as the Apache.) The Cocopa victory dance performance recorded by Gifford (1933, 300), in which a naked woman danced carrying the scalp, suggests that these people may have had a similar ritual of greeting the returning heroes, or else adopted the greeting rite into their scalp dance.

1961. See note 1957.

1963. Shiv: The victorious war party danced nightly on the way home, and apparently the same dance as that used after their return.

1966-1967. Mar: Spier states that dancing was chiefly by the old (1933, 184), which is consistent with the Pima-Papago notion that the old are less subject to "Apache sickness" than the young (or are soon to die anyhow). The present informant said age was less of a consideration; those whose relatives had met death at the hands of the foe danced.

1968. See Kroeber, 1925, 752.

1969. Coc: Gifford noted the name of the scalp dance songs as Shyahai (1933, 300). Mar: Spier states that most of the songs were of the ordinary type, but one or two may have been for this occasion only (1933, 185). Pim: Russell gives a number of songs used (pp. 335-338). Yav, Wal: A "scalp dance song" is given in Walapai (p. 178). While the dance forms were those of ordinary social dances, it is likely that there were special songs used. Shiv: Probably there were special songs for the occasion.

1970. Pim: Mange mentions bows and other booty, as well as scalps, suspended from the pole.

1970-1971. Yav: Usually there was no scalp used, according to Gifford (1933, 304).

1971. Coc: Gifford states that a naked woman carried the scalp on a stick between the rows of dancers (1933, 300).

1973. Yav: Old men are reported to have carried the scalps (Gifford, 1936, 304).

1974. The indignities to which they were subjected at the scalp dance seems to have been a part of the process of purifying the captives, among the River Yumans. Probably, to Pima and Papago an Apache was beyond all hope of purifying; a captive was merely something to be tormented and slain out of vindictiveness or else sold. The Rudo Ensayo relates that one Apache girl was made to dance until she died of sheer exhaustion and maltreatment (p. 90). Yav: The captives present were those "usually" killed and "sometimes" eaten.

1975. Mar: Spier describes abuse of captive children (1933, 184). Wal: According to the account in Walapai, captive women were abused, raped, and killed; "the Walapai liked to take women prisoners" (p. 176).

1976-1977. Coc: Gifford describes a square dance form, with the scalp carrier between the two rows (1933, 300). Perhaps there was a variety of dances used.

1979. Wal: Night-long speeches by the war leaders are mentioned in Walapai (p. 179).

1980. Mar: Spier reports warriors took no part in the performance (1933, 184).

1982. The performance sketched below was a part of the purificatory procedure for slayers. Underhill gives an excellent account of the Papago rite (pp. 17 ff.). According to her it was the finale of the sixteen-day seclusion; according to my informant, it marked the halfway point in the slayer's vigil. Both accounts agree that the dance was held for an indefinite time both before and after this purification.

The posture of the slayers was a ritual one. They sat erect, with legs crossed "Turk fashion" and arms folded across the chest. The present informant stated that the slayer had to assume this posture whenever he heard the sound of the scalp songs during his seclusion (his hut was some distance from the village, usually).

1983. Pap: He faced the east, according to Underhill (p. 17). The present informant's statement is probably erroneous.

1985. Pap: The informant was not certain about the stake, but Underhill mentions it (p. 17).

1987. Pap: This is mentioned as a slayer's fashion by Underhill.

1988-1989. See Underhill, 17-18.

1993. The "brushing" was a curative and purificatory act (accompanied by singing) done by a type of shaman or minor curer.

1994. Moh: A year later the dance might be repeated, according to Kroeber (1925, 752). Coc: After a month, according to Gifford (1933, 301). Mar: Spier states that sometimes the dance was repeated (1933, 186).

1996. Among the Yavapai and Walapai, a scalp dance provided an occasion for a major social event. The first performance was that of the near-by camps to which the victorious heroes belonged; after a month or so (depending in part on the quantity of food on hand or readily available) people from far and near were invited to assemble for a dance. It was after the major dance that the scalp was discarded (element 2019).

1997. Wal: Scalps were sometimes preserved, according to Walapai (p. 174).

1999-2001. Mar: The Maricopa did the same as the other River tribes, according to Spier (1933, 186).

2003. Underhill's account describes quite realistic effigies made of the scalps (p. 18).

Pim: Russell states that the scalp was wrapped with eagle down and cotton string, but does not suggest that it was made up in human form (p. 205). (Note that scalps were sometimes used on war headdresses, Russell, 116.)

2011. The scalps gave good fortune, but were potentially dangerous also. Cf. Underhill, 21.

2017. See Gifford, 1933, 301.

2018. Mar: Spier states that scalps were kept in the ceremonial house (consistent with his denial of the existence of the kohota chief) (1933, 186).

2022. Mar: Reported present by Spier (1933, 162). Yav: "When they heard calls of pumas, owls, or wolves, that they thought might be enemy signaling, they sent out men to see."

2023. Pim: Defensive walls of brush, cholla, and such were built around the villages at the height of the Apache campaigns (GH).

2023-2024. The informant denied fortifications, although some Papago made them (Hoover, 1935).

Marriage

2025. Moh: A girl's parents would advise her to choose an industrious man, who would always provide for her, and would recommend one, but left the choice up to her. Pim: Sometimes a young man took the initiative, asking the girl's parents for their daughter. For this he took an elderly kinsman along to do the talking for him. This is apparently the "wooing by proxy" mentioned by Russell (p. 183). Yav: Gifford states that parental arrangement was usual, though not invariable (1936, 296).

2026. See Underhill, 36, 54. It was not considered good form for a man to refuse a proposal from a girl's parents, whether or not he wanted the girl. Dieg: The positive entry may be due to a misunderstanding.

2027. Pim: This was the usual procedure for older people. Pap: While marriages of this sort doubtless occurred, the informant seems to have been correct, in that they were not considered proper. See Underhill's account, in which the informant's second marriage was arranged for her, more or less against her wishes (p. 54).

2029-2030. Pim: The groom or his parents sometimes gave a cow or horse to the girl's family. The animal was usually butchered to provide a marriage feast. Both gift and feast were said to be recent. Yav: Buckskins, food, and the like were given. Gifford states that two buckskins was the usual amount (1936, 296). Wal: Reported probably recent (Walapai, 140).

2031. See Underhill, 37. Forde describes a similar custom among the Yuma (p. 156). Mar: Spier (1933, 220) describes a wooing custom which may be an attenuated version of this complex: "The youth did not court the girl. Instead, he crept to her bed at night and lay beside it, but he refrained from touching her..." (In the morning when her parents saw him, they forced the girl to marry him). Pim: Russell states (p. 183): (after the acceptance of the suitor by the girl's parents) "For four days they [the newly married couple] remain at her home..." The present informant's version is more likely correct, corresponding as it does to the Papago pattern.

2034. Wal: The practice described by the informant was less rigidly defined than that of Pima and Papago. The groom visited his spouse only by night for some time ("for a month or so, sometimes"), because "he was bashful, and ashamed to be seen with her in daytime." (The informant insisted that he was describing a marriage custom, not philandering.) After awhile, when he had adjusted himself to his married state, he took her to his camp, or stayed in hers. Thus, the duration of the nightly visits was an individual matter.

2037. The trait means no formal rite other than the nocturnal visiting described in elements 2031-2035, that is, no feasts, tests of housewifery, headwashing, and such. Mar: Spier describes bridal tests of grinding grain and carrying water (1933, 221). These customs the present informant denied. Often, he said, the groom's kinsmen would straggle in to partake of the first meal the bride prepared. It was all very informal; they were not invited, but came at their own time and pleasure. Nor was the occasion a test, according to him. It made no difference whether they liked the bride's cooking or not. Pim: Russell describes (p. 184) a bridal test of grinding wheat, but my informant did not know of this practice. Pap: Underhill's account, which one would expect to mention a marriage rite or test if it existed, makes no reference to anything of the sort. Yav: Gifford reports a marriage feast, attended by the two families (1936, 296).

2038. Yav: Statement confirmed by Gifford (1936, 296). Wal: Initial residence was "always" matrilocal, according to Walapai (p. 141). Perhaps this is a reference to the preliminary (nightly) visiting (elements 2031-2034, and note Wal).

Residence

2042. Mar, Pim, Pap: While both initial and final matrilocal residence sometimes occurred (see elements 2038-2040), patrilocality was definitely considered proper. Matrilocal residence, aside from occasional visiting, meant either that the wife's parents needed caring for and had no one else to look out for them, or else that the husband was not much account.

Types of Marriages

2044. Wal: Marriages of cross cousins definitely occurred, according to Walapai (p. 141).

2045. See Spier, 1933, 196 (the trait is mentioned there in connection with a violation of exogamic rules). The present Mohave and Maricopa

informants believed it would be done at any marriage considered incestuous (e.g., marriage to one's mother's kinswoman). Kroeber states that the father of the girl "would take a horse or something from the boy's father, and the young people...(were) not considered relatives any longer" (1925, 747). His account refers to second half-cousins (grandchildren of half-sisters); perhaps in closer relationship the expression of disapproval was more vehement.

2046. Dieg: The negatives (for elements 2046-2049) are probably in error.

2047. Mar: Spier states these marriages occurred, but were not institutionalized (1933, 224). The present informant thought they "would not be allowed," but had no idea of the method of prevention. Pap: The informant could recall no instance of a union such as this, and did not think it proper, but was at a loss to know the method of preventing anyone marrying thus. Yav: These marriages were a known type, but were not common. Wal: These marriages, it is said, were quite common.

2048-2049. Yav: Gifford reports just the opposite; polygyny, but only of the nonsororal type, was practiced (1933, 296).

2049. Moh: The informant said polygynous marriages were very rare. He could recall only a few of these unions, he said, adding that he meant real marriage and not casual promiscuity.

2051. That is, polygyny was not confined to social classes or groups, such as chiefs, war leaders, or other outstanding figures.

2056. Mar: The sororate was customary though not compulsory, Spier reports (1933, 223). Yav: Gifford's data indicate the sororate may have been optional (1936, 296).

2059. Mar: The levirate Spier reports to have been compulsory (1933, 223). Yav: Gifford reports the levirate optional (1936, 296).

Kinship Usages

2065. Yav: Gifford adds a weak man's father-in-law taboo: speech taboo "unless he was old" (1936, 294).

2071. Yav: See Gifford, 1936, 294.

INDIVIDUAL DEVELOPMENT

Birth Customs

The data under this head are somewhat uneven. The chief cause seems to have been that certain of the male informants either knew little detail of customs connected with birth, or were reluctant to discuss the subject. The least informed (or least coöperative) was the Diegueño informant; next the Papago, next the Pima. The Maricopa informant tried to recall all he could, and with fair success, for his data tally fairly well with Spier's material. The most glaring errors of all these men appear to be in connection with restrictions such as food taboos; several simply made sweeping denials that there were any restrictions: see elements 2072-2083 Dieg, Pim, Pap; 2137-2147 Yav. An obvious paucity of material relative to behavior during pregnancy is probably attributable to similar lack of knowledge or of inclination to discuss the topic.

Pregnancy Restrictions

2072. Pim: Russell states that food touched by an animal (e.g., corn that a mouse had nibbled on, etc.) was taboo (p. 185). Yav: Gifford lists some additional food taboos (1936, 298-299). Wal: A long list of taboos, chiefly specific cuts of meat, and such, is given in Walapai (pp. 129 ff.).

2075. Mar: Spier reports a taboo on eating fat (1933, 310). Wal: Fat is reported taboo in Walapai (p. 129).

2077. The underlying idea was that the baby would resemble the thing stared or laughed at. Deformities of human beings, dying animals (the infant would have "convulsions" like the death struggles of the animal), and rattlesnakes were the "ugly things" most often mentioned. See Underhill, 41. Dieg: The informant declared that Mexicans, not his people, had this belief.

2082. Akwa: The husband might hunt, but had to give his kill to other people; neither he nor his wife might eat it. Mar: Spier reports it was preferable that a man did not hunt (1933, 310). Pap: The husband might not hunt rabbits. Underhill's account mentions the same rule (p. 41).

Parturition

2084. Yav: Gifford states that delivery "usually" occurred in the dwelling (1936, 299). Wal: According to one informant, parturition was in the dwelling in winter, outside, under a tree, in summer (Walapai, p. 132). This source does not mention a birth hut.

2088. Mar: Spier states that a shaman might be called in difficult delivery (1933, 311).

2089. Moh: There is no information on the Mohave custom, but among the Yuma the husband was excluded (although he was supposed to cut the umbilical cord)(Forde, 159).

2093. Pap: Underhill's informant mentions cutting the cord with the fingernail (p. 42).

2095. Pim: Russell states that the hole in which the placenta was buried was covered with ashes (p. 185).

2098. Yav: Gifford reports that this task was assigned to the child's father (1936, 299). Wal: The father is said to have disposed of the placenta (Walapai, 130).

Postnatal Treatment

2099. Wal: The present informant stated that "in old times" it was customary for a woman to

get up as soon after delivery as she could, to go fetch a basket of water. When she returned she lay down in the warming pit. Walapai states that "after the first four days she did household tasks, returning to lie down every so often" (p. 130).

2102. The "warming pit" was a long shallow hole in which hot stones or sand, ashes, and such were put, then covered with leaves and twigs. The patient lay in it, covered with a robe or whatever was at hand to conserve the heat. The device was similar to that used by some groups for girls at puberty, and on other occasions. Mar: The present informant knew only of a rude simulation of the ritual warming (see element 2107); Spier however reports a warming pit of characteristic Yuman type (1933, 312).

2103. Wal: Use of the warming pit was continued, according to the account in Walapai (p. 130), for "about two weeks."

2105. Yav: Gifford states that the pit was used for one day (1936, 299).

2106. Shiv: This occurred in four to eight days, stated the informant.

2111. Shiv: Negative may be an error. There were ritual taboos on salt on other occasions (see, e.g., elements 2076 Shiv, 2139 Shiv).

2113. Akwa: The duration of the food taboos was said to be "a year," which sounds a bit extreme. Probably ten days would be a fair guess; that was the length of actual confinement. Pim: Detachment of the umbilical cord marked the conclusion of food restrictions, Russell states (p. 185). Pap: Underhill's account states that the taboos lasted until the umbilical cord detached (p. 42). Yav: Gifford states that food taboos were in force for a month (1936, 299).

2116-2117. Moh: Kroeber makes no mention of differences in the duration of food restrictions, which he reports as about a month (1925, 747).

2119. Wal, Shiv: The restrictions for subsequent births were said to be of briefer duration, but of no fixed time. "They weren't so strict as for the first time."

2120-2121. Mar: Spier states that the parturient bathed daily during confinement (1933, 312). Pim: The parturient, according to Russell's account, bathed in the river immediately after delivery (p. 185).

2124. Mar: Spier gives the recipe of the concoction used as a mixture of boiled mesquite bean syrup and red paint (1933, 312).

2127. A specially woven wide belt was cinched tightly about the woman's waist "so her belly would grow back in," as most informants put it. Apparently the belt was usually similar to that used by pubescent Walapai girls, figured in Walapai (p. 137). The Pima, however, used a folded strip of cotton cloth.

2130. The white pigment was a clay. Apparently it was used like soap, though whether it had any detergent value or was purely ritualistic can only be guessed at. The woman painted her entire body with the clay, then bathed, washing it off.

2132. By "fumigation" is meant the application of smoke of herbs and such to the body as a purificatory device. According to native concept, the smoke had the effect of removing contagion just as our disinfectant fumigation does, except that of course the contagion was of a supernatural rather than organic variety.

2133-2141. Yav: Gifford reports that meat and salt were taboo to the husband for four days (1936, 299).

2141. Akwa: If the informant is to be believed, the Akwa'ala must have been an undernourished nation; she stated that the husband (as well as the wife) had to observe the food taboos for a year. See note 2113 Akwa.

2145. Yav: Use of the scratching-stick is reported by Gifford (1936, 299).

2148-2150. Wal: The Walapai account states that some informants mentioned and some denied a postnatal ceremony,"the main feature of which was running toward the east" (p. 130). The performance probably was absent in the remainder of the region, for it is not described in the accounts on any other group, nor did present informants mention it.

Treatment of Child

2154. Mar: The ear-piercing was done either on fourth or eighth day after birth.

2155. Dieg: Ear-piercing occurred "about a month" after birth. Pap: Ear-piercing occurred "six months" after birth. Yav: Ear-piercing occurred "two or three months" after birth.

2156. Wal: Ear-piercing occurred at "two or three years." Shiv: Ear-piercing occurred at "five or six years."

2159. Yav: The umbilical cord was sometimes discarded after the child could walk (Gifford, 1936, 299). Wal: The cord was discarded when the child could walk.

2162. Mar: Spier reports head-flattening of this type occurred and was desired (1933, 312).

2163. The purification rite described here is that recounted by Russell (p. 187). As he felt, it is undoubtedly aboriginal, for it is thoroughly in keeping with the native concepts of contamination and disease. Underhill's informant refers briefly to the rite as used for an infant (p. 42), stating that it was the same as that made over a pubescent girl, which she describes in some detail (p. 35). The administering of a "medicinal" drink as a purificatory act has a striking parallel in a Tarahumara purificatory technique, found also in the "Aztec-Tepehuano" community described by Lumholtz (Bennett and Zingg, 238, 248; Lumholtz, 1902 1:481). A few comments by the present Pima and Papago informants may be of value: Pim: Every child, from the time of its birth, had a malevolent contagion or "evil spell" called sinyœutc (the word may refer

to "blood," meaning literally something like "contamination from blood"). In this condition it was dangerous, not just to itself but to its relatives. Therefore the parents called on one who knew (had dreamed) songs and procedure of the purification ritual. (These "singers" were a special class of shamans; see under "Shamanism.") Pap: The rite performed over the child was similar to that for a pubescent girl, and for an enemy slayer, except that the white-clay drink was not given the last-named (see elements 1991-1993).

2169. Pap: Underhill's account (p. 35) of the puberty purification speaks of the ritualist "blowing" on the girl, apparently with the breath only, not tobacco smoke.

2171-2172. The two captions may refer to the same thing: one its ritual name and the other the recipe. I failed to learn whether or not this is so. Underhill's account mentions ground human bone as a secret ingredient (p. 35).

2173. Apparently a few drops were put in the child's mouth.

2174. Pim: Russell states that both child and parents drank the concoction (p. 187).

2178. Pap: The restrictions were from one to four days, it was said, depending on the particular rules that the singer had dreamed.

Twins

2179. Yav: Twins of opposite sex were killed (Gifford, 1936, 299).

2180. Pap: "People brought presents to a pair of twins in order that they themselves might not have twins."

2181-2182. Mar: Spier states that twins and deformed children were thought to be reborn, coming to this world from their village to the northwest of Maricopa territory.

2184. Shiv: "There were never any malformed children born in the old days. It is only within recent times that births such as these have occurred" (!).

Names

2186. Pap: This entry refers to the children named by the singer at the purification rite (elements 2163-2178).

2187. Yav: Gifford reports children were named at four or five years (1936, 299).

2188. The parents went to a maker (dreamer) of songs, usually an elderly relative. He selected a name from the words of some song, taking care to choose one that no one had had before. (Russell gives [p. 189] a list of Pima names; those of the Papago seem to have been of similar type.) Herzog's informant stressed that the name-giver should be a relative who had dreamed at about the time of the child's birth (GH). Likely the two statements are nearly equivalent, differing in mode of phrasing rather than in sense. Anyone who dreamed significant (from the Pima viewpoint) dreams was doubtless a song-maker.

2190. See Gifford, 1933, 289. The Diegueño affirmative actually may refer to a family conference to select a previously unused name. Pim: The baptismal rite described by Russell (p. 188) was averred to be modern, not native.

2191. See Walapai, 128. Mar: Spier states that the name was casually bestowed (1933, 196); the present informant said that it was chosen after a consultation with an old man (a kinsman if possible) whose memory was relied on to avoid picking the name of some one who had died.

2193-2195. Moh, Mar, Pim, Pap: It is difficult to distinguish between new names and nicknames. The Maricopa informant was referring to the nickname given a man at marriage (the name which people maintained had been selected by his mother-in-law) when he spoke of new names. As the Pima informant put it, "when a man has a really amusing (nick-) name, people come to forget he ever had any other."

2193. Wal: One informant (in Walapai, pp. 128-129) states that a new name was taken at puberty, another denied it, as did the present informant.

2196. Moh: Kroeber speaks of the typical obscene names (or nicknames) of the Mohave (1925, 749).

2197. See Spier, 1933, 197. The claim that the mother-in-law gave the name was part of the joke, thought the present informant. Pim: The Pima counterpart of this saying was that men's nicknames were invented by women (presumably their mistresses). This was said especially of nicknames of sexual reference.

2198. No trace could be found of a limitation of this principle to children, as described by Russell (p. 188). Moh: Kroeber states that the Mohave disliked mentioning their names before strangers (1925, 749). Mar: Spier states that there was no name-shyness among the Maricopa; the only custom of the sort was in using names in reference (1933, 197).

2199. Shiv: The informant's statement was as follows: "Some people were bashful about mentioning a spouse's name in public; one showed respect by not using it. Common people didn't bother, but spoke of each other by name continually. When a married couple separated, it no longer mattered. They could refer to each other by name."

Girls' Puberty

Shiv: The informant balked at discussing this topic, apparently because the fear of contamination was still strong. Stewart tells me that he had a similar experience, and had to find a female informant to obtain the data.

Restrictions

2202. Moh: Kroeber's account states that the girl was not confined, lest she be lazy the rest

of her life (1925, 748). Yav: Gifford's account confirms the minimal observances of the Yavapai, including lack of confinement.

2204. Pap: The informant stated that the girl stayed with her proctor (a widow was chosen if possible). Underhill's account states that she stayed in the menstrual hut at night, and when not going about with the proctor (p. 31).

2207-2209. Pim, Pap: See Russell, 182; Underhill, 31.

2210. The girl was not proctored; it was said she went around by herself from dawn till dark. She was not supposed to be seen.

2211. Mar: Spier speaks of an eight-day confinement consisting of two four-day periods, the first in the hut continuously, the second in the warming pit part of the day (1933, 324). My informant simply described the two separately (see elements 2241-2243). There is no real difference on this point in the two accounts.

2217. Yav: Gifford notes the taboo present (1933, 301).

2218. Moh: Kroeber states that the taboos were in force for forty days (1925, 748). Mar: "Four" is doubtless an error; it should be eight days. See Spier, 1933, 324.

2220. Wal: In Walapai (p. 139), one informant gave the duration of food taboos as the entire time of the first four menses; another reported "ten days or two weeks."

2222. Pim: This negative was independently checked by the interpreter with another old man, who verified it; use of the scratching-stick at puberty and later menstruations was said to be a Papago, not Pima, custom. Russell however reports the trait present for the Pima (p. 182).

2224. See Walapai, fig. 15.

2226. Moh: Kroeber states that the girl had to be silent (1925, 748). Pim: According to Russell, the girl was not allowed to talk (p. 182). Pap: Underhill's account indicates the rule was lacking (p. 32).

2229. Moh: Kroeber states that the girl spent her time picking arrowweed leaves so she would not be lazy (1925, 748). Pim, Pap: The amount of work done by the girl, except for working on a basket, was relatively slight. She seems to have simply gone along with her proctor who did a normal day's work. Underhill's informant seems to have emphasized the hardships undergone and work performed; perhaps she was more conscientious than most girls at puberty.

2233. Mar: Spier reports two different patterns of daily running, one from the Halchidhoma and one from a Maricopa informant (1933, 325-326).

2233-2234. Yav: Children (both male and female) were made to run toward the east every morning, not just at puberty.

2234. Wal: The running might be in any direction, according to the informants in Walapai (p. 138).

2236. Dieg: The negatives are somewhat unexpected, and may be in error, though the informant consistently denied the pit-roasting.

2237. This caption is meant to differentiate the pit-roasting custom of the present group of tribes from that of the Shoshonean Southern Californians. There was no public rite or singing over the girls. Wal: The informant denied any singing such as is suggested to have been present (in Walapai, p. 138).

2241-2243. Mar: See 2211 Mar, and note.

2247. Wal: The informant thought that the purpose of this "stepping" was to express the blood (!).

Public Rite at Girls' Puberty

2248. The caption indicates that the rite was performed for each girl as part of her ritual rather than for a group who have passed their physiological puberty. Mar: Spier describes a girl's puberty dance (nearly identical with that of the Pima) as one ritual form used and determines it as a Maricopa (proper) performance (1933, 326). The present informant was quite positive that this dance, which he had seen, was a late innovation, borrowed from the Pima. Nearly all of the songs, he maintained, were in the Pima rather than the Maricopa tongue. The inference to be drawn from Spier's account is of course the same, that the dance was derived from the Pima; the disagreement boils down to a matter of relative date of the transfer.

2249-2250. Pap: Sometimes, if enough people were present and there was much food on hand, they began to dance before the four-day proctoring period was over. The girl could be present even then, according to the informant, for she was not really "dangerous" (to others) until she had had her first four menstruations (i.e., until she was a mature woman, by Papago standards).

2256. Pim: Sometimes a few men danced in the women's row, but it was not the regular custom.

2266. Pap: The dance might last any length of time, up to a month--depending, probably, on how well the food held out.

Conclusion of Ritual Period

2267. Mar: Spier reports that the bathing was a daily, not a terminal, practice (1933, 325). Wal: One informant described daily bathing, one, bathing at the end of the pit-roasting (Walapai, 139).

2268. Wal: Warmed water is reported used (Walapai, 138).

2270. Moh: In summer the girl might bathe in the river, it was said.

2273. Pim: The negative may be erroneous, to judge by the distribution of the trait.

2274. Mar: The application of a mud plaster is stated to be a daily custom (Spier, 1933, 325).

2278. Pim: From the general distribution, the negative may be suspect.

2280. See elements 2163-2178, and notes. The name-giving, and the painting of the girl described by Underhill's informant (p. 36) was denied. The

rituals of each singer may have been varied somewhat.

Subsequent Puberty Rites

2286-2287. Moh: According to Kroeber, for the first six periods the restrictions were applied, and for varying numbers of days, as follows: the first two, forty days each; the next, ten; then eight, six, and four (1925, 748).

2286-2290. Mar: Spier states that the entire performance was repeated at each menstruation until the girl married--four, five, six, or more times. Pap: Underhill's account mentions but two dances. Perhaps that was because her informant was already married by the time of the second.

2320. The purpose of this was to keep the sun and wind from striking the newly made tattoo.

Individual Tattooing (Not as puberty rite)

2321. Mar: Spier reports that the girl was tattooed immediately after the first eight-day rite (1933, 326); the present informant said at any time thereafter. Pim, Pap: Sometimes a woman was not tattooed till after marriage (Underhill, 39).

2325. Moh: The informant maintained that for the single line no special observances were necessary (actually the forty-day period of restrictions mentioned by Kroeber may have been in force when this was done). Later, when the entire chin was tattooed, one had to diet, refrain from laughing, and the like, or one's skin would crack.

2328. Pap: Underhill's informant relates that she ate nothing but cactus joints (cholla joints?) until the tattoo healed, "to make it blue."

Menstrual Customs (Postpubescents)

Shiv: See note under Girls' Puberty, p. 205.

2340-2342. Pap: The negatives may be erroneous.

2341. Yav: Gifford reports the trait present (1936, 302).

2350. Pap: The negatives may be erroneous.

Boys' Puberty

2357. Mar: Spier reports that no boys' puberty rite (other than a bee-stinging ordeal which was not specifically a puberty rite) occurred among the Maricopa (1933, 322). The present informant, however, volunteered the information on the group nose-piercing. If the informant was correct (and I see little reason to doubt his veracity; the less so since his description tallies well with the rite of the Cocopa and Yuma), we have another link between Maricopa and Lower Colorado culture, which at the same time sets the former off from their Piman neighbors. Wal: A puberty rite for boys is denied in Walapai, 133. The set of observances recorded here is classed as a puberty rite only because of its function of marking the change from youth to man. It had no physiological associations (voice changing, etc.), but was given when the boy had proved himself a good hunter; he was usually nearing manhood by that time. The application of the ritual pattern (running toward east, fasting, confinement) gives it a definite resemblance to the puberty rites of other Yumans, but its historical relationship to these--whether it was an incipient or a vestigial rite, or an accidental parallel--is far from clear.

2366. Coc: Gifford describes the dances used by the Cocopa (1933, 291). He makes no mention of a circle dance.

2397. Mar: Spier describes the two types of tests: one for small boys, informal, the other more ritualized (with singing, etc.) for youths.

First-Game Usages

2403. Pap: A lad gave his first four kills to a good hunter (not of his immediate family), that he might be as successful as the older man.

2405. Pim: Russell states that the first deer was given away (p. 191). Boys, however, did not hunt deer (this was true among most of the present groups); one began to hunt deer when a young man.

2406. Mar: Spier states that all game was given away, until maturity (1933, 66).

Mortuary Customs

2408. See Kroeber, 1925, 749. Moh: The informant said that this was sometimes done, and added, callously, that in former times if a singer could not be obtained, or if the sick person took too long to die (and the supplies would not suffice for the assembled crowd) "sometimes they picked the [dying] man up and stood him on his feet to see what he was going to do. Then he usually died." Mar: Spier describes (1933, 301) mortuary speeches before death, but no singing (except for the death songs of the shaman). Wal: The recency of this custom is confirmed in Walapai, 147.

2409. "Dressing" refers mostly to the putting on of a few feathers or bead ornaments, in times before European dress was adopted. Mar: Spier reports the trait present (1933, 301).

2411. Mar: A war chief's face was painted black. Pap: The face of one who had killed an enemy was painted white with a black stripe across the upper half.

2415. Mar: Spier reports that the corpse might be kept overnight (1933, 301).

2417. Mar: Four pallbearers were customary; for a large person six were used, said the in-

formant. Spier reports six the regular number (1933, 302). Wal: "Three or four" men went together, taking turns carrying the body. (See element 2419.)

2419. Wal: This custom, if custom it was, seems most unusual for the present region, but recalls southern California, in which region corpses were carried in carrying nets.

2420. See Spier, 1933, 302.

2423. Pim, Pap: This was done, as the Pima informant put it, "so the Apache would not be able to dig up the bones of the dead and dance over them." Apparently these cremations were hasty and with little formality. The (negative) entries following in the Pima and Papago columns do not refer to the procedure on these occasions, but to the nonparticipation in the "regularly practiced" cremation complex of their Yuman neighbors.

2429. Yav: There was no particular orientation of the corpse.

2432-2433. The reason usually assigned for laying the corpse on its face or side is to keep it from writhing so much (or to make these movements less visible). It seems that the burning causes muscular contractions that are not pleasant to see. There is a gruesome theme current in the region (told, of course, for true) of half-burned corpses that rose to a sitting posture in the midst of the cremation, frightening spectators out of their wits. Yav: There was said to be no fixed position for the corpse.

2435. Dieg, Akwa: All (Dieg), or most (Akwa), of the personal effects of any value were given to nonrelatives, not destroyed.

2436. Yav: Gifford states that no one watched the burning (1936, 302). See element 2444.

2439-2441. Moh: "Long ago" there was no speaking, singing, or wailing at the pyre, stated the informant. The flame was put to the pyre and everyone went away, not wanting to see the body burn. However the informant did not make clear whether his "long ago" referred to the rude customs of the mythical beginnings of culture, or some later date.

2439. Wal: A short speech was made at the time the pyre was lighted. This may be a modern feature, like the singing.

2441. Wal: According to the Walapai account (p. 147), "there was wailing but no singing at cremations."

2442. Spier intimates that this was as much an act of purification as an offering (1933, 304).

2443. Pim, Pap: The informants suggested that the custom (of both groups) of scattering a basketful of grain over the spot on which the body had lain was an equivalent.

2445. Wal: Only the "three or four" men who carried the body to the pyre stayed to see that it burned properly.

2446. Mar: Spier states that four pits were dug for the ashes (1933, 303).

2447a. Dieg, Akwa: The firetender was said to be a relative, usually, but he acted in his capacity as firetender in this instance.

2448. Yav: War leaders and shamans were sometimes accorded the distinction of rock-crevice burial, it was said. See elements 2458-2459 Yav, 2467-2468 Yav. Wal: Burial in rock shelters and such had a brief vogue for awhile, "about fifty years ago," when the whites banned cremation.

2450. See Russell, 193.

2453. Pim: These burials were used for those slain on war parties if the survivors thought they could conceal the body well enough so the foe would not find it. Yav: See note 2448 Yav. Wal: See note 2448 Wal.

2457. Russell mentions that this custom resulted from the shallowness of the graves (p. 193). Presumably he means that the material served to keep coyotes and foxes from digging up the bodies.

2460. The posture is with legs crossed "Turk-fashion," and folded arms (see Underhill, 16). The Pima informant added a few points: the shaman was raised up and put in this position before he died, then "propped up" until rigor mortis set in, after which he was covered with wrappings and buried. The four withe arches (element 2462) set about the grave were "doors." Were a shaman treated thus, his grave swept, and offerings put on it from time to time, he would give good luck, rain, and other blessings to his living kin. Russell mentions places of this sort that came to be widely known shrines (p. 193).

2469. See note 2460.

2474. See Underhill, 50-51.

2475. Dieg, Akwa: See note 2435 Dieg, Akwa.

2478. A common procedure in recent times was to ask neighbors to turn their stock into the field.

Mourning

2479. Hair cutting was the chief symbol of mourning in the region. An attempt was made to define different patterns in amount of cutting (see elements 2480-2488). Probably positive entries should appear in every column, except perhaps following "close cropped." Most informants themselves recognize the three factors regulating amount of cutting: nearness of kin, sex, and age. Close relatives, women, and old people cut their hair shortest in their respective classes. All three factors plus personal sentiment entered into the determination of style of cutting in any particular case.

2480. Pim: Russell states that old women cropped their hair close (p. 195).

2488. Moh: Distant male relatives cut their hair thus sometimes, according to Kroeber (1925, 729).

2498. Shiv: The informant commented that water was too scarce in Shivwits country at most seasons to be wasted in such frivolities.

2501. Dieg, Yav: The bathing was vaguely stated to be a "few" days, two or three or so.

2501-2502. Wal: The informant stated that if the sick one "died of some disease" the mourners might bathe and wash their hair. In Walapai, however, both traits are reported customary for those who handled the body only (p. 147).

2507. Moh: Mourners fumigated themselves twice daily.

Souls and Ghosts

2515-2516. Mar: Spier has pointed out that the Maricopa "west" is the same as Mohave "south," that is, downstream. Yav: Gifford states that the location of the land of the dead was known only to shamans (1936, 318).

2517. Pim: This is because Elder Brother departed in this direction (GH).

2518. Mar: According to Spier, the land to and from which twins go was believed to be the northwest (1933, 299).

2522. Moh: Kroeber records this belief as applying to untattooed people. Coc: The soul of a man with an unpierced nose (or of an untattooed girl) "gets lost," said the informant, but did not specify where it went. Mar: The same fate befell women whose chins were not tattooed.

2523. Pim: There was some confusion in the informant's mind on this subject. He stated that it was well known that owls were supernatural creatures and sometimes people referred to them as dead relatives. This last "must be just a saying," however, for as everyone knows, the souls of the dead go to a land somewhere in the east. That there was a clear association of "ghosts" and owls is suggested by the use of "owl songs" to remove sickness caused by dreaming of the dead (element 2525). ("Ghost songs" are different; they are used for another disease.) Russell states, "Some declared that...the soul passed into the body of an owl" (p. 252).

2526. Dieg: Whether the whirlwind contains a ghost or an evil spirit was not made clear: "El remolino es como un diablo," it was stated. A person struck by a whirlwind was doomed; the "diablo" carried off his spirit, or breath. There was no known cure for this illness. Mar: Spier specifies that it was the shadow that turned into the "ghost" in the whirlwind (1933, 296). Pim: The informant pointed out, in support of his contention, that, although sickness was the consequence of being struck by a whirlwind, neither "ghost songs" nor "owl songs" were sung over the patient. There was a special class of "wind songs" to cure this disease.

2527. The trait refers to offerings other than those made at the mourning ceremonial--specifically it refers to offerings of food and water placed on graves, as reported by Russell (p. 194). Pima and Papago informants agreed that this was undoubtedly recent, for it was done chiefly on All Soul's Day. Mar: The informant remarked that, as he understood, the property burned at death was intended not for the deceased alone but for his previously deceased kin. "He was supposed to take it along to distribute among them."

CEREMONIALS

Mourning Ceremony

2528. Moh: Kroeber gives the names Hitpachk ("running"), Nyimich ("mourning") and Nyimichivauk ("cry-put") (1925, 750). Mar: Spier gives the name hĭcpask ("showing") for the Maricopa rite. Wal: The rite has been borrowed in quite recent times ("50 or 60 years") from the Mohave. The name of the rite, said also to be a borrowed one, is kidu'uk. See Walapai, 151 ff. Shiv: The ceremony was adopted "about forty years ago." It came from the Moapa, who in turn are supposed to have learned it from the Chemehuevi. The name was given as yahap'.

2530. Mar: The performance was held for a kwoxot, noted war chief, or a similarly outstanding individual.

2531. Moh: The informant set the time at about "a year after the death," although it turned out that he really meant after the following harvest season. "They have to have lots of food to give it, for there are many people to feed." Kroeber, however, states that it was customarily given shortly after cremation (1925, 750).

2532. Mar: The present informant's statement was that the rite occurred at the time that the body was burned, the runners with the feathered staves circling the cremation fire itself. He may have been slightly confused on this point. Spier's statement is that it took place "within a few days after the death" (1933, 308). Some time would probably have to be allowed for preparing the staves and other things. The informant's confusion points to the lack of formalization and simple nature of the whole affair.

Equipment

2541. Akwa: There were four posts in the center row (from front to rear), with a row of three on each side.

2542. Akwa: The side walls were not vertical, but sloped inward. Wal: Enclosed walls (on three sides) are a late addition, along with bunting, flags, and other things. The first ramadas used were unwalled.

2545. Moh: The informant was not very definite about the orientation. Kroeber indicates however that the south side of the shade was considered the front--the running took place there (1925, 750).

2553. Mar: The Halchidhoma are reported to have used images (but not the Maricopa), according to Spier (1933, 305). Wal: The last time the rite was held, a year or so ago (from 1938) someone made some images, but the directors of the rite would not let him use them. There seems to

have been a definite feeling that images did not "belong" to the Walapai performance. It is interesting to note that the ritual should crystallize so quickly. Other changes have been made in recent years--they are known to be changes but apparently are in keeping with what the Walapai consider the fundamental pattern of the ritual: side walls have been added to the ramada; flags, bunting and similar Caucasian decorations are used; the amount of running with the staves has been reduced; and so on.

2558. Moh: Probably this piece of apparatus was not used. I was told the "shields" used by the Yuma had no place in the Mohave ceremony (the feathered shields seem very like this feathered frame, the main difference being in the hide covering. See Forde, 239-240, fig. 16).

Ritual Procedure

2611. Moh: Kroeber states that there were twelve runners: one a director, one with a war club who was the leader, two with bows and arrows, four with sticks with beads, and four with feathered staves (1925, 750).

2615. Mar: Spier describes reënactment of some battle in which the deceased took part (1933, 308).

2624. Wal: In recent years the runners make 8 circuits in the afternoon, 8 before midnight, and 8 just before the ramada is burned.

2627. Mar: The runners ran to the east side of the fire and stopped. Their leader gave a long loud shout, they replied in kind, then ran around again.

2628. Mar: I am not certain whether the informant meant four circuits, or four times four, as the Mohave count theirs.

Conclusion of Rite

2629. Mar: Spier states (1933, 308) an imitation pyre was made and burned (there was no ramada built). Shiv: A pile of wood was set afire in the dawn to signal that the mourning was over, and time might be spent in games and amusements. The ramada was never burned.

Vikita Harvest Festival

A brief outline of the procedure of the Vikita (vīīkita) festival may serve to make the element-list outline intelligible. The rites of the Pima and Papago were alike up to a certain point--at that point the Pima rite stopped, but the Papago rite went on to its climax.

The Pima Vikita was a one-night affair, that of the Papago lasted one night and the following day. Previous to the rite proper, there was a semiritualistic period of ten days, during which preparations were made, songs practiced, and one group of performers, the Navitco, were much in evidence, clowning and performing their characteristic antics. When the night of the ceremony came, the singers and dancers repaired to the ritual enclosure; there they sang over "images" or representations of wild and domestic food plants, and game. (Underhill's account [p. 23] suggests that sometimes a man made an image because he dreamed a song about the object represented. I failed to determine if this was invariably so.) The songs, to an accompaniment of notched-stick rasps, were of rain and bountiful crops both cultivated and wild, for the avowed purpose of the ceremony was to bring plenty to the land. In the songs were mentioned all the food products represented by the images. This night of singing was the climax of the Pima Vikita. In the morning they stopped, the dancers bathed, and the rite was ended. The Papago, however, seem to have regarded the night's singing to be little more than a practicing, a sort of dress rehearsal for the events of the day to follow. Just before dawn four children were led out from the enclosure to a shade a short distance away. They represented the children who according to legend were sacrificed to stop the great flood. (The "dramatization" was really most abstract, being the merest allusion rather than a reënactment.) (See elements 2700 ff.) The remainder of the day was spent in making a procession around the outside of the enclosure, bearing the multitudinous images of edibles that had been made. (See element 2720.) Each dancer carried a different object with each song, making one round to a song. The climax, if there was one, seems to have been when the Cloud image was brought out, when some of the dancers ran about with bull-roarers and the Navitco with many a grotesquery pretended to cultivate the tiny representations of fields made near the enclosure. After the procession, people went home.

Other differences, less patent but quite as significant as the disparate procedures, occurred. Among both groups the ritual was essentially a village affair, but among the Papago the ceremonial was strictly localized. In fact it was given in one village only (by Arizona Papago; the people to the southwest, at Quitovac in Sonora, have their own Vikita). Certain near-by villages took part also, as villages, with their own sets of singers and dancers; no one else had any part in the ritual. People came from miles around to watch, but did not participate. Mar: Spier has suggested that the Maricopa Mountain Killdeer dance may be identified with the Pima-Papago Navitco-Vikita complex (1933, 233, note 4). However, the Pima had another dance, a purely social one, which is much more like the Mountain Killdeer performance (see under Social Dances). The Maricopa did not have a true Vikita.

2647-2649. Pap: The rite was held only at Achi. The other participating villages were: Anegam, Akchin, kaitcmâk, Iron Pipe (with whom those of kœkmâtkoe:k combined). There were thus five groups, representing six villages, who took part.

2656. Pap: At least, there was no public ritual performance, though the ceremonial chief who kept the bundle and his aides may have observed some rites in opening it. The bundle was not publicly displayed such as in the Vikita at Quitovac in Sonora (see Davis, 1920).

Dramatis Personae

The attributes, regalia, and such of these ritual figures are listed in a later section. See Masked Dancers.

Ritual Procedure

2684. Pim: No mention was made of a ceremonious entry. I understood the informant to say that the images were all placed in the center of the enclosure beforehand, which implies there was no procession.

2690. The singers of each village had eight new songs for the procession to follow. Mason (1920) reports that the Vipinyim were supposed to compose them for the occasion.

2710. The dancing was little more than a jiggling up and down in one place.

2711. At rests, bystanders took the objects from the children's hands, and the baskets of meal from the attendants, and lowered children and attendants to the ground. When the singing was resumed, all six were lifted up. They were supposed to be unable to sit down or rise unaided.

2748. Pim: The Navitco used notched rasps (rather than feathers) (GH). (This statement may represent variation of custom rather than fixed practice.)

Ceremonial Drinking for Rain, Crops

Yaq: While the main portion of the Yaqui rite described below is of Catholic origin most obviously, and has little or nothing to do with native performances such as the Pima-Papago ones, the association of drinking with a ceremony for rain makes it comparable. The informant pointed out that this was the only occasion on which drinking was permitted during a ritual. In all others fasting was mandatory till the conclusion of the ceremony. (Then, to be sure, one might drink, "por el descanso.") We probably have to do with an association strong enough to weather the change from native to Christian religious forms.

2751. Mar: The informant, in dating the performance as "recent," specified that he meant it was something learned during the years after the removal from Gila Bend to the vicinity of Casa Blanca. The lower time level is probably about the beginning of the nineteenth century, which is not of course particularly recent. The point is that he felt definitely that the rite was not a Maricopa one, but a borrowing from the Pima.

2752. Mar: The drinking was for health's sake: the vomiting induced was supposed to have a salubrious effect.

2756. Mar: Spier reports June-July to have been the time for the drinking (1933, 56). According to the present informant they sometimes had a wine-drinking then, but fall was the main season. Most of the wine was made of syrup traded from the Papago, rather than from fruit gathered by the Maricopa themselves, and the Papago brought it in the fall after the harvest season. The informant may have been describing practices of times somewhat more recent than those of which Spier's informants told.

2767. The "rain-making" (djūūtckī) was not an invariable accompaniment of the drinking. The drinking itself brought rain, but this performance was something special. Russell has recorded one of the ceremonial opening speeches (pp. 347 ff.).

2768. The dance ground was always a little distance from the ceremonial house. It was specified that the rain-making might not be held too near the structure.

2770. This is similar to the ordinary social dance (see Lumholtz, 1912, 50).

2777. The tricks usually represented the falling of rain, growth of crops, and such. Russell describes some characteristic Pima magic (pp. 258-259). Pap: According to the informant, the shamans sat in the circle but did nothing whatever so far as the eye of the layman could perceive. (Of course they were "using their power" to bring rain.) Their display occurred at a later time, at the beginning of the drinking, when they worked magic, "found" the rain, and so on. Whether this was true at all Papago drinkings, or only the more formal ones at the ritual center of Achi, I do not know.

2780. Among the Pima this performance was optional, performed only when there was a great deal of wine. A small jarful was taken from each person's olla and put in the common stock. The Papago always had this preliminary round of drinks, at least at the drinkings at Achi. As I understood, it is optional elsewhere. Some informants maintained that long ago Achi was the only place at which wine-drinkings were held. They were somewhat vague on how long ago this was. The custom may date back to the period of concentration of population during the Apache raids, or it may be a transposition of the idea of localization of the Vikita.

2787. Pap: See element 2777 Pap.

2788. See Lumholtz, 1912, 48. Informants denied the ritual procession with the basket; Lumholtz's description apparently refers only to the Quitovac custom. One informant (Pap 2) would have it that there was one basket (i.e., bundle) for the Achi wine-drinking, and another for the Vikita. Both were stowed in the ceremonial house.

2789. This apparently was a length of rope to which eagle feathers were attached (see Lumholtz,

1912, 48). The shamans shook it, and water fell from the plumes.

2790. Mar: Spier reports shamans' sleight-of-hand displays at the wine-drinking (1933, 290-291).

2794. The invocation was a short prayer for rain. According to the Papago informants each singer also dipped his fingers in the wine and flicked the drops of wine into the air, making a ceremonial sound, "hm+."

2799. Mar: This was the only kind of drinking the Maricopa had, according to the informant. Asked about the "xatca" singing reported by Spier (1933, 58), he said they sang what they pleased when they were drunk, "just like nowadays."

2801. Yaq: Another rain rite may be noted here for lack of a better place. On San Juan's Day (San Juan is patron of wild products, and of "las lluvias de las sierras" as the informant put it) a procession was made to the riverbank, led by the Maestro, Sacristán, and one pascola dancer. The three entered the river, and the Sacristán raised a cross which he bore and said a benediction. The pascola dancer repeated the benediction, splashing water high in the air with his hands, thoroughly wetting all three. Then the people entered the river and bathed. "Thus they call the rain." Drinking was not tolerated until the conclusion of the rite.

Social Dances

The dances described under this head were those used socially, and do not include the dance forms incorporated into rituals for other purposes, for example, puberty ceremonials.

"Mountain Killdeer Dance"

This name, used by Spier (1933, 231 ff.), has been retained to distinguish the performance from the "Bird dances" (a song cycle) of other groups. The Pima name is œɛtåewop (Pap, œɛtaevohpo'otam, which is said to refer to the girls who danced).

2811. Mar: Unfortunately data were not obtained on the Maricopa dance. Spier's account (1933, 231 ff.) checks point for point with the Pima-Papago form.

2821. Pap: Negative may be erroneous.

"Deer Dance"

2831. Mar: The dance was used at the harvest feasts, not as a preliminary to hunting. Pim, Pap: The negatives were given in response to questions of dances in which deer were represented, in connection with preliminaries to the hunt. It may be, although it does not seem likely, that both Pima and Papago had a similar performance as a part of a social dance which the informants did not recall out of context. Yaq: This form of Deer dance was used in connection with other ceremonials, not as a hunting preliminary (there was a hunting ritual in which the Deer dancer performed, however). It should be noted that Densmore describes a Yuma "Deer dance" (Densmore, 1932, 130 ff.) in which "the men are painted and usually wear an animal's tail or the head of a deer." Her account of the performance, however, sounds like an ordinary song cycle; there is no mention of the characteristic Yaqui dramatization of the hunt, nor the obscenity.

2836-2838. Spier describes this part of the performance as a hunting rite (1933, 69), but not only does his description fit the Yaqui pattern too well to be anything else, but Maricopa shamanism did not provide for the "hunting shamans" who normally would conduct this rite.

Round Dance

2839. Moh: Kroeber states that the Mohave used a dance of this type in connection with a song called Alysa, said to have been borrowed from the Kamia (1925, 766). Mar: The informant believed that his people had some kind of a dance in which "they went around and around in a circle," but could recall no details. Spier gives a full account of a dance, in which men and women lined up alternately (element 2840), clasping hands (element 2841), singer was in the center (element 2842), dance movement was counterclockwise (element 2843) (1933, 230). Yaq: The informant was not sure whether his people ever had a round dance, but thought not.

Square Dance

2844-2846. Moh: Kroeber describes a dance form of this sort as used in connection with the Pleiades songs (which appear to have been primarily social, not used at funerals, etc.) (1925, 765). Mar: This dance form was used "with Buzzard singing" according to Spier (1933, 235) as well as in the girls' puberty dance (of recent acquisition?). The present informant stated that it was sometimes used in the Victory dance. Pim, Pap: Besides the use of the form in the girls' puberty dance, one of the routines of the "Mountain Killdeer singing" was declared to be of this type. Wal, Shiv: This was the type of dancing accompanying the "Bird songs."

"Dog Dance"

See Gifford, 1936, 291. This dance was used at intervals at nearly all Northeastern Yavapai dances, to vary the monotony of the round and square dances. Wal: The informant consistently denied this dance form. He suggested that it was the same, or nearly so as the "Bear dance" of Paiute and Navaho, which he had seen at various times.

2850. This dance is doubtless absent among the groups for whom no entry has been made. It might be well to remark that at the conclusion of a set of entries on any topic, for example, "Social Dances," inquiry was made on whether there were any other dances (besides those previously specifically asked for). Various items were volunteered in response on some topics, indicating the method was effective. When general negations were given, the subject presumably was exhausted.

Begging Dance

See Russell, 171.

2852. Mar: The informant stated that "only the Papago do this," but may have been in error. Spier gives a description of such visits to the Pima, though no mention is made of the characteristic "name songs."

2853. Russell speaks of the name song as though it were a fixed framework: "the song... provides places for the names in each stanza. There are seventy stanzas in the song and if there are more than twice that number of visitors it may be repeated and other names substituted" (p. 171). The present informants said that the songs were improvised for the occasion. Prominent men were named, and their virtues mentioned flatteringly. "They sang of So-and-so and how he was a great warrior or hunter." Other songs too, which were new and amusing, were sung.

Masked Dancers

The following section is the result of an attempt to bring out some interesting parallels in ritual figures of three groups, Pima, Papago, and Yaqui. It should be noted that the present form is a synthetic one, that is to say, the several dancers were described in connection with the ceremonies in which they functioned (the Pima-Papago dancers in the Vikita, those of the Yaqui in the Easter rites). Both Papago and Yaqui material, moreover, are from free accounts, checked afterward with the list entries, rather than by direct list questioning. The Papago material is from informant 3.

2856. Mar: A description of the clown in the Mountain Killdeer dance (q.v.) was not obtained. The points of similarity mentioned in Spier's description (1933, 232) have been marked with asterisks. Pim, Pap: The dancer described in these columns is the navitco of the Vikita ritual. Yaq: The dancer is called "Long-narrow-nose" (Tcapaiyakam); in Spanish he is designated Fariseo. Yav: Gifford reports (1936, 308) that the Verde Valley people alone of the Northeastern Yavapai impersonated the akaka spirits in curing. The present informant, although readily describing the summoning of these spirits for curing, and something of their performance, peculiarly enough refused to admit that the performers were masked dancers, not real spirits. Thus it was impossible to obtain details of regalia, and such. Whether he did not know, himself, that these were impersonators, I could not make out; more likely he feared bad luck might come from talking about them (a belief recorded by Gifford for the Southeastern Yavapai). Similarities to the other masked dancers, marked by an asterisk in the Yavapai column, have been taken from Gifford's account of the Southeastern Yavapai (1932, 236) (except for the mention of "horns" attached to the mask, which is from Gifford, 1936, 308).

2864. Lumholtz noted the hornlike appearance of these plumes (1912, 93), as do modern informants. Yaq: The horns were not of feathers, but their material was not specified. Beals states that they were tubes or long cones of buckskin (perhaps with twigs for a foundation) (Parsons and Beals, 1934).

2872. Pap: Lumholtz mentions a "wooden machete" as one of the typical implements of the navitco (1912, 93).

2875. Mar: Spier states that the Mountain Killdeer clown had reverse speech, but not behavior (1933, 232). Pim, Pap: While it is sometimes difficult to draw the line between ludicrous and reverse behavior, it seems certain that the navitco have no attributes of the latter type. The concept of opposite behavior occurs in Pima-Papago culture in another connection; see element 3189. Yaq: Reverse behavior is manifested in things such as use of left instead of right hand, turning about and extending the hand backward to receive a gift, and so forth.

2878. Pim: Speaking in any mask was taboo (GH).

2879. Pap: Certain of the navitco, apparently the leaders of the (village) groups, could speak and sing. They used a high-pitched squeaky voice.

2880. Pim: The selection of the singers, ritually indicated by sprinkling corn meal on them, suggests directorial functions. Pap: Direction of the rite was in the hands of the ceremonial chief (medicine-bundle keeper).

2882. Pim: This act occurred at various times during the preparatory period and the rite. Anyone hit (on the legs) stopped, sat down, and was "healed" (exorcised) by the navitco (see elements 2883-2884). Pap: The vipinyim chased each other with bull-roarers during the display of the cloud image.

2883. Pim, Pap: An abbreviated version of the Vikita singing was sometimes performed over those who became ill because of a breach of a taboo of the Vikita (cf. Parsons, 1928, 462). Yav: Curing was the principal function of the akaka dancers.

2890. The following section (elements 2890-2900) describes the vipinyim of the Pima and Papago. Lumholtz figures masks of this dancer (1912, pl. opp. 96).

2901. The following section (elements 2901-2914) describes the kokshpakam dancer.

2915. The following section describes the Yaqui pascola dancer. Russell figures a pascola

mask (fig. 26) bought from the Pima, though he notes it is probably from the south.

2922. See Russell, fig. 83.

2924. This type of dancer did not use a mask, but is described here for lack of a better place. The performance (which occurred during Easter and other processions) seems to have been originally a warrior society dance.

2927. The arrows were held loosely and tapped against the bowstring to produce a rattling sound.

SHAMANISM

Dieg: Owing to the peculiar circumstance that informants consistently denied the existence of shamans at La Huerta until quite recent times, data were not collected on this topic. Informants were disinclined to discuss the topic at any length. Just what has happened to the shamanistic complex here--what factors could have extirpated it not only from the functioning culture but from memory too, is an interesting problem. Shamanism has been suppressed in many regions but at least persists in memory, even acquiring a certain grandeur as informants relate the mighty feats of magic of long-dead heroes. I can scarcely believe that the two informants deliberately misinformed me, especially since both admitted shamanism existed within their own lifetimes, and that some magic (mostly malignant) is still practiced.

According to the bits of information given, shamanistic practices were learned from the Diegueño living to the north. There was one La Huerta man (Xatiniyī) who lived there awhile (perhaps fifty years ago), then returned, claiming shamanistic power. He was the first shaman at La Huerta [!]. When people sickened (from his machinations, as a matter of fact), he sang, smoked, and blew over them, and sucked the afflicted part. He seemed to remove something, which he spat or blew away but never showed. For curing, he was given a horse, cow, or burro. Finally his own relatives killed him [there was, it seems, a pattern for dealing with these individuals].

During his spectacular if brief career he taught another man, J.A. (the father of one of the present informants). People believed that he gave J.A. "some kind of medicine" to make him dream--no one knew what it was. [Perhaps it was toloache.] J.A. "doctored many people but never cured a one," but for some reason he was never accused of witchcraft, and died of old age.

There was another man, a contemporary of these two, who learned how to cure snake bite in a dream. He dreamed that he went up north across the International Boundary and learned from the people there [!]. When someone was bitten, this man came, sang four times, making four circuits about the patient. Then he told the kin of the patient that they were to bathe and fumigate themselves with chamiso brush daily for four days. They paid him in food, horses, and such. At the end of the four days some of his patients got well and some died. "This was the only snake-bite doctor ever to live at La Huerta."

Types of Shamans

For purposes of bringing out intraregional differences, shamans have been classified as "general practitioners" (element 2932) and "specialists" (element 2938). The essential difference between the two types is one of function. In the specialist complex one shaman diagnosed the ailment, another did the curing. (Among the Pima, one diagnosed, one removed the intrusive object, and another exorcised if necessary. The Papago combined the first two tasks, the diagnostician removing the disease object when there was one, and the singing shaman exorcising, which it seems was nearly always necessary.) The diagnostician functioned in illness chiefly because of his power of clairvoyance, which served him as well in other capacities: weather control, war, hunting rites; that is, he "saw" where the rain clouds were, or where the foe were camped, or where the antelope grazed. The disease extractor and the singer (exorciser) had power of a different sort, and less power, at that. While among the general practitioners of other tribes there were those who specialized in curing particular ills, and others had clairvoyant power and so on, this kind of specialization was entirely unsystematic, not strictly classified.

2932. The typical Lower Colorado shamanistic complex is set forth in Kroeber, 1925, 775-779, and Spier, 1933, ch. 9.

2933-2934. Wal: The "real" shamans could cure any ill, but there was a class of minor curers who dealt with diseases sent by Mountain Lion, or Buzzard (element 3023). This latter variety resembled in a fashion the exorcising shamans of the Pima and Papago, although in the presentation of the lists they have not been included in the section on the latter, on the grounds that they were not an important class--not typical of the Walapai shamanistic complex--and furthermore did not use the homeopathic treatment so characteristic of Pima-Papago exorcising.

2937. Akwa: Hunting shamans were not considered to be real shamans by the informant. Their power came not from dreams, but "from God, who gave them the power to make their songs."

2938. See Russell, 256 ff: Parsons, 1928, 461.

2940. The principal occasion for this weather-finding or making was at the rain ceremonies sometimes held in connection with sahuaro-wine drinking.

2946. The singer was called wusīw, which both Pima and Papago informants declared referred to "blowing" (such as, to blow a fire, etc.). As the Pima informant explained, "The wusīw didn't

have any power, himself. All his power was in his songs." This apparently refers to the fact that the singer had none of the crystals or magical objects in his body that gave the other shamans their great power. Anyone could dream a song that could be used for exorcising; apparently the number of singing shamans was legion. The blood purification rituals (with the white clay) were slightly more elaborate forms of exorcising.

2950-2951. Wal: Some women nowadays make claims of power, but the informant was inclined to think that they do not have much power, if any. Anciently, only men were shamans. According to Walapai (p. 185), however, there were some female doctors formerly.

Source of Power

2952. Moh, Mar: Many people dreamed; shamans' dreaming differed in pattern only in minor respects from the pattern for other gifts: for oratory, success in war, and such. See Kroeber, 1925, 754; Spier, 1933, 236 ff.

2954. Moh: Dreams in childhood (and later life) were considered to be repetitions of the prenatal dreaming and served to jog the dreamer's memory. They were usual but not essential. Pap: Some dreamed in childhood (see Underhill, 19). Wal, Shiv: Some dreamed in childhood, but it was not the common thing.

2957-2958. Mar: Spier reports deliberate seeking of dreams occurred, though rarely (1933, 244).

2959. Mar: Spier cites one account of a vision experience, but makes clear it was an anomalous case (1933, 245).

2966. Yav: See Gifford, 1936, 310. The method of instruction, use of sand painting, and such, reported by Gifford, were unknown to the present informant. The difference in the accounts may be an expression of difference of knowledge possessed by shamans and laity. Also, Yavapai shamanism has been confused by acquisition of new traits and concepts during the years of residence with the Apache at San Carlos Reservation.

2967-2970. Pim: Both Russell (p. 257) and Parsons (1928, 458) report transmission of power through inspiration (throwing of object) by an older shaman. The informant knew nothing of this procedure. In fact it was his opinion that if a shaman "threw" some of his power into a youth, the latter would die at the same time that the old shaman died. He felt that only the songs of the exorciser could be taught, though even they were usually dreamed individually.

2975. It is difficult to make sure whether shamanism was really hereditary, or whether informants simply had in mind the common tendency for shamanism to run in certain family lines. Mar: Spier reports that heredity was not a factor in shamanistic dreaming (1933, 241), although war leaders' sons seem to have dreamed, as their fathers had. Wal: In practice, shamanism seems to have been hereditary, according to Walapai, 185.

2978-2978a. See Underhill, 19-20. Pim: Russell's account indicates that the same set of shamanistic concepts prevailed as among the Papago (p. 257), despite the present informant's denials.

2978b. Pap: The informant told a story of a shaman, who was found, on being killed and cut open, to have a live horned toad in his heart. Whether this variety of power object was common is not clear.

2978c. See Russell, 259-260; Underhill, 19-20. Wal: The object is said to be a small stone given by the shaman's spirit (Walapai, 191). The present informant described it as a small white object, of varying size and shape, animate or semianimate. It seems to have been a material embodiment of his spirit. The shaman could cough it up to display it before his admiring public.

2979. See Kroeber, 1925, 759; Spier, 1933, 252. Wal: The informant was not certain of this, but thought it true. Walapai (p. 186) confirms his surmise.

2981. Pim: In native theory, dreams (and thus power) came from Earth Magician and/or Elder Brother (GH). Pap: Some few men dreamed of Elder Brother and received power from him. Yav: See Gifford, 1936, 310.

2982. Yaq: The gigantic serpents inhabiting the cave where the seeker got his power may be classed as monsters rather than animals.

2983. Mar: The informant's hesitant affirmative is corroborated by Spier (1933, 249 ff.).

2985. Mar: Spier states that the number of power-giving animals was apparently restricted (1933, 249).

2990. Mar: Gourd rattles were used only by Pima shamans or recent Maricopa practitioners who learned their craft from the Pima. Yav: Gifford states that a flute was used by the older (pre-San Carlos) type of shaman (1933, 311).

2993. See Gifford, 1932. According to the present informant, these "spirits" were called in for a special disease sent by Bear.

2998. Pim: The shamans were mentioned as locating disease objects causing epidemics (i.e., when the whole village was sick; see elements 3102-3106). Russell states that they used canes at all kinds of cures (element 260).

Disease and Curing

2999-3001. Mar: This concept was associated with the recent Pima-type shamans, not the old Maricopa ones.

3000. Yav: Jealous women were responsible for witchcraft.

3006. Wal: Sometimes the disease object, when about to be extracted, would "jump out" and travel about the house, or try to hide in the fire. (It should be mentioned that these disease

objects were the same objects [material forms of the spirits] that the shamans carried about inside of them.) The shaman would put his elbow in the fire, sucking on his hand to draw the object from the flames.

3008. This is said to be a common Southern Paiute curing position (Kelly, 1936, 131).

3009-3010. Akwa: See elements 3013-3014 Akwa.

3010. Yav: Gifford states that no object, but blood only, was sucked out (1936, 311).

3012. Forde discusses this type of sucking in Yuma curing (pp. 200-201).

3013-3014. Akwa: No one but the shamans knew the form of the disease objects, because, after extracting, the shaman put the object on his own head or swallowed it. The procedure may have been an approximation of the Lower Colorado practices (see element 3012). Wal: The shaman swallowed the object, after displaying it. Apparently he added to his own power thus.

3019. The type of dream-poisoning or "bad dreaming" characteristic of Lower Colorado beliefs is discussed by Forde, 187. It is clear enough among the River tribes, but elsewhere is hard to distinguish by brief questioning; one must get full accounts of disease and cures to make sure whether the informants mean that bad dreams really cause the sickness, or whether the dreams are a symptom of a disease from some other cause, or omens of ill to come. Thus informants of all groups stated that to dream of dead was "bad," but so far as I could make out, most of them meant these dreams were omens of disaster rather than causes.

3020. See Russell, 262 ff. Mar: A few animals only caused disease; not a great host of them, as among the Pima. Eagle, "chickenhawk," and owl all were malignant. Even touching them caused sickness (a specific ill came from each, as among the Pima). Turtle caused lameness, and jack rabbit was very dangerous--its blood was deadly poison, the Maricopa believed.

3021. The concept underlying the belief in animal disease was that there was a breach of taboo involved. Should one needlessly harm any animal he became sick therefrom. Just what constituted needless harming differed according to species. Thus if one stepped on a horned toad, one became ill; stepping over a rattlesnake caused sickness. The extension of the concept to the Yikita ceremony neatly illustrates the principles involved--the sickness from breaking a ritual taboo is no different in essence from that resulting from stepping over a snake (though symptoms were of course different), and the curing procedure was the same. In a few cases only does this concept not fit, for instance there was a variety of "deer disease" which was sent by an evil shaman, not by maltreated deer.

3024. Pap, Yaq: Both informants declared soul-loss sickness occurred, but that it could not be cured. Wal, Shiv: Soul loss seems to have been thought of as a complication attendant on serious illness from some other cause. "When a person sickens, becomes very weak, his soul may leave him" (Shiv).

Curing Methods

3036. Pap: The combining of the functions of diagnosticians and extractors is one of the chief points of difference between Pima and Papago shamanism. Yet the specialization persisted even in the Papago complex in the differentiation of diagnostician-extractors and exorcisers.

3041. The exorcising was to remove the evil essence causing the disease, or which accompanied disease caused by an intrusive object, or even an active poison. It seems that one was "sung over" after the cure when one was bitten by a rattler, and similarly after a bite from a Gila monster. The venom of the Gila monster was not considered to be fatal, but unless one was sung over one would get sick "maybe years later" from the bite.

3051. Moh: Kroeber reports singing as part of the Mohave cure (1925, 775). Mar: Singing was a practice of the Pima shamans only. This accords with Spier's account (1933, 283).

3052. Wal: The informant denied sleight-of-hand displays as such, but the pursuit of a fleeing disease object and extracting it from the fire (element 3006 Wal, and note) should probably be so classed.

3059. Mar: Reported present by Spier (1933, 283).

3061. Yav: This was said to be a custom of shamans since San Carlos.

3062. Moh: Reported present by Kroeber (1925, 775).

3071. Possession is a concept not always readily defined by brief direct questioning. It was undoubtedly absent among the River Yumans; the published ethnographic accounts make this clear. But Pima-Papago shamanistic beliefs suggest possession, though of a specialized form. The more common form of this concept appears clearly only among the Walapai and Shivwits, however. Wal: See Walapai, 186.

Special Cures

3073. Pim: Reported present by Russell, 257.

3073a. Pim: This may have been a misunderstanding. The informant may have been referring to the purification after the bite.

3074. Pap: Underhill's account mentions use of a split buzzard feather ligature (p. 62). Yav: A buzzard feather was split and bound about the bitten member. Shiv: This entry refers to a most rudimentary ligature, if it is to be considered to be one at all. The shaman seized the bitten limb in his hands and held it tightly "to prevent the swelling from going any farther."

3075. A ring was painted above the bite to halt the swelling.

3076. Pim: Russell reports sucking of a snake bite (p. 264).

3077. Wal: Reported present in Walapai, 187. Shiv: The "snake" was drawn out with the shaman's cane, in a manner not clear. The shaman did not suck on the cane, it was said.

3082. Akwa: A very crude sand painting, simply four little mounds of earth heaped up in each at the cardinal points constituted the sand painting (Gifford describes a very similar one made by the Cocopa in curing club wounds [1933, 311]). According to the informant the four dirt piles did not represent mountains or anything else; "it was just a custom." Pap: The only other sand painting reported by any of the present informants was one made not for snake bite but in curing "wind sickness." Four circles were drawn on the ground, one at each cardinal point, and in them sticks were placed to represent trees, and small images of animals as well. The sticks and images were painted (just how was not known; the informant had heard of but not seen the rite). After the songs all the things were knocked down, and the patient brushed with creosote-bush branches.

3084. Mar: The wound doctor was the only Maricopa shaman who sang, in former times. This accords with Spier's information (1933, 287).

3091. The smoke itself brought the soul of the "dead" person back, or drove off the ghosts conducting it (see Spier, 1933, 287; also Forde, 193).

3094. Mar: Spier describes this procedure in clairvoyant demonstrations (in war time, to foretell outcome of a race, etc.) (1933, 292). The recovery of the soul by means of tobacco smoke (see note 3091) was the principal method, according to the same writer. Yav: Gifford describes this procedure in connection with clairvoyance (1936, 310).

3097a-3097b. Moh: Ashes were rubbed on the sick person "to cure chickenpox" (!). Yav: Ashes were sprinkled about in curing "ghost sickness." I am not certain whether they were rubbed on the patient's body.

3098-3099. Pap: The pay, and manner of giving it, depended on whether the shaman was a relative or an outsider. A relative would not specify the amount he wanted, nor even ask for pay at all (though it was usually given him). An outsider would have no such compunctions. The exorcisers, it could be added, were given food, but no pay for their services.

3099-3100. Yaq: "It was customary to give a cow to the shaman for curing." The informant spoke as though this was a fixed rate, but undoubtedly there was more variation in amount.

3102. Shiv: The shaman posted their guardian spirits to protect the village against epidemics, but apparently without displays.

3103. Wal: Shamans sometimes sang, "and went around out in the dark" doing something to ward off pestilences. The informant believed that their efforts did little good, if any.

3106. Disease objects were sometimes sent or placed near a house or in the middle of the village, thus making all the people sick. The procedure then consisted in a search for the object.

3107. "Deer sickness" of the epidemic type came from just a source such as that described in the preceding note. There was an individual form of the disease also, however, which came from deer.

Black Magic

3118. Moh: See Kroeber's account of Mohave bewitching and treatment of witches (1925, 778-779).

3120. See Gifford, 1936, 317.

MISCELLANEOUS CUSTOMS AND BELIEFS

Toloache

3123. Dieg, Akwa: The Toloache dance was once brought down by some Diegueño from the north. They danced it at Santa Catalina, but the local people watched only, did not take part. The La Huerta "capitan" forbade any of his people to attend, though they had been invited. This seems to have taken place sixty to seventy years ago.

3124. In recent years, at least, many people throughout the region have taken toloache once or twice simply for the experience.

3125. Whatever one did under the influence of the drug would be his forte in years to come. (Usually young men took toloache.) Some went through the motions of planting or cultivating; they would be good farmers. Others "thought they were gambling," going through all the motions of playing some game; they would be lucky or skilful at the pursuit.

3126. Akwa: To prove her assertion, the informant pointed out that card players were the only ones to use the drug. Those who gambled at native games did not. It is interesting to note the fusion of native and European traits here: card gambling with toloache taking, with the direction associations of the plant's use preserved (see elements 3129-3130). Moh: Kroeber states that gamblers took toloache for luck (1925, 779).

3127. Yav: Gifford corroborates the present informant's statement of this usage (1936, 261).

3128. Shiv: Some got power thus, though it was not an avowed aim when taking the drug.

3129-3133. Moh: Kroeber states that leaves from the west side were used, not the root (1925, 779).

3135. Pap: Toloache was deadly poison. Only one who had dreams (or visions) would even dare to carry it.

Ritual Expedition for Salt

3136. Lumholtz gives a fairly good account of these expeditions (1912, 270 ff.). Pim: Occasionally a Pima accompanied some Papago friends, but the expeditions were considered by the in-

formant to be properly a Papago custom, not Pima.

3141. Each man carried a small coiled basketry "cup," which was his only eating and drinking vessel. The bit of pinole he took was food and drink combined.

3155. "The salt that they bring is clouds from the ocean; the bull-roarers represent thunder."

3161. The singers are men noted for excellence in any activity: good cultivators, skilful hunters, bold warriors, and such were chosen to act in this capacity.

3162. Each singer went down the row of salt-gatherers. Each one he brushed (with his hands) and sang over (just as in all purifying and exorcising), then made a speech, in which he expressed the wish that the salt-gatherer would have the quality (see note 3161) for which he himself was renowned.

3169. Another informant stated that eight days was the duration of the seclusion (Lumholtz makes it still longer: ten to sixteen days).

3171. Apparently the chief reason for going on the expedition was to obtain a vision.

Berdaches, Etc.

3172. Yav: Gifford also reports denial of berdaches (1936, 296). Wal: The informant seems to have had in mind a recent example. Walapai records consistent denial of berdaches (p. 141).

3173. Pap: Transformation as the result of a dream may have been true only of those who became berdaches after maturity (such a one is said to be living in Sonora at present).

3176. See Underhill, 1936, 39.

3179. See Kroeber, 1925, 748. Coc: The informant believed that there was a rite but knew no details. Mar: This negative accords with Spier's informant (1933, 243).

3183. Pap: This must have been most rare. Berdaches seem to have been scorned by Pima and Papago, and, among the latter, a man who consorted with them was singled out for ridicule (see element 3191).

3185. Mar: Reported present by Spier (1933, 243).

3186. See Underhill, 1936, 27.

3189. There seems to have been little of formal group organization among the Pima, none among the Papago. Among the former, a young man might go about offering tobacco to his friends. If they accepted, he told them that they were now "Backwards," and must do and say things by opposites (see element 3192). When others heard of it, they would tease the "initiates," and the latter, in response to the teasing, would begin to act in the characteristic manner. "After awhile," opined the Pima informant, "it seems to become a habit to talk and act like that." The term for these men was applied jocularly by both Pima and Papago to each other.

3190. This refers to the myth of origin of the "Backwards."

3192. See note 3189.

Time, Directions, Beliefs

3194. Mar: The "moon names," as Spier makes clear, are not really descriptive, but refer to agricultural and other products, and also to the clans (1933, 144 ff.). Pim: Russell gives two sets of moon names (p. 36), indicating, perhaps, local differences. Pap: Lumholtz gives a Papago calendar (1912, 76). Wal: The moon names referred to seasons and stars, according to Walapai, 112.

3195. Pim: The informant stated with conviction that there were twelve names (though he did not know them), because Elder Brother counted them off on the twelve tail feathers of a certain small bird.

3196. Mar: Spier's data are corroborative: he gives a series of six names, repeated each year.

3197. Yav: Gifford corroborates this numerical moon count (1936, 320).

3198. Pim: Russell states that the ripening of the sahuaro fruit marked the new year (p. 35); the present informant thought that the maize harvest was the beginning.

3199. See Russell, 34 ff.; Spier, 1933, 138. Coc: The informant said that there were two calendric annals among his people, one kept on a stick and one on a knotted string. The first he thought had been burned with its owner not long ago; the other was still about somewhere, among the people on the Sonora side. This may, if true, represent a late addition to the culture, derived perhaps from the Maricopa. Pap: Lumholtz mentions a Papago calendar stick (1912, 73); as does Underhill's account (1936, 58).

3200. Mar: Spier states that there were six directions, the usual four, plus "sky" (meaning zenith) and "earth" (nadir) (1933, 150). So far as the present writer could learn there was no ritualistic use of "sky" and "earth" as directions, nor did the informant consider them so.

3201-3202. Moh: Kroeber states that there was no color-direction symbolism. Coc: The informant's account does not correspond to that recorded by Gifford: N, white; S, yellow; E, red; W, black (1933, 287).

3204. Pim-Pap: The color associations given by the Papago informant are the same as those of the Pima given in a rain-ceremony speech recorded by Russell (p. 347 ff.). Herzog's notes give yellow rather than red for north (GH).

3208. Mar: General misfortune is an alternative interpretation, according to Spier (1933, 149).

3209. Coc: Many shooting stars presaged misfortune.

3210. This is a common belief in Southern California (see Drucker, CED:V, element 963).

3211. Yav: Both celestial bodies were male, according to Gifford (1936, 317).

3212. Pim: Coyote was the child of Sun and Moon. The markings on the moon represent "Darkness" left over after Earth Magician extracted Darkness from the moon (GH).

3213. Coc: Gifford records the belief that a lizard eats the moon, causing an eclipse (1933, 287). "Moon dies" seems to be a translation of the name for an eclipse in most of the idioms of the region.

3214. Mar: Spier reports that nothing was done at the time of an eclipse (1933, 149).

3220. Dieg: Negative entry may be in error.

3224. In Walapai mythology, Coyote is left-handed. The "esteem" and "good marksmanship" recorded for other groups may mean that informants knew and based their opinions on the same mythologic trait.

3225. Pim: They teased a left-handed man; when he threw something, he made it rain. Parents tried to prevent their children from being left-handed. Shiv: A left-handed man was said to feel the cold more than a right-handed one.

Shrines and Offerings

3227. See Lumholtz, 1912, 103 ff. There are two of these springs, one near Santa Rosa, the other in Sonora, the center of the Sonoran villages (see Davis, 1920).

3230. Pim: See Russell, 254.

3235. The Pima-Papago prayer sticks resembled, but were not identical with those used by Pueblo groups. They were seldom used for offerings (only on special occasions, such as the salt expedition). Informants (Pim, Pap) were unanimously agreed that the sticks were not placed in fields and the like, as offerings; the nearest approach to this was the marking off of the representations of fields with them in the Papago Vikita, and afterward the sticks were put back in the medicine basket. For the type, see Russell, 106-107. Pima prayer sticks were often of cane, with tobacco in them (GH) (i.e., really cane cigarettes used ritually?).

3237. It was unlucky to name the number of days before the scheduled departure of a war party, so the leader made a bundle of prayer sticks, one for each day, as a mnemonic. These sticks were carefully preserved in the scalp basket afterward, to be used in purificatory rites (both of enemy slayers and sickness caused by the scalps). Russell mentions their use in the treatment of Apache disease (which he designates simply Tcunyim) (pp. 106, 265).

CULTURAL RELATIONSHIPS OF THE YUMAN-PIMAN TRIBES

The foregoing element list is a comparative inventory of the cultures of a series of Southwestern tribes. Linguistically the groups are diverse. The Diegueño, Akwa'ala, Mohave, Cocopa, Maricopa, Yavapai, and Walapai are Yuman in speech; the Pima-Papago represent the Sonoran branch of Uto-Aztekan, the Yaqui the Cáhita, and the Shivwits Paiute the Shoshonean branch of the same stock. Culturally as well these tribes were heterogeneous. Although all but the Shivwits[6] participated in cultures of Southwestern genre, sharing areally distinctive patterns and complexes with Puebloan, Athabascan, and Southern Californian Shoshonean neighbors, there was considerable variation of custom among them. These differences ranged in scope from unique many-faceted complexes to minute differences of detail of essentially common traits. That this regional variation existed within the broad outlines of the culture of the Southwest is of course no new discovery. However, the assembling of a full and comparable set of data from the previously mentioned "rancheria" groups makes it possible to analyze the extent of similarities and differences to a degree hitherto impossible. It will be the aim of the present chapter to determine the nature of the cultural relationships of these Yuman and Piman tribes to each other and to the native populations of adjacent regions.

These differences in the civilizations of geographically contiguous peoples indicate varied histories of cultural development. Certain of the variations can be attributed to differences in environment, physical or social. Many others are due to more obscure processual factors, which cannot be reconstructed on the basis of material from the ethnographic horizon alone. For this reason no attempt will be made to interpret the data in terms of development or sequence. The aim of these paragraphs is taxonomic, not historical.

Several previous writers have contributed to the elucidation of the cultural relationships in the Southwest. Strong's demonstration of the fundamental unity of Puebloan, Gileño, and Southern Californian Shoshonean social organizations, consisting of primary societal groupings built around a nucleus of a priest, ceremonial house, and bundle,[7] paved the way to an understanding of the area as one containing a number of types of culture of coördinate rank linked by a series of fundamental and specific concepts. That is to say, the "Southwest" should be viewed as composed of a number of related provinces, not simply a Puebloan center ringed by hordes of savages of amorphous and progressively ruder cultures. Recent archaeological determinations of a number of coördinate Southwestern centers demonstrate the historical validity of this interpretation.[8] Building upon this theme, Kroeber set up a Gila-Yuman-Sonoran province of equal rank with the Puebloan and Southern Californian ones.[9] Gifford, in treating the Yuman tribes, has classified them into three divisions: those of Upland Arizona (Walapai, Havasupai, and Yavapai), those of the Lower Colorado and Gila rivers (Mohave, Yuma, Cocopa, Maricopa, Halchidhoma, etc.), and those of southern and peninsular California.[10] More recently Spier has sought to unite the Pima-Papago along with the Lower Colorado and Gila Yumans into a single province, somewhat along the lines of Kroeber's earlier Gila-Yuman-Sonoran division.[11] Gifford's analysis of Spier's material, however, indicates that while the latter's determination of the Gileño Yuman (Maricopa, et al.) culture as fundamentally linked to that of the Lower Colorado groups is not open to question, the conclusion of River Yuman and Pima-Papago similarity is not tenable.[12]

Relationships in another direction, with the Great Basin, have been considered by Spier. From data available at that time he determined Upland Yuman cultures (as typified by the Havasupai) to be essentially Basin rather than Southwestern in type.[13] Although final judgment must await publication of recently collected data (Kelly's and Stewart's Southern Paiute material, particularly), the present lists cast some light on the question.

The problems relating to the tribes of immediate concern will be taken up in the following order: (1) the relationships of Yuman cultures,[14] (2) relationships of those of the Pima and Papago, (3) affiliations of the various cultures to those of northwestern Mexico. The mode of attack on these questions will be to summarize and roughly weigh the major distinctive features of each block of cultures. To list the regional differential minutely would be repetitious, since the items are contained in the preceding lists. Comparisons can be made best and most succinctly by means of statistical counts. For present purposes the nature rather than mere number of parallel and dissimilar traits or complexes will be

[6] Spier (1929) has suggested a Great Basin affiliation of Walapai-Havasupai and Yavapai cultures. This problem will be dealt with later on in the present discussion.

[7] Strong, 1927.

[8] See various publications of Gila Pueblo, especially Snaketown, and Haury, 1936.

[9] Kroeber, 1928.

[10] Gifford, 1936, 321 ff.

[11] Spier, 1936.

[12] Gifford, 1936a.

[13] Spier, 1929.

[14] Excepting the Seri, the final placing of whom depends on further research. Kroeber's analysis of their cultural position is in no way modified by present data (Kroeber, 1931).

evaluated--a procedure impossible in purely statistical analysis.

The Yuman tribes.--Amply substantiated by the element lists is Gifford's threefold classification of the Yuman-speaking peoples into Southern (and Lower) Californian, River, and Upland divisions. Each of these blocks is distinguished by a series of traits which are lacking among the other two, and by the absence of a number of features shared by the others. It is noteworthy that there seem to have been no distinctively Yuman patterns, that is to say, traits or complexes common to all the Yumans and to them alone (save language, of course). Even generalized complexes such as regular practice of cremation, mourning ceremonies (the last named is a post-European introduction among the Upland groups), and "pit-roasting" at life crises rites, which seem peculiarly Yuman in the present lists, are widespread in Shoshonean southern California and even across the Tehachapis. These, therefore, cannot be considered to be anything but general Southern Californian or Californian.

The Yumans of southern and peninsular California belonged beyond any shadow of doubt to the Southern Californian culture province. Positive traits such as acorn-leaching in sand basins, adjustable carrying nets, tubular wooden pipes, localized nontotemic clans, joint puberty rites, image type of mourning ceremony, eagle-killing rite, and the like are manifestly Californian, as are distinctive absences, such as that of agriculture and of emphasis on warfare. The recorded postcontact spread of the toloache cult and the use of images in the mourning ritual suggest that most of the elaborate ceremonialism was borrowed from Shoshonean neighbors.

But few complexes of any considerable distinctiveness from the areal point of view were shared by these westernmost of the Yumans with their River or Upland kin. Features such as the boys' rite with nose-piercing, mourning ceremonials, and others among the River tribes appear to be dilute or specialized variants of widely distributed Californian patterns. With the Upland Yumans, common traits seem to be mostly simple and very widespread elements. Rude domed-to-conical brush huts, women's basketry caps, cradles carried vertically with tumplines, woven fiber sandals, and tubular clay pipes, which about exhaust the list, have little diagnostic value. The Upland and Southern Californian distribution of the woman's basketry cap is in point. The more remote of the Upland Yumans lacked it. It seems more reasonable to infer that the Diegueño, Akwa'ala, and the rest borrowed the trait from Luiseño and Cahuilla neighbors, and that the Walapai borrowed it from Southern Paiute, than to interpret the distribution as indicative of a direct cultural connection between Diegueño and Walapai. The paucity of specific and distinctive similarities in the two regions is the more surprising in view of the very high dialectic similarity of two of the separated tongues, Akwa'ala and Walapai.[15]

The salient aspects of Lower Colorado culture have been summarized by both Kroeber and Spier.[16] Both in specific detail and in tenor River Yuman culture appears highly distinctive. However, many of the diagnostic complexes--overflow basin farming, fishing (both in relative importance and techniques), modes of dress, carrying methods (on the head and with the coolie yoke), the war complex, and the mourning ceremony with sham battles, to mention a few--represent specializations of practices common throughout near-by regions. A brief topical summary will make this clear. River Yuman agriculture was based on the same crop plants, was carried on with the same implements as was that of other Southwestern farmers. The utilization of overflow basins may be construed as an advantageous and easy modification of the typical floodwater farming of the area. The present Yaqui informant's account of agricultural methods, corroborated by Perez,[17] describes a similar mode of use of flood lands for fields. Fundamentally there is little difference between this method and the temporale methods of the southern Arizona desert, of the Ópata, and of Hopi and Navaho.[18] Even the Pima ditches depended on floodwater, not the regular flow. Briefly, River Yuman farming was simply a minor adaptation of an areal complex to local geography, not a radical specialization. Again, fishing was important and nearly everywhere in the area where fish could be obtained in worth-while quantities. Even specific methods--shooting with featherless arrows, catching with the hands (or in a small hand-held basket or net)--were very nearly continuous down into Mexico to the Rio Sinaloa on the coast and Cora territory inland.[19] Probably fuller data would show the common forms of scoop nets, drags, and such to have had essentially the same distribution. In dress, too, River Yuman modes were unique in minor respects only, resembling those of most native Californians, the Mexican coast tribes as far south as Petatlan, and some of the Sierran divisions.[20] The practice of carrying burdens on the head was widespread, as the present lists show; the distribution of the coolie yoke was southward along the coast.[21]

[15] Kroeber, 1925, 797; also Drucker, Akwa'ala Ms.

[16] Kroeber, 1925, 726-803; 1931, 39 ff.; Spier, 1936.

[17] Perez, 284.

[18] Bandelier, 1892, 503-504, 508, 512, 518; Forde, 1937, 222 ff., 225; Hill, 1938, 20 ff., 24.

[19] Beals, 1932, table 26; Lumholtz, 1902, 1: 400, 504. Fish-shooting is reported from the Basin also (Steward, 1933, 251).

[20] Kroeber, 1925, 804 ff.; Obregon, 71, 77, 231; Beals, 1933, 7-8.

[21] Beals, 1932, table 67; Nordenskiöld, 1930, 234-5.

Lower Colorado warfare, so often mentioned as distinctive, was distinctive only in the emphasis put upon it. The complex was characterized by: armament of bows, short wooden bludgeons, and sometimes pikes; round hide shields; prestige and religious associations of warfare, resulting in large-scale operations; the singling out of individuals for special duties (nonflight obligations, etc.); the taking of trophies (scalps or heads) to be preserved for magico-religious purposes; torture or maltreatment of captives in connection with the victory celebration; cannibalistic practices; and an emphasis on restrictions and purification of warriors following a battle. Most of the groups represented in the present lists participated in this complex. Even the Upland Yumans, who had little to fight about, were conscious of the pattern and strove to emulate their River kin, and the Lower Californians at least had the equipage of war. Southward into Mexico we find a great many of the elements continuously distributed, despite the incomplete nature of our source material. General uniformity of armament, massing of large bodies of troops, ceremonial use of trophies, and cannibalism in connection with war throughout the region[22] suggest that the River Yuman war complex was but a heavily accented phase of an area-wide pattern. The probable Californian relationship of the River Yuman mourning ceremony has been referred to above. Its chief modifications seem to have been the incorporation of one of the major interests--warfare. Even the River social organization fits a broader pattern, resembling that of Lower Californian groups. As Steward suggests,[23] the tribal sense may be attributed to the dense populations confined in the relatively small habitable valleys; the nonlocalization of the clans may be attributed perhaps to the capacity of the valleys for an even distribution of population so different from the conditions enforced by the scattered desert watering-places.

All this is not meant to demolish the picture of cultural separateness of the River tribes. They had much that was peculiarly their own--the song cycles and religious concepts in general are good examples--but a considerable part of their distinctiveness lay in degree of emphasis of widespread complexes. The linkages suggested by these basic patterns point in several directions: many toward California, others south down the Sonora coast.

The affiliations of Upland Yuman culture are not easily determined. Spier's interpretation of the essentially Great Basin nature of the regional cultural is not without some justification, for there are a large number of similarities. Many of these are however not Great Basin determinants but elements common to most of the low-grade hunting-gathering cultures of western North America: Southern and Central California, the Seri, and the "nonagricultural nomads" of the north Mexican plateau as well as Upland Yuman and Great Basin.[24] Moreover, the rather long series of differences, many of major rank, between the Upland Yumans and the Shivwits Paiute suggests that the common elements may represent an overlay rather than a substratum. Upland Yuman agriculture (sporadic), ramada and circular brush windbreak as adjuncts to dwelling, type of pottery, cradle type, weapons and the war complex (the latter a dilute form) are not Great Basin patterns at all but Southwestern. The basic shamanistic concepts seem linked to River Yuman ideology more closely than to that of the Basin; cremation is certainly not a Great Basin custom, as both ethnographic and archaeologic data show. Upland Yuman dress styles, sweat houses, mother-daughter marriage, in-law avoidances and joking, matrilineal clans (Southeastern Yavapai only[25]) are probably to be attributed to Navaho-Western Apache sources, as is use of masks (though the masks were of a widespread Southwestern type). Shivwits traits (absent among Walapai and Yavapai) such as small-game deadfalls, mountain-sheep charming before hunt (= antelope charming), the triangular parching tray, cradle type, compound bow, rilled arrow foreshafts, individual ownership of hunting and gathering tracts, polyandry, interment, and the entire shamanistic complex, and lack of the throwing club, war club, shields and/or armor, stick dice, and other Upland (and common Southwestern) elements give southern Basin culture a distinctive stamp from the point of view of the Upland Yuman province. All in all, the present material indicates that the Upland Yuman cultures, though they manifest some specific Great Basin influence, were basically Southwestern.

The Pima-Papago.--The element lists substantiate Underhill's appraisal of Pima and Papago cultures as closely related.[26] Differences there were, to be sure, but a good part of them can be accounted for in terms of effect of the differing environments--river and desert--on mode of life. The factors responsible for other differences are less easy to see, but nonetheless the same fundamental patterns recur among both peoples.

As the next step it should be brought out that in all probability Ópata, Eudebe, and Pima Bajo cultures were a part of the same culture province

[22]Beals, 1932, 114 ff., tables 78-97.

[23]Steward, 1937, 93.

[24]See Spier, 1929, table 1; Kroeber, 1931, 40 ff., 49; Beals, 1932, table 2.

[25]Gifford, 1932, 189 ff.

[26]Underhill, 1936, 1-2.

as Pima-Papago.[27] Our data on aboriginal life just south of the present International Boundary is extremely faulty, but what there is very definitely points to this grouping. Ópata-Eudebe and Pima Bajo agricultural methods and crops, the considerable amount of cotton grown, cotton weaving on the horizontal loom, styles of dress, footcast ball race, facial tattooing, specific details of the war complex, the ceremonial house, and rain rituals (only a few details of which are known) all seem to have duplicated Pima-Papago practices.[28]

Strong's analysis of Southwestern societal patterns makes clear that Pima-Papago social and ritual life was based on patterns common to Pueblo and Shoshonean Southern Californians as well, but lacking among the Yumans.[29] This cultural cleavage particularly between Pima-Papago and the River Yumans, which Spier has recently questioned,[30] is clearly demonstrated in the element lists. Both provinces were Southwestern, and were subject to similar, though not identical, environmental factors, so naturally there were a number of similarities. The differences, however, vastly outweigh the likenesses. The Pima-Papago house type, slipped pottery, coiled and checker basketry, cotton growing and weaving, dress styles, social organization (village units, moieties, and "father-name groups"), the priest-house-bundle complex, elaborate agricultural festivals (with ceremonial drunkenness; also masked dancing), completely different girls' puberty ritual, and the entire shamanistic pattern are among the many complexes setting these people off from the River Yumans. Even the Maricopa and their associated tribes, as Spier's account makes manifest, had but little in common with the Pima after several generations of residence near and military alliance with them.[31] The Pima and Papago, and with them their kindred south of the border, by virtue of their thoroughgoing differences must be considered to have constituted a province apart from the River Yuman one.

A large series of Pima-Papago linkages parallel in whole or in part the distribution of the priest-house-bundle complex. That is to say, affiliations are with Pueblo, Southern Californian Shoshoneans, or both. For a detailed comparison of Pima-Papago and Puebloan culture see Gifford's distributional study of the latter groups (CED: XII--Apache-Pueblo, pp. 1-207). However, a few important parallels may be noted here. Thus, Piman modes of dress (cotton robe and breechclout, moccasins) approximated those of the Pueblo, as did cotton-growing and weaving (although loom-type differed), use of prayer sticks, hair washing with yucca root, the ceremonial house, group medicine bundle, and group priest, particular types of masked dancers at harvest festivals,[32] ceremonial salt-gathering trips, a reverse-behavior group, and a group resembling a warriors' society. One cannot escape the conclusion that these numerous similarities (of course many individual traits are subsumed under the complexes cited) indicate potent influences in one or the other direction. The fact that the greater number are in the field of nonmaterial culture may be partly accounted for by the fact that geographical settings differed appreciably.

The Pima-Papago and Southern Californian parallels were less numerous, as one might suspect in advance in view of the different economic bases in the two regions. The most striking parallel, besides the priest-house-bundle complex, was in the shamanistic patterns. Not only was the basic concept of source of power deriving from an indwelling object--usually a crystal--similar, but a similar specialization of shamans into diagnosticians, healers, clairvoyants, and others was found in both regions. There were far too many specific identities in the two complexes, and too many shared differences from other Southwestern patterns, for Pima-Papago and Southern Californian Shoshonean shamanistic complexes to be otherwise than related.

In short, it seems apparent that the Pima-Papago province (in which are included the Ópata, Eudebe, and Pima Bajo) formed a link between the eastern and westernmost phases of Southwestern culture.

Northwestern Mexican relationships.--The striking parallels, indeed virtual identities, in Pima-Papago, Yaqui, and Pueblo masked dancing complexes[33] draws our attention to linkages in another direction. The present Yaqui list is incomplete, but it is full enough to indicate the general position of the culture. The generic Southwestern stamp of Yaqui civilization is manifested in the agricultural complex, the war pattern, and the masks (assuming that masks are pre-Hispanic). In addition, the occurrences of checkerwork basketry, the horizontal loom, beliefs concerning mountain sheep, presence of a warriors' society, and ritual drunkenness, clearly align Yaqui culture with Pima-Papago. In other re-

[27]Bennett and Zingg (391 ff.) have suggested a modification of Beals's "Old Sonora" province into two: a Pima-Papago one, and a Sonora-Sinaloa province including Ópata-Yaqui-Mayo (no mention of Pima Bajo). This reclassification is extremely questionable, for it seems to stem, as Beals has pointed out (1936), from erroneous localization of traits in the coastal region.

[28]Bandelier, 1892, loc. cit.: Rudo Ensayo, cap. 4; pp. 95 ff., 84, 86-87, 79-80, et passim; Beals, 1932, table 76.

[29]Strong, 1927.

[30]Spier, 1936.

[31]Spier, 1933.

[32]See Parsons and Beals, 1934. The Pima-Papago navitco, vipinyim, and others check almost point for point with certain masked performers found among both Pueblo and Yaqui-Mayo.

[33]Parsons and Beals, op. cit.

society, and ritual drunkenness, clearly align Yaqui culture with Pima-Papago. In other respects--dress styles, the simple ceramics, and in fact much of material culture--the Yaqui tie in with the River Yumans instead. The Yaqui can be classed as a Southwestern tribe whose affiliations, expectably enough in view of their geographic position, were in part with Pima-Papago, in part with the Lower Colorado tribes. The documentary evidence which Sauer has marshaled shows that all the Cáhita-speaking groups as far as the Rio Sinaloa participated in essentially the same type of culture.[34] South of this boundary in the coast lowlands sub-Mexican cultures prevailed.[35]

In the Mexican Sierran region were a series of native civilizations which Beals has ranked into two provinces: Northern and Southern Sierran.[36] A critical check of available material on the Sierran tribes with the Pima-Papago data suggests a further step in classification: there were enough specific similarities as far south as Cora-Huichol to warrant linking all these Sierran cultures to Pima-Papago and thus ultimately to the Southwest. A résumé of distributions of traits will show the validity of this grouping.

Variations of the characteristic Southwestern agricultural complex were chiefly along the line of adaptations to environment: the milpa system was practiced rather than the desert floodwater farming.[37] Crops similar to those in the Southwest--maize, beans, squash, and cotton--were grown; the point of contrast here is with the regions to the south in Jalisco and along the coast south of the Rio Sinaloa.[38] Catching fish with the hands was a Tarahumara practice; the Cora had a very similar method in which a small hand-held basket was used.[39] Fish-poisoning, found in the Southwest among Ópata, Pima Bajo, and Yaqui, is reported also for the Tarahumara and Acaxee.[40]

Tarahumara pottery, in presence of slip resembles Pima-Papago ware; in scraping instead of paddling to join the coils, that of the Yaqui.[41] The types of ware made farther south are not well enough described for classification. Certainly the Huichol vessels which Lumholtz figures do not differ greatly, although the shapes are not quite familiar, from the simpler of the northern ceramics.[42] Gourd vessels, used in the north chiefly for ladles and canteens, were similar, although in more common use in the south.[43]

Checkerwork basketry had a nearly continuous distribution: Pima-Papago, Pima Bajo, Yaqui, Tarahumara, Tepehuano, and Huichol.[44] Among other textile arts, Tarahumara weaving of cloth was done on a type of loom similar to that used by the Pima; the Huichol used a modified form of the Middle American belt loom, which was found as a subsidiary form among both Tarahumara and Pima.[45]

Among weapons, the ball-ended bludgeon or short club and the round hide shield were found throughout the Sierran region, the latter indeed well into southern Mexico.[46] In Jalisco and in the Culiacán-Tepic region, obsidian-edged swords replaced the Southwestern type of club.[47]

The data on games are incomplete, but they show a few Sierran extensions of typically Southwestern complexes. The footcast ball race is reported for the Tarahumara (as well as from the Rio Sinaloa).[48] Beals has discussed the distribution of the four-stick dice game, which he states was everywhere essentially the same as the game played in the Southwest.[49] To cite an easily accessible account, the Tarahumara dice game which Bennett and Zingg describe tallies almost point for point with that of the Pima-Papago.[50]

The data on social organization in aboriginal northwest Mexico are appallingly meager. The indications are that as in the Southwest, the characteristic social unit was the band or village. From Beals's summary, this condition prevailed down the west coast to the Culiacán district, and down the Sierras to the borders of the petty kingdoms of Jalisco.[51] As for social features such as clans and moieties, we have no information at all. It would seem strange indeed if the Pima Bajo and Ópata lacked the sort of divisions found among Pima and Papago. The lack of notice of such institutions cannot of course be construed as evidence of their absence; the functionless Pima-Papago divisions are not mentioned in any early source. Beals has inferred the former existence of moieties among the Ópata and patrilineal groups among Yaqui and Mayo, but reconstructions of this sort offer unsafe footing

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[34]Sauer, 1932.

[35]Beals, 1932, 136 ff., tables 1, 2.

[36]Ibid., 139.

[37]Bennett and Zingg, 26.

[38]Beals, 1932, tables 11-16.

[39]Lumholtz, 1902, 1:400, 504.

[40]Beals, 1932, table 25; Obregon, 155. Environmental factors--occurrence of poisonous plants and type of streams--undoubtedly affect the distribution of this trait.

[41]Bennett and Zingg, 83 ff.

[42]Lumholtz, 1902, 2:73, 102, 183.

[43]Ibid., 2:77, 127, 220; Beals, 1932, table 66.

[44]Bennett and Zingg, 87.

[45]Bennett and Zingg, 91 ff.; Lumholtz, 1902, 2:218, fig. p. 217; Bennett and Zingg, 96.

[46]Beals, 1932, tables 91, 95.

[47]Ibid., table 92.

[48]Ibid., table 76.

[49]Ibid., 113, table 77.

[50]Bennett and Zingg, 343.

[51]Beals, 1932, 116 ff.

for comparisons.[52] One suggestive distribution, however, can be traced. The occurrence of the ceremonial house, so fundamental to both society and ceremonialism in the Southwest, southward to Cora and Huichol territory indicates a similarity of societal organization and functioning that must be of significance.[53]

The southward extension of the Southwestern war complex has been referred to in another connection. Certainly in the entire region the complex formed a well-defined unit, and one set off more sharply by comparison with the southern Mexican war complex, which extended to the borders of the Sierran and Old Sonoran regions.

A few ceremonial parallels will be cited to close the case for the continuity of Southwestern culture down through the Sierras. Spier has pointed out the likely identity of the Southwestern prayer stick and the ceremonial arrows of Cora, Huichol, and Tepecano.[54] The Huichol and Tarahumara "deer sacrifices" suggest comparison with the performance described by the Papago informant as the procedure for curing "deer sickness."[55] The "sacrificial" aspect of the "deer sickness" rite did not occur to the present writer in the field, so he failed to inquire after similarities systematically. Besides the general nature of the ritual hunt, however, some close parallels appear: runners sent back with news of success; use of the deer tails mounted on sticks in the ceremony. Apropos of offerings, one may point out the legendary or semilegendary references to child-sacrifice among Pueblo groups and the Papago, which recurs among the Tarahumara.[56] Whether the occurrences refer to actual former custom or to mythical concepts only is impossible to say. They seem to be of about the same order.

A distribution of slightly different sort from the preceding is ritual drunkenness, which as Beals's tabulation shows extended nearly continuously from southern Mexico north to Pima and Papago. Despite its incidence in the Southwest, it can scarcely be considered a Southwestern trait, yet it is significant in indicating the presence of cultural contact and interchange of traits through the Sierran region.

The last complex which we shall consider is that of masked dancing. Comparison of Yaqui-Pima-Papago-Pueblo masked-clown traits brings out the virtual identity of the complex; to these groups should be added Southeastern and Northeastern Yavapai, Havasupai, Western Apache, and Navaho. To the south, the Tarahumara and the Huichol had masks associated with clowning.[57] Deer masks, of the same sort as those used by the Yaqui, were found among the Tarahumara, and in the mixed Tepehuano-"Aztec" community which Lumholtz describes.[58] Dr. Parsons has stated the case for a Hispanic derivation of Southwestern masks, but recent evidence has led her to modify her former stand.[59] Certain parts of the pattern, if not the complex in its entirety, would seem to carry back into prehistoric times. Whatever may be the ultimate source of these masks--whether or not they can be traced to a Middle American origin--it seems clear that specific details of type have the closest parallels in the northwest Mexican region.

The net result of this hasty comparative survey is to define a new boundary for the Southwestern culture area. There can be little doubt, in view of these distributions, that no areal boundary can be placed, on the coast, north of the Rio Sinaloa. It was at this point that a pronounced culture break occurred.[60] Inland, Southwestern culture extended without much change to the Southern Sierran region--the territory of Cora, Huichol, and Tepecano. This is not to deny that there were differences between the Hopi and the Cora; obviously there were many, but they were relatively unimportant compared with the fundamental culture patterns shared by all the tribes from northern Arizona to the Southern Sierran regions. Expectably we find indications of strong southern Mexican influence in the south which do not extend all the way to the north, and northern specializations which run only part way down the Sierra, but the frequent wide overlap of these distributions serves to add the impression of strong cultural affiliations throughout the Sierran region. The cultural area is after all only a classificatory device which is based on a high degree of similarity but which cannot well refuse to admit local differences. Minor variations serve to set off areal subdivisions; the northwest Mexican groupings which Beals has outlined should be relegated to the order of provinces within the Southwest.[61]

To the south of the Southern Sierran region there was a marked increase in cultural complexity, definite enough to enable us to place our boundary between the Southwestern and southern Mexican areas with some assurance.[62] Many traits are shared in both areas, but in Jalisco a great host of new elements appear. The agricultural

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[52]Beals, 1932b.

[53]Drucker, 1939.

[54]Spier, 1928, 286.

[55]Lumholtz, 1902, 1:334; 2:40 ff.; present elements 3107-3117.

[56]Bennett and Zingg, 288.

[57]Bennett and Zingg, 300-301; Beals, 1932, table 134.

[58]Lumholtz, 1902, 1:335, 478.

[59]See Parsons and Beals, 1934, pp. 509 ff.

[60]Sauer, 1932.

[61]Beals, 1932.

[62]Ibid., 136-139.

complex is a case in point. Maize, beans, and squash were common to the Southwest and Mexico, of course, but, just over the boundaries of the former area as just delineated, a number of new cultivated plants appear.[63] Many other complexes, such as metallurgy, litters, lip-piercing, the obsidian-edged sword, the spear thrower, nobility, barrios, pyramids,[64] to mention a few at random, come into view for the first time south of the Rio Sinaloa, on the coast, and just south of Cora-Huichol territory in the highlands, and thus serve to mark the boundary between the rich cultures of southern Mexico and the simpler ones--those of the Southwestern genre--to the north.

[63] Ibid., tables 11-17.

[64] Ibid., tables 61-63, 68, 43, 92, 93, 101, 104, 120.

RÉSUMÉ

By way of concluding, it will be well to restate the findings of our comparative reconnaissance in Southwestern ethnology. First of all, the Yuman-speaking population of the area must be classified into three disparate blocks: Southern Californian, Colorado River, and Upland Arizonan. At the same time in each of the three culture types there were numerous patterns which were fundamentally Southwestern, that is, shared by several or all their non-Yuman neighbors. Pima-Papago (and Ópata, Eudebe, Pima Bajo) patterns link strongly with Puebloan ones, show less numerous but striking Southern Californian Shoshonean ties, and reveal both numerous and very striking affiliations with the cultures of northwest Mexico as far south as the Rio Sinaloa on the coast and Cora-Huichol territory in the interior. In fine, we can define the Southwest culture area as comprising the desert and highland regions of the present southwestern United States and northwest Mexico.

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Abbreviations used:

AA	American Anthropologist.
AAA-M	American Anthropological Association, Memoirs.
AAnt	American Antiquity.
AMNH-AP	American Museum of Natural History, Anthropological Papers.
BAE-B	Bureau of American Ethnology, Bulletins.
-R	(Annual) Reports.
I-A	Ibero-Americana.
ICA	International Congress of Americanists.
JAFL	Journal of American Folk-Lore.
MAIHF-INM	Museum of the American Indian, Heye Foundation, Indian Notes and Monographs.
SI-AR	Smithsonian Institution, Annual Reports.
SWM-P	Southwest Museum Papers.
UC-PAAE	University of California, Publications in American Archaeology and Ethnology.
-AP	Anthropological Records.
-PG	Publications in Geography.
UPMJ	University of Pennsylvania Museum Journal.
USGS-WSP	United States Geological Survey, Water Supply Papers.
YU-PA	Yale University, Publications in Anthropology.

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