

KROEBER'S FORMULATION OF THE SOUTHWESTERN CULTURE AREA

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Since the last decades of the 19th century there has been a general awareness among anthropologists that certain areas having geographic extent were characterized by groups of people whose cultures were recognizably more alike in total configuration than were the cultures of peoples in adjacent or more distant areas. Thus crystallized the concept of the culture area, carried to its maximum expression by Wissler (1922). Many criticisms have been leveled by Kroeber, Dixon, and others, not so much at the central concept as at the implications of the mechanistic hypotheses of age-area and concentric growth pattern which grew out of it. Nevertheless, the culture-area concept, as such, is a basically useful and easily demonstrable phenomenon of cultural differentiation. Furthermore, it would appear to be a part of the tool kit of cultural anthropologists in general. That linguistic families and physical stocks are not coincident with culture areas lends weight to the cultural determinism involved.

While there is a considerable variation in the intensity of the phenomenon from area to area, the Southwest has long been recognized as one of the more strongly marked culture areas. It was not so quickly perceived that within this area were subareas sharing certain basic traits but differing in their orientations. The problem of accommodating such widely diverse peoples as Hopi and Apache, Pima Alto and Seri, makes difficult the formulation of a definition of the quintessential cultural pattern for the area. Nor has the matter of geographic extent been satisfactorily solved. Difficulties have arisen from the fact that different time planes intersecting with cultural planes describe different boundaries, and that the term "Southwest" has various shades of meaning to different investigators (Beals [1944, pp. 191-199] has discussed this problem at some length).

With these thoughts in mind, we may now turn our attention to one formulation and evaluate it against the background of recorded data. Kroeber (1939) has "... recently pointed out that the known Southwest appears to comprise two relative but consistently distinctive culture types: one characterized by the Pueblo culmination, and one which might be named the Sonora-Gila-Yuma. The common elements such as agriculture, cotton, pottery are obvious. The Pueblo Culture shows masonry, clustered houses, stories; the kiva ceremonial chambers, altars, and sand or meal paintings, masks, and ancestor impersonation, priestly offices, elaborate ritual, much visual and verbal symbolism with special reference to colors, directions, fertility and emergence; matrilinear descent; pacific inclinations; pot-

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tery with a whitish ground, polychrome or glazed painting, and texture decoration by corrugating. The Sonora-Gila-Yuma culture possesses adobe, wattled, or brush houses, village instead of town type of settlement; no kivas and few altars, few masks; shamans rather than priests; patrilinear institutions; warlikeness; a pottery reddish, monochrome or with one design color, uncorrugated; canal or river overflow irrigation."

At first blush it seems that this formulation succinctly expresses the nuclear orientations of two distinguishable subareas. It is only when one begins to assess this statement that it becomes clear that it is static, that variations in time and space occur which vitiate its usefulness. This paper represents an attempt to dissect the formulation in order to ascertain the inconsistencies involved and to point up some questions which bear upon it.

It may be noted that Kroeber has assigned the differences to a number of categories: 1) community plan, 2) architectural features, 3) ceramic complexes, 4) agricultural patterns, 5) religious and ritual symbolism, equipment, ceremonies, and functionaries, 6) unilinear social organization, and 7) orientation toward other groups expressed as warlikeness or pacific inclination. We may examine these categories in order.

Within the two main subculture areas Kroeber distinguishes a number of smaller geographic units which, while conforming in general to the cultural patterns expressed above, may be differentiated on other bases. Those forming the Pueblo sphere are 1) Pueblo, 2a) Inter-Pueblo, and 2b) Circum-Pueblo; those comprising the Sonora-Gila-Yuma sphere are 3) Fuerte-Yaqui Lowland (Cahita), 4) Sonora, 5) Northern Sierra Madre, 6) Sonora Coast, 7) Northwest Arizona, 8) Lower Colorado River, 9) Peninsular California, and 10) Southern California. The individual tribes inhabiting each of these areas will be found in the tables below and in the appendix. This paper will not concern itself with the Inter-Pueblo or Circum-Pueblo groups but will, instead, be focused on the groups of the Sonora-Gila-Yuma sphere. For comparative purposes I have further divided the Pueblo into eastern and western areas, a division usually recognized by Southwesternists, but not so used by Kroeber.

Before proceeding with the actual analysis of Kroeber's formulation, we may distinguish at least three basic time horizons — prehistoric, historic, and modern. Archaeological recognition of the cultural dichotomy of the Southwest was slow in arriving. Cushing and Fewkes, each of whom did pioneer work in the area, conceived the diverse manifestations to be but variations of the Pueblo culture centers. Kidder (1924) suspected that the archaeological cultural differences were of sufficient magnitude that it might become necessary to assume different sources and a different, although parallel, development between Pueblo and the Middle Gila. It was Kroeber (1928) who first proposed to separate the two areas and

termed the southern culture the Gila-Sonora. The same year, Gladwin (1928), working at Casa Grande, substantiated the concept of the southern culture. Succeeding work by Gila Pueblo increased the range of our knowledge of the "Hohokam" and added a new entity, the Mogollon (Haury, 1936). Gladwin (1934) defined the Yuman, and Colton (1939) the Patayan, cultures of the Colorado River. Various institutions undertook work in northern Mexico. As a result of these researches it has come to be recognized that Southwestern prehistory is as various as is its historic and modern ethnology. Realization that within the prehistoric period, alone, many time planes may be distinguished and characterized with greater or less precision makes the time factor one of major importance in any formulation of the Southwestern culture area. We shall see how Kroeber has handled the time factor.

In the following analysis trait distributions have been plotted in table form. The elements selected for treatment are those used by Kroeber in his formulation of the Southwestern culture area, or amplifications of these where it seemed necessary to demonstrate the true situation. Thus I have used a number of traits bearing on warfare in order to demonstrate the range in importance attached to this activity, which Kroeber treats only as "peaceful inclinations" or "warlikeness". It has been, for the most part, impractical to use direct documentation in the trait lists. Hence the sources used for each of the groups have been listed under that group in the appendix.

It should be pointed out that inherent in the nature of presence or absence trait lists is the equating of formally similar elements which are not the same functionally, and conversely, in differentiating functionally similar elements which are not the same in form. Added to this is the fact that an isolated presence may appear to carry the same weight as the consistent presence of the same element in another culture group. Several examples of this will be pointed out below. An attempt has been made to overcome some of these inadequacies by the use of the following explanatory symbols where possible:

X = Trait present, time plane or extent not specified

- or a blank space = Trait absent

R = Trait recent acquisition

S = Trait sometimes occurs as an alternative

H = Trait appears in historic time but not at present

? = Information not clear.

Table 1 lists the data for community plan and architectural features. Immediately the question arises as to the meaning of the term "town" as opposed to "village", as used by Kroeber. If the use of these terms is based on population numbers, what constitutes the dividing line? If based, instead, on juxtaposition of dwelling units, what degree of nearness is necessary? The point is that we lack criteria to

TABLE 1. — *Continued*

	Town	Village	Communal dwelling	Clustered houses	Unit houses	Multiple stories	Rectangular	Round or oval	Flat roof	Domed roof	Conical roof	Masonry	Adobe brick	Adobe coursed	Wattle	Brush	Kiva ceremonial room	Other ceremonial room	Sweat house	Ramada
<i>Northwest Arizona</i>																				
Yavapai.....			S		X			X	X	X						X		X	X	
Walapai.....		X	S		X			X	X	X					H	X		X	X	
Havasupai.....					X					X										
<i>Lower Colo. River</i>																				
Cocopa.....		X	X		X		X	X	X		X				X	X			R	X
Yuma.....		X	X		X		X	X	X						X	X	X	X	X	
Mohave.....		X	X		X		X	X							X	X		X	X	
Maricopa.....		X	X		X		X	X	X	X					X	X	X	X	X	
<i>Peninsular Calif.</i>																				
Diegueño.....		X	S		X		X	X	X		X				X	X	X	R	X	
Kamia.....		X			X		X									X		?		
Akwa'ala.....		X	S		X		X											R	X	
Kiliwa.....		X	X		X		X	X	X	X		X			X			X	X	
<i>Southern Calif.</i>																				
Chumash.....	X	X	X					X	X	X						X	X	X	X	
Gabrielino.....								X	X	X						X	X	X	X	
Serrano.....			X		X		R	X	X	X					X	X	X	X	X	
Cahuilla.....			S		X		X								X	X	X	X	X	
Luisefño.....			X		X		X	X	X	X					X	X	X	X	X	
Juaneño.....					X		X								X	X	X	X	X	
Cupeño.....			X		X		R	X			X				X		X	X	X	R

use the terms objectively and are therefore forced to rely upon a subjective impression. The impression may be correct, but we can neither prove nor disprove it. Hence all the Pueblos have been listed as towns; and, except where large communities have been spoken of as towns by their investigators, those of the Sonora-Gila-Yuma sphere as villages. I have not used the term "rancheria", although it has currency among Southwesternists and, indeed, supplies a need not filled either by "town" or "village". The criticism is, of course, that Kroeber's designation has no objective value. Furthermore, nearly all of the main pueblos have satellites that must be called villages or ranches, and so "villages" constitute a trait of the Pueblos even if "towns" are not a general trait of the southern group. However, there would seem to be much greater uniformity in community plan among the Pueblos than in the Sonora-Gila-Yuman sphere. In the latter area there is a wide

range from the small, frequently moved camps of the nomadic Seri, to the permanent settlements of the Yaqui and the Papago. In addition, changes are apparent on different time planes. Many more "villages" must be recognized for the prehistoric Pueblos, just as "towns", based either on numbers or juxtaposition, must be recognized for the Hohokam centers of the Sonora-Gila-Yuma. One must arrive by inference at Kroeber's time plane for community plan.

"Clustered houses", as used by Kroeber to characterize the Pueblos, is to be read as contiguous-roomed or multi-roomed structures. As such, it is common to the Pueblos at all three basic time planes. Historically, it occurred among the Opata and perhaps other groups along the southern fringe of the Southwest as defined by Kroeber. Prehistorically, it occurs in the Middle Gila. Read simply as "clustered houses", the compound units of prehistoric, historic, and present Sonora-Gilans must be included. But the compound units are not definitive of the southern area. There are several variations, each of which is as "characteristic" as the other. Therefore, there is no consistently distinctive type for the southern area. Furthermore, while unit dwellings are the rule for the Sonora-Gila-Yuma, communal houses occur in the Sonora, the Northwest Arizona, Lower Colorado River, Peninsular and Southern California subareas, just as they do in the Pueblo area; and unit houses are present among the Pueblo.

Multiple-storied structures are characteristic of the Pueblo in all three time planes, but even here there is much variation. Picuris, Sandia, Isleta, Nambe, Sia, Hano, and Sichomovi (Hopi) have only one story today; and San Juan, Santa Clara, San Ildefonso, Jemez, Cochiti, Santo Domingo, San Felipe, Santa Ana, Laguna, and Zuni are primarily single-story communities with one, or at most, a few two-story units (Stubbs, 1950). During the early contact period multiple stories were more characteristic than now, since there appears, in the eastern Pueblo subarea, at least, a growing trend toward single-story unit dwellings. Therefore, it is important to designate the time plane of the characterization. The Sonora-Gila-Yuma is more uniform in this respect, single-story dwellings being the rule, with only the historic Opata and prehistoric Middle Gila occurrences as exceptions.

Rectangular structures are basic in modern and historic Pueblo architecture and throughout most of the prehistoric period, as well; but round or oval structures were characteristic of the early prehistoric period and continue into the present in many of the eastern Pueblos in the form of Kivas. The Hopi sometimes use a circular, conical brush structure as a field shelter, and the Zuni have a circular sweat house. The Sonora-Gila-Yuma presents a considerable variety of structural types — round, oval, or rectangular, with flat, domed, or conical roof, and, among the Seri, roofless shelters. There is no consistently distinctive type of Sonora-Gila-Yuma structure.

Masonry is said to be characteristic of the Pueblo; adobe, wattled, or brush houses of the southern area. Actually, masonry is characteristic only of the western Pueblos, the Hopi, part of Zuni, Acoma, Laguna, Santa Ana, and Sia. Construction in the eastern Pueblos is adobe, both coursed and, historically (perhaps prehistorically, as well), adobe brick. Of 25 modern pueblos, 11 are of masonry and 14 of adobe. Thus masonry can hardly be said to be as characteristic of the Pueblo sphere as is adobe. Prehistorically, masonry, adobe, wattle, and brush were all used by the Pueblos. Adobe, wattle, and brush are used in the Sonora-Gila-Yuma, but the Tarahumare use masonry. In any event, the variation was very great.

The kiva ceremonial chamber is characteristic of the Pueblos at all three time planes, only Laguna lacking the feature. Functionally, to a large extent, although not formally, other types of ceremonial structure appear both historically and presently in the southern area. In some cases the Sonora-Gila-Yuma structure serves as the depository of ritual paraphernalia, as does its counterpart, the kiva. Likewise, the sweat house, of wide distribution in the western and northwestern part of the Sonora-Gila-Yuma area, functions sometimes in ritual, in curing, and occasionally as a club house, as does the kiva. So, it may be said that the kiva, as a constructional type, is characteristic of the Pueblo area; functionally it has counterparts in the southern area.

The ramada, an open-sided shade, is found throughout both the Pueblo and the Sonora-Gila-Yuma sphere.

The ceramic complex of the Southwest is presented in Table 2. Pottery-making is a common trait of both Pueblo and Sonora-Gila-Yuma. Ten of the modern pueblos, however, do not produce pottery, although all did until *ca.* 1700. On the other hand, pottery never was produced by certain of the southern and peninsular groups, and although, through lack of data, indicated as a trait presence, has not been produced in recent times by many of the other Sonora-Gila-Yuma groups.

Decorated wares of the historic and modern periods were made by most of the Pueblos and several of the southern groups. Bichrome ware is the usual style of decoration of the southern and at least eight of the Pueblo groups, while polychrome is, or was, produced during historic times by eleven Pueblos. It occurs prehistorically among the Hohokam, although definitely a minor and short-lived type, and questionably (the data are not clearly expressed) among the Pima, Papago, Cocopa, Yuma, Maricopa, and Kamia. In Pueblo prehistory, monochrome, bichrome, and polychrome are characteristic of different time planes, so that Kroeber's selection of polychrome as the characteristic needs amplification by the addition of the time plane, plus the realization that it has been, and is, only one of variant types produced. The same is true of glaze decoration. It never was a time plane characteristic of the Pueblo area as a whole. Furthermore, while it occurs both archaeologically and during early contact times, it is not being pro-

TABLE 2. — *Continued*

	Pottery made	Decorated	White ground	Red ground	Yellow ground	Black ware	Red ware	Bichrome	Poly- chrome	Glaze	Corru- gation	Coil and scrape	Paddle and anvil
<i>Lower Colo. River</i>													
Cocopa.....	×	×		×				×	?				×
Yuma.....	×	×						×	×				×
Mohave.....	×	×						×					×
Maricopa.....	×	×	×	×			×	×	?				×
Archaeologically.....	×	×		×				×				×	×
<i>Peninsular Calif.</i>													
Diegueño.....	×	×						×					×
Kamia.....	×	×						×	?				×
Akwa'ala.....	×	×						×					×
Kiliwa.....	×	×						×					×
Cochimi.....	—												
Waicuri.....	—												
Pericu.....	—												
<i>Southern Calif.</i>													
Chumash.....	—												
Gabrielino.....	—												
Serrano.....	×							×					×
Cahuilla.....	×							×					×
Luisefño.....	×							×					×
Juanefño.....	?												
Cupeño.....	×							?					×

duced today. It is obvious that Kroeber has here selected a trait and elevated it to a status beyond its true value.

It appears from analysis that Kroeber's criterion, the whitish ground for Pueblo pottery, never was characteristic of the area as a whole, for even during Basket-maker III times a reddish ground was produced in Abajo Red-on-orange, and if, as seems to be the case, the Mogollon area is included in Kroeber's Pueblo sphere, it was not even the predominant ground. Throughout the prehistoric, historic, and modern periods, then, reddish grounds have been as much a part of Pueblo ceramics as have whitish grounds. Conversely, whitish grounds are, by and large, absent from the Sonora-Gila-Yuma sphere, occurring historically only among the Pima, Papago, and Maricopa. Yellow grounds are surely more characteristic of Hopi ceramics of the late prehistoric and of all subsequent periods than whitish or reddish grounds. Corrugated ware appears during the prehistoric time plane in the Pueblo sphere and largely disappears by historic time, documented only at Pecos and Hopi. It certainly is not characteristic of the historic or modern period. Thus, it would seem that Kroeber has here, again, selected alternative or localized

traits, and ignored the time factor, to characterize the Pueblo sphere. His approximation of the Sonora-Gila-Yuma pottery complex is closer. Yet, the fact that both paddle and anvil, and coil-scrape techniques of construction were used in this area prevents the ceramic complex from being consistently distinctive. Nor can the ceramic complex of the Pueblo sphere be considered as consistently distinctive unless the refinements of time plane and local variation be added.

Sonora-Gila-Yuma agriculture, writes Kroeber, is characterized by canal or river overflow irrigation (Table 3). He does not describe the practices of the Pueblo sphere. We may note that all of true Pueblo subsistence is based on agriculture, while many of the groups included by Kroeber in his "canal or river overflow irrigation" do not even practise agriculture. Furthermore, while the presence of agriculture must be recorded, groups like the Yavapai and Walapai never depended on it and were, at best, marginal agriculturists.

As to techniques of irrigation, we must recognize that, historically at least, canal irrigation is perhaps more characteristic of the Pueblos than of the Sonora-Gila-Yuma. Whether or not canal irrigation was characteristic prehistorically in the Pueblo area, it did occur, apparently, at Acoma, in the Chaco, probably at Gran Quivira (Toulouse, 1945), and perhaps at other sites as well. In fact, during the historic period it far outweighs all other methods in the Pueblo area. Only where it is impracticable do the Hopi and Zuni resort to dry farming, i.e., dependence on rainfall alone. The extensive localized development of canals by the Hohokam on the prehistoric time plane, and by the Pima historically, seems to have caused Kroeber to elevate it to a more important status than it deserves in characterizing the Sonora-Gila-Yuma sphere as a whole.

River overflow is the typical method of irrigation where there are rivers and lowlands of such character that annual floods deposit silt. It occurs more widely in the Sonora-Gila-Yuma than does canal irrigation, but is utilized where practicable by the Pueblos.

It would thus appear that in irrigation procedures, the Sonora-Gila-Yuma sphere does not form a consistently distinctive culture type. Without defining a precise time plane, it is impossible here to draw a line between the two subculture areas.

From the analysis of Table 4 it is clear that Pueblo ritual, by and large, is much more complex or elaborate than is that of most of the Sonora-Gila-Yuma. The question of what constitutes elaborate, as contrasted to simple, ritual is another matter, for the terms are relative and subjective. Ritual of the Tigua Pueblos is not notably more elaborate than that of the Pima as described by Russell (1908), and so we are faced with the problem of objectifying Kroeber's subjective evaluations.

We have questions of definition, as well. Certainly no one could deny that priestly offices are common among the Pueblos, but when a shaman or village chief has placed in his custody the village ritual paraphernalia, the fetishes, does

TABLE 3. *Agricultural patterns*

	Practiced agriculture	River overflow agriculture	Canal irrigation	Dry farming
<i>Pueblo Sphere</i>				
<i>Eastern</i>				
Taos.....	×		×	
Picuris.....	×		×	
Isleta.....	×		×	
Sandia.....	×		×	
Nambe.....	×		×	
Tesuque.....	×		×	
San Ildefonso.....	×	S	×	
San Juan.....	×		×	
Santa Clara.....	×		×	
Jemez.....	×		×	
Cochiti.....	×		×	
Santo Domingo.....	×		×	
San Felipe.....	×		×	
Sia.....	×		×	
Santa Ana.....	×		×	
Laguna.....	×		×	
Acoma.....	×		×	
<i>Western</i>				
Zuni.....	×	×	×	×
Hopi.....	×	×	×	×
<i>Sonora-Gila-Yuma</i>				
<i>Fuerte-Yaqui</i>				
Yaqui.....	×	×		
Mayo.....	×	×		
<i>Sonora</i>				
Papago.....	×			
Pima Alto.....	×	×	×	
Pima Bajo.....	×		×	
Opata.....	×		×	
<i>N. Sierra Madre</i>				
Tarahumare.....	×			
<i>Sonoran Coast</i>				
Seri.....	—			
<i>Northwest Arizona</i>				
Yavapai.....	×	×		
Walapai.....	×	×	×	
Havasupai.....	×		×	
<i>Lower Colo. River</i>				
Cocopa.....	×	×		
Yuma.....	×	×		
Mohave.....	×	×		
Maricopa.....	×	×	R	
<i>Peninsular Calif.</i>				
Diegueño.....	—	—		
Kamia.....	×	×		
Akwa'ala.....	×			
Kiliwa.....	—			
Cochimi.....	×			
Waicuri.....	×			
Pericu.....	×			
<i>Southern Calif.</i>				
Chumash.....	—			
Gabrielino.....	—			
Serrano.....	—			
Cahuilla.....	R			
Luiseno.....	—			
Juaneño.....	—			
Cupeño.....	—			

TABLE 4. *Religious and ritual symbolism, equipment, ceremonies, and functionaries; social organization*

[illegible]

TABLE 4. — *Continued*

	Altars	Sand or meal painting	Masks	Ancestor impersonation	Priestly offices	Shamans	Elaborate rituals	Simple rituals	Color symbolism	Direction symbolism	Fertility symbolism	Emergence	Matrilinear descent	Patrilinear descent	Billinear descent
<i>Northwest Arizona</i>															
Yavapai						×							×	×	
Walapai						×		×						×	
Havasupai			×			×								×	
<i>Lower Colo. River</i>															
Cocopa				×		×		×	×	×				×	
Yuma						×		×						×	
Mohave						×		×	×	×				×	
Maricopa				R ?		×		×	×	×				×	
<i>Peninsular Calif.</i>															
Diegueño	×			×	?	×		×	×					×	
Kamia						×		×						×	
Akwa'ala						×		×						×	
Kiliwa						×		×	×	×				×	
<i>Southern Calif.</i>															
Chumash		?			?	×		×						×	
Gabrielino		×				×	×	×						×	
Serrano						×	×	×						×	
Cahuilla			?			×	×	×						×	
Luiseno		×				×	×	×						×	
Juaneño		×				×	×	×						×	
Cupeño		×				×	×	×						×	

he thereby become a priest? If so, then some of the shamans and chiefs in the Sonora-Gila-Yuma sphere must be reckoned priests even though the office is not so strongly developed. We may legitimately inquire to what extent curing and witchcraft among the Pueblo may be considered shamanism. Parts of the curing rituals are surely shamanistic in character. It would seem, therefore, that shamanism-priesthood in the Southwest may be a question of degree of elaboration rather than mutual exclusiveness. In any event, priestly offices, to a greater or lesser degree, exist among the Yaqui, Mayo, Pima Alto and Bajo, Papago, Tarahumare, Gabrielino, Serrano, Cahuilla, Luiseno, Juaneño, Cupeño, and probably the Diegueño and Chumash — surely a considerable number of occurrences for an area reputedly deficient in the category. On the whole, the difference appears to

be one of intensity, not of presence or absence. Shamans occur in all of the groups listed by Kroeber for the Sonora-Gila-Yuma.

Altars, sand or meal paintings, masks, and ancestor impersonation are present in most of the Pueblos, but in all categories more intensely developed in the Western group. In fact, it is not known definitely whether sand paintings occur in most of the Tigua and Tewa pueblos, and masks are lacking, or are found only sporadically, at the Tigua pueblos. Masked ancestor impersonation is likewise lacking in the same towns. On the other hand, altars are reported for the Tarahumare, and sand paintings are made by the Yaqui, Mayo, Pima, Papago, Diegueño, Gabrielino, Luiseño, Juaneno, Cupeño, and probably by the Chumash and Cahuilla. In fact, Kroeber (1925) described those of the California groups, and their existence led to Strong's study of Southwestern Culture History (1927). The question of identity or interchangeability of altar and sand paintings certainly reduced their value in terms of being consistently distinctive Pueblo features.

What has been said of ritual paraphernalia is largely true of symbolism also. Symbolism of color and direction, of fertility and emergence, is strongly developed among the Pueblo. However, color-direction symbolism is found, although less marked, among the Pima, Papago, Cocopa, Mohave, Maricopa, and the Kiliwa. Color symbolism occurs without directional correspondences among the Diegueño, and direction without color symbolism among the Yaqui and Mayo. Here, again, the matter appears to be one of degree of expression rather than presence or absence and, again, cannot be taken as substantiating consistently distinctive cultural types.

Matrilinear descent, writes Kroeber, characterizes Pueblo culture. Analysis shows that while Hopi, Zuni, Acoma, Laguna, Santa Ana, and Sia have matrilinear descent, Taos, Picuris, Nambe, Tesuque, San Ildefonso, San Juan, and Santa Clara are patrilineal, or perhaps better, bilinear tending toward patrilineality. The remaining pueblos have patrilineal moieties with an overlay of matrilinear clan organization. "The most obvious general characteristic of the Eastern group, as a whole, is the patrilineal tendency." (Hawley, 1937, p. 512.) Therefore, matrilinear descent can scarcely be said to characterize the Pueblo group consistently. On the other hand, the Sonora-Gila-Yuma sphere, where there is any development of unilinear descent at all, is generally patrilinear. The Southeastern Yavapai are the only exception definitely known to the patrilinear tendency for the area.

Kroeber characterizes the Pueblo cultures as being of peaceful inclinations, those of the Sonora-Gila-Yuma showing warlikeness. In order to test these statements, a number of traits bearing on war and warriors have been assembled in Table 5. It is a difficult matter properly to appraise the orientation of a people toward war or peace. Such an appraisal might center around several criteria, such as the number of institutions and traits, and their intensity, concerned with war or war-

TABLE 5. *Elements of warfare*

	Formalized war institutions	War chief	Pre-war ceremonies	Pre-war restrictions	Scalp taking	Victory ceremonies	Offensive warfare	Peaceful orientation	Warlike orientation
<i>Pueblo Sphere</i>									
<i>Eastern</i>									
Taos.....	×	×			×		S		
Picuris.....							S		
Isleta.....	×	×			×				
Sandia.....									
Nambe.....	×	×			×	×			
Tesuque.....	×	×			×	×			
San Ildefonso.....	×	×	×		×	×		×	
San Juan.....	×	×			×	×			
Santa Clara.....	×	×			×	×			
Jemez.....	×	×			×	×			
Cochiti.....	×	×			×	×			
Santo Domingo.....	×	×			×	×			
San Felipe.....	×	×			×	×			
Sia.....	×	×			×	×			
Santa Ana.....	×	×	×	×	×	×	S	?	
Laguna.....	×	×			×				
Acoma.....	×	×			×	×			
<i>Western</i>									
Zuni.....	×	×	×		×	×	×	×	?
Hopi.....	×	×	×	×	×	×	S		
<i>Sonora-Gila-Yuma</i>									
<i>Fuerte-Yaqui</i>									
Yaqui.....	×	×	H		×	H			×
Mayo.....	×	×	H			H		×	
<i>Sonora</i>									
Papago.....					×	×			
Pima Alto.....	×				×	×			
Pima Bajo.....					×				
Opata.....					×	×			
<i>N. Sierra Madre</i>									
Tarahumare.....	×	×			×	×			×
<i>Sonoran Coast</i>									
Seri.....					×	×	?		
<i>Northwest Arizona</i>									
Yavapai.....		×	×	×	×	×			
Walapai.....		×	×	×	×	×	S	?	
Havasupai.....					×				

TABLE 5. — *Continued*

	Formalized war institutions	War chief	Pre-war ceremonies	Pre-war restrictions	Scalp taking	Victory ceremonies	Offensive warfare	Peaceful orientation	Warlike orientation
<i>Sonora-Gila-Yuma—Cont.</i>									
<i>Lower Colo. River</i>									
Cocopa.....	×	×	×	×	×	×	×	—	×
Yuma.....	×	×			×	×	×	—	×
Mohave.....	×	×	×		×	×	×	—	×
Maricopa.....	?	×			×	×	×	—	×
<i>Peninsular Calif.</i>									
Diegueño.....					?	?		?	
Kamia.....									×
Akwa'ala.....					H	H			
Kiliwa.....									
<i>Southern Calif.</i>									
Chumash.....	—	—							
Gabrielino.....	—	—							
Serrano.....	—	—						×	
Cahuilla.....								×	
Lui-seño.....								?	
Juaneseño.....					×			×	
Cupeño.....					?			?	

making. When the Pueblos are examined with this in mind, it is rather obvious that, by and large, more war cults were developed among them than among any of the "warlike" tribes of the Sonora-Gila-Yuma. So far as I have been able to discover, every Pueblo had at least one formalized war institution. Warrior cults seem to have been widespread, if not universal. Oddly enough, the same was not true of the Sonora-Gila-Yuma sphere in general. The Lower Colorado River groups, it is true, had a warrior cult, but it is doubtful that it was so highly organized as its Pueblo equivalent. Elsewhere in the area the Yaqui, Mayo, Pima, and Tarahumare had war institutions of some degree, but the majority of the groups did not have such organizations.

Another criterion might be the amount of ceremony involved in the actual participation in war — that is, the intensity of the war pattern. Here, again, the Pueblo pattern is generally more developed than that of most of the Sonora-Gila-Yuma. Again only the Lower Colorado River groups approach or surpass the Pueblos.

Yet another gauge of the matter is the extent to which the groups initiated offensive warfare. Apparently the Lower Colorado tribes consistently practised war for adventure, but even here Stewart (1947) points out that (Mohave) warfare

was primarily the concern of one small warrior group. In other parts of the area the Diegueño, Akwa'ala, Serrano, Cahuilla, and Luisefio had "no real wars" (Drucker, 1937 and 1941); and Kroeber (1925) points out that the Juaneño and Cupeño did not wage war for conquest. Other southern groups sometimes fought among themselves, but were primarily concerned with defensive warfare only. It is obvious that Kroeber has selected the warlike nature of a small segment from among the Lower Colorado groups and elevated it to the status of a distinctive trait for the whole area. It is interesting to note that while the Pueblos apparently waged defensive war, internecine war was not unknown, and some of the Pueblos occasionally conceived and fought offensive wars, for loot as well as chastisement. In view of these facts, we may well inquire to what extent the Pueblos were oriented toward peaceful objectives. Bennett (1946) has written at some length on this subject and concludes that the matter is not yet settled.

In summary we may point out that Kroeber's definition of the Southwestern culture area does not describe a single time plane. It would appear that many of the Pueblo material culture traits represent various time horizons within the pre-historic period and that, by and large, they are more characteristic of the Western than of the Eastern group. The material culture of the Sonora-Gila-Yuma, on the other hand, is primarily selected from the historic period.

Traits dealing with non-material culture are, of necessity, historical or modern, although here, again, Kroeber has not expressed the time plane which he is using.

Of greater consequence is the fact that Kroeber has selected elements from larger or smaller segments of the groups and has posed them as characterizing the area as a whole. Cases in point are the statement that the Pueblo sphere shows matrilinear descent and stone masonry and that the Sonora-Gila-Yuma sphere shows warlikeness. The widespread distribution of elements which Kroeber declares "sui generis" (such as altars, sand paintings, and masks for the Pueblo, and river overflow and canal irrigation for the Sonora-Gila-Yuma) tends to invalidate not the very real differences between the two subareas, but the formulation of those subareas made by Kroeber. Furthermore, the purely subjective judgments as to the elaborateness or simplicity of ritual development and the definition of town as opposed to village pattern of settlement rob the statement of full validity.

In addition, we may ask whether the sole basis for including some of the Peninsular California tribes in the Cultural Southwest is not that they fall in that area geographically. One wonders why the agricultural, pottery-making, and geographically more central Chemehueve were not included in their stead.

In conclusion, then, we may reiterate that, while there remains the nuclear basis for segregating the true Pueblo expression from the Sonora-Gila-Yuma, Kroeber's formulation does not succeed in subtending the "consistently distinctive culture type" of either.

APPENDIX

SOUTHWESTERN INDIAN TRIBES LISTED BY KROEBER AND PRINCIPAL SOURCES USED

PUEBLO SPHERE

Eastern

Taos
Picuris: Parsons, 1939
Isleta: Parsons, 1932
Sandia
Nambe
Tesuque
San Ildefonso: Gifford, 1940
San Juan
Santa Clara
Jemez
Cochiti
Santo Domingo
San Felipe: White, 1932a
Sia: Stevenson, 1894
Santa Ana: Gifford, 1940; White, 1942
Laguna
Acoma: White, 1932b

Western

Zuni: Gifford, 1940; Stevenson, 1904
Hopi: Gifford, 1940
Hano

SONORA-GILA-YUMA SPHERE

Fuerte-Yaqui Lowland

Yaqui: Drucker, 1941; Spicer, 1940; Beals, 1932, 1943, 1945; Holden, 1936
Mayo: Beals, 1932

Sonora

Pima Alto: Russell, 1908; Beals, 1932
Papago: Gifford, 1940; Drucker, 1941; Beals, 1932; O'Neale and Dolores, 1943
Opata: Beals, 1932

Northern Sierra Madre

Tarahumare: Bennett and Zingg, 1935; Beals, 1932

Sonoran Coast

Seri: McGee, 1898; Kroeber, 1931; Beals, 1932
Tepica
Guaymas

Northwest Arizona

Yavapai: Drucker, 1941; Gifford, 1932, 1936
Walapai: Drucker, 1941
Havasupai

Lower Colorado River

- Cocopa: Gifford, 1933; Drucker, 1941; Spier, 1936
 Yuma: Forde, 1931; Spier, 1936; Drucker, 1937
 Mohave: Kroeber, 1925; Drucker, 1941; Spier, 1936; Stewart, 1947
 Maricopa: Spier, 1933, 1936
 Holyikwamai: Spier, 1933, 1936
 Kohuana: Spier, 1933, 1936
 Halchidhoma: Spier, 1933, 1936

Peninsular California

- Diegueño: Kroeber, 1922; Drucker, 1938, 1941
 Kamia: Kroeber, 1922; Gifford, 1931
 Akwa'ala: Drucker, 1941
 Kiliwa: Meigs, 1939
 Cochimi: Kroeber, 1931
 Waicuri: Kroeber, 1931
 Pericu: Kroeber, 1931

Southern California

- Chumash: Harrington, 1942; Kroeber, 1925, 1922; Strong, 1927
 Gabrielino: Harrington, 1942
 Serrano: Harrington, 1942; Drucker, 1937
 Cahuilla: Hooper, 1920; Drucker, 1937
 Luiseño: Drucker, 1937
 Juaneño: Kroeber, 1925
 Cupeño: Drucker, 1937

The following were used in reference to all Pueblo groups:

- Parsons, 1939b
 Beals, 1935
 Stubbs, 1950
 Hawley, 1937
 Strong, 1927
 Bennett, 1946

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