

The Influence of Agriculture on Aboriginal Socio-Political Organization in the Lower Colorado River Valley¹

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THE Yuman-speaking peoples of the Southwest and California were for the most part non-agricultural in pre-contact times, but the tribes of the lower Colorado River Valley did regularly farm. These tribes were, from north to south, the Mohave, Halchidhoma, Yuma (Cuchan), Kahwan, Hal-yikwamai, and Cocopa. Castetter and Bell (1951:74) estimated that, on the average, they obtained from 30% to 50% of their food supply from agriculture. These percentages are low—and in many years they must have been much lower—yet River Yuman culture differed from that of the Yuman-speaking peoples of California and upland Arizona in many ways, the most fundamental of which represent, we believe, an adaptation to agriculture and to the distinctive environment in which it was practiced. In this paper, we will suggest that the successful practice of agriculture in the Colorado River Valley necessitated a settlement pattern to which the distinctive River Yuman sib system is an adaptation. This in turn gave rise to a form of chieftainship, a type of warfare, and a supporting ideology that was quite unlike that of the non-agricul-

tural Yuman-speaking peoples of California and Arizona.

COLORADO RIVER AGRICULTURE

The lower Colorado River, from Boulder Dam to the Gulf of California, forms a long narrow oasis as it flows southward through one of the most arid regions in North America. Rainfall, which averages about four inches a year at Yuma and less than five inches at Needles, is too scant to support crops. Moisture was derived from the flood waters which, before the modern system of dams was constructed, usually inundated the valley bottom in May or June, and sometimes also in February. The flood waters not only provided moisture—sometimes the only moisture the growing crops would receive—but also deposited a layer of silt which replenished the soil.

Castetter and Bell (1951) have provided a very thorough description of the aboriginal farming system. In this paper, therefore, we will present only a brief summary, focusing on those features of the system which we believe had the greatest effect on the socio-political system.

Before the flood season, a family cleared a plot located where it was likely to receive the full benefit of the flood waters. The best areas were those over which the flood waters could be expected to move slowly enough to deposit a layer of silt, and not so rapidly as to erode the land. Such plots did not commonly occur in extensive continuous stretches, but in many rather small patches. Planting began immediately after the recession of the flood waters, while the soil was still moist. Each family planted about an acre. Sometimes the amount was limited by the nearness of other farming families, but more often simply by the amount a family could plant before the soil became too dry. In the intense summer heat of the valley, the crops—rapidly maturing varieties of corn, tepary beans, squash, and the native panic grass—grew rapidly and were harvested in October or November.

Various adverse factors affected farming, the most important of which was the variability of the all-important floods. Frequently the flood was not of sufficient extent to water all the land that had been cleared, and sometimes it failed to materialize altogether, in which case there would be no harvest at all (Castetter and Bell 1951:7). There are accounts of death by starvation following crop failure. Sometimes, on the other hand, there was too much water. Especially south of the Gila confluence, small floods occasionally occurred in autumn, destroying much of the crop before it was ready for harvest. Even the principal spring floods sometimes brought such a quantity of swiftly-flowing water that the diversion dams constructed might be washed out, granaries might be destroyed, and farm land literally washed away. Such unusually heavy floods occasionally resulted in slight changes in the river channel, so that land which had been favorably situated to receive the flood waters no longer received them, and land formerly out of reach of the waters could now be farmed. From the air,

one can often see today the traces of many former stream channels. Even when the floods were not especially heavy, frequent minor shifts in the river channel resulted in slight changes in the precise areas flooded (Castetter and Bell 1951:7, 69-70, 74, 148-149). As a result of such changes, families frequently had to seek new farming locations. The irregular and unpredictable nature of the Colorado River floods made dependence on agriculture rather hazardous in aboriginal times. It was most hazardous south of the Gila confluence; thus the Cocopa (and possibly other tribes of the delta) normally obtained only about 30% of their food supply from agriculture (Castetter and Bell 1951:74).

The river people therefore depended heavily on fish, game, and wild plant foods to supplement agriculture. Among the most abundant of the wild plant foods available in the river valley were mesquite beans, which ripened in the summer, and screwbean, available slightly later. Amaranth was gathered as greens in the early summer and as seeds in the fall, while other food plants were available in lesser quantities. Many of them were, however, annuals, dependent like the agricultural crops on floods for their growth, and if the cultivated crops failed, they would also fail (Castetter and Bell 1951:145, 158). Fish were most easily caught in the late spring and early summer, as the flood waters receded and many fish were trapped in small ponds and sloughs slightly away from the main river channel. They continued to be available throughout the summer, but in winter and early spring, when the river was low, few fish were available except in the lower part of the delta (Wallace 1955). Rabbits, jackrabbits, wood rats, beaver, mule deer, and quail were the principal game animals.

Winter and spring were times when there was little to be harvested in the river valley, and the people depended heavily on stored supplies of cultivated and wild plant foods.

Despite the hazards of farming, agricultural crops must have been an essential factor enabling the river tribes to maintain a habitat largely restricted to the river valley. Without them, they might still have lived principally in the valley, but would probably have had to make regular seasonal movements to the upland areas to gather wild foods. Kroeber (1951:119, 161) reports that when the agricultural harvest was poor, the Mohave had to leave the valley and forage in Walapai country. The delta tribes had access to agave and some other upland foods in the Cocopa Mountains which border the delta on the west, and to the abundant "wild rice" in the tidelands at the mouth of the river, but they also occasionally traveled to Paipai or Tipai country for additional supplies (Castetter and Bell 1951; Gifford 1933).²

Archaeological research has so far provided no direct evidence with which to date the beginnings of agriculture in the lower Colorado Valley, but such evidence as exists has been interpreted to indicate that it was rather recent. The archaeological culture which most probably represents the ancestors of the River and Arizona Yumans is the Patayan, or at least its western manifestations (the Laguish stem). This began to take form as a distinct cultural tradition around A.D. 800 (McGregor 1965:23). Pottery made its appearance on the lower Colorado at about the same time or slightly earlier, and the types foreshadow later Yuman types (Rogers 1945; Schroeder 1952). The Amacava branch of the Laguish stem—the probable ancestors of the Mohave—adopted an almost exclusively riverine settlement pattern after A.D. 1100 (Schroeder 1961:2, 106), and such a settlement pattern may represent an adaptation to agriculture. By this time also, the little-known Palo Verde and La Paz stages, south of the Amacava, appear to be primarily riverine cultures (McGregor 1965:303, 308). The best guess, then, is that agriculture took hold in

the river valley, and the distinctive River Yuman culture began to evolve, between A.D. 800 and 1100. Prior to the introduction of agriculture, their socio-political structure presumably resembled that of the non-agricultural Yumans, since it would have been adapted to similar ecological conditions. We believe, as have others (Kelly 1942; Steward 1955), that it evolved from a California Yuman type of social organization.

COLORADO RIVER SOCIO-POLITICAL ORGANIZATION

The Colorado River tribes had unilinear kin groups (Mohave *simúlya*, Yuma *šimúly*, Cocopa *šiyumut*),³ which we will call sibs, following Forde (1931). Murdock (1949:47, 68) proposed using the term "sib" for unilinear descent groups without residential unity and reserving "clan" for those with it. These sibs were patrilineal and exogamous, but were not localized nor autonomous, and did not constitute political or economic units. They had names, which were also borne as names by the women of the sib, but not by the men (Spier 1953; Sherer 1965). We have no data on the number of persons per sib, but because of the way they functioned, this is a matter of no great importance. In fact, sibs among the River Yumans seem to have functioned primarily as guides to the recognition of kin and hence the regulation of marriage. Only among the Cocopa (and perhaps the other delta tribes) was there any feeling of group cohesion on the part of sib members (Kelly 1942:688). There were no sib leaders, and the sibs had no function in ceremonial activities (Kroeber 1925:741; Spier 1953).

The principal economic unit was the elementary family, in which was vested the right to use farm land. Dwellings were located on or near the farm land, and residence tended to be patrilocal if sufficient farm land was available in the appropriate locality. In the river valley, good farm land—level patches

located so as to receive maximum benefit from the floods—tended to occur in sections large enough to supply the needs of several families, with each such section separated from others by stretches of undesirable land. Hence, settlements often took the form of a loose cluster of households occupied by men of the same sib, with their wives and children. Not all members of a given sib lived in the same area, however, and a given section of farm land might contain the dwellings of people of more than one sib. Frequent small shifts in the river course following floods resulted in changes in the suitability of land for farming, and this led to corresponding shifts in home sites (Kniffen 1931:52-55; Castetter and Bell 1951:141-143; Kelly 1942:675; 1949:152; Forde 1931:134-135; Kroeber 1925:727, 741-745).

While unilineal descent groups had little function among the river tribes, the tribe as a whole was a unit of some importance to its members. In contrast to the situation among the California and upland Arizona Yumans, the tribe far exceeded sib membership or place of habitation in the loyalties of the people. Kroeber writes of the Mohave:

They think of themselves as a national entity, the *Hamakhava*. They think also of their land as a country, and of its numberless places. They do not think of its settlements. Where a man is born or lives is like the circumstance of a street number among ourselves, not part of the fabric of his career. The man stands in relation to the group as a whole, and this group owns a certain tract rich in associations; but the village does not enter into the scheme. In fact, the Mohave were the opposite of clannish in their inclinations [Kroeber 1925:727].

Tribal unity was manifested primarily in the sentiments of the people. It was in no sense political, but it was important nonetheless. What it meant was that an individual and his family could move about and settle anywhere within the tribal area without wor-

rying about trespassing on the lands of an alien group. This, as will be seen, was a necessary adaptation to the requirements of riverine agriculture.

There were men recognized as tribal leaders (Yuma *kwaxot*, Mohave *kohota*; hereafter, we will use the Yuma term to refer to this position, in whatever tribe it occurs),⁴ accepted as such by virtue of their qualities of leadership and the quality of their dreams. But it was seldom, we suspect, that any single one of them succeeded in making himself leader of a whole tribe—that is, of all Mohave, or all Yuma. Locally influential men, who might also be regarded as *kwaxot* by a smaller number of followers, were frequently ready to take advantage of a tribal leader's weakness to usurp his position. Descriptions of River Yuman chieftainship cannot fail to remind one of the "big man" pattern of Melanesia (Sahlins 1963). We do not know the precise method by which a *kwaxot* achieved his position of pre-eminence. Probably, most Indians would have been hard put to explain it; instead, they attributed it, as did the *kwaxot* themselves, to their dreams. In the words of one of the Yuma (Patrick Niguel) interviewed by Forde:

You know how some men are quick and strong and know the things to do, how people like to do things for them, and how they have a gift for getting everybody cheerful. Well, these men were leaders (*kwaxot*). When a man knew he had the power to be a good leader, he told his dreams. If his dreams were good, his plans would be followed, but if they were poor and stupid, others would tell him so and he could do nothing. Sometimes men struggled with each other to lead war parties and arrange daily affairs. Then each would try to get more of the people on his side, giving feasts to his friends and encouraging them to speak of his wisdom. But it was not long before we knew who was the better man and he became leader and gave positions to others. If a leader acted stupidly, it meant

that his power had deserted him and it was time to have another to decide things [Forde 1931:134-135].

Dreams were of extraordinary interest and concern to the river tribes, but they were relatively unimportant to the California and upland Arizona Yumans.

The *kwaxot* settled disputes, decided on a course of action in time of crisis, received gifts for redistribution, and organized ceremonies. Warfare was also one of his activities in pre-mission times (Forbes 1965:73-74). Men known as *kwanami* (in both Mohave and Yuma; *kwinemi* in Cocopa) were prominent because of their bravery in war, but were not political leaders.

Most ethnographers have stressed the intensity and inter-tribal scale of River Yuman warfare (Stewart 1947; Fathauer 1954), but Forbes (1965), who has made an extensive study of the early Spanish sources, believes that this has been overstressed. What Forbes' data seem to indicate is that pre-European warfare may have been quite frequent, but that it consisted of small-scale raids of brief duration, rather than inter-tribal conflicts. This would seem to be consistent with the pattern of political disunity, although one might suppose that a chief who was able to unify a large portion of a tribe could also muster a comparably large fighting force. At any rate, River Yuman warfare did not consist of inter-sib feuds.

Because of the extent of the tribal territory and the fact that suitable farm land occurred in sections somewhat separate from each other, the people tended to be grouped into informal tribal subdivisions, based only on proximity, and composed of one or more of the loose clusters of houses sometimes called "villages." Among the Yuma, each such grouping recognized one or more men as local leaders (*pipa taxan*), respected as such by the *kwaxot*, but their influence was restricted and did not undermine the authority of the tribal

leader. Such local leaders do not seem to have been reported among the Mohave (although a cognate term is given by Sherer [1966:2], who spells it *pipatahon*), but among the Cocopa, their equivalents (*tšapái axany*, "good person") may have been the only leaders there were (Forde 1931:139; Kelly 1942:675; 1949:151; Forbes 1965:67-68; Gifford 1933:298).⁵

In summary, there existed on the lower Colorado a strong feeling of tribal unity among people speaking the same language and occupying a specific portion of the river valley. Descent groups retained exogamy, but otherwise were virtually functionless. Chieftainship was not hereditary, nor was it based in any way on descent groups. Society can be described as kin-based, since it was non-stratified and stateless, yet political integration was on a territorial basis. A leader's following was based primarily on locality of residence, not kin-group affiliation, and it was loyal to him as an individual, not to a descent group.

CALIFORNIA YUMAN SOCIO-POLITICAL ORGANIZATION

The ecological pattern and the pattern of socio-political organization on the lower Colorado contrasts in many ways with that of the Yuman-speaking people of California and Baja California west of the river valley. The California subsistence pattern was based on hunting and gathering rather than agriculture. The basic socio-political and economic unit was a named, patrilocal, patrilineal, exogamous lineage (Tipai *šimul*, Paipai *šomul*), composed of some 100 to 150 persons on the average (Kelly 1942:682; Kroeber 1925:720; Meigs 1939:20; Cook 1937:5; Owen 1965; Hicks 1963:Ch. 3). Each such unit was the basis of an autonomous band, and except for occasional temporary alliances, there were no larger groupings. Society was integrated on the band level, and there was apparently no

feeling for anything that might be termed "tribal unity."

Bands were localized, in that each band had at least one tract of territory that it regarded as particularly its own. In these tracts, wild plant foods and game sufficient to support a group of about 100 persons or more could be regularly obtained during one or more seasons each year (Hicks 1963; Meigs 1939). Seasonal movements, to take advantage of regional and seasonal variations in food availability, were regularly made to other localities, some of them shared with other bands, others supporting only a portion of one band.

This was a subsistence system to which bands based on patrilocal exogamous lineages were well adapted. The resources of this area, unlike the scattered agricultural plots of the river valley, could best be exploited collectively. Certain areas could support a band, but bands could not maintain residential unity the year round. Some device to institutionalize band cohesion was functional, and this was provided by the ties created through common unilineal descent group affiliation and a unilocal residence rule. Occasional food shortages in one band's area made friendly ties with other bands desirable, and band exogamy—which followed from the band's descent group basis—stimulated the development of such ties. At the same time, lineage loyalty sometimes elevated minor disputes, including domestic quarrels, into protracted feuds between lineages. This was the form that "warfare" ordinarily took. Population increase or decrease might lead to the fissioning or merging of bands (Hicks 1963:259-260), but neither this nor annual variations in a band's food supply were such as to disrupt the pattern of residential unity of lineage-based bands. In contrast to the situation on the lower Colorado, descent groups here were functioning residential and economic units.

They were also political units. Each band

had a leader, in theory hereditary, called a *kwaipai* in Northern Tipai, *kwi?paai* in Southern Tipai, *kumšrai* in Paipai. Neither *kwaxot* nor *kwanami* have cognates in the California Yuman languages, although they occur in Walapai (Kroeber 1943; McKennan, in Kroeber 1935:153).

There was no word for "band" as distinct from "lineage." In Paipai, *šomul* stood for both, and also for larger ethnic units, such as Kiliwa, *Metxalčiyum* (Tipai), and in recent times *Hamákipá* (American). Band leaders guided and encouraged their people in various matters, and took charge in matters involving inter-band relations. Their power probably varied from band to band according to circumstances and individual capabilities, but was in any case rather slight (Drucker 1937:28; Kroeber 1925:720; Meigs 1939:45-46).

In summary, the principal socio-political and economic unit in Yuman-speaking California west of the Colorado River Valley was the band, which was structurally a localized patrilocal and patrilineal lineage, plus wives who married in from other lineages. There was no feeling of "tribal" unity, but the lineage-based band was a cohesive unit, which often engaged in prolonged feuds with other bands.

THE EVOLUTION OF RIVER YUMAN SOCIO-POLITICAL ORGANIZATION

We believe, as have others, that the localized lineages of the California Yumans and the non-localized sibs of the river tribes had a common origin. The same or cognate terms are used to refer to both (cf. Paipai *šomul*, Tipai *šimúł*, Cocopa *šiyumuł*, Yuma *šimúly*, Mohave *simúlya*; Kiliwa *matsélkwa* would seem to be an exception). The Yuman-speaking peoples of upland Arizona had a much looser band structure, and no cognate terms are found there (Kroeber 1935; Dobyns and Euler 1970:Ch. 2). Moreover, the upland Arizona people may represent a relatively late eastward Yuman expansion (Schwartz 1959:

1061-1062; McGregor 1965:377). Paipai and Tipai interviewed in Baja California in 1959-1960 evidently considered the river sibs to be the equivalent of their lineages, and indeed, some Cocopa sibs originated, in fairly recent times, as Paipai or Tipai lineages (Kelly 1942: 679-680). Kroeber finds, in a historical myth, a Mohave belief that in the distant past, sibs were localized and possibly autonomous (Kroeber 1951:117-118).

Basic to the restructuring of society in the river valley was the de-localization of descent groups. This was also considered basic by Julian Steward, who dealt with it in an article originally published in 1937 (Steward 1955). Steward suggested that warfare was the factor leading to the disruption of clan (sib) localization, but while he treated warfare as an independent variable, we hope to show that it is more likely to have been a consequence of de-localization and the associated changes in political organization. We suggest the following processes account for the changes in River Yuman socio-political organization.

Among all of the Colorado River tribes, the regular home of each family was on its farm land, which consisted of about one or two acres, and the individual family was the unit of land use (Castetter and Bell 1951:75). Land suitable for farming, however, is not always so distributed as to permit all members of a lineage to live on contiguous plots. In some areas, there is a large enough stretch of farmable land for all of them to live fairly close together, perhaps with some land left over. In other areas, good farm land may be available, but only enough to permit a few families to live as close neighbors. This situation contrasts with that in California west of the Colorado, where land used for food gathering was exploited by the band collectively, and where food resources were so distributed that, as far as the nature of the land is involved, a lineage could expand or contract its territory without disrupting lin-

eage residential unity. Here, as on the river, or in any other region, there might occasionally be population pressures, and if they were sufficiently severe, a portion of a lineage would probably have to split off and move to a new territory. If the pressure were only moderate, however, and affected only one lineage, a California group could merely expand its gathering area, while a river group could not, except where extra land happened to be available in the immediate vicinity.

In addition, farm land on the river was often affected adversely in ways that gathering land in California was not. Occasionally, exceptionally heavy floods washed away portions of the farm land. Such floods also sometimes caused a shift in the river channel, and as a result, land formerly irrigated by the flood waters would be left dry, while land formerly not reached by the floods could be irrigated. Families had to shift the location of their home sites in accordance with the destruction and formation of farm land during heavy floods, and over the generations a great many such movements must have taken place (Kelly 1942:675; Kniffen 1931; Castetter and Bell 1951:38-39). Thus residential unity on the part of a lineage, even if practical to begin with, could not have been long maintained.

Gradually the lineages lost their residential unity, and with it their economic and political functions. Yet the activities of the people still had to be coordinated, disputes settled, ceremonies performed, and the sick and aged cared for. If anything, the requirement of political integration and need for leadership must have intensified as population density in the valley increased. In the absence of functioning descent groups, the only basis for political unity was territorial proximity, and the only basis for political leadership was individual success. Strong men acquired a following by means which are not entirely clear, but which certainly included redistribu-

tion, and probably also a reputation for good judgment and powers of persuasion.

The acquisition of a following was not aided by descent group affiliation and associated loyalties (although a man with numerous nearby kinsmen may well have had an advantage), but neither was it limited by them. A successful *kwaxot's* following might come to include all the inhabitants of a major segment of the river valley system, that is, the entire Mohave, Halchidhoma, or Yuma "tribe." Subordinate leaders, who might also be called *kwaxot*, often had a following of their own in a certain part of the tribal area, but they paid respect to a *kwaxot* whose larger following made him more powerful. If this larger following fell away, however, the subordinate might emerge as a rival and eventual successor (Forde 1931:134; Forbes 1965:68-74).

The *kwaxot* derived his power from his following, but he also had authority, and this required a legitimizing mechanism. There was no formal system of political succession. The *kwaxot* held power and authority not by heredity, not as leader of a descent group nor head of an association, but as an individual; it was as an individual that his power had to be legitimized. Dreams are individual phenomena. They are not affected by heredity or descent group affiliation, but only by individual experiences and concerns, plus cultural conditioning. "Dream power," wrote Forde (1931:134), "... afforded the medium through which an individual laid claim to authority." Theoretically, leadership was obtained in dreams from one of the spirits appointed by the creator to appear to those he thought worthy. Dreams, then, provided this necessary legitimizing mechanism.

Dreams were important in other aspects of River Yuman life also. Dreams gave shamans the power to cure, warriors the power to be victorious, and other men the power to sing or to be funeral orators (Forde 1931:

127-128, 138, 182-183; Kroeber 1925:745). Dreams gave a man the power to impregnate a woman, and dreams legitimized transvestitism (Forde 1931:157, 158). Among the Maricopa on the Gila, individual success of any kind was attributable to dreams. Among the Cocopa, dreams were important in many of the same ways (Gifford 1933:298, 303), but they were not, according to Kelly (1947:152), as outstanding a cultural characteristic as they were among the tribes north of the delta.

As might be expected, no comparable degree of emphasis on dreams is found among the California Yumans. There, an individual was part of a band and a unilineal lineage. His fortunes were those of his band. His headman was the head of his lineage and would be succeeded by a kinsman. To be sure, some Tipai shamans attributed their powers to dreaming (Spier 1923:313), but headmen never did. In California, lineage cohesion was more important than individualism (although shamans received their powers as individuals), and it would have been dysfunctional to use anything so personal and individual as dream experiences as a legitimizing and explanatory ideology.

The feeling of tribal unity that is so consistently reported for the river tribes is at least partly a function of the structural unimportance of sibs, and the fact that one's sib mates were most likely scattered throughout the tribal area. But this, in turn, was an effect of an ecological pattern which, to be successful, required that a family be able to establish itself wherever suitable farm land was available within the tribal area. This requirement would have been hard to meet in the absence of a feeling of tribal oneness, but a "feeling"—that is, an ideology—is all that it really had to be, and probably all that it was at most times.

The structure of River Yuman society was such that warfare could not take the form of protracted feuds between lineages, as it did in

California. As many men as a *kwaxot* could unite politically might potentially be united in war. At the same time, groups of individuals were not constrained by kin group interests from embarking on raids. The *kwaxot* might seek to dissuade them, especially if he thought their chances of victory were slight (Kroeber and Kroeber 1973:11, 17-18), but the frequency of raids, and the need for defense against them, may have strengthened his position by providing a stimulus for political unity. We actually know very little about the nature and function of aboriginal River Yuman warfare, since nearly all descriptive accounts deal with inter-tribal warfare under the circumstances of European presence or penetration in the area (Kroeber and Kroeber 1973; Dobyns et. al., 1957; Forbes 1965). But it surely begs the question to dismiss it as "a national sport, engaged in for the pure love of fighting" (Castetter and Bell 1951:250-251).

Kelly (1942) considered the Cocopa sib (or "gentile") system to be intermediate between the River Yuman and California systems. Like those of the river tribes, Cocopa sibs (and probably those of the Kahwan and Halyikwamai as well) were non-localized and non-autonomous, and women bore a name associated with their sib. But this was not the same as the sib name (with a few explainable exceptions); Cocopa sib names were more like those of California bands than river sibs. Also, the feeling of sib cohesion was greater among the Cocopa than among the river tribes above the delta, and the people counted more heavily on their sib mates for assistance and hospitality. Kelly (1942:688) suggested that the Cocopa sib system was essentially of the California type, modified through influences from the river tribes, and this may have some linguistic confirmation. The Cocopa and Diegueño languages are very closely related; Joël (1964) distinguished a "Delta-Diegueño" branch of the Yuman family. It may indeed

turn out, as Kelly has suggested, that the Cocopa were relative newcomers to the Colorado Valley, that adaptation to agriculture, and the settlement pattern associated with it led to the loss of sib residential unity and autonomy, but had not yet dissolved the feeling of sib cohesion. Continued contacts with the Diegueño (Tipai and Ipai) and Paipai, which often involved intermarriage (Gifford 1933; Kelly 1942), may have helped retard the loss of sib cohesion. It is not surprising that the Cocopa adopted the river custom of giving women names that identified their sib, since even among the Yuma and Mohave this probably fosters sib cohesion to some extent.

SUMMARY

We have suggested that many of the most basic and prominent features of River Yuman culture may be understood as adaptations to the practice of agriculture in the river valley environment and the distinctive settlement pattern that this made necessary. The occasional changes in the river course and the location and quality of farm land required a family to move occasionally to other localities. This led, in time, to the de-localization of descent groups. Since conditions did not favor the development of any alternative form of segmentary organization, and since freedom of movement throughout the tribal area had survival value for the society as a whole, a feeling of tribal unity emerged. The tribe as a whole provided an arena in which individuals, through generosity and skill in social manipulation, could rise to political prominence. Like other prominent people, they achieved their status not by virtue of their position in a segmentary structure, but as individuals, and their prominence was justified and legitimized by their individual dreams. Sib de-localization changed the nature of warfare, but did not end it; the lack of segmentary structures

permitted a broadening of the scale of warfare as well as of political activity.

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NOTES

1. This paper is based on a portion of the author's Ph.D. dissertation (Hicks 1963), but has been extensively revised, expanded, and updated. I would like to thank Dina Judith Joël for many helpful criticisms and suggestions, and Lowell Bean for stimulating me to revise it for publication.

2. Although some sources refer to "trade" between the Paipai and Cocopa, this is most likely a recent adaptation. The more probable pre-mission pattern was for people to travel to and gain permission to gather in another group's territory. Such permission would be reciprocated when an occasion arose.

3. Different authors have different ways of writing these words and others introduced in the course of this paper. To be as consistent as possible, this text follows Kroeber (1943) for River Yuman words and in most cases Joël's (1964) recordings for Paipai and Tipai, except where another source is indicated.

4. Kroeber (1925:745) recorded another Mohave term, *hanidhala*, which he suggested was derived from Spanish *general*, for a leader with somewhat different functions. Sherer (1966:2-3) notes that words which she spells *yalnatack* and *huchach* or *hochoch* were used for chiefly positions of an apparently non-aboriginal nature. *Kwaxot* and its cognates (literally "good man") evidently designates the pre-mission chief, but I have found no cognate term in Cocopa, and the Maricopa cognate does not mean "chief" (Spier 1946:17, 29).

5. Crawford (1966:153) records a Cocopa word *pî-tá-n*, "chief," but gives no cultural context. In another form it appears as *kpyutá-n*, "the chief," and I suspect it is derived from Spanish *capitán*.

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