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Author Kroeber, Clifton B

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Lower Colorado River Peoples: Hostilities and Hunger, 1850-1857

CLIFTON B. KROEBER

WHY did some aboriginal peoples conduct hostilities over long periods of time? The answers to this question have been many,¹ and one motive that is given great weight in the literature is the economic raiding for wealth or for food in time of hunger. But for the Lower Colorado peoples during the early 1850's the record is not clear in associating occurrences of warfare with times of hunger. Instead, the record raises questions bearing on the theory of war in aboriginal society.

Whereas the subsistence activities of Quechans, Mohaves, and Cocopas were similar, their responses to shortages of food differed. Their war customs were alike but the importance and incidence of warring differed strikingly. In explaining those hostilities, scholars have mentioned a wide variety of reasons, including national pride, religious inspiration, prestige desires of career warriors (kwanami), a game-like enjoyment, response to trespass, revenge, and, most recently and emphatically, the search for wealth or for food.² We will first survey the subsistence activities in each territory, then the pattern of recurrent hostilities, and finally review the extent to which hunger or famine was accompanied by war.

MOHAVE SUBSISTENCE

Concerning the Mohave, it was reported by Brady (1860) that,

They subsist by cultivation of the soil, and what few fish the river affords. The soil is remarkably rich in the low bottom lands adjoining the river and affords them subsistence with very little labor. They plant two crops in the year, one of wheat in January and February, which they gather in months of April and May, and which ripens from the dampness of the soil alone. The second crop which is the largest and by far the most important is planted after the annual overflow, which generally takes place about the middle of June, at which time they plant considerable quantities, of corn, pumpkins, beans, and melons. They also gather large quantities of the mesquite bean and grass seed, which affords them some support.

Earlier, Balduin Möllhausen (1858:249-262) mentioned the planting of gourds. He also described Mohave food storage in pots inside the houses, and in wickerwork containers set high above the ground to hold mesquite pods, screwbeans, and dried corn. But as the white captive Olive Oatman discovered (Stratton 1857:122-124; see Tuttle 1928), "In their producing season, the Mohaves scarcely raised a four months' supply... There was little

Clifton B. Kroeber, Dept. of History, Occidental College, 1600 Campus Road, Los Angeles, CA 90041.

game in the Mohave Valley and of necessity little meat was used by this tribe" (Stratton 1857:118; Brady 1860). Olive Oatman kept body and soul together in time of famine by digging roots, seeking birds' eggs, and by fishing.

QUECHAN SUBSISTENCE

The Quechans farmed and gathered under almost exactly the same conditions (Heintzelman 1857:34-35):

The river bottom is wide and fertile, covered with a heavy growth of arrow wood, grease wood, cotton wood, willow of three varieties, and mesquite of two kinds, the flat pod and screw beans, and is intersected by a great number of sloughs and lagoons, former bends of the river. On these the Indians plant in the month of July, or so soon as the waters of the annual rise commence to subside. No vegetables will grow beyond the influence of the overflow.

They cultivate water melons, musk melons, pumpkins, corn, and beans. The water melons are small and indifferent, musk melons large, and the pumpkins good. These latter they cut and dry for winter use.

Their agriculture is simple. With an old axe . . . knives and fire, a spot likely to overflow is cleared. After the waters subside, small holes are dug at proper intervals, a few inches deep, with a sharpened stick, having first removed the surface for an inch or two, as it is apt to cake. The ground is tasted, and if salt the place rejected; if not, the seeds are then planted. No further care is required but to remove the weeds, which grow most luxuriantly wherever the water has been.

Wheat is planted in the same manner, near the lagoons, in December or January, and ripens in May and June. It has a fine plump grain, and well filled ears. They also grow grass seed for food. It is prepared by pounding the seed in wooden mortars, made of mesquite, or in the ground. With water the meal is kneaded into a mass, and then dried in the sun. The mesquite bean is prepared in the same manner, and will keep till the next season. The pod mesquite begins to ripen in the latter part of June; the screw bean a little later . . . The great dependence of the Indian for food is upon the mesquite and his fields.³

Standing crops could easily be lost. In the U.S. Army garrison at Fort Yuma, Lieutenant Tom Sweeny's crops failed, and he reflected (Sweeny 1956:176, 200; see also Stratton 1857: 187, 200) that "nothing can be raised in these diggings except by the Indians, or those who adopt their plan of encamping on the plantinggrounds and protecting them from the animals and insects that swarm around the young plants, and will certainly destroy them if not driven off."

COCOPA SUBSISTENCE

As for the Cocopa, William H. Kelly (1977:23) concluded:

No other Indians in the Southwest, not even the other River Yuman tribes, possessed the quantity, diversity, and the seasonal spread of wild food resources available to the Cocopa [and while] the Cocopa of the 19th century should have been well fed and prosperous . . . they were not [but instead were on] chronic short rations during the late spring and early summer, and [in] near-famine conditions in some years when the summer floods failed.

In their lands of broad lagoons and extensive flooding, Cocopas raised all the crops already mentioned, and they also harvested the wild rice (Fig. 1). Their supply of fish and shellfish was significant. Still, as with other Lower Colorado River peoples, the Cocopas' food usually lasted no later than March or April, and they would then be on "short rations" (Castetter and Bell 1951:54, 68; see also Derby 1969:46, 48).

HOSTILITIES IN THE HISTORIC PERIOD

By the early 1850's, the most frequent hostilities conducted by the above three peoples were damaging raids upon each other by Quechans and Cocopas. Sometimes Mohaves went with the Quechans. Rarely, the Maricopa villages on the Gila River were raided by Quechans, sometimes accompanied by Mohaves. Some of those trips to the Gila were mere damage raids, but others were much larger expeditions that resulted in formal battles rather than in hit-and-run assault. It is clear that Maricopas and Cocopas wished to combine against the Quechans; but they never managed to coordinate such an attack.

So, most of the hostilities were between Quechans and Cocopas, often affecting only one or two *rancherias* or villages. Both peoples lived so widely dispersed, and both moved so frequently, that it was rare for any attack to involve even a sizeable proportion of all fighting men in the nation. Finally, records do not show whether the nearby Kamia and Diegueño, long-standing allies of the Quechans, became involved.⁴

In the early 1850's, the Quechans were already suffering because of the heavy traffic of



Fig. 1. Cocopa Indian garden, Colorado River delta, Baja California, ca. 1902. Although late in the historic period, this is one of the few known photographs of a native garden along the Colorado River. The structure at the right in the background is a platform built of poles and is identified on the photo as a seed cache. Photo taken by the California-Mexico Land and Cattle Company. Courtesy of the Sherman Library, Corona del Mar.

white emigrants at Yuma Crossing. The worst damage was done by a U.S. Army detachment which came to the Crossing to prevent Quechans from interfering with white travelers and ferry keepers. As time went on the Cocopas had distant but friendly relations with the white soldiers; thus the Quechans came to fear an alliance of whites and Cocopas against themselves. The Quechans did suffer heavy casualties, shortages of food, and even danger of extinction during the early 1850's.

In the fall of 1850, the State of California sent an improvised military expedition against the Quechans, who fled from their homes in September and October, 1850, losing the crops around Sakwiye village near the Gila-Colorado junction. Probably they also abandoned plantings at Xuksíl near Algodones, more than a dozen miles downstream. Part of the nation fled upriver, to gather food and then to plant crops in the Colorado River bottomlands in a long stretch unoccupied or only very thinly inhabited, which intervened between the central homelands of Quechans and Mohaves (Forbes 1965:321-322).

After the California troops departed late in October, whites living in fortified quarters at the Gila-Colorado junction continued to eat up whatever food remained in the Quechans' fields at Sakwiye, and these white people also gathered in the local mesquite supply. In early November, 1850, a small garrison of U.S. soldiers arrived at Yuma Crossing and they also began taking mesquite. So the Quechans lost much of what would have been good crops and good gatherings. During that period, so far as we know, the Mohaves were also on short rations, presumably for lack of river overflow in their valley. But during that year and for early 1851 we know of no hostilities among the Lower Colorado tribes. The Quechans did make a very large battle expedition against the Maricopas, and lost more than a hundred warriors, but there is no telling at which season, or during which of the years, 1850 or 1851, this event occurred (Russell 1908:44-45).

In the summer of 1851, the Colorado did not overflow in Quechan territory and probably not in Mohave Valley (Heintzelman 1857: 37; Stratton 1857:119). The Quechans were subsisting on mesquite early in the summer, but there were no stored foods from the previous year, and they had not been able to plant for a coming crop. During summer almost all the people were moving down the Colorado to a stretch just below the mouth of New River, where the stream had overflowed; and there, in the territory of their close relatives and friends the Kamia, they planted. The people made this move in groups leaving during July, as the supply of mesquite in the home territory finally gave out (Sweeny 1956:73, 75, 121-122, 132, 137; and Heintzelman 1857:36).

Before leaving home the Quechan warriors did carry out three raids. In June, they struck a Cocopa village, killing many of the people, taking prisoners, and carrying away "all the spoils esteemed valuable" (Sweeny 1956:72). Another attack went against the Maricopas who had come down the Gila River to the neighborhood of present-day Gila Bend to gather cactus fruit, as they did each year. The Quechan raid was successful, killing some enemies and bringing back two captives (Cremony 1868:111-112).

The Maricopas did not respond to that attack. But the Cocopas planned to retaliate for the damage done to them, by inviting Quechan leaders to a feast where they would be ambushed. The plan reached Quechan ears in time for them to strike first, killing a number of Cocopas and "taking some women and children captive" (Heintzelman 1857:43; Michler 1857:107). Whether these attacks against Maricopa and Cocopa were meant to gather food we cannot say.

While some Quechans went southward in July in search of food, others moved far north along the Colorado. They were seen by a U.S. government expedition in November, 1851, giving the impression of having arrived but recently. They had no stores of food and were subsisting on mesquite beans and screwbeans (Sitgreaves 1853:19, 184). They were encamped in lands lying a long eight days' march above Yuma Crossing.

Meantime, there is reason to believe that the Mohaves did bring in a small spring wheat crop in 1851—but too little to tide them over into fall. They probably had a poor harvest, too, when summer came (Stratton 1857:119; Sitgreaves 1853:18).⁵

By spring of 1852, many or all the Quechans had returned to their homes. They were set upon by U.S. soldiers determined to subdue the Quechans so as to end hostilities between Indians and white immigrants. From March until September, the troops raided, attacked, and scorched the land. Both north and south of the Gila-Colorado junction they burned settlements, wrecked standing crops, and pursued the Indians over long distances. In July they drove all inhabitants out of the vicinity of the Army post, Fort Yuma. The Commandant wrote that his operations had prevented Indians from planting "below, between us and the Cocopa, and above within fifty miles" (Heintzelman 1857:37; Sweeny 1956:154, 155-157, 178, 204).

So although the Colorado overflowed strongly that summer of 1852, near and below Fort Yuma, the Quechans had no good from their best-yielding lands that lay within about five miles of the Fort, both north and south, and in the "forks" between the Gila and the Colorado (Sweeny 1956:200-201). Some of the people now took refuge even farther from the soldiers than before, farther to the north. Others traveled westward into the desert to refuge with the Kamia (Sweeny 1956:167). Those who went north along the Colorado put in melons and pumpkins during the summer from sixty to forty-five miles above Fort Yuma (Sweeny 1956:167). They were making every effort to stay out of the Way of U.S. troops and to establish their crops in time.

Meanwhile the situation in Mohave Valley was much worse. Although the Colorado had overflowed during the winter of 1851 and rains had followed (Stratton 1857:119), the wheat crop of 1852 was much less than needed to tide over until after fall harvest time. Gathering of mesquite went on apace during the summer but yielded too slender a store for future needs. The Colorado did not overflow in Mohave Valley in 1852, there were no spring rains, and the fall harvest was disappointing (Stratton 1857:124).

During the spring, the wheat had been used up and women were out hunting for mesquite, taking pods overlooked the previous year. After the fall harvest, and when seed had been set aside against the next planting, only a month's supply of food remained. As Olive Oatman remembered that summer and autumn "nothing but starvation could be expected" (Stratton 1857:184, 187ff.).⁶ She was one of a party of women who traveled more than sixty miles out of Mohave Valley where tree crops could be gathered and carried home in baskets. In late fall, some of the Mohave children, and Olive's younger sister, starved.

The Quechans' affairs also took a brief turn for the worse during late 1852. In September, the U.S. soldiers marched all the way north to the temporary Indian settlements on the Colorado, probably wasting crops and certainly frightening the people away. In early October, the leading men decided to submit at last, and they gathered near Fort Yuma at the behest of the Army officers. They said that "They had suffered a great deal in consequence of having been driven off their planting-grounds" (Sweeny 1956:175-182; Forbes 1965:334-336). For the time being, they had food, brought home with them from temporary fields lying even beyond the range of the Army's September attacks. But wintertime brought dire need: "our camp was filled with men, women, and children, begging for something to eat" (Heintzelman 1857:37); and many of the people made no attempt to return to their homes that fall and winter of 1852.

By March, 1853, they were coming back in large numbers. They prepared large plantings after a bounteous overflow of the Colorado in early June, and they were still planting in July (Sweeny 1956:197, 206; Heintzelman 1857:46). And they were soon at war against the Cocopa.

In May, the Cocopa had approached them for a peace conference to be held in Cocopa territory. The Quechan tribal leader, Massedon, unsuspectingly answered this invitation, going south with some men and dozens of women and children. It was a trap they walked into, and in ambush many of them were killed and more captured on May 22, 1853 (Sweeny 1956:205-206; Heintzelman 1857:43, 45; Michler 1857:108-109). Soon afterward more groups of Quechan warriors began to arrive near Fort Yuma with arms in hand, to build up a war party. After many preparations, between two and three hundred warriors went to attack the Cocopa (Sweeny 1956:209) and were successful. Their friends the Mohaves now sent a contingent of men to help against the Cocopa, and in September both Quechans and Mohaves traveled south for another raiding expedition (Sweeny 1956:209, 210). They took many prisoners, destroyed much property, and suffered few casualties (Sweeny 1956: 211-212; Heintzelman 1857:44).7

Meantime, the Mohaves had had good luck during the winter of 1852, with an overflow of the river followed by rains. The river overflowed again during the summer of 1853, allowing for crops better than "for several years past." Mesquite gathering went much better, too. So Mohave warriors staged their September attack, with the Quechans against the Cocopa, at a time when food supply was good and the outlook for the future very promising. Olive Oatman noticed that from then on until she left Mohave Valley in 1856 the people were taking much greater care in husbanding their food supplies (Stratton 1857: 136-144).

By early 1854, both Quechans and Mohaves had food, although the Quechans were probably selling too much to the Army garrison (Whipple 1853:I, 114). Famine conditions had lifted for the time being. Even though the Quechans did not see an overflow of the Colorado in the summer of 1854, and the outlook for food was bleak for a time, an unseasonable and heavy rainfall watered the riverbottom lands and permitted a special effort that yielded "tolerable crops" (Harvey 1854).

For the time being, the U.S. Army Commandant at Fort Yuma could not persuade the Quechans to make a final peace with the Cocopas, during 1854 (Thomas 1854; Harvey 1854). Finally, early in 1855, a formal treaty was brought about, with the leading men of both nations present (Michler 1857:108-109). Beyond that lay the question of the long-standing enmity between Quechans and Mohaves on one side and Maricopas on the other, peoples who had been fighting each other intermittently since at least the sixteenth century. There was one further episode in that intermittent series of hostilities. Mohaves and Quechans, probably accompanied by a few Yavapais, made a formal battle expedition against the Maricopa villages and, on September 1, 1857, lost most of their invading force. When this final battle expedition left the Colorado River there was no shortage of food among the Mohaves (Ives 1861:44, 48, 58, 65-68, 70, 72-73).8

REVIEW OF THE DATA

For the early 1850's, it is difficult to see a relationship between occurrences of war and times of hunger. Attacks against enemies occurred in good years and bad, and not in any one season although usually during summer or fall. War was waged not only when food was scarce, not only in times of plenty, not only when good crops were in prospect. There were different forms of hostilities. Most incidents of which we know were damage raids—wasting property and taking prisoners and booty wherever possible. But during the large-scale, formal war expeditions, such as those of 1848-49, 1851, and 1857, attackers did not hit and run but waited, until all available enemies could be brought to the field to confront the attackers. The 1851 Quechan expedition was a total disaster with ninety warriors dead on the battleground, and in 1857 things went as badly for them. It is difficult to suppose that such events were intended to obtain food.

There are other variations in the picture. Raiding between nearest neighbors— Quechans and Cocopas—was accompanied by negotiation, diplomatic parley, stratagem, and treachery, partly due to the cross-tribal family relationships and other personal associations across national lines (Michler 1857:107; Sweeny 1956:128). No such atmosphere surrounded the hostilities between Mohave and Quechan on one hand, and Maricopa and Pima on the other. Those attacks arrived without warning, nor were they followed by truce or other arrangements.

Indeed, mysteries as to subsistence activities and hostilities remain. As for the food supply, we see clearly only some of the factors that made for plenty, sufficiency, shortage, or famine. Even the aboriginal population figures are known only in casual estimates. Probably the numbers of each people diminished slowly after the sixteenth century, then rapidly beginning in the late 1840's with so many whites passing down the Gila Trail and with the U.S. Army bringing hostilities during the 1850's. But we have no sure figures.

Attempts to estimate amounts of watered land available to each nation have been vain (Castetter and Bell 1951:11, 16, 38, 69-77).⁹ Today we cannot recapture the more interesting fact—the total food available to each people from year to year. The Indians relied heavily on crops planted in the river bottoms, but they knew so many wild food plants, and could find them in such large, nearby, and uninhabited territories, that we cannot so much as guess at how much food each nation had in any year.

As for agricultural yield, there are too many factors of variation of which we have no record earlier than in the twentieth century. Did the river overflow in a certain year—once, or twice—and in which seasons? Were the people at hand to plant, when the opportunity offered? Were crops destroyed in some years, by enemy attack?

To compound these uncertainties, we know little enough of the social mobilization of Lower Colorado peoples for normal subsistence or in times of emergency. Probably all three peoples lived in seasonal *ranchería* settlements,¹⁰ each of one or several families; and also during some seasons of some years they clustered in "villages" of many families each. But the record is silent as to the size or composition of groups that did the harvesting and gathering. Nor do we know how food was distributed in times of shortage or whether children were the first to starve, or old people, or those too weak to travel.

Faintly we can see national differences between the reactions to food shortage. Mohaves seem never to have moved away from Mohave Valley no matter how hungry the year; and this, despite the fact that Mohaves claimed and occupied long stretches of the Colorado River southward from the Valley itself. We have no record of people from Mohave Valley moving to those lands of theirs almost a hundred miles south of the Valley, where some Mohaves lived permanently (Brady 1860).

The Quechans, already under heavy pressure from whites during the early 1850's, moved long distances to find food and remained away from home for months if need be, to plant and to harvest crops. The Cocopa, as yet infrequently visited by whites, went their annual round of planting, gathering, fishing, hunting, and harvesting that took them long distances through the delta lands and in mountains far and near. The impression is that at any moment they were more widely and more thoroughly dispersed than were the Quechans or Mohaves.

As for war, its objectives and incidence during the aboriginal times are still unclear. Reasons for warring must have differed somewhat-more so than has been assumed from the many close similarities in weapons, warrior class, post-expedition ritual, and many other specifics of the waging of war. For instance, whatever their reasons for offensive war the Mohaves were never under attack during this final stage of aboriginal life. They had peaceful relations with their nearest neighbors, the Chemehuevis on the River and westward in the desert, and the Walapais to the east. There is neither record nor tradition of Mohaves fighting either of those peoples until years later, when the whites' conquests in northwestern Arizona, Utah, and eastern California led to progressive deterioration and hostility in Indians' mutual relations. During the 1850's, the Mohaves chose their moments for attack on Cocopas and against the Maricopa. They brought back captives from those expeditions, and between wars they bought women and children from other peoples; but we know nothing of their having raided for food.

During the 1850's, the Quechans continued and intensified their warlike activities. They suffered very heavy losses when the Maricopa attacked them in 1848 or 1849. On that occasion attackers scattered the population of several Quechan settlements while inflicting such casualties that the people moved away from Yuma Crossing for a time. Over the next few years in several raids by and against the Cocopa and twice against the Maricopa, the Quechans lost several hundred men and almost all their war leaders and principal chiefs. From the late '40's to the middle '50's they were in danger of extinction. Perhaps their own attacks were planned so as to do greatest damage to the enemy's food supplies; but whether Yumas raided to obtain food we do not know, any more than we know the reasons why Cocopas continued to attach the Quechans.

DISCUSSION OF HYPOTHESES

Recently, a sweeping new interpretation of these facts has been proposed, for peoples of the large region from southern California into central Arizona, to show that there existed two alliance systems acting in a long-run sense to assure resources and protection within each of the two groups of allies. Emphasis is placed upon "ecological conditions that made warfare a necessary strategy for survival" (White 1974). What is pictured is a homeostatic system that aimed at survival of aboriginal peoples. This hypothesis may reflect the situation that existed in that territory during the eighteenth and nineteenth centuries. Intertribal relationships may have helped peoples to make up temporary lack of resources, or may have furnished protection from nearby enemies. The anthropologist A. L. Kroeber once identified the outlines of two such alliance systems in his earlier work; and his final word on the subject was that, "There seems little doubt that the much larger size of tribes in the lower California area, their subsistence by farming and the military attitude, are all connected" (1961: 105). But that remark leads back into the question of the functioning of each individual culture, rather than forward into the question of whether active alliance systems met serious needs. Amities and enmities did exist, but facts to prove the existence of two alliance systems are vestigial at best.

Perhaps this question as to why the peoples fought each other may better be divided into two queries. One has to do with the original reasons for development of two alignments of peoples, each group recognizing the other as consisting of peoples indifferent, unfriendly, or hostile to themselves. We will likely never know why the alignments first appeared because the matter is historically too remote and now gone from human memory.

The other question asks why some peoples in each of the two broad alignments continued to fight each other intermittently over several centuries until changing conditions impelled them to desist. The most recent of economic viewpoints that may cast light upon this question is Marvin Harris' (1979) theory of cultural materialism, which incorporates whatever can be learned from Old World prehistory and from recent research among living aborigines.

Very briefly put, Harris sees a stage in aboriginal life just preceding that of earliest state organization. In those cultures, the chiefdom is crucial, acting to dominate the society by redistributing economic surpluses. The societies reflecting this pattern all possessed food surpluses either of domesticable ruminants or pigs, or of storable grains. Harris dubs the chiefs as "intensifier-redistributor-warriors" whose policies eventually worked fundamental changes in those societies. Throughout, Harris argues that the imprint of the chiefs' longcontinued policies can be seen in the nature and functioning of descent groups in those societies.

Indeed, numerous elements found in Harris' theory were present generally or universally among the Gila-Colorado peoples. The chiefdom was there, and sometimes confined to but one descent group as among the Mohave. There was a well-developed sense of property among all the peoples, and some of them experienced periodic conflict among descent groups for continued possession. All of the peoples tried to accumulate stores of grain, and a few may have had sizeable enough stores each year for the surplus to have become a significant factor in political power. Finally, there was among all those peoples a welldefined status, a career, for the warrior.

However, as Harris explains the relation-

ships and workings within societies, the resemblance to Gila-Colorado life begins to fade. Some elements are missing, and others did not function as the theory indicates. Chiefs were prestigious indeed, but they had no special power over property, nor could they order warriors into the field. While the peoples were very conscious of landed property, few if any of them felt "pressure on the land"; and several of these peoples farmed almost anywhere within their national territory. The extent to which members of descent groups identified permanent boundaries of landed property has never been clear for the lower Colorado peoples. Nor do the records speak of chiefs who laid hands on harvested crops so as to redistribute these from one family to another.

As for warfare, there is no sign that chiefs could control or direct it. In most or all of these Gila-Colorado societies there was another functionary, the war leader, who had much more to do with campaigning. But even he seems not to have possessed the power to prohibit an expedition suggested by someone else. In fact, all the various functions of national leadership seem to have been spread among a variety of figures—the chief, the fiesta manager, the war leader, older men as powerful advisers, and shamans.

For the Harris theory to fit, one would need to see that the Gila-Colorado peoples gave great importance and effort toward accumulating property in stored grain. But although the Gila peoples did usually have sizeable surpluses, the case of the lower Colorado peoples is not as clear. We do not know whether they did all they might have done, to produce a surplus of storable grain each year. In addition, the custom of including all a man's possessions in the cremation ceremony was still strong, a usage Harris mentions as typical of peoples not included in his theoretical scope, "less affluent and less sedentary band and village societies" (1979:95). In all, then, Harris' theory sheds light most clearly in suggesting that the peoples of the middle Gila and lower Colorado had not—perhaps not quite yet developed the roles, behaviors, and relationships that would reflect the theory of cultural materialism.

What then can we say, as to why warfare so long continued between peoples of the middle Gila and those of the lower Colorado? Why did some roles such as that of *kwanami*, career warrior, continue to be designated for Mohave men born early in the twentieth century although the last Mohave warfare ended in 1868? At this time, it looks safest to suggest that warfare recurred because it had long possessed the strongest sanctions of approval in each society, while threatening the extinction of none of the peoples and while obligating no person ever to join any expedition.

The record is clear that offensive warfare was not a national enterprise, but came about through initiative on the part of any warrior, or perhaps any shaman, who might be followed by others and by any other men or youths. Some expeditions organized and departed even in the face of the strongest disapproval by national leaders.

Meantime there is no doubt that peoples of the middle Gila and lower Colorado possessed strong national consciousness, probably even before the middle sixteenth century. That strong feeling of commonalty was most graphically to be seen in the rallying of the people, taking up arms at a moment's notice in the face of an enemy attack against even a single ranchería. But the social organization of those peoples, their permissive arrangements in government and the infrequency and voluntarism to be seen in their resort to offensive warfare, seem not to reflect the theory of cultural materialism. That theory rests on the use of food surpulses in organizing and in wielding political and military power. All that we know of the Gila and Colorado peoples suggests that their societies were not yet so closely regimented, which is another way of saying that even as late as the 1850's they did not yet stand at the threshold of state organization.

NOTES

1. See Wright (1942); Vayda (1976:1-7); Harris (1977:Ch. 4); Hallpike (1975); Colson (1979); and notes by Vayda and Brush (1976:645-647).

2. For motives of Lower Colorado aboriginal warfare, some leading writings are discussed in Kroeber and Kroeber (1973:1-4, 92); in Castetter and Bell (1951); and especially in Dobyns *et al.* (1957).

3. Full listing of many other plants these tribes encouraged, gathered, or harvested is in Castetter and Bell (1951), while Kelly (1977:23-45) presents the very specific accounting of all Cocopa food sources. At the time, the feeling among whites was that foods most frequently used were corn, beans, melons, pumpkins, and wheat, with mesquite and screwbeans as the first and emergency resort: Möllhausen (1858:249); Stratton (1857:123); and Harvey (1854).

4. Sweeny (1956:205) reported Diegueños as casualties and as prisoners of the Cocopa in May, 1852. Perhaps these were Kamia.

5. Mohaves offered to barter "small quantities" of the fall crops and "in one or two instances" some wheat, when Sitgreaves passed by in mid-November, 1851. A problem in interpreting this information is in the fact that Mohaves and Quechans sometimes traded away food even when supplies were scanty.

6. Olive Oatman's account of her captivity (told to the Rev. Royal Stratton) either telescopes events from spring 1852 through spring 1854 or omits one year. I assume she describes the year 1852-1853, because she mentions but one Mohave expedition (against the Cocopa) and we know that one occurred in 1853. Her account is important in showing the Mohave war expedition departing at a time when food, and prospects for future subsistence, were becoming ampler.

7. I assume these hostilities are the same Olive Oatman gives as of summer-fall 1854 (a season when a temporary Indian agent was present at Yuma Crossing and reported no war against the Cocopa (Harvey 1854). Mohaves could have gone against the Cocopa without Olive or the agent knowing of it, but I feel the attack occurred in 1853 because she placed it just after a season of famine. Such was not the case in 1854 when Whipple and Möllhausen, who were there in February, found ample crops in the stalk and storage bins bulging.

8. Ives heard of the attack while still near Fort Yuma, and he ascended the Colorado late in 1857, finding "promising fields of grain." He bought provisions at every stop along the way in Mohave country. He was told of earlier starving times, some years previous, when "great numbers of Mohaves had died of starvation."

9. Castetter and Bell (1951) discuss some of the imponderable factors, such as variation in the duration of the growing season at various points along the river, and change in amounts of land watered by overflow in different years.

10. Brady (1860) found that Mohaves "live in *rancherias* composed of four to six or eight families sometimes more;" and the same may have been true for Quechans and Cocopas: see Forde (1931:140)

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