THE NATURE OF LAND-HOLDING GROUPS IN ABORIGINAL CALIFORNIA

A. L. Kroeber

EDITOR'S PREFACE

The following paper by A. L. Kroeber was written by him in 1954 in connection with the California Indian Claims Case (Dockets 31-37). In August, 1954, Kroeber agreed tentatively to have this paper published by the University of California Archaeological Survey, but subsequently suggested that he would prefer to incorporate the information in a "strictly professional review of the politico-socio-ecologic situation in California, monograph size," which would run probably about two hundred pages. However, on September 15, 1954, Kroeber left Berkeley to take up a teaching assignment in Brandeis and did not finish the projected monograph. Because he did not complete the fuller statement, the present report is being printed here with reference to his agreement of August, 1954. For comparative purposes the reader may find it useful to consult discussions of the same subject referring to the California Indians published in his Handbook of the Indians of California (Bur. Amer. Ethnol., Bull. 78, 1925), pp. 3, 160-163, 228-230, 234-235, 474-475, 727; and in his "The Patwin and Their Neighbors," Univ. of Calif. Publs. in Amer. Arch. and Ethnol., Vol. 29, No. 4 (1932), pp. 257-270. With reference to North American Indians as a whole, Kroeber has taken up this question in his Cultural and Natural Areas of Native North America (ibid., Vol. 38, 1939), as well as in a short but significant paragraph in "A Mohave Historical Epic," Univ. of Calif. Anthro. Records, Vol. 11, No. 2 (1951), p. 119. A brief paper, clearly in part stimulated by the present one, appeared in Ethnohistory, Vol. 2 (1955), pp. 303-314.

While Professor Kroeber would no doubt have written this report rather differently for a strictly professional audience, it nevertheless constitutes the clearest general statement on the subject which has been prepared to date.—R. F. Heizer, editor.

TABLE OF CONTENTS

NATURE OF INFORMATION ON NATIVE LAND USE*

It is necessary first to make a statement as to how and why the knowledge was obtained which is here to be summarized on the ownership, occupancy, and utilization of land by the Indians.

Speaking generally, the information has been obtained as the result of a thirst for and a quest of knowledge. It is, in other words, information of an historical or descriptive character comparable to studies in the natural history of an area. The first knowledge of this sort was secured of course by explorers, travelers, missionaries, early settlers and the like. Somewhat later scientists came who, as always, were bent upon ascertaining what they could as to the nature, resources, animals and plants, and inhabitants of countries that came into the ken of civilization. Their motivation usually was not in any sense political, nor was it gainful. Rather it was dictated by sheer intellectual curiosity, as basically both human history and natural history are motivated.

Also a factor is the cultural distance between primitive natives and civilized Caucasians. The difference between them, between their points of view and interests, is so great that there is rarely any political bias or motive involved in inquiries as to native conditions. Frenchmen and Germans, British and Americans have had their quarrels, their tensions, and their wars, and it is well known that political history deals to a large extent with contests of this sort, so that partisanship tends to creep in on the side of one nationality or the other. However, where primitives are involved the gulf is so much greater that the attitude of the anthropologist or ethnologist is relatively impartial, and almost as free from bias as the attitude of a botanist or zoologist in describing the nature or distribution or numbers of animals and plants.

There is one other respect in which the attitude of the student toward "nonliterate" or primitive people is like that of the zoologist or botanist. The latter encounters different species of animals or plants varying according to area. In much the same way the anthropologist, if his researches are at all intensive, is very pertinently struck by the fact of the local diversity from one tract or valley to the next. The

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*These data refer to the Indian use of California at the time of their first meeting with white men and before native conditions of life were disturbed by Caucasians. (Ed.)

language may change, or if not the language, the dialect. The customs are almost always somewhat different, and often quite radically different from the native point of view, even within rather short distances. The result is that a full anthropological study cannot be made quickly, nor can its results be described summarily and yet with any exactitude. When the data are all in, one is confronted with a bewildering diversity of detail, whose variety, however, is also an index of its accuracy. If the results were uniform, the observer would be judged as having been hasty, careless, or indifferent. Nevertheless, for general purposes, it is necessary to pass beyond the endless variability of detail and to summarize; and that effort will be made in what follows.

PRINCIPAL SOURCES AND AUTHORS

For the California Indians the early records are on the whole unusually brief. The Indians of the state were unaggressive; they put up little serious resistance to the first whites; they had no unusually barbarous or very striking customs to attract attention. The result is that we know a great deal from Spanish sources about the conversion of the Indians and the history of their life at the missions but relatively little about their native conditions.

The first general attempt to review the Indians of California systematically was made by Stephen Powers, a publicist, who, in the early 1870's, traveled widely through California from Bakersfield to Oregon wherever Indians were still living in any numbers in distinguishable groups. He wrote a series of articles on what he saw—and he was a vivid observer—which were published first in the Overland Monthly and later brought together by the Government and issued in 1877 as a large monograph under the title The Tribes of California. In this synthesis he was aided by Major J. W. Powell, later to be head of the Geological Survey and of the Bureau of Ethnology in Washington. The result was the first compilation of a map of the larger groups or nationalities of California Indians as distinguished primarily by speech through the greater part of the state. This map was necessarily somewhat sketchy, because Powers, in the months at his disposal, could not stop to make detailed inquiries let alone look for corroboration. Considering these circumstances, the map has proved to be surprisingly correct in substance.

After Powers' survey there was relatively little addition to extant knowledge until around the turn of the century. In 1899 Professor R. B. Dixon, of Harvard University, began investigations which he continued for a number of years, on the Indians in and near the northern Sierra

Nevada. Two years later A. L. Kroeber and P. E. Goddard were appointed to positions at the University of California which had decided that preservation of knowledge still obtainable on the Indians of the state was to be one of its recognized responsibilities from that time on. Goddard concentrated on intensive work with the Athabascan tribes of northwestern California. Kroeber, on the contrary, spread his interest and investigations as widely as possible over the state.

A number of their students took up the work and continued it, beginning with S. A. Barrett and then Edward Gifford and Duncan Strong, the latter now at Columbia. Of late years special attention has been given the California Indians by Professor Robert F. Heizer, Director of the Archaeological Survey of California at the University of California, Berkeley. A variety of ethnologists, linguists, and archaeologists from outside the state also participated in this work, such as John Peabody Harrington of the Bureau of American Ethnology at Washington. All in all, as a result of these studies, the Indians of California have in fifty years changed from being possibly the least known group of aborigines in the continent to being one of the more intensively studied groups.

ERRONEOUS ASSUMPTIONS

To understand correctly the native ownership and use of land in California as it still persisted undiminished and untouched in many parts of the state as late as 1849-50 when the sudden flood of miners and settlers poured over it, it is necessary first to shed certain preconceptions. These preconceptions are the result of our having been brought up in civilization, but are without basis of fact among nonliterate or primitive peoples.

Rule of custom, lack of written law.- The Indians knew nothing of formal titles or records, just as they knew nothing of any written lore. Their understanding was the common knowledge of a group, validated only by common assent. Primitive peoples got along together in their societies without law courts, without lawyers, without written laws, without police, without a written constitution. Custom ruled everything. Just so in regard to the holding and use of land: custom dominated the entire picture. "History" extended only as far back as memory lasted. On the other hand, what was known as being so in one's own day and one's father's, and perhaps more dimly in one's grandfather's generation, was known more or less by everyone, and what everybody agreed on was accepted.

Consequently, the absence of any political machinery expressed in writing or by formally constituted authority must not lead us into thinking erroneously that there was no law, that there was no property, that there was no ownership. Property, ownership, the difference between right and wrong were recognized as definitely as among ourselves, though in different ways. Their enforcement was more by common consent than by any specialized institution for the purpose.

Population size: dependence on nature.- Another point in which the Indians' relations to land differed from our own is in the density of the occupying population. The highest estimate puts only a bit over a quarter of a million Indians in aboriginal times in the 150,000 square miles embraced by the present state of California. Kroeber's estime was only a shade over half of this figure—namely, 133,000 Indians within the state. A few years ago this computation was subjected to a careful scrutiny by Dr. Sherburne Cook, who is interested in vital statistics as well as in physiological and population problems. The outcome of his tribe-by-tribe count, using a wider range of methods of information, was to raise the Kroeber estimate by about 7 per cent, a variation which Kroeber has been ready to accept as being about as probably true as his own original figure. These differences in the ideas of various authorities are rather immaterial, ranging from under one to under two Indians per square mile over the state as a whole. At any rate they are immaterial as compared with the population since American occupation, when the over-all density early became ten per square mile and then went up to twenty and fifty, and is around seventy per square mile now.

One of the principal reasons for this difference, of course, is that civilized life is based on nurture and control of living animals and plants as food. It is not difficult with intensive agriculture to support a human being per acre of land cultivated—in other words, for 640 people to live off a square mile of land. It may not be possible with this ratio to maintain a high standard of living, but it does make life possible.

As the Indians of California, except for two or three tribes at the southeastern border, did not practice agriculture and in fact knew nothing about it, their situation was very different. Where one gathers wild foods or depends on hunting and fishing, even where the land is fertile and fruitful, it is obvious that its resources must in time be exhausted. There is no replanting, no restocking, there is no breeding; and so the human population is bound to scatter out increasingly to find its food. At that, California and the Pacific Coast states north of it had the heaviest population densities of all nonfarming areas in native North America. The population was heavier per square mile occupied than it

was, for instance, in the Southeastern, Northeastern, and Central United States, even though the Indians there did practice corn, bean, and squash agriculture in addition to hunting and fishing.

The general population in aboriginal times must therefore be recognized. However, the difference is a relative one and does not in principle affect the fact that the land was utilized, was felt to be necessary to subsistence, and was claimed and owned and ownership maintained in primitive days much as it has been since.

"Uninhabited land" in primitive days, as it has sometimes been called, is therefore not really such but is a problem of the degree to which land was utilized. There was land that was utilized relatively intensively, there was land that was utilized less, and there was land that was utilized little; but speaking broadly, nearly all of it was utilized for subsistence or for some other customary purpose or mode of life, in early times much as it is now. This matter is gone into more fully below.

Group ownership of land: tribelet and tribe.- In aboriginal times all the Indians of California belonged to definite groups. These groups were characterized by a sense of cohesion: each formed a unit. People belonged to one or another. There was never doubt as to which group an individual was a member of. In second place, each group was autonomous or self-governing, in native opinion. And in third place, each group claimed, and was admitted by others, to own and use a certain territory.

However, the size of the characteristic groups over most of California was much smaller than of the groups in most of the present United States and Canada. In most of this vast area, the group we are accustomed to think of as characteristic is "the tribe." Now a tribe might have only a few hundred members, but more often it had a thousand or two thousand, and would run up from there to three or four or five thousand. Around these higher figures something seemed to set an upper limit to cohesiveness. The result is that instead of tribes of ten or fifteen or twenty thousand people in the aboriginal United States, we are likely to find clusters of several related tribes of from two to four thousand each. Such then was the characteristic tribe among American Indians generally.

In California, however, the number of members of "a tribe" did not run up even to a few thousand—except in the case of two or three border tribes like the Yuma and Mohave who lived half in Arizona—but the population of the typical group which felt itself to be a unit, that was self-governing and that owned a definite territory, was measured by hundreds rather than by thousands.

THE TRIBELET THE BASIC LAND-OWNING GROUP

Size and number of tribelets.- With reasonable allowance for a degree of local variation, the basic, politically independent land holding group in California as a whole consisted of from less than a hundred to perhaps four hundred and occasionally five hundred people—men, women, and children. Probably the most common figure for population was somewhere around two hundred to two hundred and fifty souls per group or tribe. This would mean that there were in California around five or six hundred such groups. At the present late date, it is impossible to be more precise. For certain areas, the little groups are quite accurately known; they can be or have been mapped. In other parts of the state the Indians have been too much scattered and buffeted by white men, or their remnants mixed together, to make it possible to secure the data. In the area reached by the missions, too, there had been much disturbance with native residence and conditions of life by the usual concentration of Indians from many groups at most of the missions. The result is that we have reliable and precise data on the basic or "tribal" groups in some parts, fairly good accounts in others, and elsewhere only estimates or reconstructions from unsatisfactory data. The estimate of five hundred or perhaps six hundred independent and separate definable groups is an estimate or average from data of these various qualities.

Constituent units of the tribelet.- Beginning at the bottom and working upward, let us see what the structure of the tiny tribal groups actually was.

At the base of the pyramid, of course, is the individual Indian. He never lived entirely alone, but always as a member of a family—the people who dwelled together under one roof—the people of one house. These would consist, as among ourselves, of the biological family of father and mother and children; but usually there were in addition some other members, perhaps a widowed aunt, perhaps a surviving grandfather or even great-grandfather, possibly a daughter-in-law or son-in law, and so on. So that what we may call the household family, instead of numbering about four or five as on the average with ourselves, was more than likely to average around seven or eight—say between five and ten in number.

The kinship clan in Southern California.- The next largest unit above the house or family numbered perhaps fifty, with a range of variation from as low as twenty or twenty-five to seventy-five or perhaps a hundred. This would be the group consisting of a number of houses that were related in blood. In other words, this group was based on kinship,

although not always kinship of the closest or most immediate sort. In size and in the fact that the bond between the members of these groups was that of blood or marriage relationship, this type of group corresponds fairly closely to what in aboriginal Australia has come to be known as the horde. These thirty or forty, fifty or seventy people usually were related primarily in the paternal line, with wives married in from adjacent groups and with daughters marrying out into neighboring groups. The males were the primary owners of a tract sufficiently large and varied in natural resources to support them. They acted together in time of emergency; they were likely to act together in times of visits, festivals, and dances.

In Southern California these kin groups have been called clans, which is an adequate enough term if one does not read too much into it. For instance, among the Cahuilla of the Coachella or Indio Desert, Strong has shown that the core of such a group was a number of men and boys related by paternal descent. They all traced relationship back to a common ancestor, usually of the fifth generation beyond the children in the group. The older men would remember him as father or uncle, or perhaps grandfather. The younger men might have a shadowy recollection of him. To the little boys in the group, this common ancestor from whom they were descended would be merely a name. In addition, there were the women born in the clan group; the younger ones still girls and unmarried, the older perhaps a few widows who had been married out and returned later to the group among which they had been raised. The other women would be from other clans in the neighborhood, who had been married in. The picture was not always so strictly regular as this because residence was somewhat shifting due to the fact that when a man married he was likely to live mostly with his wife's people until a child or two had been born. After that he was likely to return to his native clan and bring her with him.

This, then, is the type of organization of the so-called land-owning clan in the southern desert where conditions of life were not too abundant and where it was necessary for the group to be not too large in order that it would not eat itself out of food in its territory. And the bond of five-generation kinship seems to have evolved through the tried experience of these people as the one that would make a group of sufficient size for cohesion, for mutual support, for security and self-defense, and at the same time would not run into avoidable subsistence difficulties through too great a growth of population.

The nena of the Miwok.- A somewhat similar situation has been described by Gifford among the Miwok of the foothills of the great central valley, especially in its central regions. Here there was a native name for the group. This name was nena. The territory of the nena was perhaps as large as in the southern desert because, the natural resources of the country being

greater, it was possible either for the groups to grow larger or for their territories to be smaller than in the southern desert. The former was the way it had worked out among the Yokuts farther south in the San Joaquin Valley; the latter was the case among the Miwok. The territory of the Miwok nena was likely to be perhaps some ten miles wide and five miles long, more or less, possibly following a stream, with the population averaging one per square mile, again more or less. This ratio seems to have given the proper balance between food supply and population in this area.

Villages, settlements, rancherias.- In other parts of California there was less emphasis on the land-owning kin group, according to early travelers and observers, and by Indians explaining the way of living of their ancestors to anthropologists. The emphasis in these cases is more often on settlements—"rancherias" or villages as they are usually called. There might be one or there might be several of these in a given group territory. In each settlement the houses were often fairly well clustered, not actually adjacent, of course, but within conversational distance of each other. In such cases the name "town" is somewhat appropriate, and has occasionally been used in order to convey the impression that such settlements did not consist of dwellings widely scattered like farm houses. Whatever the settlement, village or town, it was likely to be situated where a smaller creek came into a river, or at the confluence of two creeks where there was a patch of level land and yet a slight eminence immune from flooding. Many of these village sites were early occupied by Americans as favorable sites for their homes, and also because the land immediately surrounding was likely to be agriculturally fertile bottomland.

The main difference between this type of village settlement and the Miwok nena or southern California "clan" is that there is more emphasis on the village as a focal point at which people lived more or less permanently, or at least for a considerable part of the year; whereas the nena or the clan emphasized rather a small group-community and their use of a tract. In principle, however, the distinction cannot be pressed too sharply. Rather, the two are somewhat variant aspects of one general type of demographic organization.

As we proceed upward to the next largest group, we come again to the tribelet as the ultimate basic social and political unit of most California Indians. Kroeber, many years ago, spoke of this unit as a "village community," emphasizing by this term that while there was a settlement, a cluster of habitations, at a specific site, it was really a community centering in this main settlement village which constituted the essential socio-political unit or community of people. As an alternative, he also suggested the name "tribelet"—a little tribe—something considerably smaller than what is customarily called a "tribe," say the Mandan or the

Cheyenne or Shawnee or Mohawk tribe. But at the same time the tribelet was like the tribe in being a group that was politically independent and that owned a definable territory. "Tribelet" and "village community," then, were merely different ways of denoting the same unit of organization characteristic of California: a unit smaller in numbers and land held than Eastern tribes and yet more than a mere kin group or settlement.

The tribelet community usually distinct from the settlement.- The difference between village-community or tribelet and the village or settlement is that the former may contain several settlements. These several settlements—there might be three or four or five of them—sometimes were more or less the same in size, but more often one was dominant or permanent, the others more like suburbs of it. They might be situated some miles away. The smaller settlements were likely to be inhabited seasonally, or by certain families only perhaps for a stretch of years, after which their population might drift back to the main settlement. Also, whenever there was anything like a council of the group, when war was threatening, or especially when a festival was announced and a dance was to be held, it was the largest, principal, or most permanent settlement within the tribelet that would be the gathering point for all members of the group.

The tribelet a miniature tribe.- This village-community or "tribelet" is the native California equivalent of the "tribe" among other American Indians in the following senses: First, it is the largest group which was autonomous, self-governing, and independent. Second, it is the largest group over which any one person, leader, or chief had recognized authority or near-authority. An able chief might be known and respected and listened to among neighboring tribelets, but his actual following was limited to his own tribe, and strictly so. And in the third place, it was the tribelet that was the largest unit to own a territory, and in much of California the only such unit. To the tribelet belonged the land which its members traveled over, lived on, gathered food in, and which they claimed and occupied. (It is true that we find also a degree of land ownership accorded to smaller groups such as the clans in southern California, and even to individual family households as among the Yurok and again among some of the Pomo, but these are rather exceptional deviations from the California norm and they will be considered again later on as a specialization.)

Normal size of tribelets; variations.- The average population size of the tribelets may be estimated to have been in the neighborhood of two hundred and fifty, with of course considerable variation. There may have been some that contained perhaps only a hundred men, women, and children, or even less; there may have been others that ran up to five

hundred. There are claims every now and then of Indian villages being encountered in the early days that had up to a thousand inhabitants, but most travelers' accounts tend notoriously to be exaggerated.

In any event, in this matter of the population size of the tribelet, we are dealing with something that obviously would not be uniformly standardized but would vary according to habitat, mode of subsistence, and so on. Where food supply was concentrated, as at favorable points on some of the larger rivers, settlements and tribelets would run larger. Where nature was less bountiful, especially as the desert was approached, the population would be more sparse, and the communities usually smaller in numbers even though more extensive in their holdings.

Specific examples.- There follow some specific condensed examples of the tribelets, their population and number of settlements, and the extent of territory held by them, in three several parts of California.

Case 1. Pomo. We will begin with the Pomo, an Indian nationality in the northern Coast Ranges, speaking seven plainly related dialects or languages, some of them sufficiently differentiated that they would not be offhand understood by Pomo or other dialects. The Pomo were first surveyed for their ethnography by Barret in the early years of this century, then reviewed by Kniffen and by Kroeber, and finally resurveyed by Omer Stewart. On the basis of Barrett's data, Kroeber at first estimated that there might have been some 70 or 75 Pomo tribelets. Stewart, in 1943, definitely showed that this number is too large, that there were only about half as many; some that Kroeber assumed as independent were only settlements within a tribelet. Stewart lists and maps 34 groups. The total Pomo population was estimated by Kroeber in 1925 at 8,000, and this figure was accepted by Cook in 1943 as substantially correct. This total Pomo figure yields an average of 240 persons per tribelet.

The territory of these 34 tribelets Stewart computed to consist of 3,370 square miles in Mendocino, Lake, and Sonoma counties, although the Pomo did not occupy the whole of any of these three present counties. This total holding makes an average of almost exactly 100 square miles per Pomo tribelet. In other words, a normal tribelet territory ran around 10 by 10 miles, or 7 by 14. It was a territory traversable in a day's walk. If the main village was centrally located, the borders of the tribelet's land could have been reached on foot within half a day or so.

On Clear Lake, the tribelet lands were small and crowded together, because the combination of lake frontage and hinterland provided unusual opportunities for food supply. The population was therefore denser than in other Pomo territory. Five tribelets on the main body of Clear Lake,

speaking "Eastern Pomo," are credited between them with about 250 square miles, or 50 square miles for each. On lower Clear Lake were three tribelets, each with a single town-like settlement on an island. These spoke a "Southeastern" dialect, and their territories averaged only 25 square miles. By contrast, seven communities speaking "Southern Pomo" held something over 900 square miles in the aggregate, an average of about 133 square miles each. And the "Southwestern" Pomo seem all to have lived as a single community—at least after a decade or two of relations with the Russians—in one territory of 250 square miles. These figures give some idea of the range of variation.

The density of Pomo population as a whole comes out as 2.4 per square mile—not quite 3400 square miles with around 8,000 people living upon them. This is a low figure from our civilized point of view, but is a high density for a people living without agriculture and without import of food supply, solely on what nature provides in their own territory. The Pomo territory is well watered, containing lake, river, and ocean shore, valley land and hills, forest and open country, and variegated vegetation and fauna—all favorable conditions.

Case 2. Yokuts. The Yokuts were a large nationality of Indians occupying much the greater part of the floor of the San Joaquin Valley and portions of the adjoining foothills. The Yokuts area was about four times as big as that of the Pomo: it may be computed as at least 12,000 or 13,000 square miles. The Yokuts population is figured at 18,000 by Kroeber, which is accepted by Cook as at least essentially correct. The figure is further substantiated by accounts of exploratory travels or "entradas" into Yokuts territory made by Spanish expeditions in the beginning of the nineteenth century. These do not cover the entire Yokuts territory but give us fair samples, usually with citations of the number of inhabitants of named "villages" or "tribes."

Eighteen thousand Yokuts in say 12,500 square miles gives an average density of 1.44. This is less than the 2.4 Pomo density, but the rather uniform San Joaquin Valley had a sparser and less variegated vegetation than the Pomo habitat.

The entire Yokuts nationality consisted of at least 40 tribelets. That is, the name and location of 40 are known. However, these did not quite exhaust the entire range of Yokuts tribelets, since in the northern and more accessible parts of the San Joaquin Valley the Spaniards had drawn off to the missions most or all of the members of certain tribelets. These had pretty well lost their identity by the time the Americans arrived, or at any rate by the time anthropologists came around to inquire. Allowing for this "denuded" area, it seems fair to assume that there were

about 10 other tribes, making a grand total for the Yokuts of about 50. (Incidentally, each of these Yokuts tribes spoke a perceptibly different dialect. In this case we have correspondence of dialect and tribelet. However, the speech of adjacent tribelets was usually quite similar, and certainly easily intelligible to each other. Of larger speech groupings, six are recognized, six that might be called "languages" rather than "dialects." This is about the same number as among the Pomo, in spite of the fact that the population and territory were greater. But the Yokuts habitat was more open and communications easy.)

Now 50 tribelets among 18,000 Yokuts gives an average of 350 for the unit. This is somewhat more than among the Pomo, but the tribelet territories are much larger. Fifty tribelet territories in 12,500 square miles average 250 square miles, a tract approximately 15 or 16 miles long and wide if it was more or less squarish, or perhaps 10 by 25 miles.

The population of a Yokuts tribelet, by the way, sometimes lived most of the year and mainly in one principal village which might have the same name as the community itself. In other cases, and perhaps more often, however, there were several synchronous settlements in a tribelet, of which one would be the largest and recognized as dominant.

Case 3. Achomawi. The third example is from the Achomawi Indians or Pit River Indians of northeastern California. The lower course of the Pit is pretty good Indian country, but as one ascends it eastward, the rainfall grows less, the country more barren, and above all the elevation becomes greater, nearly all of it, in these upper reaches, lying around 3-4,000 feet.

The total Achomawi holdings were nearly twice as great as those of the Pomo, between 5,500 and 6,000 square miles. In this area Kniffen estimated 3,000 Indians to have lived. The density therefore is only very slightly above 0.5 as compared with 2.4 for the Pomo and 1.4 for the Yokuts. This provided two square miles for each Achomawi man, woman, and child.

Eleven Achomawi tribelets are recognized. Each of these again spoke an at least distinguishable dialect, as among the Yokuts. Eleven units in an aggregate population of 3,000 comes to an average of 275 souls per tribelet—somewhat more than among the Pomo and somewhat less than among the Yokuts. It is evident that the population side of the tribelet is the most constant feature in the demographic situation among the California Indians.

The average square mileage held by the Achomawi tribelets comes to

just about 500, twice as much as among the Yokuts and about five times as much as among the Pomo. This reflects inferiority of terrain. Between the altitude and the aridity, there was less food to be had, and a unit of a given size simply needed more land.

The same fact brought it about that within each Achomawi tribelet the population had to live scattered out in order to make their living. Kniffen found 131 actual former settlements—little native villages or hamlets—in these eleven communities. This is definitely a greater scattering than among either Pomo or Yokuts. The Achomawi simply had no large villages. A hundred and thirty-one such among 3,000 people meant that these settlements averaged only 23 souls each—perhaps three or four houses.

Summary.- To summarize, these tribelet units, with around 200 to 300 members each, were the basic political and social units in native California Indian life. Ultra-miniaturized as they were, they nevertheless constitute the nearest equivalent to the State or Nation among ourselves. This is true in the sense that, just as what in Europe is called the State, but in this country is the Federal government or the Nation—just as this State or Nation does not recognize any authority or power superior to itself, and is supreme and autonomous, so in native California these tiny tribelet units recognized no superior authority, but were self-governing, independent, and land-owning.

If it seem implausible that a condition of such extreme fractionation, of such ridiculously small units, should have really obtained, or if it seem in any way ridiculous to compare them to sovereign States, it is well to remember that in the ancient world, in countries attaining to as advanced a civilization as did Greece, a condition of political organization existed which, if it was not as extreme as that of the California Indians, at least approached that condition. It is a familiar truism that the Greek state was a city. It was even called a city, and its territory rarely exceeded and often was much smaller than that of an American county.

Coming down to conditions nearer to us in time and affiliation, we have Germany and Italy also fractionated until the mid-nineteenth century; not maintaining a single over-all government but consisting of an indefinite number of politically autonomous, sovereign units. In the case of Germany, until 1871 these ranged from kingdoms to grand duchies, duchies, principalities, and free cities, the total numbering 26.

In native California the most constant feature of the tribelet unit probably was their unity and solidarity of spirit; the sense that they were one people with common fortunes.

Their next most constant feature was the population size which apparently averaged around 250, without probably sinking below 100 or rising above 500 except in the rarest cases. These figures seem to have represented what we may call the normal "cohesive social limit," the ceiling up to which a community could maintain effective unity under the conditions of life and attitude obtaining among the California Indians.

The variation was considerably greater in the size of the territory owned by such tribelet units. The variability in the area held and used quite evidently was mainly a function of the productivity of this territory. A given tract rich in food resources could hold three or four separate units, whereas a poor area of the same size might barely suffice for one, but by avoiding subsistence competition and conflicts by spreading out thin, such a sparse unit was able to retain its cohesiveness.

This point is clear from the example of the Achomawi on Pit River who fell into a western and eastern division of which the western was slightly the more populous. However, the eastern division's land was so much less productive that the slightly fewer eastern people needed and utilized for their living more than twice the area occupied by the western division. The relative density in the east was only .31 per square mile; in the west, .73. Hence there is refected the very real and direct dependence of native Indian demography on the climatic and vegetational environment in relaxing or contracting the food supply.

SO-CALLED "TRIBES" IN CALIFORNIA ARE NONPOLITICAL ETHNIC NATIONALITIES

The question arises if there were 34 Pomo tribelet units, if there were from 40 to 50 of the Yokuts, and eleven of the Achomawi, what were these larger units that are named Pomo, Yokuts, Achomawi?

Popularly, the name "tribe" is generally applied to these larger clusterings, not because it is a really appropriate term but because we lack any better familiar word.

In any strict usage, the word "tribe" denotes a group of people that act together, feel themselves to be a unit, and are sovereign in a defined territory. Now, in California, these traits attached to the Masut Pomo, again to the Elem Pomo, to the Yokaia Pomo, and to the 30 other Pomo tribelets. They did not attach to the Pomo as a whole, because the Pomo as a whole did not act or govern themselves, or hold land as a unit. In other words, there was strictly no such tribal entity as "the Pomo"; there were 34 Pomo miniature tribes.

Parallels in civilization.- To the question, if not a tribe, just what then do the Pomo constitute, the best answer seems to be, in comparable civilized European terms, a nationality. A hundred years ago the Germans were indubitably a nationality with common language, general customs, ideas, and a sense of being related, but were not yet a Nation in the sense of having a unified political government or supreme State. They were a nationality comprising many regional variants, such as Prussians, Bavarians, Saxons, Hessians, Westphalians, and others. It is these regional groups, and their particularistic governments, that might in some measure be said to correspond to the Masut, Elem, Yokaia, and other tribelets whose aggregate composed the Pomo nationality.

Now the simplest and most effective criterion of German nationality before Germans were brought together into the political State of Germany was probably German speech. While each German region had its local dialect, and some dialects might be more unintelligible than intelligible, nevertheless any German hearing another would recognize that they were trying to talk fundamentally the same language. Much the same was the condition in Italy, in France, and all over Europe. And these conditions of dialectic diversity within the basic national language are generally older than the formation of States, of politically organized, large units of national scope. In France, the national State is a thousand years old, in Germany less than a hundred, but the relation of dialect to basic language, the relation of the parts of the ethnic nationality within the national State, were much the same in France and in Germany.

In the miniature aggregations among the California Indians, a very similar condition applied. A southwestern and a northeastern Pomo might have difficulty understanding one another, but each would recognize that the other was talking some kind of Pomo. This basic unity of Pomo speech, which the native recognizes by experience, the white man can substantiate and prove by collecting and comparing vocabularies. On it rests the fact that travelers, administrators, linguists, and anthropologists have found it practically useful to recognize a larger group called Pomo which, though its 34 constituent tribelets were politically separate, nevertheless presented enough uniformity to make it convenient to treat as a unit in nonpolitical situations.

Exactly the same holds for the Maidu, for the Miwok, for the Yokuts, Wintun, Shasta, Achomawi, and the rest of the 21 nationalities or larger ethnic units generally recognized in California. Each of these reflects a characteristic similarity which transcends the separatism and fractionation in autonomy and land ownership of the California Indians. It is obviously often far more convenient for the administrator as well as for the map-maker to have 21 major groups to deal with rather than the 500 or so tiny units that could once have been distinguished.

LARGER UNITS: THE STOCK OR SUPERFAMILY

There is a still more comprehensive plan of classification which has value for long range historic inferences, although too broad to be of much significance in contemporary and practical connections. The most sweeping classification unites the twenty-one ethnic nationalities into five grand stocks or superfamilies.

These superfamilies are also linguistically founded, but they represent a relationship both more subtle and more remote than the rather close, essentially dialectic relationship between the tribelets or an ethnic nationality.

The half-dozen stocks represented in California.- For instance, comparison of words and grammar of the Pomo language with the vocabulary and structure of those of most of their neighbors, such as the Yuki, the Wailaki, the Wintun, shows next to no common elements. Obvious relationship is either wholly lacking or would be tenuously dubious. If, however, a somparison is instituted between any Pomo dialect and any dialect of the Shasta or Karok in northern California, or the Achomawi in northeastern California, or the Washo around Lake Tahoe, or the Chumash of Santa Barbara, or even of the far away Yuman tribes on the Lower Colorado River and in San Diego County, then comparison does reveal similarities that, as they gradually accumulate, are increasingly significant of ultimate speech relationship. This relationship is sufficiently distant that several thousand years must probably be assumed to have elapsed since the separation of the Pomo, Shasta, Karok, Washo, Achomawi, Chumash, and Yumans and the now extinct Salinan, Esselen, Yava, and Chimariko. To the superfamily or stock including all these, the name Hokan is usually applied.

The function of such linguistic superfamilies being mainly historic, they may enable the tracing of some sort of ancient connection between tribes that in recent centuries may have been separated by half of the continent. For instance, the Yurok and Wiyot are two small nationalities in northwestern California but they have been pretty well proved to resemble in their language the great Algonkin stock that at discovery held much of the northeastern United States and eastern Canada.

In the same way, though more patently so, the Hupa, Tolowa, Wailaki, Kato, and a number of others in northwestern California are members of the great Athabascan stock which held most of Alaska and northwest Canada.

A fourth family is represented in California by a fringe of groups holding most of California east of the Sierra Nevada and south of Tehachapi.

These have all long been recognized as "Shoshoneans," that is, related to the Shoshone of Nevada, and the Shoshoneans in turn form part of the larger superfamily called Uto-Aztecan because it extended from the Ute of Utah and the Comanche of Texas to the Aztecs of Central Mexico. It is obvious how in all these cases the common root of the language indicates that there must at one time have been some sort of bond or connection between the ancestral populations.

The Hokan superfamily already mentioned as including the Pomo, etc., was discovered through comparisons in California and for a while was thought to be particular to the state. Subsequent studies, especially by Sapir, indicate its range as much larger and to include populations as far east as the once warlike Iroquois or Six Nations of New York and south as far as Central America. To designate this more extensive superfamily the hybrid term "Hokan-Siouan" has come into use.

Five of the 21 California ethnic nationalities, all of them in or bordering the great central valley of California, namely the Wintun, Maidu, Costanoan, Miwok, and Yokuts, form the Penutian superfamily—a territorially solid block in the heart of the state. This family also was first recognized in California, but it is now recognized that they probably had both northern and southern relatives beyond the confines of the state.

It is of interest that the five Indian superfamilies in California just reviewed—the Hokan-Siouan, Algonkin, Athabascan, Uto-Aztecan, Penutian—comprise five of the six recognized in native North America. The Eskimo of Arctic and Subarctic range is the only one of the six unrepresented in the state. As California covers less than one-fiftieth of the area of the continent, it is rather surprising that five out of six of the aboriginal families should have been represented in it. The cause of the phenomenon is not known, but it obviously reflects the unusual ethnic diversity of the state. This diversity in turn, persisting and perhaps increasing through the millenia down to the time of Caucasian settlement, suggests an unusual over-all stability of native populations. Group evidently lived beside group in comparatively peaceful relations, long enough for dialects to differentiate into more and more diverse languages, without surviving indications of large scale conquests, migrations, or overturns. All this is in line with the observed habit of the historic California Indians to be attached by powerful emotional ties to the land, to their little ancestral tribelet areas.

(This review leaves unaccounted for, unplaced in a superfamily, one of the 21 ethnic nationalities of California: the Yuki of Mendocino County. These are still in doubt as between being a last remnant of an independent, seventh superfamily, an aberrant member of Hokan-Siouan, or Penutian, or a very ancient transition connecting Hokan-Siouan and Penutian.)

RECAPITULATION

The foregoing is a picture of the type of political structure which among the California Indians was associated with the holding of land, as well as of the larger, nonpolitical ethnic groupings. The basic unit of the tribelet (or village community) has been indicated as occurring among group after group in only slightly different form. Its variations are mainly a function of environment, of how bountifully or parsimoniously nature provided food. On this depends the size of the area held, and on that, in turn, the density of population, or ratio of persons per square mile of area owned and used by the tribelet.

DEPARTURES FROM THE USUAL PLAN

There is, however, a minority of cases in which some departure occurs from this basically uniform scheme. These exceptional deviations occur mainly at opposite ends of the state, and take forms according to geography.

True tribes along the southeastern farming border.- On the far southeastern border, where the Colorado River today separates the states of California and Arizona, there existed a type of organization more like that of the classical eastern "tribes," in the ordinary sense of that word. Here there seem originally to have been half a dozen good sized Yuman-speaking tribes, all of whom held certain stretches of the bottom land of the Colorado River, in which, in contrast from the Indians of most of California, they practiced agriculture, dependent on the annual overflow of the Colorado River—comparable in a primitive sort of way to the agriculture of the ancient Egyptians thousands of years ago in the valley of the Nile.

Even the rather modest agriculture practiced by these tribes sufficed to give them an advantage in subsistence that in turn seems to have led to their concentration into greater groups. Instead of being grouped into tribelets of 200-300 individuals, these Yuman tribes of the Lower Colorado were segregated into tribes of from 2,000 to 3,000 or thereabouts. Possibly these river tribes originally constituted tribelets of the usual California type who, after they had learned how to farm, aggregated into larger tribes. This we do not know, but it is definite that within the historic period the size of these groups was quite unusual and that they provided a definite departure from the normal California Indian type of relation of people and land.

In addition, these peoples had a strong sense of set-offness. The Mohave felt themselves to be different from every other group within their

cognizance. The Yuma in the same way felt themselves to be distinctive. Other tribes were hostile to both of these, but their attitude remained essentially the same. Such attitudes led to political and military line-ups that ended in an indulgence in warfare which finally squeezed all but the Yuman and Mohave off the Colorado River. They fought not for redress or maintenance of their independence but because the ambitious and brave among them looked upon war as the road to honor and prestige. This is atypical for California as a whole where the overwhelming majority of Indians looked upon warfare as a trouble and something to be avoided if possible. 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.

Private ownership in the capitalistic Northwest.- At the opposite northwestern end of California there was a contrary condition, but which was equally exceptional to the usual sociopolitical and land-use structure of the California Indians. Here there was an array of ethnic groups in northern Humboldt and Del Norte counties, centering around the lower Klamath River, and comprising the Tolowa, Hupa, Chilula, Wiyot, Karok, and, above all, the Yurok, that possessed a type of native culture somewhat contrastive to that characterizing California as a whole. The culture here in California was obviously allied to that farther north along the Pacific Coast, as far as the panhandle of Alaska.

From the angle of political organization, this area of the Yurok and associated groups was characterized by extreme fractionation. The typical Californian tribelet did not occur here. It seems to have been dissolved into separate settlements. The orientation of these peoples was individualistic rather than communal. A town or village was a cluster of houses, and equivalent families, that happened to occupy the same site and on the whole get along together, but had no basic obligations one to the other.

In contrast with those of the lower Colorado, these northwestern people were not militaristic. Status, prestige, honor, renown did not depend on success in war but on possession or the acquisition of property. They were miniature capitalists in their way. With the idea that wealth was what made one illustrious, there went an extreme particularism and individualism. Each man strove for himself and his immediate family. The society was almost competitive, rather than cooperatively communal. The idea of ownership was so strongly developed as to be extended to sources of food supply. A rock in the river, an eddy or nook at the edge of the river, which had been proved by experience to be a good place for taking salmon, a grove of oaks yielding good acorns, a stretch of coast for gathering mussels or edible seaweed or for hunting sea lions—many such

tracts were in private ownership. They were owned very much as house lumber or canoes or dance regalia or treasures were owned, and could be traded, ceded, bought, and acquired.

This is a social attitude much more reminiscent of the Indians of Vancouver Island and the British Columbia coast than it is like the attitude of most of the California Indians. It was only in this extreme area that the notion of land-use ownership was carried beyond ownership by the tribelet or community to ownership by particular families or individuals representative of families. This private, personal land ownership is evidently an extension of the more usual prevalence of communal ownership by the tribelet, from which it presumably derived as a step in the direction of the more elaborate economic structure of society.

THE CALIFORNIA TRIBELET SIMPLER POLITICALLY THAN THE EASTERN TRIBE

As the typical California tribelet of village-community size was the local equivalent of the tribe in the central and eastern United States, the political organization of the two types corresponded quite closely in principle, the differences between them being essentially of degree, or quantitative. In the East the tribe was likely to be five or ten times as populous as the tribelet in California. As, however, the density of settlement was generally lower, it follows that the disproportion in square miles of territory held by the tribe was even greater than that of numbers.

The greater concentration in California, together with the much smaller size of the political unit, brought it about that political machinery tended to be somewhat less developed in California. As a village needs less government to get along on than a good sized city, so a tribelet of two or three hundred people, in close contact at most times and with every member knowing the others familiarly, can settle most problems simply. The interested parties, or all the adult males, get together in council and in the presence of the chief can thrash matters out until an adjustment is reached.

Chiefs.- A chief, or sometimes several, was always recognized in each tribelet. There would be lesser chiefs or headmen presiding over each settlement, temporary or permanent. The head chief might have someone who habitually acted as his messenger or speaker. Beyond this, however, there was little need for special officials, and almost every man would exercise sooner or later in his life the functions of most of the others. They all hunted or fished or otherwise did their share of getting food; they all knew how to build houses; if there was war they all fought; if there was illness of not too serious kind, there was usually also someone with shamanistic doctoring power within the nearer kin group who would try to cure.

The result was that there was in California less of the conditions obtaining among the Indians of the eastern United States, among whom there were often two or more classes of chiefs, such as the war chiefs and peace chiefs among the southeastern tribes, or the Sachems or Sagamores elected to an office hereditary in their clan among the Iroquois or Five Nations, as contrasted with "chiefs" that won unofficial renown and influence through their war efforts. Distinctions of this sort were practically lacking in California. There might be a man in a community, or a few men, who, if hostilities broke out, was braver or stronger than the rest and would be looked upon as a natural war leader; but with the fighting over, he would return to the state of ordinary citizen. Least of all do we find in California anything corresponding to the leagues or confederacies of the east, of which the most successful and famous was that of the Iroquois just mentioned.

Functions of chiefs.- Chiefs, however, were recognized everywhere in California, and they seem to have been such mainly by birth. But the custom was also prevalent that if a man proved by temperament or disposition unwilling or unfitted to serve as chief, he was likely to be superseded by a relative. In daily life and dress, the chief might not appear perceptibly different from other members of the tribelet. He functioned on occasion, rather than professionally or full time. His office did carry with it a certain amount of prestige. He was likely to be relatively wealthy in shell money. He was usually expected to have two or three wives, because of the burden of entertainment which fell on him. He was likely to be host to guests arriving from outside, and if these came in numbers for a dance, a single woman in his household would have been unable to provide properly. Often the people at large made voluntary contributions of food to the chief when there was a gathering, or he himself might suggest to the young men that they go out and bring in venison.

The chief was also expected to be an orator; he counseled and admonished the people, he gave them formal public advice, he harrangued them, and he welcomed visitors. To be impressive, it was thought that the speeches should have a certain length, and since often there was no great amount of detailed information to be imparted, they were likely to be repetitious as well as platitudinous. In many parts of California the chief did not take part in fighting. In some regions the chiefs of two tribelets at war stood at the back or end of the line of bowmen and were the first to propose cessation of combat, trying to bring about peace.

A successful chief was an ornament to his people and must conduct himself with considerable dignity when the situation demanded it. He had, however, next to no true authority. His role was supposed to be essentially

one of using moral influence on the side of wisdom and coordination, and of preventing dissension and trouble from coming up.

Augmentation of chief's role under Caucasian impingement.- When, however, the Spaniards and Mexicans entered California, and after them the Americans, in other words when people of a much more complex civilization impinged on the California Indians, the situation became different. Then the chief tended to rise in importance. His own people, confronted by new problems, were ready to take shelter behind him. They were no doubt mostly eager to have him assume responsibilities and authority such as they would not have welcomed, and perhaps would not have tolerated, in purely native times. Also, the white men, in their relations with natives, showed a natural disinclination to deal with a chaotic mob, with an unorganized group of fluctuating opinions, and sought a leader. The chiefs were therefore thrust forward by pressure of opinion both on the native side and from the Caucasians. It would be going too far to say that chiefs were wholly the product of contact with Caucasians, but the seeming role and power of the chiefs were certainly very much enhanced after Caucasian contact, in most cases probably without any desire on the part of the incumbents.

CRITERIA OR EVIDENCES OF OWNERSHIP OF LAND

There are several features of land holding among the California Indians which define the nature of the ownership of land. These will be taken up in sequence.

1. Occupancy.- The first consideration or criterion of ownership of land was occupancy—that is, residence on and utilization of the land. Utilization was for subsistence primarily, for the securing of food; but it also included travel, recreation, exploitation of mineral resources, and the like. The manners in which utilization was effected will be discussed more in detail below.

There is no question but that the concept of ownership of certain defined tracts by the community or tribelet was quite definite among the California Indians, and that ordinarily the claims of each community were recognized by adjoining communities. This does not prevent there having been occasional overlapping claims or disputed boundaries, but it was assumed that each community owned, wholly in and by itself and by inherent right, a certain tract of land. This was a universal a priori assumed by all California Indians. All claims to the contrary, namely that there were no boundaries, or that each band or group roamed where it would, are

complete misunderstandings of fact. They turn out to rest on nothing but vague, general notions. The mere number and exactitude of the maps of tribelet boundaries and of larger nationalities, which anthropologists have been compiling for seventy five years, leave no question on this point.

2. Conceptual claim and authority.- What may be called the conceptual claim of the tribelet or community, its juridical or legal claim to a territory, was backed up by authority. By this is meant that if a community felt that its rights to a given territory were being infringed, they resented the fact and used force if necessary to enforce their claims. Members of other tribelets who came to visit were usually welcomed, at any rate if there was customary friendliness between the two communities, and if they asked for permission to hunt, or fish, or gather in the territory of their hosts, this was likely to be accorded them. If, however, they came without a formal visit and asked no permission but appeared by night or by stealth, and especially if they were found in possession of food products gathered on the spot, this was definitely considered trespass and was resented. If previous relations had been good, they were likely in such case to have been let off with an expression of disapproval, but if there had been hidden or overt strains between the two groups, the trespassers might be attacked and killed. In years of bountiful produce or game, the inclination was always to be liberal, for the California, like all other Indians, looked upon generosity, especially as regards food, as a primary virtue.

Also, self-interest played into the situation. If a group was hospitable to its neighbors this year, there might be another occasion when their resources were less and a moral claim to reciprocate would have been established. What was definitely resented was appropriation without consent having been asked for and accorded.

In his study of the Patwin of the lower Sacramento Valley, Kroeber analyzed all the cases that he could compile of intercommunity feuds or wars in which the cause or motivation could be ascertained, and found that the most common cause of such embroilments was trespass, that is, unpermitted exploitation of food resources in territory belonging to another group. Subsequently, a similar study was undertaken by Driver, Goldschmidt, and Essene for an area somewhat to the north and west of the Patwin. Though in this instance trespass was also mentioned as a cause of war, it was only in a minority of cases: revenge for murder was more often the precipitating factor. However, some of these killings may have been not murders in the eyes of those who committed them but only in the eyes of the community to which the victim belonged. In other words, the original beginning of fighting between two communities may have been that tres-

passers were killed, and this in turn gave rise to the desire for vengeance on the part of their kinsmen. Whatever the exact proportions, it is clear that trespass, especially involving food-getting, was certainly in northern California and by inference and extension probably in central and southern California also, a common cause of intercommunity warfare, and trespass certainly implies land ownership.

3. Invitation.- A third criterion of community ownership is invitation. Whenever enough good supplies had been accumulated for a ceremony or ritual or religious or social dance, the hosts formally invited, by messenger and for a stated date, neighboring communities with whom they were on good terms to visit them at a given place for the occasion. The visitors might also bring some food, as it were in reciprocation, but basically it was the hosts that not only put on the ceremony or festival but provided food and entertainment to their guests.

4. Permanence.- Permanence of tribelet land holdings was greater than one might infer from the simple and informal mode of life of the California Indians. These Indians were on the whole notoriously sessile. That is to say, each tribelet held its tract, and the children and grandchildren continued to hold it normally without any change; the limits were fixed. Of course, small changes did now and then occur, and over thousands of years such occasional alterations or shifts may have gradually mounted up. Here and there, scattered distribution of related languages indicates that certain groups must through the centuries have moved their residence considerably. However, for any given period this was unusual. Kroeber, in the study of the Patwin already mentioned, gathered all the cases which he could find of shifts of boundary, of territory being lost as the result of warfare or dispossession. He found only some eight or nine remembered instances, and most of these involved only insignificant areas.

Of course, once the white man came, strong pressure from him was introduced which had not existed before, and the displacement of Indians multiplied enormously. This was already true in the Spanish and Mexican Mission period. The Indians in the vicinity of a newly founded mission would have difficulty escaping its domination, but those somewhat more remote could soon realize what was taking place. Some of them might, voluntarily or under pressure, become neophytes and go to live at the mission, but many others would move away and seek refuge in foreign native communities, as best they could. This might put new and unaccustomed pressure on tribelets beyond, even those outside the area actually drained of population by the missionaries. Thus some of the displacements recorded in the Patwin area evidently go back to unsettlements among the gentile Indians due to draining off by the Spanish of the nearer tribelets into the missions around San Francisco Bay.

5. Defined boundaries.- The community or tribelet holdings had definite though unsurveyed boundaries. These limits were known by traditional and natural landmarks. A divide, a rock, occasionally a stream or creek, perhaps a specially big treee or a clump served this purpose. Technologically, the California Indians were too retarded to have put up continuous boundary indications such as fences; nor could they well have maintained them; nor was there need for them—there was no livestock to keep out nor planted gardens to protect.

On the whole, the most common boundary was a watershed, big or little. For instance, the Sierra Nevada was a boundary between tribelets as well as between larger ethnic nationalities for almost its entire length. The same holds for the coast ranges and lesser elevations. In consequence, there was a strong tendency for tribelet territories to consist essentially of a stream or creek drainage, or of a section of the length of a river valley. Geographically, tribelet A might be definable as holding the drainage of such and such a creek, and Community B the basin of the next creek. Even the larger rivers rarely served as boundaries. The Yuman farming tribes on the Colorado were all astride of this great river. They would own a certain stretch of it in both California and Arizona, or in both Nevada and Arizona, as the case might be. Similarly, along the Sacramento. The tribes that had settlements on one bank invariably had settlements on the opposite bank also, as well as hunting and gathering rights on both sides. This is one point where the early distribution maps of California Indian languages went wrong, in detail. They tended to assume that Indians encountered on one side of the Sacramento held only up to that river. More careful subsequent inquiry corrected this assumption and showed the same condition, of one nationality holding both banks, to have existed all along the Sacramento from its head to the mouth. The uppermost reaches belonged to the Wintu; below this was a stretch in possession of people speaking Wintun; then Maidu; below them the Patwin; below these the Nisenan Maidu; and lowest down, in and about the delta to saltwater, were the Plains Miwok.

The same situation obtained along the Klamath, the Trinity, the Russian River, and others.

Incidentally, the same condition tends to obtain also among Caucasians wherever settlement took place long ago, and the history of occupation can be traced. While the Rhine is traditionally a frontier, nevertheless, its banks have de facto usually been held by one people, French, German, or Dutch. The Danube, in the same way, is occupied on both sides successively by several nationalities, only occasionally serving as a frontier. Rather, going downward, do Germans, Hungarians, Yugoslavs, Rumanians sit astride the Danube in occupancy of both banks.

In America, too, wherever occupation of the land began by colonial settlement and not by charter or legislation, the same relation to drainage appears. On the Atlantic coast, the Hudson, the Connecticut, the Susquehanna and most other rivers flow within states rather than serving as boundaries between them, although there are exceptions, such as the Potomac and Savannah. The one striking instance of a stream serving as a boundary for most of its length is the Mississippi. Here, the present states were preceded by territories created by legislation in Washington before the country was settled, and it proved convenient for the lawmakers to use the Mississippi as a frontier, especially as France and Britain still earlier had similarly agreed upon it as a boundary between them. However, the first French settlements along the Mississippi were at its mouth and are reflected in the present state of Louisiana which again is on both sides of the stream.

6. Private ownership.- In the rather rare cases in aboriginal California in which private ownership of land or its potentialities and usufructs in private or family hands existed, this condition did not obliterate the right of the community but was clearly an added feature, something that had developed out of and on top of the community ownership.

Indeed, some of the seeming instances of private land ownership were not really such. The situation was rather that particular subunits of the tribelet—clans or whatever they might be called, kin groups or theoretical kin groups, laid claim to a series of given tract. This was the condition in southern California, as has been illustrated in most detail by Strong in his listing and map of clan holdings among the Cupeño of San Diego County.

Among the 34 community tribelets of the Pomo, the 3 at the lower end of Clear Lake, speaking the so-called Lower Lake or Southeastern dialect of Pomo, held the islands on which their permanent villages stood in communality, but the mainland shores belonged in strips to particular families as regards acorn and other plant food gathering rights. Hunting could be done anywhere in the tribelet territory by any member of the community, although it was considered good form not to hunt on other people's acorn-gathering lands in autumn for fear that suspicion would be aroused that one was not there to pursue rabbits or deer but to make off with some of a neighbor's acorns.

This Southeastern Pomo arrangement of strips of family land—division of the communal territory into family-held strips for gathering—is evidently a local and secondary development. This can be inferred from the fact that all the other Pomo, even the most nearly related ones of Cigom and other tribelets on Clear Lake, do not admit having had this institution. At most, among these other Pomo, might a person or family, finding a tree

that promised to produce a rich crop, hang a bunch of grass or some other mark or sign upon it as an indication that for this year's crop it had been discovered, and would other later comers kindly lay off and seek other trees.

The most extreme case of private ownership in California is found among the Yurok and the several little nationalities bordering on them in northwestern California that have already been mentioned. Here hunting, fishing, and gathering rights definitely were property and could be bought and sold, or ceded in a settlement or marriage contract, as could material objects be so transferred. However, it is significant that even among these groups it was only certain fishing places, or groves of oaks, and so on, that were privately owned or claimed. These were, so to speak, spots carved out of the common public domain to which the right of exclusive particular use had become attached through the centuries. Whatever was not so claimed, whether along the river or on the coast or in the hills, was public property and free to all. The most favorable fishing spots along the river might be pre-empted, but there probably were more linear yards and miles of the stream that were public and communal domain. In the same way the deer hunting claims, by which only certain families were privileged to set their snares for deer, all lay within comparatively short range of the river and the villages—probably within a mile or so. Beyond that hunting would be free to any and every member of the nationality.

It would seem that these six groups of evidences taken together—occupancy, conceptual claim, invitation to share, permanence, definiteness of boundaries, and private ownership occasionally superadded to public—that these six sets of indications do establish the fact that land ownership was a very positive and definite thing in the life of the California Indian communities and tribelets.

INDIAN UTILIZATION OF LAND

Generalizations

The habitat as a whole.- The entire territory owned by a tribelet community constituted its potential for finding subsistence and making a living. Of this total, parts would be used intensively; other portions less intensively, or seasonally, or occasionally. The whole territory, however, formed a unit, some part of which was utilized in one way or another throughout the year.

The Indians' relation to the land may be compared to that of a farmer

practicing mixed or general farming. It is true that among the Indians the social community of a tribelet used the land jointly, whereas the American farmer owned and used his land as an individual. Nevertheless, both of them lived directly off the land and close to the land and in a quite specific relation to it, and this relation was definitely similar.

The land which an old-fashioned American farmer was likely to have plowed and under cultivation in any given year might constitute only a minority fraction of all that he owned. Tracts of cultivated land were successively left fallow for recuperation. He could work his farm only by having livestock, horses or oxen or both. This necessitated considerable fields of pasture, and usually hay land also to support the stock during winter. These pastures and hayfields produced nothing which the farmer himself ate, and very often he did not sell any hay. Nevertheless, he could not have raised his wheat or corn or cotton or tobacco or other crops, whether he consumed them or sold them for cash, without the stock which in turn necessitated the pasture and hay land. He also required a wood lot to keep his family from freezing in winter and to enable his wife to cook meals. There might even be a tract of brush which was not being utilized for a number of years, but which all this time was growing back into a wood lot intended to replace the one that was gradually being consumed. The whole plan of an old-fashioned American general farm was a much more intricate system than we usually realize; each part was in interdependence with others, the use of all parts was linked.

Much the same held for the use of its territory by a Californian tribelet community. Chaparral or brush land might look completely waste and useless but it was where rabbits and other small mammals and birds bred and perpetuated themselves. They might be hunted in the brush or they might be hunted more often when they came out of it, but without the scrubby tract—with this cleared and burned off, for instance—the Indians might have had much less small game that they could take. Certain stands of solid forest also yielded relatively little plant food directly, but they were where the deer browsed and therefore they made hunting of large game possible. As one food reached its season and was harvested, another was next taken up in turn. As one tract was depleted or came near exhaustion, other tracts would be visited for a year or several years while the first one recuperated. The Indians were very conscious of this: many tribelets followed a regular routine of living by their river or creek in midwinter, but as spring came on, going out from the central settlement to gather this green or that seed, or, as the year wore on, particular kinds of fruits, and finally nuts and acorns. In a country of rainy winters, fishing was likely to be at its best in winter and spring. Hunting might be more productive in summer and fall. In this way many groups followed a regular swing over their territory away from the central or main village, up into the foothills, into the higher ranges, and back into the valley to finish the year by a renewed residence at the central village.

One consideration must be borne in mind. The California Indians lived on what nature provided. They did not cultivate plants. They did not tame and breed animals, with the sole exception of the dog. Consequently their subsistence economy was one of gathering, fishing, and hunting of wild plants and wild animals. This fact meant that their dependence upon the natural habitat was even more direct and intensive than that of the civilized general farmer, and that in general they required a larger per capita area from which to make their living than is possible under systematic agriculture.

Plant foods.- All in all, over most of California, acorns from oak trees constituted the most abundant and primary food. There were few tribelet territories, outside the higher plateaus and the southern deserts, that did not provide some oaks. There are many different species of oaks, and all were used, although some were preferred. The preferences varied by area, and were so diverse that one is driven to the conclusion that the kind of acorn which was most abundant, and which therefore became the staple of the people in a given area, was the one which they grew used to and then came to prefer. Most acorns require leaching to remove the tannic acid. In order to leach them effectively, without undue delay, they are usually ground first. Then, after the tannic acid has been extracted by leaching, usually with hot water, they are ready for cooking. Most often they were mixed with water and boiled into a mush or gruel or soup. This was done in baskets, into the water within which hot stones from the fire were introduced. While mainly a starchy food, acorns contain considerable quantities also of protein and fat and make a rather fortunate staple of subsistence through this balance of their contents.

Buckeyes were less abundant on the whole, but were freely utilized. They also required leaching, in this case because they contain poisonous hydrocyanic acid.

There was a great variety of other fruits and berries, such as manzanita berries over most of the state, and choke cherries or wild prunes. In the south, the mesquite tree furnished beans which were too woody to be freely eaten, but which contained quantities of sugar that could be soaked out and sucked as a drink. Or again, the mesquite might simply be dried, pounded up, and then baked into cakes.

Another important food in the south was mescal or agave, the fleshy root stalks or butts of which contained a nourishing syrup after they had been baked in an outdoor oven of earth and hot rocks.

An almost infinite variety of seeds were gathered and eaten by the

California Indians. In fact, native California is described by Wissler as the outstanding "seed area" in America. There was a special implement, the seed beater, a sort of open-work paddle of basketry, that was developed to meet this need. Wherever any seed-bearing grass or plant grew in a sufficiently close stand, the seed beater could be employed to beat down or whip sidewise the ripe seed-heads. They fell then into flattish or other baskets, and from these the accumulating load of seeds could be transferred into conical pack-baskets which the woman had hung from around her forehead or chest by a strap. Even quite minute seeds were worth gathering when they could be beaten in, in this fashion, like a regular harvest; and if they were very small they were likely to compensate for this by special flavor or fragrance. In many cases, the gathered seeds were parched with a few coals to burn off their husks, after which most frequently they were ground, and could then be eatern either dry as a sort of seasoning or, when the quantity was sufficient, they would be treated very much like ground acorn meal. Chia or sage, various amaranths, tar-weed and other seeds from composite-flowered plants, and literally dozens of others were gathered in this way, each in its particular habitat which it favored, and at particular seasons. Even European weeds that were introduced in Mission times and that spread widely, like the wild oats, were utilized in this native fashion by the Indians.

Bulbs and tubers and roots were on the whole less important in California than in certain regions farther north, at any rate as compared with seeds and nuts. Nevertheless, bulbs, especially Brodiaeas ("Indian potatoes"), and in northern mountain meadows camass, were gathered in quantities.

Finally, clover and a great variety of other plants were eaten green. They might be simply nibbled off as they grew, giving rise to the curious legend that some of our California Indians had the habit of pasturing like cattle. Or they might be gathered and brought home and either eaten raw there or slightly boiled.

We have a number of ethnobotanical studies made in the California region, and wherever these seem to be at all complete there are invariably from fifty to a hundred plants that were utilized by the Indians for food, and in many cases possibly more, counting those varieties whose occurrence was spotty or not very numerous. Fifty to a hundred species means fifty or a hundred species known to a particular tribelet community or group of such tribelets and actually utilized by them. Of course plants are selective in their habitat, and no territory of one tribelet would contain all the edible species found in California. How many such species were eaten in one way or another by Indians in the whole state of California is a computation that has not been made, but it may be estimated to have attained to at least several hundred.

Animal food.- In Northern California and along the coasts, fish and shellfish came nearer to forming a staple than game. In the southern and inland more arid portions the reverse was true.

All kinds of fish that were accessible and that the Indians could reach and catch were taken and eaten. In the northern part of the state the most important perhaps was salmon, as it ran up the rivers and even up the larger creeks flowing directly into the ocean. With the salmon, the lamprey eel also comes up the rivers and had a certain importance.

Next there were freshwater fish which spend all their lives in rivers or lakes: trout, suckers, perch, and so on; and, finally, salt water fish. These last were perhaps most important along the Santa Barbara Channel.

Shellfish: mussels, oysters, clams, and the like, were an important article of diet for people on the coast or living near it. They were not only eaten raw, but were dried so that they could be stored and traded inland.

Of sea mammals, whales were not taken by the California Indians. Their canoes, while in some cases fairly seaworthy, were not too well adapted for whale hunting, and our Indians had not developed a sufficiently large harpoon. However, when a whale came ashore, it was occasion for a feast that would last for weeks. Seals were hunted almost everywhere, sea otters where they occurred, and sea lions were also taken, either by clubbing on the rocks or by harpooning.

Of the larger land animals, deer were and still are abundant in most parts of California, and were no doubt all in all the most important. They were hunted with and without dogs, shot with a bow and arrow, driven into snares, and even nets. Elk extended from the Oregon line to the southern end of the San Joaquin Valley, and were the largest land animal available as game. They were abundant in the great Central Valley, and in the coast ranges perhaps still more so. The open plains of the great Central Valley and many smaller valleys, even some high-lying plateaus, contained antelope which could be got either by stalking with a decoy mask of the head of an antelope or by organizing surrounds and drives. In the high Sierra and the outlying ranges to the south, mountain sheep were available.

In spite of the relative abundance of deer, small game perhaps furnished even more meat diet to the California Indians the year round, on account of the abundance of the smaller species. These included above all cottontail rabbits, jack rabbits, ground squirrels, wood rats, and other rodents. They could often be picked up with little trouble and at short distance from the rancherias and settlements. Also, boys and old men not yet able or no longer able to range through the mountains in pursuit of deer could take this smaller game.

Of birds, there were ducks, geese, mudhens, and other waterfowl; the California valley and mountain quail, which are really small partridges; and a great variety of other species.

For some desert tribes in the south, tortoises and lizards furnished a substantial addition to their diet, although certain other California Indians drew an absolute line at partaking of any reptilian or amphibian food.

The same holds for grasshoppers, caterpillars, and angleworms, all of which are definitely nutritious. In some parts of the state it was customary to gather and eat such small fry, but other tribes felt about them very much as we do.

Land resources other than food.- Their tribal territories also furnished the California Indians their clothing and shelter and most of the materials for their manufactures. The clothing might be of dressed skins or of furs. It might be of the bark of maple or willow or tules or sedge that was shredded out into a sort of hula skirt for the women. Roots, shoots, or fibers of plants were also the basis of all basketry, of course, including the caps or brimless bowl-shaped hats worn by the women in many parts of the state. Baskets constituted the most common utensils, pottery being known only in the southern portions of the state. Wooden bowls were occasionally carved, but not very often. Baskets served for gathering food, for storing it, for cooking it, for serving cooked food, for hats and for seed-beaters as already mentioned, and, when finely worked, as gifts and valuables. In general the basketry art of each tribelet was based on materials which grew in its territory. Only occasionally were colored wefts or feathers or similar material traded from tribelet to tribelet for ornamentation.

In much the same way, the materials for house building, whether these were logs or wedge-split planks or poles or thatch or slabs of bark, could not be transported long distances owing to absence of domestic animals, vehicles, and roads. Consequently, building materials were always of local origin.

When it comes to materials having a degree of rarity, some tribelets were fortunately endowed by possessing outcrops or quarries of minerals, or seashells growing in their community territories. Other tribelets then would obtain these in trade, perhaps by furnishing yew wood for bows in return for seashells for bead money. Furthermore, such receiving tribes might pass on the shells or the raw materials—obsidian or steatite or magnesite—to tribes beyond them.

The same was true of fine feathers and furs and dressed deer hides, also of woven rabbit-skin blankets. These could all readily be traded, and there tended to be a flow from the territory of tribelets that produced them in abundance to territories less fortunately situated in this particular regard.

Intangibles in land use.- Intangibles played a larger part in Indian utilization than might have been expected. Each territory contained spots which had religious, magical, or other affective associations to its inhabitants. Here might be a spot where the Creator or Culture-bringer left an imprint on a rock, there a spring inhabited by a water monster. Some landmarks were sacred. Others were dangerous. Some brought blessings if prayed to. Still others would be addressed when one wished to bring evil on an enemy. A rock or pool might be dangerous to strangers, though not to the residents of the territory, who might more or less formally introduce their friends from other tribelets when they came on a visit so that they would not come to grief through the jealous spirit residing in the landmark. Here was a cairn on which one threw a rock or stick as one passed by on the trail. There stood a tree into which one shot an arrow for good luck and left it there. There must have been literally tens of thousands of such natural features or spots throughout California having magical or religious or legendary meaning and significance. For the one Yurok nationality alone, Waterman has mapped and named and described hundreds.

The Indians were also more sensible of pleasant landscapes and views than is generally believed. They picked their settlement sites, of course, primarily for utilitarian and practical reasons, but at the same time so many of these sites command an agreeable or beautiful prospect that this factor, too, must have entered into their attitudes. With experience one can often guess from the view from a point of hill, or the nose between the confluence of two streams, that an Indian settlement would have stood here; and a little scraping of the sod then usually reveals traces of aboriginal habitation.

Allied to this, in turn, is the tremendously strong attachment which all California Indians had for the place in which they were reared and had lived most of their lives. They did not poetize about this or become romantic or make speeches, but the feeling was perhaps for that very reason all the more powerful. They wanted to go on living where they had always lived. Again and again old people speak of having been born here and of dying in the same spot: the cycle has come around. An ideal native life would be to have been born in a house, lived there, and to die in it; or if the person outlasted the structure, in a repaired or re-erected house on the identical spot.

With these sentimental attachments superadded to the varied uses made of the land, it is evident that dispossession from it or even disturbance in its utilization was bound to be extremely upsetting to Indian customs and to native morale. In general, the white man in coming in and taking over, appropriating the land for his own purposes, whether that of farming or mining or what not, exercised a far more disruptive effect on Indian custom and manner of living than he was aware of. To the American the Indian lived so poorly that it probably did not occur to him that the Indian might also distinguish better living from worse living. And while the old, purely native life might have seemed pretty meager and poor and depressing to a civilized man, there is no doubt that it meant a great deal to the Indians to have the opportunity to go on living as they had done before, which only too often was denied them. So, enforced transfer to a new habitat, even if only a few miles away, deprivation of familiar areas for food-gathering, and the necessity of learning a wholly new mode of life, all came as a very real and genuine shock. Directly and indirectly such shocks and deprivations contributed to the notoriously rapid diminution of the population which began to be checked only towards the beginning of the present century and reversed a decade or two later.

THE LOT OF THE CALIFORNIA INDIAN UNDER AMERICAN OCCUPATION

What happened to the California Indians in the years following 1849—their disruptions, losses, sufferings, and adjustments—fall into the purview of the historian rather than of the anthropologist whose prime concern is the purely aboriginal, the uncontaminatedly native; although no student working with living Indians could escape observing the shattering that their society underwent and listening to tales of their deprivations and spoliation.

Briefly, the Indians lost the overwhelming area of their lands; with these, their main habitual subsistence; and with the going of this, they lost their way of life, their own culture. All this was taken from them generally without compensation, redress, help, or any but mere pittances of opportunities for readjustment and a new way of life.