1. TRIBES, LANGUAGES, AND TERRITORIES

No one knows when humans first entered what is now North America. Archaeologists and geologists believe that from about 11,500 to 12,000 years ago man could cross from northeast Asia to northwest America on dry land, and that an ice-free corridor was open to the southeast, along which humans could cross Canada and enter the ice-free region of North America, which lay at about the present border between the United States and Canada.

As the new migrants from Asia moved southeast into the North American continent they found it easy to make a living by hunting. Animals of numerous kinds were abundant and unafraid of man, who was a new kind of predator. Still living on the continent were remnants of the large Pleistocene animals (megafauna), such as the elephant, the mastodon, and the giant bison, which the humans also hunted. The humans must have advanced and dispersed fairly rapidly, for by 10,000 years ago they had explored North America and South America as far south as Tierra del Fuego.

For California, the oldest definite evidence of man dates from 9000 to 10,000 years ago, despite some claims of greater age. By that time the North American continent must have been reasonably well explored and perhaps large parts of it settled.

As people gradually filled the continent, they divided and separated into groups that chose different areas to settle and adjusted their modes of living to accord with the plants, animals, and climates particular to those areas. The California of today represented the westernmost limit of settle-

ment, and judging from the number of languages and tribes present when the whites first appeared in the sixteenth century, a dense network of tribes and tribelets speaking a wide variety of tongues were in full occupation of the entire area of the state.

The various environments (valley, foothill, high mountains, coast, and desert) each produced particular kinds of food. The Indian inhabitants tended to concentrate their food-securing energies on one or two fairly stable or assured food sources, such as salmon in northwestern California, acorns in the central part of the state, and wild seed crops and small game in the southern region. Despite some concentration on highly productive food resources, a host of supplementary foods (fish, large and small mammals, insects, seeds, roots, and so on) were exploited, not only to round out the diet but also to introduce some variation in the fare.

Of the great variety of peoples (over a hundred main tribal or subtribal groups) and their ways of dealing with their natural environment, almost nothing now remains. However, through the work of ethnologists who interviewed Indians and published the details of their cultures, we possess a relatively full and accurate understanding of these vanished cultures and the people who developed them.

The native peoples of California have been more intensively studied than those of any area of similar extent in the world. There are a number of reasons. The Spanish-Mexican occupation (1769-1846) of the state was limited to the coast south of San Francisco. The impact of the Gold Rush and the following settlement caused severe reduction in Indian numbers, but by the 1870s, when systematic examination of the Indian languages and cultures began, there were still many survivors who had reached adulthood before they saw their first white man. In 1900, some fifty years after the Gold Rush, many Indians were living on reservations in Southern California, and there were pockets of survivors scattered throughout the state, many of them single families or even single individuals, living in out-of-the-way spots where they would not be noticed. In addition, substantial

numbers of the Pomo, Miwok, Maidu, Yurok, and Hupa tribes had weathered the storm.

From these remnants, ranging from single last survivors to substantial tribal groups and numbering altogether not over 20,000, a small and devoted band of ethnological researchers derived the knowledge we now have of the civilization that had occupied California for the preceding 10,000 years. These researchers were historians in the fullest sense of the word because they salvaged information about the people who lived in California for perhaps 200 times as long as the area has been under American statehood. Anthropology, the study of man, and its special branch, ethnology, the study of ethnic groups, had developed into sciences by the year 1900, so that trained researchers could study the culture of the California Indians with an understanding that had not been possible for the eastern Indians.

Through the energy and leadership of one anthropologist, Alfred L. Kroeber, who was associated with the University of California from 1901 to 1960, a huge accumulation of descriptions of native Californian cultures was published and provides a testimonial record of scores of now-vanished native societies.

Ethnological research completed up to 1923 made it possible to draw a map showing the names and territorial boundaries of all the California tribes. The tribal map (fig. 1) that appears here is a simplified version of the one drawn by Kroeber at that time. By the word "tribe" we mean a group of people that has a name, speaks one language (and dialects of it), and occupies a definite territory. Large tribes holding extensive areas and feeling a political unity were rare in California. The Yokuts of the San Joaquin Valley and the Yuman tribes of the Colorado River fell within this definition. Elsewhere in the state the so-called tribelet organization prevailed. A tribelet is one of a series of small groups that shared a language with their neighbors, but each had its own local name and territory (fig. 2). Tribelets contained from 100 to 500 persons and had from a few to a score of villages, one of which (usually the largest) was the tribelet capital because it was where the chief resided. Chiefs

FIGURE 1 (left) The topography of California. (above) Tribes of California drawn by A. L. Kroeber. (From R. F. Heizer, *Languages, Territories, and Names of California Indian Tribes*, 1966)

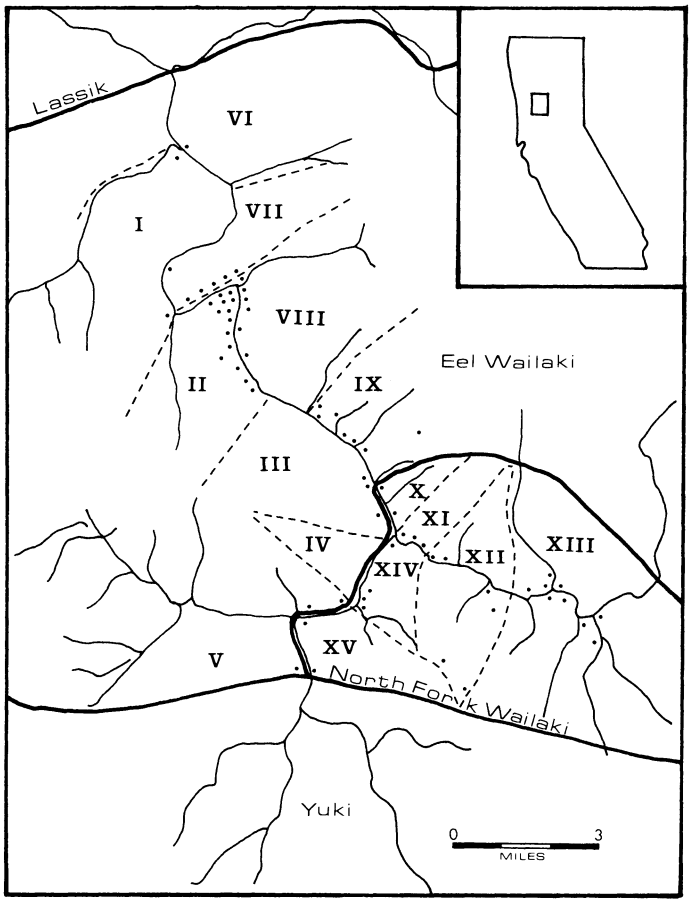

FIGURE 2 Two examples of tribelet territories: The Eel Wailaki and the North Fork Wailaki of Humboldt County. Villages are shown by dots, and tribelets by Roman numbers. Note how villages were sited along streams. The back country was used for hunting and gathering.

in California had little formal power, but were wise and experienced men whose advice was listened to, especially when it was supported by a majority of the old men, who constituted an informal council group. Chieftainship was customarily a hereditary position, with a chief's son usually succeeding him.

In this book we shall speak of the Indians and their cultures in the past tense. For the most part we shall describe the people, how they lived, and what they manufactured, and in some cases what they thought, before the whites destroyed the traditional aboriginal way of life. The old tribes are gone, but some of their descendants still live, preserve the tribal name, and often regulate their affairs through a tribal council on a reservation. Many other Native Americans than those of California origin now live in the state—perhaps 40,000—but of these we shall say little. Our main concern here is with the California Indians as they were, when they were the only human inhabitants within the present borders of the state.

Physically, the Indians of California were much like other American Indians. They varied in stature and included tribes that were among the tallest on the continent (the Mohave, averaging 67.7 inches or 171 cm.) and the shortest (the Yuki, averaging 61.8 inches or 157 cm.). They also varied in headform, noseform and faceform (the proportion of length to breadth). Three major physical types are recognized: (1) Yuki (short statured, low-faced, narrow-headed, and broad-nosed); (2) Western Mono (medium-statured, high-faced, narrow-headed, and medium-nosed); and (3) Californian (high-faced and broad-headed, with variable stature and noseform).

TRIBAL TERRITORIES

In California today prominent features of the terrain, such as rivers or lesser streams, tend to be boundary markers. The Indians had another way of defining borders: they used the drainages of streams, rather than the streams themselves. Watershed ridges, therefore, were the usual boundary lines, and ordinarily both banks of a watercourse belonged to the same people. A quotation from Kroeber illustrates this:

> As seen on the map the distribution of the Yuki seems irregular. This is not because their location ran counter to natural topography but because it followed it. Their country lies wholly in the Coast Range mountains, which in this region are not, on the whole, very high, but are much broken. They contain some valleys

but the surface of the land is endlessly rugged. The Yuki habitat is, however, not defined, except incidentally, by limiting mountains and ranges, but is given in block by the drainage of such-and-such streams. The native did not think, like a modern civilized man, of his people owning an area circumscribed by a definite line. This would have been viewing the land through a map, whether drawn or mental; and such an attitude was foreign to his habit.

Despite Kroeber's statement that the Indians did not view the land through a map, some Native Californians were able to visualize territory in terms of a map. For example, in 1850 J. Goldsborough Bruff, an Easterner on his way to the newly discovered gold region, described one of these native maps:

The old savage then took a pair of macheres [large flat leathers to throw over the saddle] and sprinkled sand over them, drew a model map of the country there, and beyond it, some distance. He heaped up sand to form buttes and ranges of mountains, and with a straw drew streams, lakes, and trails; then adjusted it to correspond with the cardinal points, and explained it. He pointed to the sun and by signs made them understand the number of days travel from one point to another.

Another such map was described in 1849 by a gold seeker at Lassen's Meadows:

While at the Meadows I met a friendly and intelligent Indian who made for me a map in the sand, a topographical map of the route over the Sierra Nevadas. The sand was piled up to indicate mountains and with his fingers he creased the heap to show the canyons and water courses. To indicate wood and timber he stuck in springs of sage, and spears of grass where grass was to be found, and made signs to inform us where the Indians were friendly or dangerous. It was really an ingenious affair and he was well acquainted with the country.

Such simple "sand maps" were frequently observed by early white travelers who were crossing territory unknown to them and were asking Indians for directions. It is probably no accident that these records were made in the desert areas where Indians moved about a great deal, sometimes over long distances, and were well acquainted with a large terrain. Among the more settled tribes of California, who traveled only within their own restricted territory, such

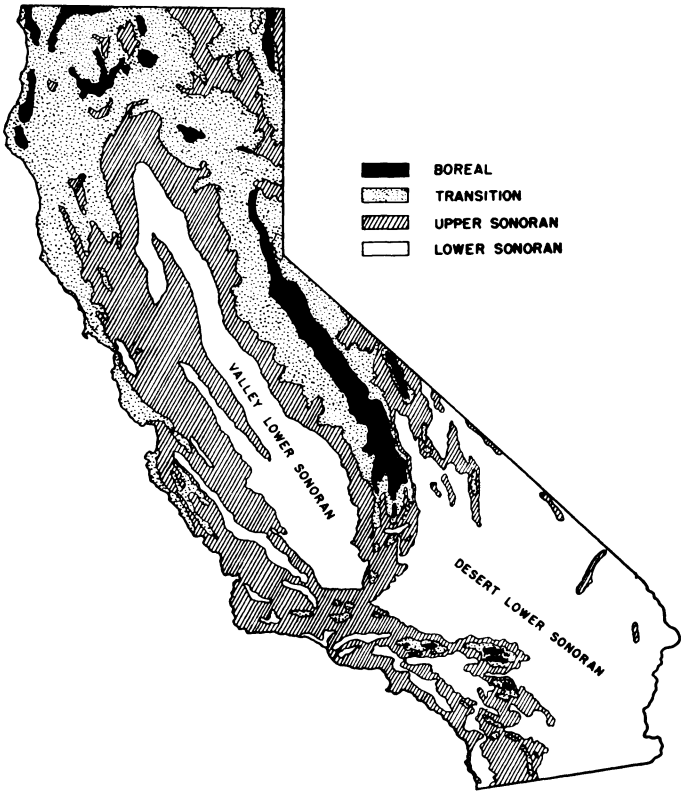

FIGURE 3 Life zones of California.

maps would have been unnecessary. In short, the way of life in different environments led to different concepts and practices.

California Indians had a strong tendency to stake out their tribal territory so as to cover several life zones (fig. 3). Life zones are areas characterized by a combination of elevation, rainfall, climate, and certain plants and animals. (In recent years biologists have tended to give the life zone concept less importance than it had earlier because they have learned that more than one single environmental factor—temperature—is reflected in life zone demarcations.

TABLE 1. Resources Available to the Interior Miwok in Three Different Life Zones

Item	Lower Sonoran (valley)	Upper Sonoran (foothill)	Transition (mountain)
House coverings	Tule	Digger Pine bark	Yellow Pine bark
Pine nuts		Digger Pine	Sugar Pine
Food animals	Antelope Elk Rabbit	Deer Rabbit	Deer Squirrel
Fish	Salmon	Salmon	Trout
Birds	Ducks Geese	Valley Quail	Mountain Quail Pigeons
Acorns	Valley Oak	Blue Oak Live Oak	Black Oak
Vegetal foods	Grass seeds	Buckeye	Bulbs

"Biotic communities," defined by other factors, including soil moisture, atmospheric density, altitude, and species competition, are now favored by naturalists. Life zones and biotic communities are not wholly different, however.)

By being able to freely hunt and gather in more than one life zone, the Indians could secure a much greater variety of plant and animal foods, and this is doubtless the reason why many of the tribes arranged their territorial domains to include portions of several zones. For example, the Interior Miwok, who lived in the lower portions of the Sierra Nevada, were able to draw upon a variety of resources available in several life zones (see table 1 and fig. 4).

LANGUAGE FAMILIES IN CALIFORNIA

The most effective way to classify California tribes is by their language family, or stock. These families can be compared to the Indo-European language family, in which English and German are closely related, but to which also belong the Latin or Romance tongues, such as French, Spanish, Rumanian, and Italian. In North America there were a number of language stocks whose speakers were widely, often discontinuously, distributed. Many, but not all, had representatives in California. The California lin-

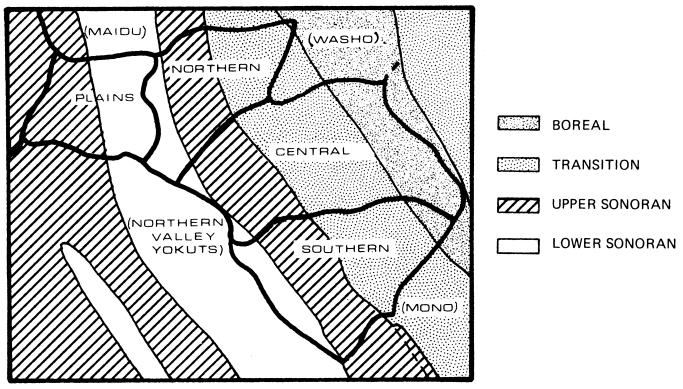

FIGURE 4 Interior Miwok dialects and life zones. Neighboring tribes are shown in parentheses.

guistic families were the Algonkian, the Athabascan, the Penutian, the Hokan, the Uto-Aztekan, and the Yukian. The tribes belonging to these language stocks are given below and shown in fig. 5.

Algonkian Tribes

The Yurok tribe (see fig. 1) occupied about fifty small villages along the lower course of the Klamath River and the seacoast from Little River and Trinidad Bay in the south to some miles above the mouth of the Klamath River. Their total population was probably about 3100. In terms of present-day political divisions, the Yurok ranged over northern Humboldt and southern Del Norte counties.

The Wiyot were a coastal tribe, southern neighbors of the Yurok, and were the second of the two Algonkian-speaking peoples of California. Their territory, measuring a mere 35 by 15 miles, centered at Humboldt Bay where the modern city of Eureka now stands. Their village sites were mainly located on freshwater streams near tidewater. The name Wiyot is a native one, referring to the southern portion of their territory along the lower course of the Eel River. Their former population is estimated at 3300.