NOTES ON POMO ETHNOGEOGRAPHY

BY

OMER C. STEWART

UNIVERSITY OF CALIFORNIA PUBLICATIONS IN AMERICAN ARCHAEOLOGY AND ETHNOLOGY

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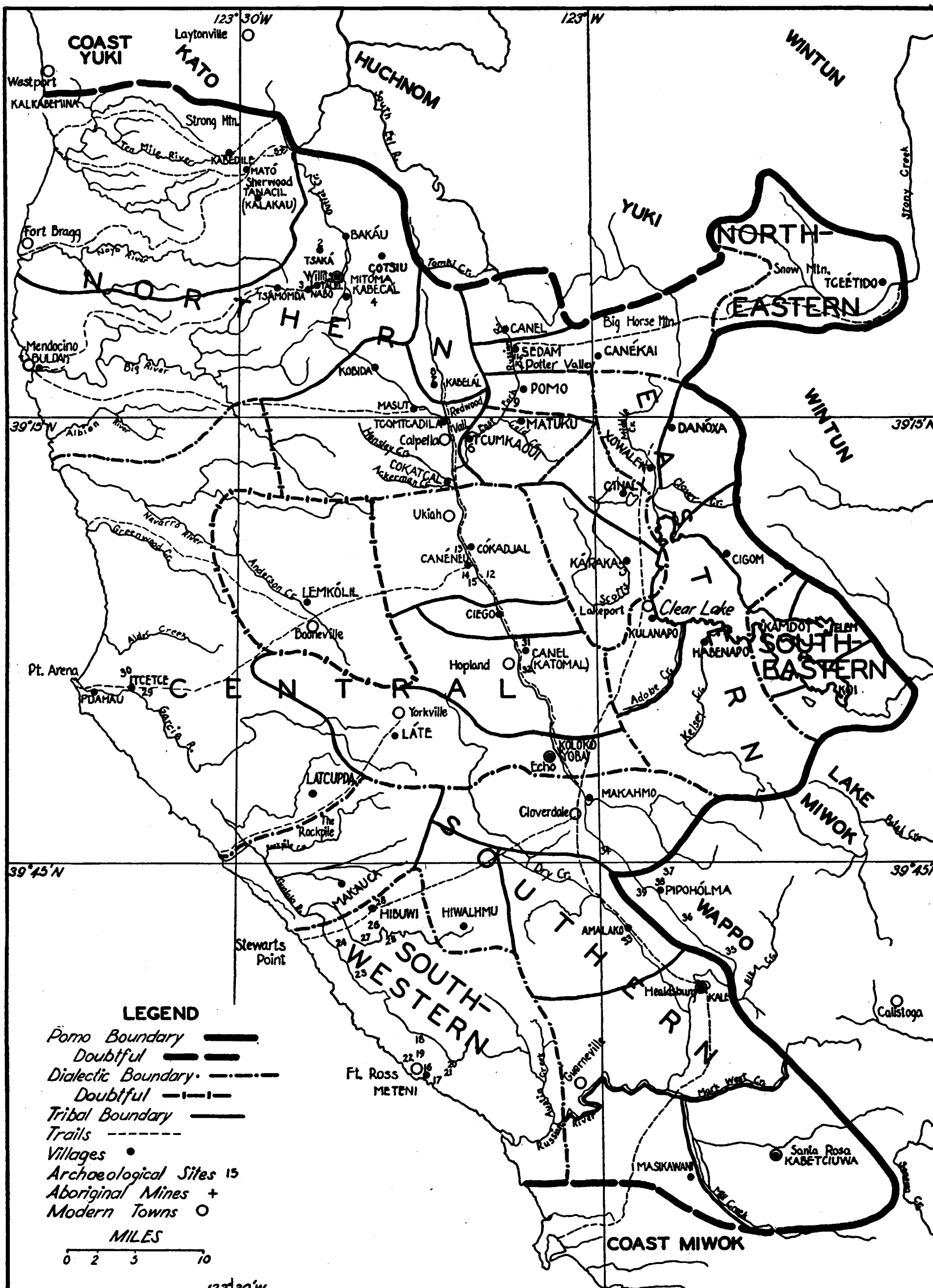

123° 30'W
123° W
39°15'N
39°45'N
123° 30'W
COAST YUKI
Laytonville
KATO
HUCHNOM
WINTUN
Westport
KALKABEMINA
Strong Mtn.
Ten Mile River
KABEDILE
MATO
Sherwood
TANACIL (KALAKAU)
YUKI
NORTH-EASTERN
Snow Mtn.
TCEÉTIDO
Fort Bragg
Noyo River
BAKÁU
TSAKÁ
COTSIU
Willits
MITOMA
KABECAL
NABO
TSAMOMDA
NORTHERN
CANEL
Big Horse Mtn.
SEDAM
Potter Valley
CANÉKAI
Mendocino
BULDAM
Big River
KOBIDA
KABELÁL
POMO
MASUT
Redwood
TCOMTCADILA
MATUKU
DANÓXA
WINTUN
Albion River
Calpella
TCUMKAOUI
XOWALEK
COKATCAL
Ackerman Cr.
Ukiah
EASTERN
Navarro River
Greenwood Cr.
CÓKADJAL
CANÉNEU
CIGOM
KÁRAKA
Anderson Cr.
LEMKÓLIL
CIEGO
Lakeport
Clear Lake
KAMDOT
ELEM
Boonveille
KULANAPO
HABENAPO
SOUTH-EASTERN
Alder Creek
CANEL (KATOMAL)
Hopland
Pt. Arena
ITCETCE
PDAHAU
CENTRAL
Adobe Cr.
KOI
Garcia R.
Yorkville
LÁTE
KOLOKO
YOBAL
Echo
LATCUPDA
MAKAHMO
LAKE MIWOK
Cloverdale
The Rockpile
SOUTHERN
Dry Cr.
MAKAUCA
PIPOHÓLMA
HIBUWI
HIWALHMU
WAPPO
Stewarts Point
AMALAKO
SOUTH-WESTERN
Healdsburg
KALE
Calistoga
Ft. Ross
METENI
Guerneville
Russian River
Mark West Cr.
Santa Rosa
KABETCIUWA
MASIKAWAN
Mill Creek
COAST MIWOK
LEGEND
Pomo Boundary
Doubtful
Dialectic Boundary
Doubtful
Tribal Boundary
Trails
Villages
Archaeological Sites 15
Aboriginal Mines +
Modern Towns
MILES
0 2 5 10

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INTRODUCTION

THE POMO, among the best known Indian tribes of California, have been studied by capable ethnographers such as Powers,[1] Barrett,[2] Loeb,[3] Gifford,[4] and Kroeber.[5] The present study[6] is only an attempt to fill in a few lacunae, inevitable in any picture of aboriginal culture. Planned as an ethnogeographical study, it in some respects supplements Barrett's work on the ethnogeography of the Pomo and neighboring Indians. However, a broader geographical view has been taken than that by Barrett in his early monograph. The main purpose of this paper is to determine more exactly the extent of probable subdivisions, indicated by Kroeber in the map of the Pomo in his Handbook of the Indians of California. The map[7] shows that tribal units existed within the Pomo dialectic groups which sometimes included several villages. Also, since a geographical study leads to a better understanding of the life of a people inasmuch as life is influenced by environment, the secondary purpose of this paper is to give information concerning foods—their sources, kinds, and methods of obtainment,—shelters, and other features characterizing the Pomo Indians.

In order to obtain accuracy, this investigation required first-hand acquaintance with the area under consideration; wherever possible, the informant was accompanied to the places described, so that the author could understand better the conditions of the milieu. Topographic maps were used to locate boundaries, trails, village sites, "mines," and other geographical features. Barrett's Ethnogeography usually was found to be correct, and, as a basis for this study, it was invaluable. Repeated references will be made to it, although there will be no repetition of the facts contained there.

Dr. A. Halpern, of the University of Chicago, who made a thorough study of Pomo languages in 1939–1940, obtained for me the meanings of several tribal and village names. I am glad to acknowledge my indebtedness for this information, which is given with the designation "H," for Halpern, in parentheses.

INFORMANTS

Northern Pomo

Mato poma of Sherwood Valley.—Johnny McNiel (JMc), age ca. seventy-five; mother Mitom poma (Willits); father Mato poma; born near coast on Ten Mile River; father's father Mato poma, told JMc of "old times." JMc lived at Fort Bragg, Willits, Sherwood. Other old Indians consider JMc best informed.

Tilda Lockhart (TL), age ca. seventy-seven; mother Mato poma, from Kabedile. TL born at Sakatzio, near Kabedile; lived on Sherwood Ranch until the age of

[1] Powers, 1877.
[2] Barrett, 1908, etc.
[3] Loeb, 1926.
[4] Gifford, 1923 and 1937.
[5] Kroeber, 1925, 222–271.
[6] Made possible by a research grant in 1935 from the University of California Institute of Social Sciences.
[7] Kroeber, 1925, pl. 36.

sixteen, then moved to coast, Buldam, and Fort Bragg. Married successively two Indians and a white man, staying with the latter fifty years and living in Santa Rosa, Fort Bragg, and Sherwood (since ca. 1915).

John Stewart (JSt), age ca. seventy; both parents Mato poma, mother from Kabedile, father from Mato. JSt born at Bidato (Whipple's ranch, worked by Indians) on coast near mouth of Ten Mile River; lived at Fort Bragg and Westport (Coast Yuki territory) until ca. 1907, when moved to Sherwood.

Mitom poma of Willits Valley.—Charlie Lockhart (CL), age ca. fifty-five, both parents Mitom poma. CL born on Diamond D Ranch (near Tsaka, site 2), two miles from Willits on the Sherwood road.

Willie Williams (WW), born in 1873 at Buldam (near Mendocino), Willits Indians' town on coast. Mother and uncle—latter was the Captain George or "Kaianika" who reared him—were both born at Nabo, Mitom poma village west of Willits. In 1893 WW moved from Buldam to Ukiah, living there since that time. He told what he had learned from his uncle.

Martin Smith (MS); age ca. seventy; mother from Tsamomda, near Willits; father a white man "from Ireland." MS was born at Buldam and lived there until ca. seventeen years old; has lived near Point Arena for the last forty-five years.

Masut of Calpella.—Calpella Pete (CP); age ca. eighty-five (was about six years old when moved to Fort Bragg Reservation at its establishment in 1856, about twenty years old when sent to Round Valley); parents of Masut group. CP was born at Healdsburg on mother's return trip from potato picking in Marin County. CP's grandfather was Old Calpella, eponym of town of Calpella, whom Spaniards designated chief of Ukiah Valley and vicinity.

Katca of Redwood Valley.—Charlie Bowen (CB); age ca. eighty; mother Canel poma (Potter Valley); mother's parents both Canel poma; father Katca, father's mother Katca; father's father Mitom poma (Willits). CB was born in Redwood Valley in 1854; when ten years old moved to Round Valley, where remained eleven years; aided in purchase of land and establishment of Pinoleville Rancheria two miles north of Ukiah (1875).

Canel poma of Potter Valley.—John Smith (JSm); age about eighty-five; parents and grandparents Canel poma. JSm was married when he moved to Round Valley in 1872 to remain six or seven years. He has since lived in Potter Valley and Pinoleville, near Ukiah.

Cinal of Bachelor Valley and Tule Lake.—Lucy Moore (LM); age ca. seventy-five; both parents Cinal. Has always lived near Upper Lake.

Yimaba of Scott's Valley.—Joe Augustin (JA); age ca. sixty-three; parents from Southern Pomo village of Kulanapo; JA has lived most of his life in Scott's Valley, is now considered chief.

Eastern Pomo

Xowalek and Danoxa of Upper Lake.—Billy Gilbert (BG); age ca. sixty; mother one of last Xowalek; father Cinal (Northern Pomo). Lives at Upper Lake.

Central Pomo

Yokaia of Ukiah Valley.—Steve Knight (SK); age fifty-five; both parents Yokaia. Lived in Ukiah most of his life; Indian policeman.

Lucy Lewis (LL); age ca. eighty-five; both parents Yokaia; LL was born in Ukiah Valley and lived there all her life, except a few years on the reservation at Fort Bragg as a child.

Cokoa of Hopland.—Cecile Joaquin (CJ); age ca. sixty; father Yokaia; mother Cokoa; has always lived in Ukiah and Hopland.

Jeff Joaquin (JJ); age ca. eighty; mother of Yorkville group (died when JJ was sixteen); father Cokoa; has lived most of life near Hopland.

Danokeya of Yorkville.—Mrs. Steve Perrish (Mrs. SP); age forty-three; mother from Stewart's Point; father from Yorkville. Mrs. SP lived at Yorkville until sixteen, then moved to Lake County, married and stayed there until 1927.

Bokeya of Point Arena.—Harvey James (HJ); age forty-five; mother from Tulare country; father Bokeya. HJ was born at the old Indian village Itcetce and has lived in the same vicinity, near Point Arena, all his life.

Susanna Frank (SF); age fifty-eight; parents Bokeya (father Chief John Boston, Loeb's informant). SF has always lived near Point Arena, although she married a Stewart's Point Indian.

Steve Perrish (SP); age fifty-eight; mother's father from Booneville, mother's mother Bokeya; father Bokeya. SP born and always lived near Point Arena.

Andrew White (AW); age ca. forty-five; parents Bokeya. AW has lived near Point Arena most of his life.

Southwestern Pomo

Kacia of Stewart's Point.—Robert Smith (RSm); age ca. fifty; mother Southwestern Pomo. RSm was born at Dukacal (Charlie Haupt's ranch) and has lived near Stewart's Point all his life. Has been elected chief of present Southwestern Pomo—Kashia rancheria—since 1920.

Rosa Sherd (RSh); age ca. seventy; mother Southwestern Pomo; father Southern Pomo from Makauca. RSh was born at Dukacal, but lived at Makauca before marriage.

Marie James (MJ); age ca. eighty; mother and father lived at Fort Ross, where MJ was born. She remembers when Mr. Dixon acquired Fort Ross (1859) and removed the Indians.

Southern Pomo

Yotiya of Rock Pile.—Dan Scott (DS); age ca. sixty; half-breed; mother from Makauca. DS lived at Stewart's Point until 1900, since then at Hopland and Ukiah.

Sally Ross (SR); age ca. eighty-five; mother Bokeya of Point Arena (Central Pomo); father Yotiya of Rock Pile. SR always lived with the Yotiya.

Mahilkaune of Dry Creek.—Charles Lucus (CL); age ca. sixty-five; mother from Cloverdale; father from Dry Creek.

Makamotcemei of Cloverdale.—Pedro Mariano Musalakan (PMM); age ca. eighty-five; mother belonged to Cloverdale group; father and grandfather (Musalakan Maryuma) were both chiefs of Cloverdale Indians.

Bitakomtara of Santa Rosa.—Henry Maximilian (HM); age ca. seventy-seven; half-breed; mother belonged to Santa Rosa group, but HM has lived mostly at Healdsburg.

ORTHOGRAPHY

a, as in father.
ă, as in hat.
e, as a in fate.
ĕ, as in met.
i, as in pique.
ĭ, as in pit.
o, as in note.
ŏ, as in law.
c, as sh in shoe.
tc, as ch in church.
ñ, as ng in sing.
x, "harsh" ch as in German nicht.
u, as in rule.
ŭ, as in put.
Other letters as in English.
Double vowel signifies lengthened sound.

GENERAL BOUNDARIES

The general boundaries between the Pomo and their neighbors were, as a rule, found to be similar to those given by Barrett.[8] However, the line between the Coast Yuki and Kato on the one side, and Sherwood Pomo on the other appears to be farther north than shown by him, and includes the drainage of the Ten Mile River completely within Pomo territory.[9] All five of my Northern Pomo informants agreed that the boundary line runs east from a point a few miles south of the coast town of Westport and follows for some distance the old county road[10] until the road makes a turn north to Branscomb; from there, the line runs southeasterly, passes north of Strong Mountain, and meets Longvale Creek about three miles north of the Longvale post office. The Pomo-Huchnom (Yuki) boundary follows Longvale Creek to its junction with Outlet Creek, and thence, crossing Outlet Creek, runs to the top of the ridge separating the drainages of Outlet and Tomki creeks, following the ridge in a general southeasterly direction to the head of Tomki Creek, northwest of Potter Valley. Concerning the Pomo-Yuki boundary John Smith, a Potter Valley Indian, insisted that the boundary here turns east, crosses Eel River about four miles north of the Eel River dam, and continues east about four miles, where it turns south. Thus, Barrett to the contrary, the Pomo area includes a large bend of Eel River, territory formerly assigned to the Yuki and probably claimed by them also. The line recrosses the Eel northwest of Big Horse Mountain, but again turns easterly, extends to the northwest side of Snow Mountain. A strip of hunting ground, also claimed by the Yuki, separates the territories of the Northeastern Pomo and the Northern Pomo. With the exceptions above noted, the general outlines of the territory are as Barrett described them.

NORTHERN POMO

Mato poma of Sherwood Valley

The northern boundary of the Sherwood territory is the same as that of the general Pomo area. On the coast, the line is about fourteen miles north of Fort Bragg, a mile north of Kalkabemina (Mussel Rock), and is marked by Chadbourne Gulch. This boundary was recognized by both the Pomo and the Coast Yuki, according to JMc, and all knew that they were trespassing if the creek were crossed. The Indians remembered one war which was fought because the coast people invaded the Pomo area and killed some old men. As informant JMc described it:

> At Kacio ("water vale"—H), a big town on the ridge above Mussel Rock, two sweat houses were built by the Sherwood Indians for use during their stay there for long periods each summer. The people from the different villages went to the coast every summer and had celebrations as well as gathering sea food to carry back to their home villages. The old men stayed in camp while the others hunted and fished. War was started when some Westport Indians burnt down a house with three old men in it who had stayed behind to watch the camp. The young people were away. However, they saw the fire and rushed back, but too late to save the old men or capture the enemy. The Sherwood Indians were not strong enough to give chase immediately, but after getting together a large group of the young men from Willits and the friendly Kato town at Laytonville, they led the war to punish the [Coast] Yuki. Westport was attacked at dawn and nearly every man, woman, and child was killed or chased into the ocean to drown. The place was completely cleaned out.

With the old county road approximately marking the boundary, the line from the head of Chadbourne Gulch east to Longvale Creek was about 39° 38′ north

[8] Barrett, 1908, 120.

[9] Gifford data (CED:IV) obtained from Northern Pomo agree with Barrett. Possibly the boundary was disputed continually. Essene told me (1939) that his Coast Yuki informant said the Pomo territory started a few miles south of Westport. (Gifford's article on the Coast Yuki, 1940, was not available at the time the above was written. Eds.)

[10] Essene, field notes, 1935. This boundary also recognized by Kato.

latitude, and marked the division between the Mato poma and the Kato (mato, "moldy ground"; poma, "those who inhabit"—H). Longvale and Outlet creeks delimited the territory claimed in the direction of the Huchnom. The young people were taught never to cross the Outlet for fear of death. The Yuki groups and Mato poma were often at war. One fight was caused by the murder of two Mato women of Sherwood while they were gathering clover in the direction of the Outlet, on land now known as Colonel Horton's ranch. This was Pomo territory, but the Yuki were waiting there to kill them. With the aid of the Kaitcha (Kato of Laytonville), the Sherwood Indians made war and nearly annihilated the inhabitants of two Yuki towns. The Pomo fought only when forced to do so (JMc).

From the junction of the Longvale and Outlet creeks, the Sherwood boundary followed upstream to Arnold, about three miles, where the line continued south and crossed the Willits-Sherwood road at Alper's Ranch, about six miles northwest of Willits. In spite of their usual blanket statement that there were no divisions between peoples with the same speech, three informants recognized this point as the dividing line between the Sherwood and Willits tribes. From Alper's Ranch the line extends about ten miles southwest before it turns due west to reach the ocean a few miles south of the Noyo River.

The area claimed by the Sherwood group exceeded 200 square miles, and was divided, geographically, into three parts: coast and coastal shelf, extending rarely more than three miles from the shore; the redwood belt, varying from five to fifteen miles in width; the valleys and less timbered land east of the redwoods. The redwoods covered most of the territory. The best guesses by my informants placed the primitive population at about 500 persons, half of them in the main village of Mato.

That there were no permanent settlements along the coast in the Northern Pomo area before the whites forced the Indians to live there, was agreed to by all Sherwood informants. Kadiu, at the mouth of the Noyo, was a camping place where the Indians gathered for protection and a "good time" during their visits to the coast. The first agent on Fort Bragg Reservation said that the original inhabitants were "called Chebal-na-Poma, Chedil-na-Poma and Camebell-Poma,"[11] but when Barrett considered these names to be those of three different villages on or near the land covered by the reservation, he was probably not correct. "Chebal-na-Poma" could be nothing other than the "Shebalne" of Powers[12] and the Cabaldano ("near mountain"[?]—H) mentioned by Barrett and obtained by me as another name for Mato. TL told of a Mr. Campbell who arrived in the Pomo area at a very early date and gathered a great many Indians to work for him. He married several and fed many more. Although the Indians gathered around Campbell were from different tribes, they soon all became known as Kamabell-poma.

Another white man, Mr. Whipple, built a small rancheria near the coast on the Ten Mile River, then rounded up the Indians and got them to marry and to work for him. Later it was called Bidato and, although most of the Indians were from the Sherwood group, I was told by some Indians less informed than TL that this constituted a separate group. Campbell, Sherwood, Bob White, Captain Simpson, Sam Bell, Lloyd Bell, and Whipple[13] were all men who married Indian girls, but when they found white women, "they turned the Indians loose."

The coast camp sites in Mato territory were used when procuring sea food. Great quantities of sea animals,[14] fish, and sea plants were dried and carried to

[11] Barrett, 1908, 132. [12] *Op. cit.*, 147.

[13] All these men were named as early settlers of the Mendocino County coast by Palmer (pp. 400–423). Whipple had charge of the federal reservation on the Ten Mile River.

[14] See Appendix 2.

the permanent towns, a distance of about twenty miles, for winter use. Also, the coastal area was the source of several types of berries. All able-bodied individuals migrated to the coast to enjoy the change in diet and participate in celebrations which followed the coming together of many people.

The plants in the redwood forests yielded tan-oak acorns, iris fiber, and berries; the forest was also hunting territory. The brush was burned at intervals, making hunting much easier that at present. Redwood bark was used for houses.

The permanent villages were situated in the open country at the eastern edge of the redwood belt. Sherwood Valley has redwoods on its southwest side, but none on the northeast side, less than a mile away. The main villages were in the region in which clover, Indian potatoes, acorns, and pinole or grass seeds are most abundant.

Kabedile[15] ("amid rocks"—H), the northwesternmost village, was near a small spring at 3000 feet elevation, beside Strong Mountain stage road, about three and a half miles north of the old Sherwood home. Being at the head of Ten Mile River, it is natural that the inhabitants of Kabedile should claim the area easiest of access and should follow the best trail in the vicinity to the ocean. Bucha Ridge (Sakatzio) trail was the most used of the three trails to the coast in the Mato area and is still in use by cattlemen. Kabedile was in a clover area. The first to appear in spring was anis clover (cibuta), which was eaten green in March, much earlier than it sprouted in Sherwood Valley. Four other clovers were used as they appeared. The people from the other Mato poma villages went to the sunny slopes of Strong Mountain to gather this first green food of the year. There was no question of priority; all collected wherever desired. There was plenty and no one paid; people from Mato and Kulakau had the same right as those of Kabedile.

Mato, situated in Sherwood Valley (named after Mr. A. E. Sherwood, the first white settler), was the largest of the villages, with a possible population of 300, and furnished the name for the whole group: Mato poma. Its location, on the edge of a well-watered meadow, close to the redwoods and tan oak, and near the grassy, park forest of pine and black oak, afforded a pleasant place to live. Besides the Bucha Ridge trail, two other trails led to the coast directly from Mato. One followed the ridges almost due west from Mato to the mouth of the Ten Mile River, a half-day's walk. The other approximated the route of the present Sherwood-Fort Bragg road. The trails usually ran along the tops of ridges, to avoid the brush of the stream beds. Usually they went up and over the mountains and hills, seldom around them (JMc). Mato was also the head of the trails east to Outlet and Longvale creeks, about four miles from the villages. Salmon and eel were caught there. Wild potatoes and other bulbs were gathered in the moist valley near Mato.

One trail to Longvale Creek terminated at what is now Darbies' store. A quarter of a mile from the creek on this trail, there is an outcrop of chert, from which the Indians obtained a fine, hard, even-grained greenish chert for arrow points and drills (site 5).[16] These points were more practical than the obsidian points obtained by trade from Lake County.

Kulakau[17] ("tree left alone"—H) was situated in another small valley, about two miles south of Mato. The conditions there were about the same as those at Mato.

[15] In CED:IV, 120, Gifford reports Kabedile dialectically distinct from the Mato and Kalekau and says that they were "inclined to be hostile to them, friendly to Coast Yuki and Kato."

[16] Sites showing aboriginal occupation or known to have supplied material for aboriginal economy are designated on the map by numbers.

[17] Gifford (CED:IV, 120) considers Kulakau a variant spelling of Barrett's and Kroeber's Kulakai.

Anyone from Kulakau could gather and hunt over the whole of the Mato poma area. Kulakai ("water-lily valley"—H), a valley and small lake near Kulakau, was used for hunting waterfowl. Bocamkotchi was one of the villages occupied at some time by the people of Kulakau (JMc). Tanacil and Kabotsiu were also given as the home of the Mato poma from Kulakau (JSt).

There is a certain unity of the Mato area which suggests that intercourse was more natural and easier with its different parts than with tribes outside the area. Access to the whole was necessary for a complete diet. If one Mato subgroup fought another, the trails to either the coast for sea food or to the creeks for salmon became dangerous. All Mato poma informants agreed that there was no private ownership of the land or of the sources of food; food was seldom sold or even traded. It was often obtained communally and then was considered public property. The hunter shared his kill with all and in return expected to receive other food, but there were no rules of division or equivalents of exchange. All worked, and food was plentiful most of the time. Good hunters and fishermen were expected to provide food for any celebration.

Unrestricted hunting and gathering over the entire Sherwood area by the people was made easier because of the apparent lack of any rules of residence. A newly married couple could live in the village of the husband's parents, wife's parents, or, if they desired, they could move into a new village. It was not unusual, according to JMc, for a family from one village to move to another. Such moves were encouraged as a means of promoting stronger friendships.

Evidence points to three permanent subdivisions in the Sherwood area—Kabedile, Kulakau, and Mato,—with each subdivision having one village occupied at a time; yet all were called Mato poma. Many sites named by Barrett[18] and marked as villages on his map were springs, hills, temporary camp sites, and names of towns which were occupied successively. There were three chiefs or "captains" for the Mato poma, one for each of the subdivisions. Bedio was given as the name of a small village near Kabedile, but, since it did not have a captain or an assembly house, it was considered part of Kabedile (TL). Possibly a similar condition existed within the subdivision Kulakau, where Tanacil, Kabotsiu, and Bocamkutci were all considered parts of it under the one captain. Mato, the central village, had a chief, who, however, was in control only there. These chiefs were all said to have had equal authority. There was only one term, tcakale, for designating them. However, the chiefs most mentioned and best remembered were those from Mato.

TL remembered hearing that Captain Ben, whose daughter was taken as a wife by old Sherwood, was named captain by his grandfather. Jim Sherwood, nephew of old Sherwood, was successor to Captain Ben. The last chief, Steve Sherwood, who died about 1920, was a nephew of Captain Jim Sherwood. TL was not certain about this genealogy and at another time said that the men elected the man chief and the women elected the woman chief. JMc said that there was no formal election; the people just decided a certain man would make a good chief and then gave him a large gift of shell-bead money. The man chosen was usually a relative of the old chief. According to JMc, however, there was no fixed relationship. JSt's account is more definite:

> The chief was the son of the old chief's sister. A boy would be chosen by the old captain and the boy's father and mother. The new captain was taken into the sweat house, covered with beads, taught all the ways of the people, and instructed how to treat the people. The Indian said, "He is a bad man, we will make him captain; make a gentleman out of him." If a sister's son was lacking, a "friend" [probably a kinsman] was chosen. The general population had nothing to say about the choice. If they didn't like the captain it was too bad.

[18] *Op. cit.*, 148.

There was no special war chief or any suggestion of a real army. The men were not trained for war, and there was no military discipline or order. As JMc said, "The men just went to fight as they pleased. The captain got the blame for the war, but he had no more to do with the fighting than any other individual."

Only one assembly or ceremonial house at a time was built, and it was used by all the Mato poma. Men from all the towns would unite to build it. One year it would be situated in one village, another year in another village. A chief went with some of his men to aid in the building, or sent his men to do the work for him. The "boss" designated someone to be in charge of the assembly house. However, this person was not considered a chief and there was no special appellation for him. He belonged to the village where the assembly house was built. The assembly house was used both for sweating, at which time everyone could participate, and for boys' initiation ceremonies, at which time only boys and men were admitted. No girls' initiation was remembered.

JSt's description of a boys' initiation follows:

> The Indian school was in the "sweat house," where boys from the ages of fourteen to twenty were kept for four days and nights without food or drink. The old-timers told the boys all about life, all about the world. There was no singing or dancing; the boys remained for the time there without making a move; they could not even swallow, spit, or cough. The boy lay between the legs of his father. There was no torture but hunger. The fast was easy. The old men took turns telling about the history of the world.

Initiations occurred whenever there were enough boys to warrant them; there was no fixed time for them. Youths from all Mato villages would be brought together for the initiation ceremonies.

The plan of the assembly house, as JSt described it, was varied from the usual Pomo[19] house in that the center pole was an oak with the root end up, furnishing a broad base for the center ridgepole.

There was a difference of opinion concerning the manufacture of bead money by the Mato poma. Two informants said that the men from Mato went to Bodega Bay for clamshells and that money was made in Sherwood. Two other informants, better informed I am inclined to think, said that no clam beads were manufactured at Sherwood, but that all bead money, as well as "gold money" (magnesite cylinders), was received through trade with the Ukiah Indians.

The Mato poma traded baskets, deer and panther hides, bows and arrows, and nets. Food was never traded. Bows were made of hazel and yew, both woods being plentiful around Sherwood. Nets were made of iris fiber and were made only by the men. Mostly shell money was hoarded; however, it was used to buy products from other tribes when barter was not possible. It was given to the chief as a sign of his having been accepted by the tribe, it was given to the sick, and it was used as a grave deposit along with other possessions of the deceased.[20]

Mitom poma of Willits Valley

The Mitom poma boundary connects with that of the Mato poma at the junction of Longvale and Outlet creeks and then runs east to the top of the ridge separating Outlet Creek from Tomki Creek; thence, turning south, it follows the ridge about fifteen miles to the head of Redwood Valley, marking for this distance the Pomo-Huchnom (Yuki) boundary (mitom, from mitom kay, "splash valley"—H). The line then turns almost due west, divides the Laughlin range of mountains, which was claimed by both the Mitom poma and Katca of Redwood Valley as hunting

[19] Barrett, 1916.

[20] Mato and probably Mitom Indians buried their dead in contrast to the general Pomo practice of cremation.

ground, and continues to the "summit"[21] separating Little Lake and Walker valleys. Then, in a southeasterly direction, it continues to the coast at a point just north at Navarro River. The northern Mitom poma boundary is the same as the Mato poma's southern limit. Like that of the Sherwood group, the Mitom poma area of about 275 square miles includes three geographical provinces: coast, redwood forests, and interior valley.

Buldam, situated near the mouth of Big River, was considered by Barrett and Kroeber to constitute a separate political group. However, two Mato informants (JSt, GS), two Mitom informants (WW, MS), one Katca informant (KB), and one Canel informant (JSm) said that Buldam belonged to the Mitom poma and was not occupied until historic times when the whites made life in the valley unsafe. Indians from Nabo and other Mitom towns under chief Kaianika (Captain George) settled permanently at Buldam shortly before 1851, the date being remembered by the people because of its coincidence with the wrecking of a steamer off Point Cabrillo.[22] Before the settlement of Buldam there were no Pomo villages on the coast north of the area occupied by the Point Arena group of the Central dialect, and it is probable that the latter felt they owned all the coast. However, it is certain that the coast territory was not usually held by one group to the exclusion of all others, as is evidenced by the fact that the tribes from the upper Russian River went regularly to the mouth of Big River in the Mitom poma area for sea food.

Several accounts of a war between the Point Arena Indians and the Buldam Indians reveal that, later, the ridge north of the Navarro was recognized as the division line between these two groups. One account of the war was told by WW as he learned it from his aunt. It seems that the Point Arena Indians objected to the permanent settlement of Buldam and attacked the Mitom people there, carrying off a young woman. This woman married into her captors' group and remained with them until her children died. Then she returned to her Mitom relatives, dying about 1912 in WW's house, a very old woman.

The pre-white Mitom villages were in or near Little Lake (or Willits) Valley. The main trail to the coast followed about the same route as the present Willits-Big River road. It was along this route, just west of the first range of mountains, three and a half miles from Willits, that Tsamomda, a small village in a thinly wooded space on the edge of the redwoods, was situated (tsamomda, "fly's road"—H). Along the same trail about a mile closer to Willits was the village of Nabo. It was established near a creek at the base of the hills, and an assembly-house pit is still visible near the site (site 2). Also on the Willits–Big River road about a quarter of a mile northwest of the Willits cemetery, situated on the side of the hill near a spring, was another old village site called Talel (Old Roger Place, owned in 1935 by Henry Muir) (site 1). Talel had not been occupied within the memory of my informants. However, two large "ceremonial-house pits" and eight smaller "dwelling pits" were discernible. Mitom, the village which gave its name to the valley and group, was covered by the modern town of Willits. Tsaka (site 2) was situated on the Sherwood-Willits road about two miles northwest of Willits. The road passes through the site. Two large pits and eight smaller ones on Northwestern Lumber Company property are still visible. Bakau, Cotsiu, and Kabecal were other villages noted by Barrett and confirmed by my informants. About two miles southeast of Willits, on the property of Mr. George Mast, another site (4) was located with the aid of a white man, Bill Baechtel. No Indian name for it could be learned, even though two large pits are still to be seen. There is no evidence that all Mitom

[21] From the diary of Sam Baechtel, first white settler to arrive in the valley, 1855, and from Indians.

[22] Palmer, 398.

sites were occupied at the same time. Nevertheless, several must have been occupied simultaneously because five were occupied by the parents of Indians still living. Nabo and Tsamomda were the last sites to be abandoned.

My information is less complete for the Mitom group than for the Mato (Sherwood) group. It appears, however, that the mode of living and the political situation of the two were similar. Although each Mitom village had a separate chief and assembly house, there seems to have been a certain unity among them. I was told that they gathered at a single place for initiation ceremonies.

The Mitom poma made houses of redwood bark and poles. The same habits of hunting and gathering over the entire area existed here as at Sherwood. No mention was made of any trouble with the Mato poma of Sherwood over property rights. However, as I have mentioned, they did have trouble with the Point Arena Indians, and with the Katca of Redwood Valley over hunting rights.[23] One informant (MS) said there was private ownership of dam sites, oak trees, and other sources of food; but this could not be confirmed. The people from the different villages made regular visits to the coast at the mouth of Big River and carried sea plants, sea animals, and fish to their inland homes, a distance of about thirty-five miles. Without making any payment to the Willits group (although they did ask and receive permission), other valley tribes also went to Big River for sea food.

Masut of Calpella

Directly south of the Mitom poma were the Masut; their territory extending to the head of Forsythe or Walker Valley (masut, possibly masit, "charcoal"—H). The relationship of the Masut (Calpella) and the Katca (Redwood Valley) is not entirely clear because informants did not remember precontact conditions. The uncertainty of the position of Old Calpella, chief of the Masut, further clouds the situation. He was made representative of the groups near his territory, whether of his tribe or not, when the government made the treaties with the Indians. The available evidence suggests that the Masut formed a single group of several villages, all under one chief and distinct from the Katca.[24] The territory was not large, about seventy square miles. The ridge separating Forsythe Creek from Russian River was the boundary between the Masut and Katca groups inhabiting these two valleys. The southern boundary crossed the Russian River about two miles south of the town of Calpella at about the mouth of York Creek; thence, it went west to the top of the first range of mountains near Orrs Spring and turned north to meet the Mitom boundary at the head of Forsythe Creek (CP, CB).

Four villages were reported as occupied by members of the Masut tribe: Tcomtcadila ("cone of bull pine extends downward"—H), Masut, Disakalel, and Kobida ("two creeks" or "fork of the creeks"—H). Their small hunting territory was recognized as distinct from that of their neighbors, although it was often shared with their close friends the Katca. The Masut used the same trail to the coast that was used by the Potter Valley and Redwood Valley tribes. The trail went to Big River, a distance of forty-five miles, where the Masut fished as guests of the Mitom poma. Their lack of coast territory did not reduce the number and kinds of sea foods utilized. CP had never heard of private ownership of sources of food, such as dams, berry patches, and oak trees. However, if a man wished, he could buy meat or fish from a neighbor who had plenty.

The Masut people made fifty-mile expeditions to Lake County to procure obsidian and magnesite for the manufacture of "gold" money. When these raw materials

[23] Gifford (CED:IV, 121) mentions a feud between Kacha and Willits Indians.
[24] Kniffen, 1939, map 2, confirms independence of Katca from Masut.

were obtained directly from the sources of supply, no payments were exacted for the privileges by the owners of the areas. Trips were also made to Bodega Bay, about eighty-five miles, to get clamshells for the home manufacture of bead money. Because of the distance to the redwood forests, houses in Masut were mostly made of willows covered with a sort of thatch. (Cf. Barrett, Loeb.)

Katca of Redwood Valley

The Katca claimed the land to the top of the ridge on each side of Redwood Valley,[25] an area of forty-five square miles. They were bounded on the west by the Masut and on the east by the Potter Valley tribes. At the headwaters of the Russian River, the Katca territory joined that of the Willits group and, for a short distance, the Yuki (Huchnom). Kabelal ("edge of the rocks"—H), the principal town, was on the Berry Wright Ranch, and large and small "house" pits are still visible there (sites 7, 8). CB said that the boundaries were recognized and that hunting rights were respected, so that there seldom was any trouble with neighbors. There was one war between Willits and Redwood Valley when a Willits man took the deer snare of CB's grandfather. The grandfather, in revenge, "turned himself into a bear and killed the Mitom hunters," CB said.

There was no private ownership of dams, trees, bushes, or pinole fields among the Katca; in fact, if CB's account is true, they aided one another in finding the best places to get food. The trail to the coast traversed by the Masut was also used by the Katca, and both groups were welcomed on the coast by the Mitom poma, regardless of the difficulties and strained relations over hunting territory between the Mitom poma and the Katca.

All tribes on the headwaters of the Russian River were friendly and often assembled for dances and ceremonies. The Katca were friendlier with the Masut than with the Potter Valley tribes, although the latter often were invited. The chief who could talk best was put in charge. If the tribe from Ukiah was invited, a large gift of money was sent to assure friendly relations. Less frequently, the Mitom poma of Willits were invited, and a gift of money sent.

Potter Valley Groups

The situation in Potter Valley is difficult to describe, either considering the three groups together or separately. Geographically, the seven-mile long valley is a unit; and, a priori, one might expect political unity, as at Willits or Ukiah. But, there seem to have been three political groups totaling about 1000. Their set-up suggests something halfway between the extremely loose, communistic form of the Mato poma of Sherwood Valley and the strong, centralized form of the Yokaia of Ukiah Valley.

From the Indian's point of view, Potter Valley was a good place to live. Seeds, acorns, and bulbs were plentiful. Unlike the Mato and Mitom tribes, the Potter Valley groups did not migrate to the coast; instead special trips were made to the coast to catch and transport fifty miles back to the home village as much food as possible. Salmon and lamprey were also found in the rivers, and other fish were obtained from Clear Lake. The Potter Valley Indians obtained salt from Stonyford in the early days; but after a postcontact war with the Yuki and Northeast Pomo over salt, they, like the tribes already mentioned and those living in the lower Russian River Valley, went to the coast for it. From Lake County they obtained

[25] Gifford's informant included Forsythe Creek, which my informants allotted to the Masut, in the Katca territory (Gifford, CED:IV, 121). Kniffen (1939, map 2, p. 374) shows Katca boundaries almost identical with those I obtained independently.

"raw" magnesite and obsidian. Since, right in the valley, there was a good outcropping of chert (site 10) from which extremely hard drills and arrow points were made, obsidian was a luxury. Also "mined" in the valley was a reddish dirt,[26] which was used in the manufacture of acorn bread. The dirt, ground fine and mixed with water, was allowed to settle to remove the larger pieces; the cloudy water from the top was used to mix with the flour. This dirt, called masil or Indian baking powder, was used by all the tribes in the valley (site 11). Private ownership of the trees, bushes, grass fields, and other things, was recognized by the Potter Valley Indians, inheritance being from father to son. The mountain streams were less jealously guarded by the individual tribes than were the valley streams.

Canel of Potter Valley.—The northern, and the largest part, of the valley was owned by the Canel tribe, named after the principal, but not the largest, village. Without being asked, the informant (JSm) pointed out the exact boundaries; trees, creeks, and stones were used to mark the limits. Starting on the ridge separating Potter from Redwood Valley at a point directly northeast of the modern village of Redwood Valley, the line follows down a ridge, crosses the valley from southwest to northeast about a half-mile north of the Potter Valley post office, and continues east past the most southerly bend of the Eel River for a few miles. Finally, crossing the Eel River, the line runs about six miles north before it turns west to recross the Eel River about four miles north of the Eel River dam and to meet the Katca line near the very head of the Russian River.

This territory, about forty square miles, supported the largest population of the Potter Valley tribes, which were distributed among the following villages: Canel ("at the dance house"—H), the main village; Yamo, the most populous village; Kaleda; Tsimpal; Amdala ("soaproot road runs down"—H); Kalalpicul; Motitca ("house in a hole"—H); Dakeual; Tulimho ("in front of the chaparral"—H); Batsomni, Nabado ("dust piled up"—H); and Bakiltsia. My informant (JSm) insisted that these villages were all occupied at the same time, although all were within a mile of some other one, each having a "curing" sweat house; however, all were under one chief, and there was only one ceremonial or "devil" house.

The northern boundary of Canel as I have obtained it, which is also the northern boundary of the Pomo areas in this vicinity, is in disagreement with Barrett's[27] data on the same. He shows this part of the boundary to be on the south side of the Eel River. However, two informants (CB, JSm) stated that this area north of the Eel was fought for by the Potter Valley Indians. JSm considered that the land about five miles north of the Eel belonged to Canel. The main reason for the Canel poma desiring land north of the Eel was to have access to the elk country around Hullville where there were many muddy places over which the elk liked to roll. These spots, being excellent hunting grounds, were fought for by the Yuki and Canel every year. Since the three Potter Valley tribes often shared hunting privileges upon invitation, occasionally they aided one another in time of war.

There was very little fighting between the three groups in Potter Valley; for Canel, with its superior numbers, maintained peace by force. Once Sedam tried to take advantage of Pomo,[28] but they were forced to stay in their own territory by their neighbor to the north. Usually, however, there was no trouble among the Potter Valley tribes, and at times the people from all the groups gathered together for special dances and "ghost society" ceremonies. The assembly house was used only for initiation ceremonies and seemed to have had a special development in this area.

[26] Hudson, 1900, 775–776; Chesnut, 1902; and Gifford, 1936, 90.

[27] Barrett, 1908, map 1.

[28] Pomo was the aboriginal name of one group in Potter Valley as well as the name of the principal village in the valley.

The informant (JSm) was certain that the ceremonial house in Potter Valley (site 9) was used before the Maru (1870 Ghost Dance) was introduced. He said it was built shortly after the Indians were chased from the old site of Pomo by the white man who settled there (about 1850). An initiation or school, similar to the one described for Sherwood, was said to have taken place at site 9.

Sedam of Potter Valley.—The Sedam occupied the central position in Potter Valley. They had the second largest population and claimed the largest territory. However, their territory was mostly mountainous hunting land; the valley land included an area only about two and a half miles from Canel on its north to Pomo on its south. The territory broadened on the east to a width of seven miles and extended twenty miles farther east to the slopes of Snow Mountain, thus connecting the Northeastern Pomo with the main Pomo group. This eastward stretch included Big Horse Mountain, and was used both as a hunting area and as a right-of-way to the salt deposits near Stonyford. My informant (JSm) was certain that the people of Sedam had used this territory and had been on friendly terms with the Northeastern Pomo until the salt war (mentioned above).

The Sedam area included the old villages of Kalesima, Tcotat, and Canekai,[29] all occupied at the same time and all governed by one chief, who lived at Sedam.

Pomo of Potter Valley.—At the southern end of Potter Valley there was the Indian town of Pomo ("magnesite hole"—H), which at one time was supposed to have included in its territory the villages on Cold Creek and those in Coyote Valley. The people of Matuku, a village on Cold Creek, later allied themselves with the Cinal tribe, which owned the land around Blue Lakes and the headwaters of Scott's Creek. In Coyote Valley there is still visible the house pit where the village of Tcumkaoui was situated and the pit of an unfinished Ghost Dance house (site 6).

Cinal of Bachelor Valley and Tule Lake

Adjacent to the Potter Valley Pomo on the southeast was the Cinal tribe.[30] In recent times this tribe joined the Matuku, a group on their northwest in control of the land around Blue Lakes, the drainages of Cold Creek, the drainage of Daile Creek, and the shores of Tule Lake in Bachelor Valley. The eastern boundary of Cinal, marked by the ridge between Daile Creek and Middle Creek, was also the dividing line between the Northern and Eastern dialects of the Pomo language. The Cinal did not have frontage on Upper Lake, however, and only touched Clear Lake at Onion Point (Kabel). To the south, another Northern Pomo tribe, the Yimaba, claimed that the dividing line ran from the edge of Clear Lake about a mile south of Onion Point to the top of the mountains near Blue Lakes. The Cinal villages Cinal, Homtcati ("nettle village"—H), Xaro, and Mamamamau were occupied under the leadership of one chief. The reason for the union of Cinal and Matuku under one chief in recent times was that the two peoples intermarried so much that they were actually all related.

Yimaba of Scott's Valley

The Yimaba[31] Indians occupied about three and a half miles of land fronting on Clear Lake, from the Cinal area southward to just north of Lakeport. The boundary

[29] Kroeber (1925, 231, and pl. 36) separated the Shanekai (Canekai) from the Sedam group.

[30] This area is divided by Kniffen (1939, 368, and map 1) into Kaiyao (north), which he places in Bachelor Valley and around Tule Lake, and Yobotui (East), on Upper Lake and Onion Point of Clear Lake. My informant said Kaiyao was the Eastern Pomo name for the place that the Northern Pomo called Cinal. Halpern (field notes, 1940) confirms this: Kaiyao is Eastern Pomo and Ceinal is Northern Pomo signifying "at the head."

[31] Kniffen (1939, 368, and map 1) assigns Boalke and Komli to Scott's Valley (Yima); my informant JA called Scott's Valley Boilkai, the people Yimaba. Kniffen's and my data are in agreement concerning the migration of the Komli from near Ukiah.

between the Yimaba and the Kulanapo, about five miles long, was also the dividing line for the Northern and Eastern dialects. To the northwest, Yimaba lands touched the territory of the Central dialect. Thus the drainage of Scott's Creek from the summit of the mountains to the edge of Clear Lake, an area approximately ten miles long and seven miles wide, was occupied by the Yimaba tribe. Only one village, Karaka ("dead brush water"—H) was founded by this tribe. The ceremonial house, under the supervision of an assistant chief, was situated there.

The material culture of the Northern Pomo Indians on Clear Lake differed in many respects from that of other tribes of the same dialect. These differences were largely a result of their geographical position. They used different building materials, houses being made of rushes rather than of grass or redwood bark. For a cooler dancing place in the warm summers, a brush house was used. Because of their proximity to the lake, they used to a large extent fresh-water fish and fowl. My informant JA said that the Yimaba never went to the coast; they obtained seaweed and clamshells by trade, and salt either by expeditions to Stonyford or by trade from the ocean. The Yimaba did not have private ownership of sources of food, and, if my informant is correct, in this respect they resembled the other Northern Pomo (except Potter Valley) and the Eastern Pomo Cigom and Xowalek. They obtained food from the coast in exchange for dried fish, obsidian, and magnesite.

The Yimaba included a group called the Komli people, renamed when they migrated from the village of Cokatcal on Russian River between Masut and Yokaia. The account obtained from CB concerning the fate of the Komli people who spoke the Northern dialect was not very different from the accounts given by Kroeber, Barrett, and Loeb,[32] except in the statement of the cause of the dispersion; this was, according to CB, the result of fights over women within the group. When the group broke up, three new villages were formed: Kancibet on the mountain at the head of Ackerman Creek, east of the old town; Yima, in Scott's Valley; and the new Komli in Eight-Mile Canyon in the mountains east of Ukiah. My Scott's Valley informant (JA) said that the people from Cokatcal had settled among the Yimaba at an early time and that this had caused a change in their language.

Pdateya of Booneville

The Pdateya of Booneville is the least known tribe of the Northern dialect. No aged Pdateya were discovered, and their language is not known to the other Indians. They seem not to have had a pure dialect, but are said to have spoken "a mixture" of the languages of their neighbors to the north and south. Some informants claimed that they spoke like the Sherwood Indians; others insisted that Booneville people spoke a language similar to the Ukiah group. The principal village was Lemkolil.

EASTERN POMO[33]

Xowalek and Danoxa of Upper Lake

Gifford[34] mentions the existence of Xowalek as a group separate from Danoxa, and both Kniffen[35] and I learned of its independence. BG's mother was a member of the Xowalek band, which in her lifetime had dwindled to only three members. The Xowalek owned the sixty square miles of land drained by Middle Creek, being thus sandwiched in between the Northern Pomo Cinal and Sedam and the Eastern Pomo

[32] Kroeber, Handbook, 236; Barrett, 1908, 192 ff.; Loeb, 1926, 207.

[33] Except for the area in the vicinity of Upper Lake, all data concerning the Clear Lake Pomo presented on my map were copied from Barrett, 1907, and Gifford, 1923.

[34] Gifford, 1926, 290 ff.

[35] Kniffen, 1939, 367, and map 1.

of Danoxa. The hunting and gathering grounds of the Xowalek were separate from those of Danoxa. Being without lake frontage, Xowalek could fish on Upper Lake only as guests of other groups, usually the Danoxa. The junction of Clover and Middle creeks, a mile or so north of the lake, was the boundary between the two tribes. Communal rights to oak trees, pinole fields, and hunting grounds were recognized by the Xowalek.[36]

There was only one permanent village belonging to the Xowalek, and it was from this village that the group took its name, but Kacadanoya and Badonnapoti were important camps. Behepal ("among pepperwoods"—H) was a postcontact village. Here the chief stayed, and here also, under the supervision of a subchief, was the only assembly house which the group owned. Xowalek Indians obtained magnesite and obsidian by making boat trips across the lake to the sources. Because it was tougher than obsidian, chert, a green stone obtained near Lakeport, was used in the manufacture of drills and arrow points. Although shell beads were obtained in exchange for magnesite money, the Xowalek made trips of over a hundred miles, at least in recent times and possibly aboriginally, to Bodega to get clamshells and sea food. Such trips probably were infrequent. According to my informant, the Xowalek Indians stole salt from the Stonyford tribes, and this practice led to warfare. No salt was obtained from the coast.

CENTRAL POMO

Yokaia of Ukiah Valley

The Central dialect of the Pomo was spoken by seven or eight tribes, the largest of which was the Yokaia. The area of this dialectic group as it is given by Barrett was found to be correct, with the possible exception of Booneville. CB, claiming knowledge of the Booneville language, said it was more like that of Yokaia than of the tribes to the north. I am inclined to place Booneville in an intermediate position between the Northern and Central dialects. The Yokaia territory, about a hundred square miles, includes most of Ukiah Valley, extending from Ackerman Creek, a mile and a half north of the present town of Ukiah, to Henry Siding, eight miles south of Ukiah, and thence to the top of the mountains to the east and west.

The population of the Yokaia tribe has been variously estimated at from 500-1000 persons, a large figure for a California tribe. Although several villages are given by Barrett for this area, there is no doubt that during the winter months the population was concentrated in one main village. My informants SK and LL said that Cokadjal[37] was the oldest known village site classifiable as a permanent settlement. It was followed successively by Caneneu (site 13), occupied when the white people first arrived in the valley, and Katcayo (site 14), occupied after the return from Fort Bragg Reservation. Each spring all the houses in the home village were burnt, and the people moved to temporary camps in different parts of the valley. These temporary camps were situated near the various sources of food or near the private lands of a family. Each camp was remembered as the best source of a certain food; for example, Yokaia was famous for acorns; Dumi (site 12), for buckeye; Tatem, for fishing and seed gathering.

The Yokaia practice of burning their houses each spring, though it may seem surprising, was confirmed by CB of the Katca of Redwood Valley. This informant,

[36] Gifford (1923, 80) reports the same for other Eastern Pomo, but questions the data because of the private ownership among their Southeastern Pomo neighbors.

[37] Distinct from Cokatcal (discussed above), the Northern Pomo village situated a few miles north of Ukiah, and which broke up into Komli, Kancibet, and Yima.

however, denied it for his own tribe. Elderly people stayed at the old site where temporary camps were prepared for them. Among all the Pomo, the Yokaia tribe was unique in practicing a yearly house-burning, although other tribes mentioned burning a house after a death. Houses of thatch, such as they built, would not be as difficult to replace as wood houses; nevertheless, I doubt that the Yokaia burnt the willow framework, even though the informants said the Indians removed only their belongings from the house and then set fire to it to exterminate vermin.

Private ownership of oak trees, manzanita bushes, grass-seed plots, hunting trails, and fishing sites was so well developed among the Yokaia that a special oak tree or a very good dam site became the means of obtaining great wealth. Informant LL said that all sources of food were privately owned, but SK was of the opinion that only special trees on which exceptionally sweet acorns grew, and the "male" manzanita bushes which produced extra large, sweet berries were privately owned. Private property belonged to all the people living in a house, to a *Grossfamilie* and not to an individual. This property could not be sold or leased, but was passed on from father to son. Friends sometimes were allowed food without pay, although this was not done often since food was used to barter for weapons, nets, beads, and other food not possessed. It was thus possible for an individual to earn a certain food if he did not already possess it. Although SK admitted the general rule of private ownership and said that a man with a good dam could get rich, he also mentioned that fish poisoning was a communal affair, and that there were special communal fish drives when the private ownership of dams was disregarded. This latter scheme of things was also true of communal hunting. An individual or a family controlled certain spots recognized as good places to do individual snaring or shooting of game; however, these rights were not respected during communal hunts when game, especially deer, were caught for the group as a whole.

The extent to which the Yokaia Indians observed this practice of private ownership is clearly illustrated in the following story told by LL.

A woman collected the grass seed from her pinole field and then set fire to the field so that no one could collect from it after she had left. The fire spread and burnt the uncollected field of her neighbor. The woman was obliged to make a payment in pinole seed to her neighbor.

Private ownership of land was unheard of among the Sherwood group. When informant JS from that group was told of its existence at Ukiah, he was extremely surprised.

Although the Yokaia had a large valley in which to gather bulbs, acorns, and grass seed, wide hunting areas on the mountains to the east and west, and the Russian River from which to take fish, their territory did not furnish them with everything they needed. Permission was obtained from the Yorkville and Booneville Indians to collect tan-oak acorns from their land. Sea foods were obtained from the coast forty-five miles away, Greenwood Creek in the area of the Bokeya of Point Arena being the place most frequently visited. Permission to take food from Greenwood Creek was obtained merely by asking. Expeditions were also made to Bodega Bay to get clamshells used in the manufacture of bead money; and the Lake County tribes brought baked, uncut magnesite to Ukiah Valley to trade. Salt was obtained from the coast and from Stonyford. Maci (milkweed fiber) was traded from the north, probably Round Valley. A large ledge (site 15) of greenish white chert near the old villages provided material for drills and other stone artifacts.

Leadership was in the hands of a head chief, tcayadulbati, and three subchiefs,

tcayadul. The head chief was distinguished from the other three only by his powers of oratory. The right to the chieftainship passed from a man to his sister's son, one or two of the tcayadul usually being young men who were trained for the higher office.

Ciego of Largo

Ciego,[38] a small "buffer tribe," separated the Ukiah and Hopland Indians, who were enemies (SK), and occupied only three miles or so of the Russian River. The main town, Ciego, was situated at about the middle of the territory. My Hopland informant JJ said that the Ciego tribe was composed of "soldiers" who had broken away from the Hopland tribe after the coming of the whites. He also said that Ciego had no chief but did have an assembly house.

Cokoa of Hopland

The Hopland tribe Cokoa occupied about eight miles of the Russian River, from two miles north of Hopland to six miles south of it. To the east of Hopland this territory extended to the top of the mountain and included McDowell Valley; to the west it extended to the top of the mountain and included Cummisky and Feliz creeks; about seventy square miles altogether. The Cokoa valley land now suitable for cultivation is much less extensive than that possessed by the Yokaia tribe; yet the primitive population was given at about 1500 (JJ). There are no redwoods in the area, the flora resembling that of Ukiah Valley.

Politically, as well as geographically, the Cokoa resembled the Yokaia. Both had a single central village of importance where the population was concentrated. The central village of the Cokoa, known as Canel or Katomal (site 32), was situated about a mile east of Hopland. It is questionable whether Canel should be considered as the central village for a single autonomous group or as a collection of several distinct small villages occupying a limited area. In any event, there were at least seven divisions of the Cokoa in Canel, each having its own assembly house.[39] This site was occupied until the Spaniards forced the Indians to move. They went first to Katabel and then to Kaletslu (site 31), the latter place being occupied until 1910. Other places called villages by Barrett were mostly temporary camps or place names. Among these were: Kawimo, a soda spring, feared by the Indians; Kabebot, a place where a mythical people who sprang into existence out of a rock were supposed to have lived; Iwida, Kabeyo, and Kahwalau ("water goes down"—H), camps for fishing; Kabeyo, Makatcam, Cepda ("cut-grass creek"—H), and Kcakaleyo, dance grounds where the Cokoa warriors of Hopland stopped to dance on their way to fight the Makamotcemei of Cloverdale.

The Cokoa were recognized by all their neighbors as dangerously brave warriors (SK, PMM). Their boundaries were fixed by fighting, and anyone caught trespassing was likely to be killed. However, my informant of Makamotcemei (PMM) declared that fishing rights were usually the cause of war between the Hopland and Cloverdale Indians. JJ, nevertheless, attributed one war to the killing of several young Cokoa men while they were courting in Cloverdale. Stopping four or five times to dance at the places named above, about a hundred men marched against Cloverdale; after a day and a night of fighting, they killed fourteen of their enemies near the present site of Echo siding.

The political organization reported for the Cokoa tribe was the most complex

[38] Barrett (1908, 173) mentions Ciego as one of the most important towns of the valley.

[39] Powers (1877, 168–169 and fig. 19) gives a "Plan of Senel" (Canel) showing five assembly-house pits and rows of dwelling-house pits which he saw in the 1870's. My population estimate and description closely approximate his.

of any of the Pomo tribes covered by this study. Probably this high political development accounted for their success in war. Before the arrival of the whites, the Cokoa Indians were governed by twenty (?) chiefs, who were arranged in four divisions. There were two main chiefs (tcaiyadul tia), one war captain (tcamai tcaiyadul), seven speaking assembly-house chiefs (tcauba san kale tcaiyadul), and one or more ordinary assembly-house chiefs (hogus tcaiyadul) for each ceremonial earth lodge. There were also several women chiefs (mato kali tci), who were relatives but never the wives of the male chiefs. Of these "bosses" only the war captain was elected, the others receiving office through inheritance. The hogus tcaiyadul were considered assistant chiefs, and they had charge of gathering wood, hunting for feasts, building sweat houses, and so on. JJ's account of the chieftainships is rather full: The chieftainship ran in families. A head chief would appoint the most likely of his relatives to succeed him when he grew very old, and the person named would have to accept the job. There was no consideration of the will of the people; the old chief's decision was final. The assistant chiefs were picked by the speaking assembly-house chiefs from the families which had provided former assistants. The best young warrior was picked to be war chief when the old one died. He would keep office until death. The two head chiefs really had command of everything in the tribe.

Economically, the Cokoa of Hopland resembled the Yokaia also. This was possible because of their similar geographical positions. Their houses were of grass thatch over a willow frame; however, instead of burning them yearly as did the Yokaia, they lived in them until they rotted away.[40] They did not burn a house even for a death. Private ownership of dam sites, oak trees, and hunting grounds was recognized, although not of pinole fields. The Cokoa were on extremely friendly terms with the Danokeya Indians near Yorkville, the two sharing hunting and gathering privileges. All other neighbors, however, they considered their enemies. The Yorkville territory supplied tan-oak acorns and allowed passage to the coast. The trail to the coast followed about the same route as the wagon road from Yorkville to Anchor Bay, the valley tribes going there as guests of the Bokeya of Point Arena. Only those able to carry back large loads would go to the coast for sea food and salt, these commodities being free to visitors. At Point Arena the Bokeya would sell sea food already dried or would trade it for pinole or acorn flour. The trip to Bodega Bay to get clamshells was fraught with much danger because of hostile tribes; but the trip was made regularly, the enemy towns being skirted at night. There was never any payment for free passage. Shell money was manufactured in Hopland. Obsidian, unbaked magnesite, and lake fish were obtained from Lake County (Kulanapo) without payment, the Cokoa making trips to the sources. Special craftsmen, living from the sale of their products, were highly developed in Hopland. Food was sold or traded within the tribe. The Russian River supplied most of the fish eaten, so that the sea food was merely extra. There were no chert mines in the Cokoa area used by the Indians. "Indian baking powder" (masil), however, was dug and used in making bread.

Yobakeya of Echo

South of Hopland, occupying the Russian River banks for about five miles, there was the Yobakeya group, which functioned as a buffer group much like the Ciego tribe north of Hopland. This small group, centered about Koloko ("hopper field"—H), the one permanent village, was a tribe of warriors. Although they possessed a small territory and were few in number, the Yobakeya were very in-

[40] Powers (1877, 169) said the "Senel" often burned their houses to get rid of vermin.

dependent, fighting alternately the Southern-dialect-speaking Makamotcemei of Cloverdale and the Cokoa of Hopland, who like themselves spoke the Central dialect. Halapita, the only remembered chief of the Echo tribe, died about forty year ago. In PMM's youth, there were only about sixty members of this tribe; most of these were killed while getting tan-oak acorns in the area of the Yotiya, Rock Pile Indians of Southern Pomo dialect.

Danokeya of Yorkville

The Danokeya owned an area of about sixty square miles in the mountain valleys between the Cokoa of Hopland and the Bokeya of Point Arena. The headwaters of Rancheria Creek and Garcia River were the only streams of importance in the area; so the Indians living there were forced to depend for much of their food upon their friendly neighbors. Although there was a recognized boundary between the two tribes, the Hopland group allowed the Yorkville tribe, which was small, to take fish from the Russian River near Hopland in return for gathering privileges. The Indians near Yorkville were allowed free access to the ocean, provided permission were asked, although relations with the coast Indians were less amicable than with the Cokoa of Hopland. Loeb[41] mentions trouble in historic times between the Yorkville and coast tribes; and earlier misunderstandings, nearly leading to war, were remembered by my informants. The Yorkville group considered the Makamotcemei of Cloverdale enemies; the Pdateya of Booneville, however, were looked upon as friends.

Late was the main village of the Danokeya, and Maboton was the only other village in the area. Each had a separate chief, and a separate assembly house. The houses were of both grass and redwood, and in event of death or when they were no longer serviceable they were burned. All in all, the Danokeya resembled closely the Cokoa group (Mrs. SP).

Bokeya of Point Arena

The Bokeya lived on the coastal part of the Central dialect area. Their territory extended from just north of Navarro River south to Gualala River, a distance of about forty miles. In the north, the communities were never more than five miles back from the coast, but toward the southern end of the area towns were about twenty miles inland and upon the plateau instead of on coastal shelf. The Bokeya of Point Arena thus possessed two of the geographical zones mentioned for the Mitom poma (Willits) and Mato poma (Sherwood): the coastal shelf, and part of the redwood belt.

It is difficult to obtain a clear picture of the aboriginal political conditions of the Bokeya. However, the most probable arrangement seems to resemble that of the Mato of Sherwood. That is, in this large area of about 300 square miles there were three or four autonomous groups which merged their interests to form one tribe. Loeb considered all of these Coast Central Pomo as a single unit and named three head chiefs and two boy chiefs who functioned at the central village of Pdahau. However, all six Central Coast informants who told of Bokeya agreed that, before the whites came, the chiefs were in charge of villages situated in various parts of the area and that it was only after the other villages were abandoned that more than one chief lived in Pdahau.

There were some differences of opinion among the informants concerning the number of old villages, or rather concerning the old subdivisions containing one or more villages under one chief. The most probable accounts (SP, SR) mentioned three subdivisions: Kauca, Pdahau, and Latcupda. Kauca, the most

[41] Loeb, 1926, 212.

northerly village, was situated on Cliff Ridge between Elk and Greenwood creeks; the name also designated the general region, from Navarro River to Alder Creek, in which the village was situated. Kabekel[42] was an early chief of this northern group (SP, AW, SR), and Drew was his successor. However, before Kabekel died, the encroachment of the whites had forced the subgroups to unite. Pdahau, the main village of the second subgroup, was situated on the mouth of Garcia River; but there is no doubt that other villages were occupied contemporaneously with it, although it was impossible to get the exact status of all the sites named by Barrett. Itcetce, Kodalau, Nakoca, and Balcelo were given as places of former occupation, but it was impossible to ascertain if these sites had been occupied at the same or different times. Cabus, the oldest chief remembered, was given credit for saving the life of the young woman captive from Buldam, mentioned in connection with the Buldam-Point Arena war[43] (MS). Latcupda, the village of the third division, was on the headwaters of the North Fork of the Gualala, in the southern end of the Bokeya area. Its exact status is clouded because the Indians there were called Kanoa people, suggesting independence. Some informants (AW, SP) considered that the Kanoa or Latcupda people had been part of the Coast Central Pomo Bokeya from earliest times; others (SR, SF, HJ) remembered the Kanoa of Latcupda as a separate tribe until the coming of the whites. Both HJ and MS remembered "Captain" Charlie (Boshin) as having come from Latcupda. My informant (SR), who had lived at Latcupda, said that after Boshin left his original home, the people of Latcupda went to Point Arena for celebrations, there being no one remaining in the home village qualified to conduct the "ghost society" ritual. Boshin married a Pdahau woman and acted as chief at the same time as did Kabekel.

Compared to the other Central Pomo Indian towns, Latcupda had a rather unusual position. It was situated almost on the top of the mountain in the center of the redwood forests. Informant SR mentioned two Kanoa elements of culture not reported for other Pomo, and I have no reason to doubt her information.

One such feature was a "green and gray" stone ax used in felling trees. This ax was not hafted, but was made by percussion from a large piece of "green" stone. SR went through the motions of manufacturing one of these axes, knocking an imaginary chip from one side and then from the other, turning her hand to show how the blow was struck from different angles. When finished, the ax was about the size of one's fist.

The other unusual feature is concerned with food. Excepting craftsmen who obtained raw food by the sale of their wares, no one would dare to get food from another, even of the same tribe, for fear of being poisoned.

Otherwise Kanoa distinctions appear consonant with the environment. In Latcupda the clearings in the forests were kept free of brush by annual burning; usually taking place in the fall of the year. Elkhorn wedges, being numerous, were used to split the bark from redwood trees for building houses. Bows and arrows were manufactured of rhododendron wood, the bows being sinew-backed.

The Latcupda group was not only isolated—in contrast to the other Bokeya groups—in respect to location; but, unlike them, this tribe disclaimed any private ownership of sources of food. Even rules for trespass were denied with the statement, "There is plenty of food for everyone; people stay on their own land." The Latcupda procured sea food and salt near the mouth of the Gualala River, the river equaling the ocean as a source of food. In the rest of the Bokeya area the ocean was more important.

[42] Loeb (1926, 235) located Kabekel at Pdahau.
[43] Loeb, 1926, 210.

In spite of these internal divisions, the Central Pomo of the Coast appear to have constituted a recognizable unit. Even before white men had appropriated much of their territory, Indians of the three main village communities considered themselves Bokeya, and no boundaries between the subgroups were recognized. Yet the lines between them and their neighboring groups were clearly identified. There was considerable intermarriage between the subgroups, and families often changed residence.

Economically, the Bokeya were fairly well situated. The ocean provided sea animals and aquatic plants, fish being taken from the ocean and rivers. Acorns and redwood bark were found in the forests; berries and pinole seed on the open coastal shelf or in the forest openings; deer were plentiful everywhere. The visitors from the interior brought obsidian, shell beads, and magnesite money to purchase food from Bokeya of Point Arena.

The population of the Bokeya area was very limited compared to that of Ukiah and Hopland. One informant (SF) said the pre-white population in Pdahau was 200; in Kauca, 100; and in Latcupda, 80.

SOUTHWESTERN POMO

Kacia of Stewart's Point

Since the Southwestern dialect is spoken by only one tribe, the Kacia or Stewart's Point Indians, they have a rather unique position in relation to the other Pomo tribes. The boundaries of the Southwestern dialect given by Barrett were confirmed by my informants with the exception of the northern and, possibly, the southern limits.[44] Whereas Barrett gave the Southwestern and Central Pomo a common boundary at the mouth of the Gualala River, I learned from SF of Point Arena, SR and DS of Rock Pile Creek (Yotiya), and MJ of Stewart's Point—old Indians—that the Yotiya of Rock Pile, Southern dialect, owned about eight miles of coast which stretched from the Gualala River south to Black Point (Bihler Point). Thus the Southern dialect had a strip of coast sandwiched in between the Central Pomo Bokeya and the Southwestern Pomo Kacia. MJ, the oldest of the Kacia Indians interviewed, placed the southern boundary of her tribe at the Russian River. Others (RSm, RSh) placed the line at Duncan's Point, south of Russian River; and no Stewart's Point Indian knew the towns beyond that point.[45] MJ also told of a separate chief, Kaban, who had control of the area south of the Russian River; she said he did not speak the Southwestern Pomo language.

Great difficulty was encountered in trying to get the old Kacia Indians to tell what they knew of "old times," due probably to the strong influence which their religion, a modified Maru Ghost Dance cult, still exerts over them. The statements of the three informants who talked more or less freely—RSm, RSh, MJ—and those of others who answered a question or two—CPh, JP—were at times contradictory. It was astounding, therefore, to have all agree that in prehistoric times there was only one tribe and one chief for the whole area of the dialect. Also, everyone agreed immediately that Meteni (Fort Ross) was the only pre-Russian town and that Toyon[46] was the only chief for the area. However, upon closer inquiry these Indians gave additional information.

[44] Kniffen (1939, 384, and map 3) follows Barrett in placing the northern boundary of the Southwestern Pomo at the mouth of the Gualala, but places the southern boundary at Russian River.

[45] Isabel Kelly said that her Coast Miwok informant placed the boundary at Duncan's Point.

[46] Toyon is the title given by the Russians to the native administrators they dealt with wherever they contacted primitive peoples.

Persistent questioning concerning places given by Barrett as village sites revealed that other villages did exist at the same time as Meteni, in fact, had existed before it. Except Meteni and Powicana, the sites along the coast were said to have been never more than camping places where the Indians stayed for a short time to gather sea food. Nearly all the sites mentioned as old villages were situated from one to three miles back in the hills. As to the names of these sites, Tanam, Kaletcumaial, Tsapuwil, Kobotcitcakali, Tadono, Tcalamkiamali, Kalecadim, Atcacinatcawalli, Tcumati, and Mutcawi were villages which were occupied more or less permanently, but which were without an individual chief or assembly house. Lalaka ("wild-goose water"—H; site 23), Seepinamatci ("small brush burning"—H; site 18), Dukacal ("abalone place"—H; site 25), Bacel ("buckeye place"—H; site 24), and Hibuwi ("wild-potato patch"—H; site 27) were old villages where assembly houses were situated, the pits being still visible (RSh).

By close questioning it was also discovered that there actually was more than one chief for the dialect area. Hibuwi had a separate chief, Helebutkin. The exact relationship of Helebutkin to Toyon was not learned from my Kacia informants. RSh said that he was an independent chief; MJ insisted that he was an assistant to Toyon. A fuller account of Hibuwi was obtained from an old Indian (SR), who was a member of the neighboring Yotiya of Rock Pile. She remembered hearing of a chief from Hibuwi, whom she called Okale (possibly same as Helebutkin); and she told the following story about him:

> In the old days all the Kacia [Southwestern Pomo] people lived near Hibuwi and near Seepinamatci, and they all belonged to one tribe. When the Russians came, they tried to collect all the Indians together at Fort Ross for the purpose of hiring them to work. Most of those from Seepinamatci and some from Hibuwi went to work for them. Toyon was in charge of the Indians at Fort Ross, and the larger part of the tribe was with him; Okale was the chief of the smaller part which remained at Hibuwi. Both sections of this divided tribe claimed to be Kacia. When Okale died, the Hibuwi group moved to Dukacal to live with the Indians who, by this time, had deserted Fort Ross and taken up life there [Dukacal].

The account of this informant probably explains much of what really was the situation of the Kacia. Conditions there seem to have approximated those of the Bokeya of Point Arena; that is, there was probably a single tribal group made up of several villages, the villages having either a separate chief and assembly house or being merely a group of houses situated apart to facilitate food-getting. Since the idea of unity was manifested so strongly by my informants, it is highly probable that even though there was a separate chief and assembly house, the groups from the different villages united for initiation ceremonies and other festivals.

Although Helebutkin was undoubtedly the chief at Hibuwi, Toyon was the most important chief still remembered by the Kacia Indians. He was said to have been succeeded by his son, Tehanu,[47] who was given credit for moving the Indians to Potol (Charlie Haupt's ranch). The Indians were supposed to have left Fort Ross when Dixon, who was associated with Lord Fairfax, bought it (MJ). Dixon acquired the old fort in 1859;[48] therefore, the Indian exodus from Fort Ross must have taken place about that date.

Loeb[49] described a war between the Stewart's Point and the Point Arena Indians, but my Kacia informants of Stewart's Point did not remember any war; in fact, they said there never had been wars. Neighboring tribes were allowed free passage through their territory to get salt at Salt Point and to get sea food.

[47] Kniffen (1939, 384) confirms this information concerning Toyon and his son Tehanu and names Sam Ross as Tehanu's successor, who died in 1908.

[48] Essig, 1933.

[49] Loeb, 1926, 211.

The territory of the Southwestern dialect consists of narrow coastal shelf and forest-covered hills. The usual openings in the trees, kept free from brush by burning, furnished them bulbs and grass seeds. Economically and geographically, the Kacia of Stewart's Point compare favorably to the Bokeya of Point Arena; both tribes were situated on the coast, and both used a preponderance of sea food in their diets.

Estimates give the area a relatively large population: from 800 (MJ) to 1200 (given by one of the first white settlers).

SOUTHERN DIALECT

Yotiya of Rock Pile

The Yotiya are the only members of the Southern dialect with area bordering on the ocean. Bounded on the north by the Latcupda group of the Bokeya (Central dialect) and on the south by the Kacia (Southwestern dialect), the area is about eight miles wide and extends about eighteen miles inland. All of the area is extremely rough.

The main village, Makauca ("salmon ridge"—H), was situated in a clearing in the redwood forest. This village was the only place in the territory where an assembly house was situated, and it was the only village which claimed a chief. The sites marked as villages by Barrett were said to have been camp sites only (DS).

SR remembered hearing of three chiefs: "Captain" George; his son, "Captain" Santiago; and Santiago's son, "Captain" Bull.

Having the same geographical environment as the Latcupda, the Yotiya expectably would have similar economic conditions; this was apparently a fact. The population of this tribe was approximately 100.

Hiwalhmu

Southeast of the Rock Pile tribe and occupying about seventy square miles of redwood country were the Hiwalhmu. Since I found no member of this tribe, knowledge concerning it was gained from neighboring tribes. SR and DS thought it was a separate tribe with only one village in which the chief and assembly house were situated. The territory of this tribe covered the divide between the north fork of the Gualala and the headwaters of Dry Creek, which flows into Russian River. The eastern boundaries of Hiwalhmu territory indicated on the map were thus defined by an informant of the Mahilkaune tribe.

Mahilkaune of Dry Creek

Northwest of Healdsburg, Dry Creek runs about fifteen miles parallel to the Russian River; and there is a low ridge separating the two stream valleys. This ridge was the boundary between the Mahilkaune of Dry Creek (Kainomero[50]—ChL, SJ) and the Wappo (mahilkaune, "creek in the west"—H). The area of this tribe, ten miles from north to south along Dry Creek, was situated between the lands of the Southern Pomo tribes at Healdsburg (Kataictemi) and Cloverdale (Makamotcemei), and it touched the Hiwalhmu boundary to the west. The principal village in the Dry Creek area was Amalako ("rabbit field"—H; site 33); the assembly-house pit (probably from the 1870 Ghost Dance) is still visible and is

[50] One form of the name given by Spaniards to Indians of Southern Pomo dialect who occupied the lower Russian River (Barrett, 1908, 213, note 247; in Powers, 1877, 174, it is spelled Gallinomero.

known to have been abandoned only in postwhite times (ChL). Tupu was the chief of this tribe when the Spaniards came; his grandson, Captain Charlie, died in 1908.

The war described by Barrett,[51] between the Pomo and the Wappo, probably took much of the land of this tribe.

Makamotcemei of Cloverdale

The Makamotcemei, northernmost of the Southern dialect tribes situated along the Russian River, occupied an area of about a hundred and fifty square miles. This territory extended from about three miles north of the present town of Cloverdale south along the river to Chianti, a distance of about nine miles, and spread out about eight miles on each side of the river.

The area contained a small, but generous, valley where grass seeds, valley-oak acorns, berries, etc., were gathered. Redwood forest on the western side made available tan-oak acorns and game. To the east, the area was especially productive in manzanita, buckeye, oak, and good hunting ground. Though the river supplied much food, the able-bodied men made two or three trips to the coast each year to get sea food. The twenty-five mile route to Stewart's Point required one day of travel when empty-handed and two days when loaded. The Indians took pride in returning from the coast heavily laden with food and enjoyed bragging about the strength and endurance which they displayed on such trips. No payment was made for passage either to Stewart's Point for salt and sea food or to Bodega Bay for clam-shells. The Kacia allowed ocean products to be taken free by anyone who wished to gather them. The route to Bodega was the same one used by all the river tribes. Trips were also undertaken to the obsidian and magnesite deposits of Lake County, the magnesite being "cooked" and manufactured into cylinders at Cloverdale. A hard greenstone was obtained near the old Indian village of Amako for the manufacture of hard drills and arrow points.

According to PMM, only trees were privately owned, and these were inherited jointly by the people occupying a single thatch house. Dam sites, hunting grounds, berry patches, and grass plots were all publicly owned. There were, however, special craftsmen, who made deer-head masks, bows, and money; and there seems to have been an active commerce in all types of food. Sinew-backed bows were made of manzanita wood; common bows, of hazel. The willow-frame grass houses were burnt only in event of death.

Wars were remembered to have occurred between the Makamotcemei of Cloverdale and the Cokoa of Hopland, usually over fishing rights. Similar struggles occurred with the Wappo Indians, neighbors to the southeast of Cloverdale. PMM admitted that his tribe always lost. In spite of these reported quarrels over fishing rights, Indians of other tribes were allowed to pass freely over their territory, for the Makamotcemei were afraid to try to stop them. Also, no wars were ever fought with the tribes on the coast when the Makamotcemei went there.

Although there were two separate towns at one time, each with its own chief and assembly house, the group seems always to have held hunting grounds, dam sites, etc., in common and to have united for special dances and ceremonies. Makahmo ("salmon hole"—H), near Sulphur Creek, was the main town, and Musalakan maiyuma was one of its last chiefs. Amako ("dirt field"—H), across the Russian River from the winery of Asti, was under the chief Hosotonyo (José Antonio). PM, who claims to be a descendant of the old chief Musalakan, gave the following account of the history of the Makamotcemei of Cloverdale:

There was a chief at each place at first; but before the Spanish came, the Indians united into one band under Musalakan and lived at Kabekale, on Alf Barrow's ranch, across the road from

[51] 1908, 265, note 307.

the present reservation. After being sent to the Noyo [Reservation], the Indians moved to Motitcaton ("rattlesnake house"—H; site 34). I was just a little boy when we first moved there, but we stayed there a long time, maybe fifty years. At any rate, while there, the soldiers came and took all our guns and weapons. At the time, we were having a dance [probably Maru] in the Ghost earth lodge; there was no fighting. We moved around very much after that. The last Maru earth lodge was on the Truet ranch.

Both of the old chiefs had charge of all activities in their respective villages until, when the two villages united, Musalakan was made head chief. Both of the old chiefs enjoyed the same title, atcami yeme.

Kataictemi of Healdsburg

It was not possible to ascertain whether the area north of Santa Rosa was occupied by one tribe or several. HM said that the Kataictemi centered about Kale (Healdsburg) owned the territory on both sides of the Russian River north of Mark West Creek and south of the Wappo boundary at Fitch Mountain. PMM, from a neighboring tribe, said there was a separate tribe in the vicinity of Windsor (Tsoliikawai, "in blackbird field"—H). However, I am inclined to consider the area a unit; and I believe the smaller villages, if they actually were separate and permanent, were part of the one tribe. Kataictemi also owned the land about two miles north of the modern town of Healdsburg; thus, they possessed the lowest part of Dry Creek. The total area approached 200 square miles and included zones of redwood, valley land, and the deciduous forest land of Fitch Mountain.

Most of the names given as village sites by Barrett were considered place names, or at the most, camp sites (SJ). Amatio, under chief Yihutciu, Mukakotcali, under chief Tculanuk, and Kale, under chief Ventura, were said to be Kataictemi villages; and each had a separate assembly house. Kataictemi was a part of the Spanish "Kainomero" tribe; Ventura was one of the last of the old chiefs (SJ).

Bitakomtara of Santa Rosa

The area of the Bitakomtara, covering about 200 square miles, is bounded on the north by Mark West Creek; on the east by Sonoma Canyon, Bear Creek, the summit of the Mayacamas Mountains, and the peak of Sonoma Mountain; on the south by an indefinite line running from the top of Sonoma Mountain north of Cotati to the south end of Laguna de Santa Rosa Creek; and on the west by Laguna de Santa Rosa (HM). About 75 per cent of this territory is valley and swamp land; the remaining is hills timbered with oak, buckeye, pine, manzanita, etc.

The Russian River does not run through this area; so that fishing was mostly confined to creeks and laguna, although permission to fish on the Russian River was obtained from the near-by tribes claiming it. The usual valley food was abundant, and sea food was added to the diet. Trips were made to Bodega Bay for clams; along the coast north of Russian River they procured certain other sea foods. A trail led to Bodega and another trail along the south side of the river led to the mouth of the Russian River where the problem of crossing was solved by using a sandbar which in summer nearly closed the mouth. Trips to the coast were undertaken both in summer and winter; and, although permission to fish was obtained free, gifts of inland food were sometimes made to the coast tribes. Salt was not obtained from the coast; but a salt grass was dried, ground fine, and used as salt; sometimes a salty mud was eaten.

Bead money was made at Santa Rosa, but manufactured magnesite "gold money" was bought. A stone fist-ax and deer horn were used to fell trees; the logs were burned in two after the trees were chopped down. In order to have clean dwellings,

the Bitakomtara destroyed the thatch of their willow-frame houses every year. The grass was gathered in a pile and burnt, and the frame was used again.

The chief, living at the only permanent village, Kabetciuwa, had charge of the whole area. Tco-on, the last chief, was described as having complete control of everything in the tribe.

He owned everything so that even the people in the tribe had to get permission from him before they could go hunting, fishing, or gathering acorns and seeds. Except his house, nothing was owned by one man or family; and since the chief allowed people to go anywhere, everyone had the same opportunities.

The chief had charge of building the assembly house, a job in which everyone joined, so that a new assembly house could be built in two days.

The Bitakomtara of Santa Rosa were rather unfriendly. If other people came on their land without permission, there was likely to be trouble. Even when people were passing through Bitakomtara territory on their way to the coast, they were required to get permission if they wished to be safe. However, no actual wars were remembered.

Konhomtara of Sebastopol

The information concerning this area was obtained from HM; and therefore it is not as complete as might be desired. The west side of Laguna de Santa Rosa was claimed by the Konhomtara. The area extended north to Russian River, went to the summit of the range nearest the coast, and south to the border of the Coast Miwok. It contained about 150 square miles of land. The geography of the area is not very different from that of the Santa Rosa area; it varies only in that the hunting area extends into the redwood forests instead of into the deciduous forests. As a result of their environment, both tule and grass houses were used by the Konhomtara, the tule houses being temporary summer dwellings along the laguna, the grass houses being permanent homes in the hills. There was a definite feeling of animosity between the Bitakomtara of Santa Rosa and the Konhomtara, the two tribes on the opposite sides of the laguna, war resulting from discovered trespass. Mateyo, one of the old chiefs of the Sebastopol tribe, was said to have been head chief of all the Kainomero tribes (Healdsburg, Dry Creek, Santa Rosa, and Sebastopol) after the Spanish came (HM, SJ). Heewi, in the hills north of Freestone, was the principal Konhomtara village, but Masikawani, near Laguna, was an important independent village.

SUMMARY AND CONCLUSION

In describing the habitat of the Pomo, Barrett[52] and Kroeber[53] recognized three distinct environmental divisions: the Coast (including the coastal shelf and the redwood-covered westernmost ridges of the Coast Range), the Russian River Valley (including the conifers, oak- and brush-covered interior ridges of the Coast Range); and Clear Lake. The present study deals with the first two provinces mentioned above and only part of the Clear Lake province, and not at all with the Northeastern Pomo. Entered on the map, however, are data for those regions not covered in this study, from Gifford and Barrett.

One of the most striking features of the divisions of the Pomo linguistic area is the manner in which they extend east and west across the different environmental provinces. Considering the major dialects as units, we see the Northern Pomo stretching from the shores of Clear Lake to the Coast, thus controlling sections of all types of Pomo territory. The Central and Southern dialects likewise occupy parts of the Coast and the Russian River with the contingent forested mountains. The four territorially smaller dialects have at their disposal primarily a single province, but even these areas are varied. The Southwestern dialect, for example, possesses only land within the coastal province, which is actually divided into the ocean beach, the wind-swept grassy coastal shelf, the redwood and tan-oak forested hills; these including numerous and fairly extensive clearings on ridges and near interior streams that are small counterparts of the hills and valleys of the Russian River province. Similarly, the Eastern and Southeastern Pomo live on Clear Lake, yet they utilize the streams and forest- and brush-covered hills rising up on all sides of the lake. Just as the Central Pomo straddle the Russian River with the Northern and Southern Pomo also occupying the river on either side of them, so the Eastern Pomo own middle parts of both the northern and southern shores of Clear Lake, between the Northern and Southeastern Pomo who also have parts of the lake.

We might say, then, that the Pomo territory is divided among its linguistic dialects in a rational or useful manner. Instead of peoples of one language possessing all the Lake, another all of the Russian River, and a third the Coast, Indians of different languages shared each of these favorable environmental regions.

The small village communities or tribes are also situated so as to be able to utilize most advantageously the environment. With few exceptions the territory of each tribe includes a section of a valley, a part of a stream, some forested hills. This sharing of vegetal and physiographic zones among separate tribes is well demonstrated by the division of the valleys along the Russian River. The Russian River flows through a series of small valleys separated by ridges of varying height through which canyons have been eroded. Potter Valley, at the headwaters of the East Fork, is only seven miles long, but boundaries of three village communities cut across it, giving each tribe about a two-mile section of the stream.

Ten tribes, speaking four different Pomo dialects, and a group of Wappo occupy territories that cut across the seventy-mile length of the Russian River from Potter Valley to its mouth.

Since the larger tribes conceivably could dominate or even usurp the lands of smaller tribes, it seems correct to say that small tribes are allowed to possess sections of land that provide an adequate food supply. All tribes control means of obtaining fish, game, grass seeds, acorns, fruits and berries. Besides, Indians whose territories are limited to the inland valleys and hills go on expeditions to the Coast and to Clear Lake for products not found in their own regions. Permission is re-

[52] 1908, 121–124.
[53] 1925, 222–239.

ceived from the owners of the ocean beaches, sources of shellfish, aquatic plants and salt, and the magnesite deposits near Clear Lake; consequently, all Pomo have access to the products of the entire area.

It does not follow necessarily that every tribe obtains all products at their sources, for trade from tribe to tribe sometimes replaces travel between areas far apart. It is possible to conclude nevertheless that in spite of differences in products available in the areas of the thirty-five Pomo tribes or village communities, all Pomo use to a greater or lesser degree products from the entire area. To be sure, sea plants and animals are more abundantly used by the tribes nearer the coast, but sea foods are eaten also by the Russian River and Clear Lake Pomo, the amount varying according to the distance from the Pacific Ocean. With respect to food products the tribal groups differ more in degree than in kind, but there are some important features characterizing the major provinces.

Difference in some aspects of material culture coincide with the environmental provinces. On the Coast, houses are constructed of slabs of wood and bark, in the Russian River Valley houses are made of grass thatch over willow frames, and near Clear Lake tules serve as covering. For implements, green chert found along the Russian River and in the West Coast ranges is used; obsidian is employed by the Lake Pomo.

Although not of complete coincidence, there is some suggestive agreement between social usage and environment. In the interior valleys, Potter, Ukiah, Hopland,[54] the private ownership of sources of food is highly developed. Oak trees, seed fields, fishing sites, and deer trails are controlled by individual families, being inherited patrilineally. Rules of ownership in these most productive and most populous areas resemble those described by Gifford[55] for the Southeastern Pomo of Clear Lake. Private ownership correlates with advantageous living conditions and large population, without regard to language, for it occurs among favorably situated tribes of Southeastern, Northern, Central, and probably Southern dialects.

Political complexity appears to have accompanied special rules of property ownership along the Russian River. The Cokoa of Hopland had the most highly developed political system, with the Yokaia of Ukiah second. But the amount of agreement between culture and environment is determinable only from a much larger corpus of data than here presented. It is, therefore, gratifying that analysis of Culture Element Distributions material led Kroeber to write that "cultural cleavage follows topography, not drainage" and "there is probably a minor line of differentiation between coast and interior for most of the length of Pomo territory."[56]

In conclusion, it might be said that Pomo linguistic and tribal boundaries cut across environmental provinces; also, that similar special development in property ownership and political organization appears, in spite of linguistic differences, where favorable environment has made possible equally large populations.

[54] Gifford reported private ownership absent from these areas (CED:IV, 155).
[55] 1923, 80–84.
[56] Gifford and Kroeber, CED:IV, 241–243.

APPENDIX I

SUMMARY LIST OF POMO GROUPS

Modern name	Aboriginal name of group	Kroeber tribelets included	Name of main village	Place of main village	Other villages with assembly house	Square miles of group area	Natural provinces	Drainage
Northern								
Sherwood	Mato poma	Kadiu, Mato, Kulakai	Mato (Cabaldano)	Sherwood Valley (Curley Cow Creek)	Kabedile, Kulakau, Kacio	200	Coast, redwood, interior valley	To coast: Ten Mile River. To interior: Outlet Creek
Willits	Mitom poma	Bakau, Tsamomda, Shotsiu, Buldam, Kalaili, Nabo	Mitoma	Little Lake Valley	Buldam, Tsamomda, Nabo, Talel, Tsaka, Bakau, Kabecal, Cotsiu	275	Coast, redwood, interior valley	To coast: Big River. To interior: Outlet Creek
Calpella	Masut	Kachake, Shiyol, Masut, Shabkana, Chomchadila, Bitadanek	Tcomtcadila	Russian River (just below mouth of Forsythe Creek)	Masut, Disakalel, Kobida	70	Redwood, interior valley	Russian River
Redwood Valley	Katca	Dapishu ("end of the road"—H) Kachabida	Kabelal	(Upper) Russian River		45	Interior valley	Russian River
Potter Valley	Canel poma	Shanel, Seel ("in the brush"—H), Botel ("on the western edge"—H), Amdala	Canel[1]	East fork of Russian River, northern end of Potter Valley	Yamo, Amdala,[2] Kaleda, Tsimpal, Kalalpicul, Motitca, Dakeual, Tulimho, Nabado, Batsomni, Bakiltsia	40	Interior valley	Russian River and Eel River
	Sedam poma	Sedam, Shanekai	Sedam	East fork of Russian River, middle of Potter Valley	Tcotat, Kalesima, Canekai	130	Interior valley	Russian River and Eel River
	Pomo poma	Pomo, Tsakamo, Shachamkau, Chamkawi or Bomaa	Pomo	East fork of Russian River, south end of Potter Valley	Matuku, Tcumkaoui	70	Interior valley	Russian River
Bachelor Valley and Tule Lake	Cinal (north) or Kaiyo (east)	Mayi, Tsiyakabeyo	Cinal	Tule Lake	Homtcati, Xaro	40	Clear Lake	Clear Lake
Scott's Valley	Moilkai or Boilkai poma, Yimaba	Noboral ("dust piled up"—H)	Karaka	Scott's Valley		70	Clear Lake	Scott's Creek
Komli	Komli	Komli[3]		Russian River (Hensley Creek)		20	Interior valley	Russian River
Booneville	Pdateya[4]	Katuli, Tabate, Lemkolil	Cokatcal Lemkolil	Anderson Creek		170	Redwood	Navarro River

[1] One of largest Pomo groups.
[2] Only one ceremonial assembly house, at Canel.
[3] Original site abandoned before advent of whites. People moved to Scott's Creek.
[4] Language hybrid Northern and Central dialects.

APPENDIX I—(*Continued*)

Modern name	Aboriginal name of group	Kroeber tribelets included	Name of main village	Place of main village	Other villages with assembly house	Square miles of group area	Natural provinces	Drainage
Eastern								
Upper Lake	Xowalek	Howalek	Xowalek	Middle Creek		50	Clear Lake	Middle Creek
Upper Lake	Danoxa	Danoha, Badonnapoti, Behepal[5]	Danoxa	Affluent of Clover Creek	Badonnapoti, Kucadanoyo, Behepal[5]	60	Clear Lake	Clover Creek
Clear Lake (eastern shore)	Cigom[6]	Shigom	Cigom	Morrison's Landing	Kakulkalewical, Halika, Taawina	40	Clear Lake	Clear Lake
Lakeport	Kulanapo[6]	Kuhlanapo	Kacibadon	Near Lakeport	Boomli, Katotnapoti	30	Clear Lake	Carex Creek and Adobe Creek
Kelseyville	Habenapo[6]	Habenapo	Nonapoti	Kelseyville	Bidamiwina, Cabegok	65	Clear Lake	Kelsey Creek and Adobe Creek
Southeastern								
Buckingham Island	Kamdot[6]	Kamdot or Lemakma	Limakmaiina	Buckingham Island	Cakai, Kaleliyo, Ktsukawai, Kololaxa	24	Clear Lake	Lower Lake
Sulphur Bank	Elem[6]	Kamina (Hawina, Kauguma)	Xaukumaiina	Rattlesnake Island	Behepkobel, Mucokol	30	Clear Lake	East Lake, High Valley Creek
Cache Creek (Lower Lake)	Koi[6]	Koi (Hoyi, Shutauyomanok, Kaubokolai)	Kaubakulaiina	Lower Lake Island	Kulai, Kuulbidai, Xube	20	Clear Lake	Cache Creek, Lower Lake
Central								
Ukiah	Yokaia	Shokodjal, Tatem	Cokadjal,[7] Caneneu,[7] Katcayo	Russian River (Robertson Creek)	Cokadjal, Caneneu Katcayo, Dumi[8]	100	Interior valley	Russian River
Largo	Ciego[9]	Shiego	Ciego	NcNab Creek		30	Interior valley	Russian River
Hopland	Cokoa	Shanel, Kahwalau	Canel or Katomal	Russian River (McDowell Creek)	Katabel,[10] Kaletslu[10]	70	Interior valley	Russian River
Echo	Yobakeya[11]	Shepda, Koloko	Koloko	Russian River (Squaw Creek)		30	Interior valley	Russian River
Yorkville	Danokeya or Komacho-poma	Late	Late	Rancheria Creek	Maboton	60	Redwood	Navarro River
Point Arena	Bokeya	Kodalau, Pdahau, Lachupda	Pdahau, Itcetce,[12] Kodalau[12]	Mouth of Garcia River	Kauca, Latcupda	300	Coast, redwood	Garcia River, Navarro River, north fork of Gualala River

Southwestern								
Stewart's Point and Kashia	Kacia	Meteni, Kowishal, Danaga, Chitibida-kali, Chalanchawi or Ashachalin, Hibuwi, Potol	Meteni	Coast at Fort Ross	Lalaka, Seepinamatci, Dukacal, Bacel, Hibuwi, Potol[12]	250	Coast, redwood	Gualala River, lower Russian River
Southern								
Rock Pile	Yotiya	Kubahmoi, Shamli	Makauca, Hinoca	Buckeye Creek		140	Coast, redwood	Gualala River
Hiwalhmu	Hiwalhmu	Hiwalhmu	Hiwalhmu	Upper north fork of Gualala River		45	Redwood	Gualala River
Dry Creek	Mahilkaune (Kainomero)	Shawako, Wotokkaton	Amalako	Dry Creek		135	Interior valley, redwood	Russian River
Cloverdale	Makamotcemei	Makahmo, Kalme	Makahmo	Russian River (Sulphur Creek)	Amako, Kalafiko[14] or Kabekale, Motitcaton[15]	150	Interior valley, redwood	Russian River
Healdsburg	Kataictemi (Kainomero)	Wotokkaton, Ossokowi	Kale	Russian River (Healdsburg)	Tsoliikawai, Amatio, Mukakotcali	170	Interior valley	Russian River
Santa Rosa	Bitakomtara (Kainomero)	Wilok, Hukabetawi	Kabetciuwa	Santa Rosa Creek		150	Interior valley	Russian River
Sebastopol	Konhomtara (Kainomero)	Batiklechawi	Heewi	Green Valley Creek	Masikawani	140	Interior valley	Russian River
Northeastern								
Stonyford[16]	(?)	Bakamtati, Cheetido, Tururuaibida	Bakamtati	Stonyford	Amotati, Odilaka, Katakta	150	Western edge of Sacramento Valley	Stoney Creek

[5] 1870 Ghost Dance house.
[6] Data for this group abstracted from Barrett, 1908; Kroeber, 1925; and Gifford, 1923, 1926. I did no field work with these groups.
[7] Were successively occupied as main villages.
[8] Site of 1870 Ghost Dance house. Very populous.
[9] Small population.
[10] Successively after Canel. 1870 Ghost Dance house at Kaletslu; very large population remembered.
[11] Very small population.
[12] At different times following Pdahau.
[13] Site of 1870 Ghost Dance.
[14] Makahmo and Amako united to live here.
[15] Site of 1870 Ghost Dance.
[16] Data for this group abstracted from Barrett, 1908; Kroeber, 1925; and Gifford, 1923, 1926. I did no field work with these groups.

APPENDIX II

SEA ANIMALS AND PLANTS USED FOR FOOD BY THE POMO INDIANS

The extensive use of sea animals for food by the California Indians has been recognized for a long time because of the great shellmounds in the vicinity of San Francisco Bay and along the Pacific Coast. A mound at Cape Mendocino, in the Pomo area, revealed shells from fourteen species of shellfish.[1] Loeb[2] names several sea animals used by the Pomo, but he mentions them only in connection with the coast tribes. My informant JM, who actually showed me the various types of sea food and cooked them for me to eat, was from Sherwood Valley, about twenty miles from the coast. The same sea foods were known to the Indians along the Russian River and were an important part of their diet. Among the Northern Pomo shellfish were used as extensively as the fish caught in the streams, which must have been considerable because the salmon were caught in large quantities at certain periods of the year. My Central Pomo informant SP at Point Arena declared shellfish to have been used more extensively than either meat or river fish. Although mussels were most used because the supply was abundant, JS said that all types of shellfish were equally appreciated and were used whenever obtainable.

Sea anemone (beca, N;[3] *Cribrina xanthogrammica* Brandt), although extremely soft when removed from the water, were found to keep several days without spoiling and were wrapped in leaves and tied with grass and transported fresh into the interior valleys. When cooked and dried they become very hard, but soften when soaked and warmed again. As prepared by my informant they had a texture like calves' brains and, except for the usual "sea flavor" and the sand which could not be removed, might have been mistaken for them. Loeb noted their use by the Pomo, but they have not been reported for other California Indians and I found no reference to their use in other parts of the world.

Sea urchins (kaat, C; *Strongylacentrotus purpuratus* Stimpson) have also been used for food in Europe and by immigrants to this country who wanted to get them for themselves when they did not find them on the markets. Loeb mentions the use of sea-urchin eggs.[4] Both were probably eaten raw.

Sea cucumber (*Holothuriodea*) were eaten when obtained. They are used by the natives of the Malay Archipelago also, where they are prepared as an article of commerce.[5]

Acorn barnacles (meli, N; *Balanus cariossis* Pallas) were used by the Pomo, and also by the natives of Hawaii and other Pacific islands.[6] Their shells are found in mounds of San Francisco Bay.[7] The Pomo Indians valued them highly because of their richness and egg flavor, but as they could not be preserved for transportation, they were only enjoyed by those able to go to the coast. At low tide a big fire was built over a bed of barnacles without removing them from the rocks. They were allowed to cook until the water came in and extinguished the flames, cooling the meal thus prepared for the following day. Barnacles were also gathered and cooked in the hot ashes of the campfire.[8]

Goose barnacles (meceme, N; *Mitella polymerus* Sowerby) have been found on the San Francisco markets in recent years, but they were used by the Pomo when they camped along the coast. They were baked in the ashes before the shell and tough covering of the edible "neck" was removed.

Crabs (ki, C; *Caucridae*) were caught with a dip-net at low tide. They were not generally known to tribes living away from the coast. The Southern Pomo informant HM mentioned their use, however.

Mussels (kal, N; *Mytilus californianus* Conrad) were the most important shellfish obtained by the Pomo, and large quantities were transported to the interior valleys. They were baked to open the shells and loosen the attachments and then were dried in the sun before being strung on grass fiber for carrying home. The Indians knew of mussel poisoning, but denied deaths as a result of it. JMc attributed this to the fact that the Indians always gathered the mussels that were well washed and that, even at low tide, were never completely exposed. However, Sommer and Meyer have demonstrated that mussels taken from deepest water are most lethal.[9] Other Indians, including one at Bodega Bay, credited the saving of individuals poisoned to the power of Indian doctors.

[1] Kroeber, 1925, 925 ff.

[2] Loeb, 1926, 164–168.

[3] Throughout this Appendix, N, C, SW stand for Northern, Central, or Southwestern Pomo dialects.

[4] Loeb, 1926, 164.

[5] Johnson and Snook, 1927, 241.

[6] *Ibid.*, 250.

[7] Kroeber, 1925, 424.

[8] Loeb, 1926, 164.

[9] Sommer and Meyer, 1935.

Actually only 14 have died out of the total of 240 cases of poisoning of white people on the Pacific Coast during the last eight years. The largest part of the shell in the Cape Mendocino mound is mussel.

Clams (kal, N; *Cordium corbis* Martyn; *Saxidonus nuttalii* Conrad; and *S. giganteus* Deshayes) were obtained especially for the manufacture of bead money. The main supply was from Bodega Bay, Sonoma County. This was Coast Miwok territory, but the Pomo traveled there to get the shell and to eat their fill of sea food. The Miwok allowed them to dig the shells without payment; however they would pay for shells the bay Indians had already dug.

Abalone (těm, N; *Haliotis cracherodii* Leach and *H. wallalensis* Stearns) were obtained whenever possible. They were cooked and dried for winter use by both the Russian River tribes and those on the coast. The shells probably were sometimes used as pendants, but usually they were left to accumulate along the ocean shore.

Limpets (tzuka, SW; *Dradora aspera* Eschscholtz and probably other *Fissurellidae*) were eaten by the coastal Southwestern Pomo and the Central Pomo near Point Arena. The other informants could not recall their use, but probably they did eat them on their summer visits to the coast.

Chitons, or "baby slippers" (kati, N; *Katharina tunicata* Wood) were laid out on their backs until completely extended before being cooked, gutted, and dried for winter storage. They spoil quickly unless cooked and dried. After cooking they become very hard until soaked and warmed again.

Giant chitons or "china slippers" (mŭm, N; *Cryptochiton stelleri* Middendorff) were prepared like the smaller chitons and were used by all tribes in the area drained by the Russian River. Chitons are tough eating and are not tasty.

Octopus (stuca, N; *Polypus hongkongensis* Hoyle) were captured, along with ocean eel and certain fish by poisoning the small deep holes near the breakers.[10] They were used by all Pomo tribes that visited the coast and also those living there permanently.

Periwinkles (soka, N; *Littornidae*) were not so well known by the tribes living away from the coast. Possibly all animals such as the limpets and periwinkles were eaten.

Lobsters (k'i, C) are mentioned by Loeb[11] for the Central Coast Pomo, and AW of the same area said they were used; but CB, Northern Pomo informant from the Russian River, denied their use, along with that of shrimps. They were caught with nets at low tide.

Seaweed (toni, N; *Porphyra laciniata* [Lightf.] Agardh) is the most prized sea plant used for food. It was gathered in great quantities and carried home by all inland tribes and even traded to the Clear Lake Pomo, seventy-five miles from the ocean. It is still relished by the Indians as a desirable addition to their European diet. The Indians of this area earned considerable money gathering this product for shipment to China until a law put an end to the trade. It is eaten raw,[12] baked, and put in soup, and has an agreeable flavor common to most sea foods.

Setchell[13] described the use of seaweed among the Hawaiians and gives a list of the numerous names and species used there. It is probably used for food wherever it occurs.

Palm kelp or "sea palm" (kiyehola, C; *Postelsia palmaeformis* Ruprecht) was eaten by all who could obtain it because of its much desired salt content. However, it was not the only source of salt, even for the coast people.[14] Salt which remained after the water had evaporated from numerous small pools near the high-water level, was collected. JMc said palm kelp would not keep well and would soon rot even when dried. Old people who had lost their teeth ate it partly rotten.

Giant kelp (takahoe, C; *Macrocystes pyrifera* [L] Agardh) was used some in the same way as the palm kelp, but chiefly its use was for fishline. The stipes were tied together and furnished an adequate line for fishing from the rocks along the coast.[15] It was more durable than palm kelp.

[10] Loeb, 1926, 169.
[11] Loeb, 1926, 165.
[12] Chesnut, 1902, 299.
[13] Setchell, 1905.
[14] Loeb, 1926, 175.
[15] Loeb, 1926, 168.

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Abbreviations:

AA	American Anthropologist
BAE–B	Bureau of American Ethnology, Bulletin
CNAE	Contributions to North American Ethnology
UC–PAAE	University of California, Publications in American Archaeology and Ethnology
UC–PB	University of California, Publications in Botany

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