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ETHNOGRAPHIC NOTES ON THE SOUTHWESTERN POMO

BY
E. W. GIFFORD

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INTRODUCTION*

The Southwestern Pomo were among the most primitive of the California aborigines, a fact to be correlated with their mountainous terrain on a rugged, inhospitable coast. Their low culture may be contrasted with the richer culture of the Pomo of the Russian River Valley and Clear Lake, environments which offered opportunities for greater cultural development than did the forested mountains fronting the Pacific.

The main Indian village in the mountains of Southwestern Pomo territory was Potol [p^ho·tol]¹ on Haupt's Ranch. Charles Haupt, called Charles Hopps by Stephen Powers (1877, p. 187), was a German settler who allowed the Southwestern Pomo to live on his land. Near Potol on the same ridge was the site of an ancient village, Dukashal [du[?]kašal]. Barrett gives an account of Potol (1908a, p. 235), which Powers also visited, and locates Dukashal half a mile north-northwest of Potol.

Charles Haupt married a woman from Chibadono [ci[?]badóno] (near Plantation and on the same ridge). She was called Pashikokoya [pašikó[?]koya[?]], "cocoon woman" (pashikoyoyu [paši·koyo·yu], cocoon used on shaman's rattle; ya[?], personal suffix), but her English name was Molly. Only one of Haupt's children by her, Mrs. Louise Noble, was living in 1950.²

On the coast stood the Southwestern Pomo village of Meteni [mé·ti[?]ni] (Barrett, 1908a, p. 280), at Fort Ross, the Russian settlement established in 1811 about eight miles north of the mouth of the Russian River. Barrett, summarizing the history of the Pomo in general (1908a, pp. 27-49) has little to say about the Southwestern Pomo until his discussion of Fort Ross (p. 39). Kostromitonov, who was director of the Russian colony at Fort Ross for seven years, gave the following account of the Southwestern Pomo (in von Baer and von Heimersen, 1839).

THE SOUTHWESTERN POMO IN RUSSIAN TIMES: AN ACCOUNT BY KOSTROMITONOV

The Indians that live in the vicinity of Ross are divided into several tribes, distinguished by the following names: the Bodega Indians (Olamentke), the Indians of the steppes (Tundrenskiye, Kainama), the northern Indians (Svernovskiye). The last are again divided into several tribes, whose number and conditions are not known in the Ross colony.

The Indians of Bodega [Coast Miwok] cannot understand the northern Indians, as both their language and their manner of pronunciation are different. The more distant Indians and those of the steppes speak a number of dialects or languages, the characteristics and relationships of which are not yet known.

It is difficult to ascertain the number of these nomadic tribes. Formerly there were large villages on the Bodega

shore; however, after the establishment of two Franciscan missions, these villages disappeared. Many Indians moved into the missions. The rest either migrated to Ross, or perished in the epidemics of 1815 to 1822. In the valley plains of the Slavyanka [the Russian River], and towards the north of Ross, there are large settlements, including Kajatschim, Makoma, and Japiam. In the last of these, two thousand inhabitants were found. It seems, however, that these names refer to regions rather than settlements, since the Indians are scattered rather than crowded together. On the other side of the mountain chain that traverses the plain of the Slavyanka, there is a large lake [Clear Lake], around which there are many Indian settlements. It was found on examination of this region that these savages are very little differentiated from the coastal Indians in their appearance and customs; but their language is entirely different.

*[This paper was submitted to the Board of Editors of the Department of Anthropology at Berkeley in 1954. It was read and recommended for publication in *Anthropological Records*, but, for reasons too detailed to review here, it was not transmitted to the Editorial Committee. In 1960 Professor Kroeber reviewed the manuscript and enlisted the expert assistance of W. Oswalt on Pomo linguistic renderings. The staff of the Anthropology Department at Berkeley has provided assistance in the final editing of the manuscript.]

¹The term in brackets following Gifford's Pomo form is an equivalent furnished by Dr. Robert L. Oswalt; similar equivalents, in brackets, appear throughout this paper. See p. 6.

²Pashikokoya, or Molly, had children by a prior marriage, her first husband being from Muchawi [muca wi]. Thus the children were full-blood Southwestern Pomo. Two of them were twins: Rosie, who married Tom Smith and became the mother of Mary Samuels James, and Frank Jarvis, whose Indian name was Hotok'alim [ho[?]toqáhlen[?]] ("white head"). Powers, (1877, p. 191) mentions these twins, having seen them in 1871 or 1872. Rosie and Tom separated when their daughter Mary was small, but Tom continued to visit Haupt's Ranch.

The Indians are of middle height, although there are some tall ones among them. They are rather well proportioned, and the color of their skin is brown. This color is the effect of the sun, rather than the natural hue. . . . Their eyes and their hair, which stands up straight, are black. The Indians of Bodega do not paint their bodies. The northern Indians, however, tattoo the face, chest, and hands with different figures, and paint themselves with plant juice, which gives their skin a permanent dark blue color.

Both sexes are powerfully built; there are few cripples among them. However, the climate and their way of life prevent them from reaching old age. The women age very early; and one therefore always sees more old than young ones. Usually their expression is kind hearted rather than savage; and one often meets both men and women with very charming faces. They are gentle and peaceable and very capable, especially in their grasp of physical matters. They appear stupid only because of their immoderate laziness and lightheartedness. However, they need only once to observe some work that is not too difficult or complicated in order to copy it immediately.

These veritable children of nature have no conception of dress. The men are completely naked, and the women cover only the middle part of their bodies, from behind and before, with the skins of wild goats. The hair of the men is tied in a bunch on the crown of the head, whereas that of the women is gathered together at the nape of the neck or, occasionally, worn loose. The men hold up their hair with rather artistically made sticks of red palm wood. Both sexes adorn themselves with seashell pearls, wear eagle's foot bones in their ears, and go barefoot. That is the complete dress of those to whom our customs are still unknown. The Indians that live closer to Ross and sometimes even work there have jackets, breeches, blankets, and other things, which they regard with complete indifference. When they get such an article, they immediately stake it on a game or exchange it for some trifle. It is very amusing to see one of these savages in women's clothes with a blouse on top, or another one, wearing all the shirts he owns, so he can hardly move. Without any attachment to anything and without any knowledge of values they sometimes demand much for their work and at other times very little. Their only object in getting a thing is to be able to gamble it away again.

The men live in complete idleness. To eat their fill is their greatest pleasure. The preparation of meals and other domestic chores are the obligation of the women. On their travels, the women almost always carry the baggage as well as the children, while the men lead the way carrying only bows and arrows. Only very seldom do the men carry any load.

Their dwelling places may be distinguished as summer and winter quarters. In the summer they find shelter in bushes thinned out at the bottom and woven together at the top, whereas in winter they build "barabaras." The ends of some vertically placed poles are driven into the ground. The structure is then covered with bark, twigs, and grass, with an opening left in the top for a chimney and in the side for an entrance. Grass and goatskins serve as clothes and covering. A bow, arrows, a large kettle, and sometimes fishing nets, are the only household possessions. The bath huts are built in almost the same manner as the barabaras. A hole is dug. Poles are stuck around it; and the whole thing is covered first with bark and then with earth. On one side there is a very small hole for the smoke. The entrance is a hole near the base, so small that one can only crawl in.

The season determines the place where they may find subsistence. In the spring they live near rivers and in well watered places, in order to catch fish and gather roots and herbs. They spend the summer in the forests and the steppes, where they collect berries and the seeds of wild plants. In the autumn they pile up stores of acorns, wild chestnuts, and sometimes also nuts; and shoot bisons and wild goats with their arrows. The Indians' diet consists of everything they can find; large and small animals, shellfish, fish, lobsters, roots, herbs, berries, and other products of nature, even insects and worms. Some meat and fish are roasted, but the rest is usually eaten raw. Acorns, of which large stores are accumulated, constitute their staple food. The manner of preparation is as follows: after the acorns are picked from the trees, they are dried in the sun. Thereafter they are cleaned, transferred to baskets, and pulverized with specially shaped stones. They are placed in a hole in the sand or loose earth and covered with water, which is absorbed by the earth. This rinsing is repeated until all the peculiar bitter flavor has been removed. The mash is then cooked in a kettle, into which glowing stones are thrown. However, if a sort of pancake or bread is to be made from the acorns, a coarser powder is made from them and the mash is left in the hole for a while after the bitterness has been removed. A sort of dough is formed. This is shaped into cakes, which are wrapped in large leaves (either whole or cut into pieces) and baked on the coals. Chestnuts are prepared in the same way but are eaten only as mash and not as bread. The beginning of July is used for the more convenient gathering of acorns and seeds.

As soon as the acorn harvest is completed, the Indians begin the collection of the seeds of a certain plant, which grows in large quantities on the plains. The appearance of the plant is as follows: it reaches a height of one and a half to two feet. Several shoots sprout from the root. The leaves are narrow and long, and are covered with a fine fuzz. They have a peculiar smell and stick to the fingers. The flowers are yellow and grow in pointed clusters. The small black seeds are similar to Latuk. They are shaken from the plant with specially made spades, dried, ground into flour, and eaten dry. The taste is similar to that of burnt, dried oatmeal. Wild rye, wild oats, and other grains are also collected and are eaten, after proper preparation, either dry or as a sour mash.

The only drink of the Indians is water. They have no knowledge of alcoholic beverages. Sometimes, when they are looking on as the rum is issued to the detachment at Ross, they also ask for some. To some it tastes very good, to others awful; but even the former do not get drunk. Rum and all other strong drinks they call *omy liva*—"bad water." On the other hand, they like smoking tobacco very much, as do all the savages. They smoke it in pipes consisting of special, bored-out sticks and bowls whittled from the same wood. The tobacco is put into the bowl or in a hole in the thick end of the stem. As both the stem and the bowl are straight, the Indians smoke with heads bent backwards, to avoid spilling tobacco. They also have a tobaccolike herb of their own, which grows in sandy places, near the rivers; but its smoke has a very objectionable smell. Those that live in the vicinity of the colonies gradually cease using it, since they are able to obtain enough tobacco by working; but the more distant natives still remain true to their own tobacco.

It cannot be supposed that under such primitive conditions these people have any conception of social life or culture. Living sometimes in large groups, but usually in small, they know no form of submission to authority.

The one who has the most relatives is acknowledged as head or Tojon [toyon]. In the larger settlements there are several Tojons but their authority is very nebulous. They have the right neither to command nor to punish disobedience. Therefore the respect for the oldest member of the family has no significance. Sometimes the experience of age is consulted for advice on some undertaking; but that is all. In their opinion, most of the work is the obligation of the old men and women. The young are saved for emergencies. In short, the Tojons or elders of the tribes are not held in the same regard as among the Koloshen, Aleutians, and similar people.

Their religious ideas and practices are as simple as their customs. In childbirth the women have no outside help. Only in difficult cases, which occur very seldom, do they seek the aid of an older woman. The newborn babe is washed, wrapped in a goatskin, and laid in a basket. The children are nursed as long as the mother has milk. According to a peculiar superstition, the father of the child may not leave the hut for four days, and remains in complete idleness. The child is given the name of some plant, tree, or other visible object. However, when he grows up, the name is changed for another that is similar and fits his character. The Indians are very much attached to their children. However, as soon as the children are grown up and no longer have need of their parents, they cease to pay any heed to them. Hence the fathers become entirely indifferent to their children. Marriages are contracted without any ceremony. When a pair of young people like each other, the young man enters the barabara of the young woman, sometimes without even obtaining the permission of her parents, and begins to live with her. If a quarrel arises between married people, they separate without further ado. If it is only a quarrel of words, they are sometimes reconciled; but if it goes as far as actions, a reconciliation is seldom achieved. The children stay with the mother, but the father does not lose his attachment to them. Since the men do not love their wives with all their heart, jealousy is foreign to them. If a wife goes with another man for a time, her husband, although informed, will not try to hinder her. Such a relationship, however, may be formed only with a man of the same settlement or tribe; with a man of another tribe this is not permitted. If a man of another tribe does take an Indian's wife, a fight or war results. Some men yield to bestial lusts, and others prostitute themselves. It is not permitted to have more than one wife. Formerly, the Tojons used to have two wives; but since this custom made them the victims of public mockery, it fell into disuse. Strict attention is paid to blood relationships, and the Indian is not allowed to marry a first or second degree relative. Even in a divorce, the nearest relative of the man may not marry the woman; but there are exceptions.

The Indians cremate their dead. The whole family gathers around the pyre and all manifest their grief by lamenting and howling. The nearest relatives cut their hair and drop it into the fire while pounding their chests with stones and throwing themselves to the ground with frenzy. Sometimes, out of a particular attachment to the deceased, they strike their bodies until blood comes or even smash themselves to death. However, these cases are infrequent. The most valued possessions of the dead are cremated together with the body. Every year a celebration is held in commemoration of the dead, most frequently in February, as has been noted. The ceremony develops as follows. Ten or more men, according to the size of the settlement, are chosen for the performance.

These men must first purify themselves by fasting, and for several days they actually eat extremely little, especially no meat at all. After this preparation, the performers disguise themselves on the eve of the celebration in a barabara assigned to them for that purpose. They smear their bodies with soot and various dyes and adorn them with feathers and grass blades. After that they sing and dance until nightfall. Then they enter the forest, where they run about singing and carrying torches, whereupon they return to the barabara to spend the whole night there with songs, dances, and contortions. The following day and night are spent in the same manner. The third morning, however, they betake themselves to the relatives of the departed, who await them in their barabaras and, after receiving them in a proper manner, raise loud lamentations. The old women scratch their faces and beat their breasts with stones. The relatives of the dead believe firmly that they are seeing their departed loved ones instead of the performers. During this ceremony the whole settlement observes the strictest abstinence from food. Sometimes meat is not eaten till much later. Because of the reluctance of the Indians to answer the questions they were asked about this celebration, it was impossible to find out more details.

A bow with arrows and a spear are their weapons; they are mostly made of young firwood. The points of the arrows and spears consist of sharp-ground stones. To string their bows they use the sinews of the wild goats. Besides these weapons they use, in times of war, a sort of sling by means of which they hurl stones a great distance. Peace-loving by nature, the Indians fight each other rarely, and especially nowadays attacks of any importance are unheard of in the vicinity of Ross. A few years ago the Makamov Indians and those of Kajatschin came to blows in the plains of the Slavyanka. The cause was that the Makamov Indians had invited a Tojon for a visit and had suffocated their guest in his bath. The argument lasted almost a year, and on various occasions about two hundred men from both parties were killed until finally, weary of fighting, they settled the matter amicably and exchanged gifts. An enemy taken prisoner is killed on the spot and hung on a tree. However, they seldom take more prisoners than one, or a few at best, for they never go to war unless in great numbers, and although some courageous men might get near an enemy settlement at night, they are satisfied with shooting a few arrows and make off immediately. On both sides sentries are stationed who signal by yelling as soon as they spot someone not belonging to their settlement. The women, children, and old folks are kept in safe hiding places all during the war. He who surpasses all the others in bravery is held in the same esteem as a Tojon.

Here is a war-song [probably in Coast Miwok, not in Southwest Pomo] with its translation. In the beginning of the war or when preparing for it, they sing:

Temoi hoibu	Let us, leaders;
Onigi tschinami	Go to war!
Temai ilawak	Let's go and carry off as booty
Temai o tomai	A pretty girl!

Upon approaching the enemy settlement:

Indi mi schujugu	When are we going to be beyond the mountains?
Pari o londo	Whom do we espy first?

When they start shooting:

Buetki landa	Sharp are our missiles
Junawschi landa	You had better lay down yours!

After that the "Toen" [toyon] sings to inspire his warriors with courage:

Otilek - otilek lilem	Come on, come on!
Lile oje lippe	Let's go into battle!
Lile oje ili lippi	Follow me courageously!
Nawu elendu	Have no fear, the enemy's arrows
Indi kotscht ma iwid elendu	Won't do you any harm.

Each one of these stanzas is repeated several times on the occasions mentioned.

Usually, upon the recovery of a sick person, there is merrymaking. The convalescent sends messengers to invite all those living in the vicinity—the rich people and the tojons inviting even the more distant Indians if they are not unfriendly. After the arrival of the visitors the host serves his guests everything he has. Food provisions gathered at great pains, which would suffice to feed the host's family for several months, are disposed of within a few hours. When all have eaten their fill, they start exchanging sound advice: to live in peace and accord and not to argue with each other. Songs and dances follow; some sing, others dance and play tricks. At times a woman stands up in the center and sings a song while the men, holding hands, turn or skip around her. Some of them, holding eagle bones in their mouths, whistle a cheerful tune. When the song is ended, all yell "HOI," and then go on singing. Usually the whole song consists of only a few words, for instance: "You love me and so I also love you." This is repeated over and over during the dance; the tune is pleasant but almost always rather sad.

The Indians of both sexes are exceedingly fond of games, and this is perhaps the reason why dances are not so varied and popular with them. When they have satisfied their hunger, they give all their time to playing. Their favorite game is guessing. Some individuals who want to play together separate into two parties, one party sitting opposite the other. Between them a goatskin is spread out on which each side has laid out a number of little sticks. One of the group picks up a few grass blades or something similar. Holding both hands behind his back, he passes the item from one hand to the other making various gestures. His opponent must watch him carefully to find out which hand holds the grass. When he believes he has ascertained its location, he slaps the hand in which he presumes it to be. If he has guessed right, he is given a few little sticks, if not, he must give up several of his sticks. Then the next pair of players take their turn. The game ends when one side has won all the sticks. The spectators, of which there are many, sing during the game and goad the players with jokes and tricks. The fact that the players never come to blows is evidence of the gentleness of the Indians. Their love for games is so great that after a hard day's work in Ross, they will sometimes play until four o'clock in the morning, and then return to work without sufficient sleep.

The Indians consider that they are descended from the wolves. According to one old legend, a wolf, whose tribe is now extinct, stuck two sticks into the earth and decided that one should be a man and the other a woman. All their conceptions of the origin of man are as absurd as this tale.

Of the Supreme Being the Indians have a vague conception. They believe that after creating the heavens and the earth, and all other things, the Creator dissolved himself; and that since he ceded his powers to other spirits, he can do neither harm nor good now. Presumably they borrowed these ideas, with some disfiguration, from the baptized Indians of California. They have no religious customs.

The wizards or shamans do not distinguish themselves by the same dexterity and subtlety as those of other savages. When they are asked to practice their magic art, they go deep into the forest. On their return they prophesy for those who asked their advice. To placate the evil spirit and avoid misfortune, the shaman takes some glass beads into the forest. He then swears that he gave them to the spirit. After some time has elapsed he brings the things back, asserts that they are his own, and gambles them away. The most important skill of the shaman is the healing of the sick.

Judging by the way of life of these savages, one might believe that they are less subject to illnesses than others. However, several sicknesses rage among them, especially, high fevers, cholics, and syphilitic diseases. The first two are due to the sudden changes in temperature, the last is due to the same causes as everywhere else. For healing, the shamans use herbs and roots. Most of the time, however, they suck blood from the wound or sore, holding in their mouth a few small stones, or snakes, which they assert they have drawn from the wound. The frequent use of the bath serves in the healing of venereal diseases.

Simplicity and good nature are the main character traits of the Indians. Theft and murder hardly ever occur among them. If one does not provoke or insult them, one can be completely sure of them. However, this is owing more to fearfulness than to pure trustworthiness. For example, cannon shots always scare them so much that some even tremble and shiver. Suicide is completely unknown to them, and when they are asked about it, they cannot comprehend how such a thing is possible.

There would be much more to tell about these savages. However, they are filled with the peculiar delusion that they will die if they disclose their customs to a stranger. Therefore they answer all questions with "I don't know." Once I asked them whether they divided the year into twelve months. The reply was: I don't know. Who does know? O there are wise people that know everything. Where do they live? Far away, in the plains. They usually gave such evasive answers to similar questions.

Their indifference and inattention go very far. Our watches, burning glasses, mirrors, music, and so forth, they look at or listen to without attention and without asking how and for what all this is made. Only those things that frighten them make any impression upon them, although this trait is probably more the result of fear than of any desire for knowledge.

DATA OBTAINED FROM HERMAN JAMES

No Southwestern Pomo men or women were forcibly taken from Fort Ross by the Russians, according to Herman James, our chief informant in 1950. The only ones who went away with the Russians were the Pomo wives and half-breed children of Russian men, who took their families to "Russia" with them when they left. Herman James told us that when his mother's mother's cousin, Palekeya [palaké·ya] returned to Fort Ross after her Russian husband's death, the return voyage from "Russia" took one month. In the country where Palekeya had been there were

acorns and mushrooms, just as there were at Fort Ross.

Herman spoke of strange men with horses and tents who came to Fort Ross while the Russians were there. They had with them women and children and dogs. The Russians gave them flour and other things and they left for the north. They kidnapped one Southwestern Pomo woman, who came back a year later, but soon died. This was in Herman's grandmother's time before his mother, Marie James, was born. These people came from inland, Herman said; they were Indians, not white.

NEIGHBORING INDIAN GROUPS

South of the Southwestern Pomo was the Bodega division of the Coast Miwok. In Caucasian times there was some intermarriage between the two groups, as the data on our informants' ancestry demonstrate.

To the east were the Southern Pomo, with whom the Southwestern Pomo were friendly, borrowing various culture elements from their neighbors in late times. The Southern Pomo of Makahmo village went to Stewart's Point in Southwestern Pomo Territory for abalone, mussel, sea grass (ohono [ʔoʔhono]), and salt (Gifford and Kroeber, 1937, n. 329, p. 178), an example of the amicable relations between the Southwestern and Southern Pomo. Farther

eastward were the Wappo, who were called Hosimtata.

With the Central Pomo, north of the Gualala River mouth, relations, though friendly, seem to have been less cordial. For instance, when the Central Pomo came to visit, they demanded gifts, which the Southwestern Pomo felt compelled by etiquette to give their guests. At the present time there is some intermarriage between the two groups.

Herman James did not know of the Erussi [Russians?] mentioned by Stephen Powers (1877, p. 194): "Around Fort Ross there is a fragment of a tribe called by the Gualala, E-rus-si; which name is probably another relic of the Russian occupation."

INFORMANTS

Our first field work among the Southwestern Pomo was carried on between 1915 and 1918 as part of a statewide study of the kinship systems of California (Gifford, 1922). Three informants were then interviewed at Stewart's Point, Sonoma County.

1. Mrs. Celestina Scott, a Meteni [mé·ti·ni] woman, who was interviewed again in 1934. Her mother was born at Meteni, her father at a hamlet fifteen miles away, three miles up the ridge from Stewart's Point.

2. Mrs. Mary Samuels, who later married Herman James. She was born at Potol [p^ho·tol] and died in 1951. Her mother, Rosie Smith, came from Muchawi [muca·wi "at the grain"]. Her father, Tom Smith was a Miwok from Bodega Bay, who was an informant of Dr. Isabel T. Kelly.

3. Mrs. Julia Marrufo, who was still living in 1950. Her father, a half-breed, died about 1940. Her mother was a Southwestern Pomo from Potol, a sister of Mrs. Mary Samuels James.

The writer made a second field trip to the Southwestern Pomo in 1934 in the course of a culture element distribution survey (Gifford and Kroeber, 1937). Two women in-

formants from Meteni were interviewed in 1934.

1. Mrs. Celestina Scott (see above), who was between sixty and seventy years old in 1934. She died about 1940.

2. Mrs. Marie James, born in 1849, who was Herman James's mother. His father, a full-blood Southwestern Pomo, was her second husband. She was the daughter of a German from Chile, named "Myers," and of a Meteni woman³ said to have been ten years old when the Russians established Fort Ross in 1811. It would seem that Marie's mother was forty-eight years old when Marie was born, unless there is some mistake in her age at the time of the

³Marie's mother's name was Djibadonoya [ciʔbadónoya? "Rush Mountain person"]; she was baptized in the Orthodox Church at Fort Ross as Nokelia [also called Lukaria], said to be a Russian name (perhaps Natalie). She died at the age of one hundred and five, when her grandson, Herman James, was about eighteen years old, that is, about 1898. While living at Haupt's Ranch, Djibadonoya, or Nokelia, sometimes returned to Meteni for vacation visits and to work for William Benitz' German wife. Benitz had been in Sacramento when gold was discovered and later took Indians from Fort Ross to help him get gold.

Russians' arrival. Marie was born four years after the Russian Commandant's house was taken over by William Benitz, Myers' partner, in 1845.

Marie James knew a few words of Russian and preferred Russians (by reputation) to Americans. She was still living in 1950 but had become senile.

In 1950 my wife and I spent the month of August and a few days in October at Kashia [kashaya], the modern Southwestern Pomo reservation three or four miles inland from Stewart's Point on a mountain ridge at an elevation of 1,068 feet above sea level. Through the courtesy of Mr. and Mrs. Fred H. Rushen and the Sonoma County superintendent of schools we had comfortable living quarters in the schoolhouse. At that time we interviewed three informants.

1. Herman James, a man seventy years old, was our chief informant in 1950. He was the son of Marie James, with whom he discussed some matters we asked about. He also sometimes consulted his wife, Mary (formerly Mrs. Mary Samuels), who was one of our 1915-1918 informants, and her mother, Rosie Smith, a full-blood Southwestern Pomo from Muchawi.

Herman James was born April 12, 1880, at Charles Haupt's ranch. He spent his boyhood at Fisk's Mills, walking nearly to Plantation to attend school. Herman's father, Marie James's second husband, was a full-blood Southwestern Pomo, whose mother came from a village called Kalewsha [q^hale wíša· "on top of tree"] "bunch of trees standing" (kale, "tree"; weshā, "bunch of, standing") from the same ridge as Dukashal [du?ksal] but beyond Matiwi [ma?ṭhiwi]. According to Herman there was no stream between Matiwi and Kalewsha, though Barrett's map (1908a) shows a stream.

Mary, Herman's wife in 1950, was not his first wife. We never learned how many times he had been married.

In 1950 his living children, listed from oldest to youngest, were Allen James, Curtis James, and Mrs. Gladys Ray Borella.

2. Mrs. Essie Parish, half-sister of Julia Marrufo. Her father was a half-breed from Point Arena; her mother and Mary Samuels James were maternal half-sisters.

3. Mrs. Maria Santos, living in 1950 at Healdsburg. She was then seventy-five years old. She had been born downstream from Chalanchawi [chalamcáwi; unrecognizable to Herman James and Essie Parrish, 1960] on the south bank of the Russian River below the present highway bridge and near the mouth of the river. When Maria was seven, a priest came to her home from Tomales and baptized her. She married a Chamorro from Guam, but he deserted her and was dead in 1950. She was the only Pomo we interviewed from the southern part of Southwestern Pomo territory but she was not a valuable informant since she had always lived south of the Russian River mouth and never at Haupt's Ranch.

Maria's father, Antone [Antón?], was born at the "pond" at the north end of the present bridge at Chalanchawi. Both his parents were Southwestern Pomo. Antone died when he was sixty-eight.

Maria's mother, who died at eighty-two, was a cousin, through her mother, of Rosie Smith, Herman James's mother-in-law. Maria's mother's father died before her mother was born and the child was taken at birth to Tomales Bay. Thus she could tell Maria nothing about old Southwestern Pomo life because she had been raised at Marshall on Tomales Bay.

Maria's daughter, Dolores Myers, lives at Lytton Springs. Her husband, John Myers, is a nephew of Herman James.

ORTHOGRAPHY

In general, the vowels in the Pomo words we have recorded have continental values. Three of the vowels have the following values, as indicated by the circumflex accent:

ê as e in shed

ô as ou in ought

û as u in but

We recognized two s sounds, the normal English s and the hissing ś. The latter we have indicated by a capital S. We use ch for Barrett's tc and sh for his c.

[Dr. Robert L. Oswalt has for several years been making a study of the Southwest Pomo language for the University's Department of Linguistics. He has kindly furnished equivalents for Gifford's Pomo forms in his phonemic orthography, which will no doubt be standard for the language.

These equivalents are given in brackets following Gifford's Pomo forms. It will be seen that the two renderings generally agree very well, the differences being due to Oswalt's carrying out his phonetic distinctions more finely. The largest differentiation is in the stops, of which Oswalt recognizes 21, or 60 per cent of the total system of 35 phonemes. The stops come voiced, glottalized, aspirated, and plain, and are articulated in seven areas

of the vocal apparatus, namely: labial, dental, alveolar, palatal, velar, post-velar, and glottal. One other phoneme likely to be difficult for an English ear is a glottalized affricate ś, resembling a glottalized version of English ts.

The Oswalt orthography in full is:

Voiceless unaspirated stops: p, t, ṭ, c, k, q, ?

Voiceless aspirated stops: p^h, t^h, ṭ^h, c^h, k^h, q^h

Glottalized stops: p̣, ṭ, ṭ̣, c̣, ḳ, q̣

Voiced stops: b, d

Nasals: m, n

Sonorants: w, l, y

Spirants: s, ś, h

Glottalized affricate: ś

Vowel length: ˑ

High tone: ˀ

Oswalt notes a frequent aphesis or decapitation in compound words, as of ha'da "trail" becoming the monosyllable -'da.

A.L.K., 1960]

HABITAT

The mountainous territory of the Southwestern Pomo fronts the Pacific Ocean between 38° and 39° N, including in its area the mouths of two important rivers, the Russian in the south and the Gualala in the north. The old trails ran straight over hill and dale in contrast to modern roads with their gradual ascent adapted to the use of wheeled vehicles. The winding Sonoma County road from Stewart's Point to Skaggs Springs was built when Herman James was seven or eight years old and was living at Danaga at Stewart's Point.

The coastal plain is narrow and uneven, often breaking down in cliffs on the ocean shore, except where streams empty into the ocean, their drowned mouths forming lagoons. During the dry months the smaller streams are prevented from flowing into the sea by sand banks, which are later broken through by freshets in the rainy season. The place where the Gualala River flows into the ocean is called Akawalali [ʔahq^hawála·li "where water runs down"] by the Indians; the name of the small island in the lagoon at the mouth of the Russian River is Akadilema [ʔahq^ha dfile:ma "island" literally "land in the middle of water." The name of the specific place is q^hadfile].

The top of the high ridge on the road from Stewart's Point to Skaggs Springs is on the eastern boundary of Southwestern Pomo territory. This ridge top, 1,900 feet in altitude, is known today as Las Lomas. By the Southwestern Pomo it is called Kawachenno [q^hawáhcanno "pine grove"]. Mahmo "hole in the ground" and Matiwi, near the boundary, are old Southern Pomo villages. [The names q^hawáhcanno and mahmo are names borrowed from Southern Pomo.]

Southwestern Pomo territory lies almost entirely in Sonoma County. Only at the mouth of the Gualala does it extend into the southwestern corner of Mendocino County. Barrett (1908a, pp. 227-228) gives a brief but adequate general description, followed by a discussion of village

and camp sites on the coast and along the Gualala River (1908a, pp. 228-239). His map 1 shows boundaries, streams, and village and camp sites, but not topography. Salmon Creek is shown as the southern boundary of Southwestern Pomo territory and the lower course of the Gualala River as the northern.

In his "Pomo Geography," Fred B. Kniffen, a geographer, presents an excellent account of three types of Pomo habitat, one of which is the coastal country of the Southwestern or Gualala or Coast Pomo (Kniffen, 1939, pp. 381-389). His plate 7 shows three typical coast landscapes.

Herman James said that the Southwestern Pomo might live on shell middens along the coast until September, when they went inland. In May, they returned to the coast where they collected and dried sea foods for use inland. Salt was obtained at Salt Point, not far from the site of Kabesilawina [q^haʔbe sihlawina·] village (Barrett, 1908a, p. 230).

The fact that the Southwestern Pomo, like the Coast Yuki (Gifford, 1939, p. 296), lived on the coast or inland according to season indicates that Barrett's grouping of villages into coast and river divisions probably has no political significance; in other words, each community had both coastal and inland sites, or camps and river villages, used according to season. Barrett says his grouping of the villages in these two divisions in his discussion of village sites (1908a, p. 227) was a matter of convenience.

The Southwestern Pomo had no boats of any sort. In recent times the people on the south side of the lagoon at the mouth of the Russian River sometimes came over in their boats and ferried across any Southwestern Pomo who wanted to fish on the beach south of the river's mouth. who wanted to fish on the beach south of the river's mouth.

VILLAGE SITES

The following village and camp sites were mentioned by our informants. Most of them we visited. We have added the pertinent references to Barrett's descriptions of them in his "Ethnogeography of the Pomo" (1908a). We did not attempt to get the names of all the Southwestern Pomo village and camp sites, since Barrett probably obtained all, or at least most, of them. Camp sites were probably too transient to be listed with any probability of completeness.

The modern village of Kashia at the schoolhouse on the Southwestern Pomo reservation inland from Stewart's Point comprises the existing Southwestern Pomo, except for those who have married out or moved. We share with Stewart (1943, p. 49) the view that this represents the only political unit of the Southwestern Pomo either present or past.

Lálaka [láʔlaq^ha]: an inland, or river-division, village site. [láʔla is a dialectal version of lala (wild goose), q^ha is "water" or "spring."] This site is on the property of Andrew Lancaster Richardson, about a mile south of his

house and probably about 100 feet lower. The house is about 1,460 feet above sea level (near the southern edge of USGS Annapolis Quadrangle); a base mark near the house shows 1,463 feet. There was some shell in the ground at Lálaka.

Three separate groups of house pits were found. (1) The first had five undoubted house pits and two larger pits; Herman James thought the larger ones were probably dwellings also, since they were not large enough for dance houses. (2) About 600 feet south of Lálaka and lower on the slope, five more house pits were grouped near a spring. Here we saw the same sort of shells as at Lálaka. (3) About 300 feet northwest of Lálaka, there were three more house pits with shell, just above the stream in the nearby gully. Herman James said the name Lálaka applied to all three groups of pits.

Lálaka damali [láʔlaq^ha 'damali "where the Goose Spring trail goes across," -ʔda "trail," m- "go across," -ali "place where"]; the crossing or ford of the Gualala River, used by the Lálaka people. They did not live here

but moved back and forth from the coast to Lálaka (Barrett, 1908a, p. 234). Lálaka people went to the coast at Fisk's Mills, the site of Tabatewi village (Barrett, 1908a, p. 230). The people of the inland village of Tachumawali [tacúmawali] (Barrett, 1908a, p. 237) also went to Fisk's Mills.

Tachumawali [ʔacúmawali; ʔa is perhaps an aphetized form of haʔa· "rump," cumaw "to set off the ground," -ali "place where"]; the site of an old inland, or river-division, village (Barrett, 1908a, p. 237) at the lumber mill two miles north of Lálaka. There, at the modern house now on the site, Mary Samuel James once dug up a small bowl mortar. Herman James said the modern house had been built over a house pit. Other pits had been destroyed by logging operations, which were still being carried on when we visited the site on August 21, 1950. The soil was black and contained shell.

Submomiwáli [súlmo miʔiwáli] "where the hollow [log] lies": the site of a former village on the ranch of Charles W. Poff. We did not visit it. It was on the north side of the road a little west of elevation marker 970.

Tadono [táʔdono "bird mountain"]: the site of an inland, or river-division, village on the east side of the bridge across the south fork of the Gualala River (Barrett, 1908a, p. 236). According to Herman James, this village is wrongly placed on Barrett's map. Herman said the name did not apply to a village but to the crossing of the Gualala River 300 feet below the county-road bridge on the trail to the ocean.

Muchawi [muca·wi "at the wild oats"]: the site of an old village of the river division (Barrett, 1908a, p. 236) on the same ridge as Tadono but north of it, as Barrett's map shows.

Hipowi [hibu·wi "at the Indian potatoes"]: a site mentioned by Powers (1877, p. 189), not on the river but on a hill east of the middle fork of the Gualala River. Barrett (1908a, p. 237) describes its location somewhat similarly. Its name, according to Herman James, is Hibuwi.

Achashinachawali [ʔacaʔ šiná· cawali]: a level site on a grassy slope with a southern exposure about 900 feet above sea level. There was a spring in a small ravine close by. The site was above the county road leading down to the South Fork of the Gualala River. We reached it by an old logging road that takes off from the county road a little west of the Kashia schoolhouse (elevation 1,068 feet) where the county road turns sharply down hill. From the road we struck off to the left through a clearing.

The site is given on Barrett's map and discussed in his text (1908a, p. 236). The name means "where the person's head is sitting" (acha [ʔacaʔ] "person"; shina [šína·] "head"; chawa [caw] "sitting"; li [-ali] "place").

We found what were apparently five house pits; one was perhaps 20 feet across, another 12. Three were about 10 feet. Besides these there were three small pits under a laurel. There were shell fragments in the black soil: Mytilus californianus pieces, one Cryptochiton stelleri valve, and small chiton valves.

On August 4 we walked with Herman James to the site. According to him, someone was living there in his grandmother's time. It was a winter camp. Its people lived near the ocean in summer and inland in winter.

In 1951 C. W. Meighan excavated this site (Son-369). (See App. I.)

Chalamkiamali [c^halamʔ kfiya mali]: a site a quarter-mile northwest of Achashinachawali on the same ridge (Barrett, 1908a, p. 236). The name refers to a kind of plant, chalam [c^halamʔ] and a flat place, kiamali [kiya "slope," -m "across," -ali "place"]. It is a level, grassy spot with a southern exposure at 1,000 feet altitude and is flanked by two ravines with a dense growth of laurels and redwoods. Several buckeye trees (bashah) were growing here. The soil was black and had more marine shell in it than the soil at Achashinachawali: barnacle (Tetraclita rubescens), Black Top (Tegula funebralis), mussel (Mytilus californianus), abalone (Haliotis rufescens), and small chitons. This place served as a winter village. Six house pits could be discerned.

We visited Achashinachawali and Chalamkiamali with Dr. Robert Greengo, who took boring samples at both, reaching sterile earth at 3 feet at the first and at 3 feet 3 inches at the second. Shell specimens and artifacts were collected at both sites.

Kaleshadim [q^hale šáʔdimʔ]: a site on a flat-topped grassy knoll with a southern exposure on the property of John Press, about 600 feet west and downslope from his house. We visited it with Herman James on August 7. The hill drops off steeply into a gully to the west, where water was obtained. Two oaks, not tan bark, grew in the gully. The site has five possible house pits. We saw cooking stones with fire marks: one was a piece of local rock the size of a fist, which Herman James thought was a cooking stone; two other slablike pieces were used in an earth oven for acorn bread.

This site is wrongly located on Barrett's map; it is actually the first village southeast of Muchawi. The name means "trees on the ridge" (kale [q^hale] "trees"; shadim [šaʔdimʔ] "on the ridge" ["to be a ridge"]).

These last three sites (Achashinachawali, Chalamkiamali, and Kaleshadim) are all on the same ridge at quarter-mile intervals from each other. All are mentioned by Barrett (1908a, p. 236) as inland, or river-division, sites. According to Herman James, the people from these three villages went to Stewart's Point via Tadono [táʔdono "bird mountain"]. They visited the coast from Kapashinal [qahp^hašinal] north to Tontochimachi [t^hol^hóhcema·ce] and Tulekaleyo [tule q^hále yow "under the hummingbird tree"]. The people of the two inland villages of Muchawi and Chumati [cumati] went to Kachmachi [q^hát^hmaci] and Kowishal [q^howíšal] near Black Point and Del Mar (chapida [cáʔda]).

Tekalewi [t^heq^hále·wi "at the elderberry tree"]: a site near the 1,177 foot (970?) USGS marker shown on the northern edge of USGS Plantation Quadrangle. The Haupt Ranch was visible in the distance. We found half of a mortar slab near the marker.

Mabatê [mabáht^he; ma, aphetized form of ama· "ground," baht^he "big"]: a place on Mervin Noble's ranch north of Tsumômitiwali [súlhmomiʔiwáli]. Herman James was not certain whether it was a former village or camp. He analyzed the name as "big ground" (ama [ʔama·] "ground," or "earth"; batê [baht^he] "big").

Kahtowu [q^haʔowí "at the pond"]: a place name meaning "pond." This is not a former Southwestern Pomo village. Like Plantation, it was once a summer resort.

Names of other inland places were given us by Herman James.

Môkoishpelô ("stump town") [moʔqóš pewlo (translation loan of the former English name for Guerneville; moʔqóš "stump," pewlo "town" < Spanish pueblo)]: a modern Southwestern Pomo name for Guerneville. The stumps remaining from former logging operations account for the name.

Batiklechawi: the Southern Pomo name for the former Southern Pomo village at Sebastopol.

Kolemali [kolómali]: a Southwestern Pomo name for modern Cazadero. Herman did not know the name "Kabateli," given by Barrett (1908a, p. 238) as a camp site near or at Cazadero.

Barrett's map shows no other sites between Tsumômitiwali [súhlmomitiwali] and the vicinity of Cazadero. There were no sites that Herman James recognized as we traveled down the ridge road to Cazadero on August 21, after leaving the Charles W. Poff ranch. The greater part of the country we went through was east of the redwood belt. Most of the oaks were not tan oaks. Only here and there in shady reaches of the road a few tan oaks and redwoods were seen. The edible manzanita grew abundantly.

Near the coast we visited several sites which are listed in Barrett's account of the "Coast Division" (1908a, pp. 228-235). We did not visit all the village and camp sites he describes.

Kapashinal [qahp^hašinal "bracken mound"]: the most extensive Southwestern Pomo site we saw. It looked to be 5 feet deep. It has been cut by State Highway 1 and much of the midden material has been scraped to the downhill side of the road. This site was later excavated (see App. I, site Son-256).

Washkupina [waškup^hna]: according to Herman James, Russian Gulch. This site is downstream from the bridge on Highway 1, between the bridge and the ocean.

Bashewi [baše^hwi "at the buckeye"]: on a knoll on the coast (Barrett, 1908a, p. 234). The knoll has been cut by Highway 1. A nearby stream, which runs all year, provided drinking water. We found one snail (Helminthoglypta exarata) here.

On August 28 we visited the property of Mr. Walker near Salt Point. There we found a site, about 50 feet in diameter, below a knoll about one-sixth of a mile southeast of Walker's house on a tiny live streamlet. It had a southeastern exposure and was somewhat protected from western winds. We could not discern any house pits but there was plenty of shell in the ground. The streamlet had cut the edge of the site, revealing the depth of the shallow and irregular deposit (average depth about 18 in). Some of the midden material had fallen into old gopher holes and extended downwards in pockets about 3 feet deep. The shell species were the same as in other sites of the region.

This may be Barrett's "Chitono" [ciʔdono] (1908a, p. 230), though Herman was not sure. The next day we asked Marie James, Herman's mother, about it and she said it was not Chitono, which she said was on the next property to the south, belonging to the husband of A. R. Richardson. Neither Marie nor Herman James had ever been to

the camp site on Walker's property. Marie thought it was Ledamali [leʔdamali "where the middle trail goes across"]. It developed in our discussion that Ledamali (Barrett, 1908a, p. 234) is probably part of Kabesilawina.

From this site we walked to Salt Point, which lies about a half-mile northwest of Walker's house. Here Herman found the natural salt pans, small shallow depressions above the reach of ordinary spray. These had some water in them and a quantity of salt crystals, some of which we collected for analysis. There was no evidence of a habitation site close to the salt pans; apparently the village was upstream some little distance (see Kabesilawina below).

Kabesilawina [q^haʔbesf^hla wina "rocks flat on top"]: up a little gully near the old county road (Barrett, 1908a, p. 230). A permanent streamlet runs down this gully into the sea on the south side of Salt Point. We were told that people were living at Kabesilawina when two Indians were hanged at Ledamali by Americans. The Indians were playing in a grass game at Kabesilawina when Americans came and took them away. We learned nothing of the reason for this action.

Dakomowi [ʔaʔqomó^hwi "at the salt hole"]: the headland where we got our salt sample (dako "salt"; mo [aphetized from ʔimo "hole"] "where"; wi, "place").

Meteni [mé^hʔi^hni]: the village on the inland (northeast) side of Fort Ross. At the site, no longer occupied, we saw one dance-house pit and ten to twelve or possibly fifteen house pits. Plowing had pretty well obliterated the house pits but not the dance-house pit. There were many glass fragments on the site, which lies chiefly in the V-shaped area formed by the junction of the road from Seaview with Highway 1. Midden material extended across the junction of these two roads.

About 680 feet north of the main Meteni site was another, just on the western edge of the gulch of Fort Ross Creek. Mr. John C. McKenzie, Curator of the Fort Ross Museum, showed us several grooved stone sinkers from this second site. We found no sinkers but did find a round-tipped chert arrowpoint, which Mr. McKenzie kept for the Museum. We also found a ring made of the periphery of a limpet shell; Herman James thought this was not an artifact.

Matimali [mati^hmáli "place where the feet make a hollow sound"]: a camp site south of Stewart's Point (Barrett, 1908a, p. 233). The site was south of a knoll called Duwimachaeli [duwi má^hc^heli] "Coyote's sweat house" (Barrett 1908a, p. 230), on which many medicinal plants are said to grow. Highway 1 passes this knoll on the inland side.

The name Matimali also applies to a hollow-sounding place near by, evidently with a cavern beneath it. This place is right on the shore on the property of F. H. Richardson, 1.25 miles south of Stewart's Point. Herman James knew no story about it. We collected here a sample of yellow lupine root, used for cordage.

Mrs. Maria Santos mentioned the following places, south of the lower course of the Russian River.

Chalanchawi: a village on the south bank of the Russian River downstream from the highway bridge at modern Bridgehaven ("Tcalantcawi" of Barrett, 1908a, map 1 and pp. 229, 232). Maria Santos' family's house was here. A big eucalyptus tree marks the site. Maria was eighteen years old when it was planted by her family. In 1950 it was immense. When Maria was young, her family was the only one living at this

spot. In summer they camped along the coast and river, gathering crabs, mussels, abalones, and seaweed. In winter they lived at the eucalyptus tree. Some Bodega Miwok used to come up and camp, especially in the duck season. Maria did not know any name for the place nor did she know the names of other villages that were located south of the river.

Kabemali [q^haʔbéʔma·li "at the rocky land"]: According to Mrs. Santos this was the southernmost Pomo village, to the south of which was Miwok territory. People from Jenner camped here. Her statement differs from Barrett (1908a, p. 232), whose map makes Salmon Creek the boundary between Pomo and Miwok territories. Mrs. Santos was in agreement with Barrett's Pomo, rather than his Miwok, informants.

ETHNOBOTANY

Certain general terms for plant types are used frequently by the Southwestern Pomo. A brief vocabulary follows:

Grass (general term)	kahdi, ka 'di	[qaʔdi]
"Grasses" in river	hachim	[hacimʔ]
Seeds of grasses and weeds	mucha	[muhca]
Clover	osso	[ʔohso]
Bush, tree, vine, [plant]	kale (kali)	[q ^h ale]
Chaparral	ha S sheh	[hahse]
Sedge	atci	
Thimbleberry	kotolo	[qoʔ ^h o·lo]
Elderberry	te	
[Elderberry tree]		[t ^h eq ^h ále]
Any kind of wood	ahai	
[Wood, stick, pole]		[ʔahay]
Bark	kawa	[qahwa·]
Redwood	kasile, kasin	[qasil]
Buckeye	bace	[bahša]
Madroño	kaba	[kabaʔ]
Hazel nut	dic	[miʔdiš]
Fern, large, featherlike	kapa	[qahp ^h a]
"Indian potato"	hibu	[hiʔbu]

Barrett has published (1952, pp. 65 ff) detailed accounts of the Pomo processes of preparing various nuts for human consumption: acorns, buckeye, laurel, and pine nuts, etc.

Professor H. L. Mason, of the University of California, has kindly identified for us botanical material collected in 1950. The list of plant species given below follows Willis Linn Jepson's arrangement in A Manual of the Flowering Plants of California (1925). We give the Southwestern Pomo terms as well as the botanical and the English names.

MOSSES. Usnea californica Herre, Spanish moss, kôchih [qoci]. This moss was used as diapers for babies.

SEAWEEEDS. Postelsia palmiformis Ruprecht, kaijê [qaye]. This stalked seaweed, which looks like a miniature palm, was eaten at any time of year, according to Herman James. The stalks were cooked on a flat rock or in hot ashes until their color changed from brown to blue. [Also chewed raw, as we would sugar cane.] Mary James, Herman's wife, said this seaweed was not eaten until after the first rain.

Kelp (chainama) [chanama] was eaten, the edible part being the middle length of the stalk. It was cooked in hot ashes, not live coals, so that it became puffy. Pieces were then broken off and eaten with acorn mush. The

kelp stalks were also sun-dried and stored. Wilted, slender stems of kelp were used as cordage and fish line, being tougher than the fresh stems. Dry kelp was too brittle for this purpose.

Porphyra perforata, J. Ag., ôtdônô [ʔoʔhono, all edible seaweeds]. This leafy seaweed was made into a cake and cooked in the earth oven. These cakes, each a foot in diameter and a quarter-inch thick, were rolled up and stored in an openwork basket for winter consumption. The olive-green color of the raw leaves changes to light green with cooking.

A narrow-leafed seaweed, called mutamtono [mutám-ʔoʔhono; mutamʔ "shining," ʔhono, aphetized form of ʔoʔhono] was eaten. We did not obtain a specimen, so I do not know whether this is a variety of Porphyra perforata J. Ag. or Pterygophora californica, both eaten by the Coast Yuki of Mendocino County (Gifford, 1939, p. 307).

FUNGI. Boletus edulis Bulliard, chepokol [čepóhkol, če aphetized from hiče, "mushroom"]. This mushroom, which appears after the first rains and is much used nowadays by the whites, was also eaten by the Southwestern Pomo. It was cooked on hot stones.

A white-topped mushroom, bishche [bihšeče; bihše "deer"], was also eaten. Women collected these mushrooms in baskets after rains, about November, and cooked

them at a fire on a flat hot rock. They were too delicate to be cooked in the earth oven. Only the tops were eaten, the stems were discarded.

A mushroom called chalal [č'alal], which was white inside and out, was also eaten.

A conical mushroom, kale masunxe [q'hale má síné·], which grows out of the ground, was cooked like the other mushrooms. Nowadays it is fried with onions.

An orange-colored mushroom, tuwiche [duwíche· (duwi "coyote")], which grows on the ground, was cooked on hot stones or on coals.

A shelf fungus, shichi [š'ici], growing on fallen oaks, was cooked on hot stones and was said to taste like meat. Another shelf fungus, batá [ba·ta "any kind of toadstool"], which grows on laurel trees, was not eaten. Neither kind was used in preparing deerskins.

Puffballs, kalaishaá [qala·ša], were considered poisonous and were not eaten.

FERN FAMILY. *Adiantum pedatum* L., Five finger Fern, shamoda [š'amó·o·da; ša aphetized from ?isa· "arm"]. The stem was inserted in a pierced ear lobe to keep the wound from closing.

Pteris aquilina L. var. *lanuginosa* (Bory) Hook., bracken, me·oda [mo·o·da]. This was not eaten or used for medicine, but its root was used in baskets.

Woodwardia radicans Sm., Chain Fern, kahpa [qahp·ha]. The fronds were used for lining the top and bottom of an earth oven in baking acorn bread (silun [si·lun]). Sometimes the impression of the fronds was left on the bottom of the bread. The village of Kapashinal on the coast (see p. 9) was named for this plant (kahpa, the plant; shinal, "top").

Polystichum munitum Presl., Sword Fern, chamaoda [š'amó·o·da]. The fronds were used as a lining for the acorn-leaching basin and also for the earth oven for acorn bread. Water in which red earth had been soaked was mixed with the acorn meal for this bread.

HORSETAIL FAMILY. *Equisetum telmateia* Ehrh. var. *braunii* Milde, Great Horsetail, shimayu [š'ima·yu]. This was not used by the Southwestern Pomo, although some other California Indians use it as "sandpaper" to smooth arrow shafts.

PINE FAMILY. *Pinus lambertiana* Dougl., Sugar Pine, chuye kale [cuye·q'hále]. The nuts were eaten. The word chuye refers to the cones. Men climbed the tree to gather the cones, but a taboo prohibited the father of a newborn baby from climbing for four weeks. If a man broke this taboo, he was taken by a spirit in human form, named Djuyetash [cuye·tá·š] to Kastona [káhtó·nan], a deep pool in the main branch of the north fork of the Gualala River. This pool is on the road from Kashia, on the property of the Berkeley Young Men's Christian Association Camp.

If the sugar pine trunk was too smooth to climb, a man would lean a fallen small tree, perhaps a redwood sapling, against the trunk to serve as a ladder. For pulling and twisting off the cones the climber had a hook made of a straight pole, with a deer antler lashed on at the end. This device was called shiwili. The wife of the climber collected the cones so the squirrels could not get at them. The cones were pounded with a stone on a flat rock to loosen the nuts. The sugary pitch from a hollow sugar pine tree was eaten without any preparation. It was called tuitu, a term also applied to modern sugar.

Pinus muricata Don., Bishop Pine, kunum [k'hunum·]. This tree grows commonly near the coast. Only its roots were used, in basketry, though they were inferior to yew roots because they were not so strong. The wood made poor firewood.

Pseudotsuga taxifolia (Lamb.) Britt., Douglas Fir (or Douglas Spruce), kauwam [q'hawam·]. Not used except as firewood.

REDWOOD FAMILY. *Sequoia sempervirens* (Lamb.) Endl., Redwood, kasil [q'asil] or kasin. The bark was used for house covering. It was removed from the trees with an elkhorn wedge driven with maul of white oak. The new foliage, warmed in the fire, was applied as a poultice for earache. The gummy sap which accumulated at the bottom of a hollow redwood was also taken as medicine for a run-down condition. It was soaked in water and the liquid was drunk as a tonic.

YEW FAMILY. *Taxus brevifolia* Nutt., Western Yew, kawani kale [q'hawá·ni q'hale "digging stick plant"]. Yew wood is described as hard wood, aha asi. It was used for mush stirrers (kabalaha [q'habá·ha; aphetized ?ahq·ha "water," balha "paddle"]) and bows. These stirrers had a heart-shaped blade. The spatula used to pry abalone off the rocks was also made of yew. In basketry yew roots were twined as wefts over hazel warps. The roots were best in the spring, when the bark peeled off easily. I saw yews growing near the bridge over the Gualala River on the county road from Kashia to Plantation.

Torreya californica Torr., California Nutmeg, kabehe (ka [q'ha "water"; behe [béhe "laurel nut") [q'habéhe, the nut only]. The nut was used for medicine, cracked and soaked in cold water overnight; nowadays it is boiled. The decoction was drunk as a remedy for tuberculosis.

GRASS FAMILY. *Melica bulbosa* Geyer, achim [?acim·]. The cormlike roots, called "potatoes," were washed and dried, and eaten raw, either whole or pounded like pinole.

Avena fatua L., Wild Oat, muchá [muhca "any edible grass seed"]. This naturalized European species grows abundantly in fields in inland Southwestern Pomo territory. There was some growing on the grassy hillside at the site of the ancient village, Achashinachawali. The Southwestern Pomo gathered the seeds in July, beating them off the grass tops with a seed-beater into a tightly woven burden basket with a rounded bottom. The seeds were stored, without being cooked, in a twined basket. For eating, they were parched in a basket with coals of tan-oak bark and were then pounded in a hoppers mortar. The oat fields were not privately owned; anyone could collect oats if there were plenty of them. Only the crop actually at a camp might be locally claimed, especially if the harvest was scanty.

Avena sativa L., Cultivated Oat, muchá. According to Jepson (p. 110) this is a European plant, occasionally escaped from cultivation. In Southwestern Pomo territory it grows on the open grassy hills, not in the forest. The seeds were parched in a circular coiled basket with coals of tan-oak bark. Wheat is also treated in the same way.

SEDGE FAMILY. *Carex* sp., an unidentified species of sedge called kadikō [qa·dñq·ho·; qa·di "grass," aphetized ?ihqho· "root"] by the Southwestern Pomo. This creek grass was used in baskets. The long roots were collected

in the spring when they were easily peeled and were used as a sewing element in coiled baskets. They were not dyed like fern roots. The plant was not used for food or for medicine.

Carex sp., a river grass, hachim [hacim?]. This is an unidentified species. No use was reported.

Carex sp., achim. Another unidentified species. This grass was cut, dried, and tied in tight bundles for torches. The tighter it was bound, the more slowly it burned. It was used for travel by night, like a lantern. It was also used in tending the hako fish trap.

RUSH FAMILY. Juncus balticus Willd., Wire Rush, djiba [ci?ba]. This plant was not used for food. Girls played at basket-making with it. It was also used to hold drilled clamshell beads in place when they were rolled on a stone slab to smooth them.

LILY FAMILY. Chlorogalum pomeridianum (Ker) Kunth., Soap Plant, ha'úm [ha'am?]. This bulb was used as a soap for washing the hair and baskets. It was not eaten. Pounded and mashed, it was used as a fish drug when streams were low. The root was placed in a twined basket, which was dipped repeatedly in a pool in the stream, causing the trout to float helpless on the surface. It was used in tidal pools also.

The fibers were used to make a brush; the handle of the brush was wrapped with string, but no mucilaginous material from the bulb was applied to the handle, as is the practice of interior tribes.

Herman said that the use of soaproot as a detergent prevented lice, especially if the suds were left on the head for a while. He denied the use of a bone louse killer.

Brodiaea laxa (Benth.) Wats., Grass Nut, hibula [hi?bú?la]. The corms were cooked in hot ashes or boiled for food.

Clintonia andrewsiana Torr., silom [silom?]. This plant is poisonous and had no use.

IRIS FAMILY. Iris douglasiana Herbert, Mountain Iris, siwitax [síwita]. Not used.

WILLOW FAMILY. Salix sitchensis Sanson var. coulteri Jepson, Velvet Willow, chu'tah [cu'á·]. This plant grows on the ridge at Kashia and is used only for firewood.

Willow stems, perhaps of another species, were used for warps for twined baskets along with wefts of yew root.

BIRCH FAMILY. Alnus rhombifolia Nutt., White Alder, kachidi kale [qahc'hí?i]. The bark was boiled and the decoction used to bathe a baby with skin disease.

HAZEL FAMILY. Corylus rostrata Ait. var. california A. DC., California Hazel, dish [mi?diš "hazel nut"; now generalized to mean any nut].

OAK FAMILY. On a trip inland from Kashia south along the mountain road to Plantation we saw three species of oaks on the hills before reaching the bridge over the Gualala River. Quercus garryana, Q. kelloggii Newb., and Q. agrifolia. The acorns of all these species were eaten by the Southwestern Pomo. The favorite acorn, however, was that of the tan oak (Lithocarpus densiflora), of the redwood belt, followed in order of preference by Q. kelloggii, Q. agrifolia, and Q. garryana. Later Herman

James gave a different order, transposing Q. kelloggii and Q. agrifolia. He agreed, however, that Lithocarpus densiflora was the most, and Quercus garryana the least, relished.

Quercus garryana Dougl., Oregon Oak, wiyi kale [wiyi qh'ále]. Herman James gave two names for this tree and its acorns: white oak, wiyi kale; mush oak, kabá kale [perhaps ka?ba "a bush like hazel but with strong straight branches from which arrows were made"; otherwise the term is unknown to Herman James and Essie Parrish]. Herman said the acorns used to be eaten but that now the Indians eat only acorns of the tan oak. An Oregon oak was growing in the gully at Kaleshadim at the time of our visit. They grow also at Haupt's Ranch and along the inland road from Kashia to Cazadero.

Quercus agrifolia Neé, Coast Live Oak, yudji kale [yu?çi qh'ále]. Herman James gave Pin Oak as the English name. The acorns were eaten.

Quercus kelloggii Newb., California Black Oak, yushi kale [yušiy qh'ále]. Herman James gave Black Oak as the English name. Its acorns were eaten. Dr. C. Hart Merriam's notes for August 19, 1905, say that he was informed by an old woman at Fort Ross that the word for this tree was the same at Stewart's Point as at the mouth of the Russian River.

Quercus lobata Neé, Valley Oak. These acorns were not eaten.

Lithocarpus densiflora (H. and A.) Rehd., Tan Oak, tish kale [čísqh'ále "beautiful tree"]; the acorn, bidu [bi?du "any acorn"]. This tree produced the favorite acorns of the Southwestern Pomo. When the trunks of the tall trees were smooth, a man would use a sapling or a fallen redwood as a ladder to climb up, stamping on the branches to shake down the acorns.

Sometimes tan oak acorns were not pulverized and leached. There were two methods of preparation. One produced what the Indians called "mouldy acorns." The hulled meats were not dried but were kept warm in the house for a number of weeks until they turned greenish with mould. When ready to use, they were placed in a flat basket and the mould was rubbed off with the hands. They were then mixed with whitened dried acorns and both were pounded together to give a special flavor.

Mush made with moldy acorns was called tōd mut (tōd, "mush"; mūt, "sour") [tʰoʔo moš; tʰoʔo "acorn mush," moš "sour or bitter"]. The taste of tōd mūt was not exactly sour. The word mūt is used today to describe the taste of both vinegar and salt. Ordinary mush is called tōd, also tōd k'ale [tʰoʔo qáhle] "mush white."

There was another method of preparing acorns without pulverizing them before leaching, a method used in Herman James's time. Cracked tan-oak acorns with the shells left on were put in a pool and left four or five months. They were then removed from the pool, shelled, and cooked without pulverizing, since they were soft and mushy and had lost their tannin. Acorns prepared in this manner were called katichitala [qasitá'law] and were used for soup or mush but not for bread.

Castanopsis chrysophylla A. DC., Giant Chinquapin, kamidish [qh'ami?diš; qha "water," mi?diš "nut"]. Between Kashia and the lumber camp a mile or so away stood a clump of very tall giant chinquapins. Herman James said that this was the largest cluster of these trees he knew

of; usually they grow scattered. The ripe nuts were collected in the autumn when they fell from the trees. Any one of either sex could gather them, the same as acorns and hazelnuts, since the trees were not privately owned. These nuts were not a staple like acorns but were collected whenever they were available. They were cracked open with a stone and eaten raw. For storage, the spiny outer cover was removed and the nuts were stored in their shells.

NETTLE FAMILY. Urtica gracilis Ait. var. holosericea Jepson, Nettle, o'hom (from oho "fire" [ʔohom?; ʔoho "fire"]. This was used as a counterirritant for rheumatic pains and other such complaints, the skin being struck with the nettle.

MISTLETOE FAMILY. Phoradendron villosum Nutt., Common Mistletoe, kopiná [q̄op̄ina]. The leaves were boiled and the bitter decoction drunk to bring on delayed menstruation.

ASARUM FAMILY. Asarum caudatum Lindl., Wild Ginger, mô'bo kale [moʔbóq̄hale "swelling plant"]. The leaves were warmed and used as a poultice at night to draw a boil to a head. The applications were repeated.

CARPET-WEED FAMILY. Mesembryanthemum aequilaterale Haw., Sea Fig, kataicha [q̄hačáyʔča]. The fruit was eaten raw.

SWEET-SHRUB FAMILY. Calycanthus occidentalis H. and A., Spice Bush or Sweet Shrub, shoné [šune]. The bark was peeled or scraped off with a mussel shell, then boiled. The decoction was drunk for a severe cold.

LAUREL FAMILY. Umbellularia californica Nutt., California Laurel, behem [behem?; "the nut is behe"]. Laurel, locally called pepperwood, was used for both medicine and food. The leaves, however, were not used to flavor food as they are in modern California cookery but were heated and used as a poultice for rheumatic and neuralgic pains. The fruits, gathered on the ground, were used as food. The skin and flesh were removed, either with the fingers or by beating with a stick. The nuts were then roasted in hot ashes and hulled on a stone slab by cracking their thin shells with a small longish pebble of the sort picked up on the ocean shore. The hulled nuts were collected in a basket, poured into a mortar, and pounded into meal, which was rolled into balls in the hands, dried in the sun, and stored in grass-lined baskets. In this state the nuts kept a long time; if left in their hulls they would mold.

POPPY FAMILY. Eschscholtzia californica Cham., California Poppy, shidocho kale [šíʔdóhc̄hoʔ "poppy flower"; šiʔdo "breast," hc̄hoʔ "die away"].

SAXIFRAGE FAMILY. Ribes menziesii Pursh., var. leptosum Jepson, Cañon Gooseberry, butaka ilum [buṭaqa "bear," ʔilumʔ "gooseberry"].

ROSE FAMILY. Holodiscus discolor (Pursh.) Maxim, Cream Bush, chibuklan [ch̄iʔbúk̄hlán]. Used for arrows.

Rubus parviflorus Nutt., Thimble-berry, hemkolo kale [hémʔq̄olo, the berry; q̄oṭʔo·lo, the leaves—used to wrap meat for baking]. The berries were eaten raw.

Rubus spectabilis Pursh., Salmon-berry, kôtô kale [q̄hoṭo "the berry"]. The berries were eaten raw.

Rubus leucodermis, Dougl., Western Raspberry, bashkût [bá·škhóṭ loan word from Central Pomo]. The berries were eaten raw. Nowadays the Indian women cook and bottle them as the whites do. Mrs. Herman James bottled twenty-five quarts in the summer of 1950.

Rubus vitifolius C. and S., California Blackberry, tibakhai [ṭiʔbáhqay; ṭiʔ aphezized form of hiṭiʔ "thorn," bahqay "the manzanita berry"].

Fragaria californica C. and S., Wood Strawberry, kamsudu [q̄hámʔsudu]. These berries ripen in June and are available for a short season. They are eaten raw.

Rosa gymnocarpa Nutt., Wood Rose, baduden [badúʔden]. This plant is not used in any way. No superstition is connected with it.

Photinia arbutifolia Lindl., Toyon, budu kale [budu q̄hále]; budu, the berry; kale, the bush. Rare in the Kashia region but more abundant farther inland. The berries were wilted in hot ashes, then winnowed in a basket plate. They were then ready for eating without further cooking. The seeds were expectorated, as manzanita seeds were. Toyon berries were not stored or eaten raw.

Amelanchier alnifolia Nutt., Western Service Berry, ba'kom [bahqomʔ]. This plant grows along the Gualala River. The roots were boiled and the decoction drunk to check too frequent menstruation. The stems and foliage were used for the complete thatch for a winter house at inland villages. It was tied on with grapevine, because hazel was scarce inland. It shed water as well as modern wooden shakes, Herman asserted. It does not grow on the immediate coast, hence it was not used there.

PEA FAMILY. Thermopsis macrophylla H. and A., amalashima (amala "jackrabbit," shima "ear") [ʔama·la šíma]. The leaves were boiled and the cooled decoction used as an eyewash when the eyes were sore and vision was difficult.

Lupinus arboreus Sims, yellow-flowered lupine, kalkasa [qalqáša]. This flowering plant grows commonly along the coast. The fibers from its roots are used for string, which is called sulemá [sulemaʔ "any string or rope"]. String made from sinew is called ima [ʔima "sinew"]. Milkweed was not used for string by the Southwestern Pomo. The lupine roots were dug with a digging stick or an elk antler.

Trifolium sp., Clover, siputa [sibuṭa]. The roots of this clover were used for a cylindrical brush. The blossoms were boiled and the decoction drunk as a medicine to check vomiting. The new foliage was eaten raw for greens; it had a bitter flavor.

Psoralea macrostachya D-C, Leather Root. "The roots furnished . . . a very tough fibre" (Jepson, 1925, p. 560).

OXALIS FAMILY. Oxalis oregana Nutt., Redwood Sorrel, moch kale [mošq̄hale "sour plant"]. The whole plant was boiled and the decoction was used to wash parts of the body afflicted with rheumatism. The young leaves were chewed in minute quantity for their sour taste. They were not swallowed.

SPURGE FAMILY. Eremocarpus setigerus Benth., Turkey Mullein, ashapashi; asha "fish," pashi "poison") [ʔahša

páši', Essie Parrish also says this was mashed, boiled, and the solution used in treating bleeding diarrhea]. Although the Southwestern Pomo knew of its use as a fish poison by valley Indians and gave the plant this name, they did not use it as a poison themselves.

SUMAC FAMILY. *Rhus diversiloba* T. and G., Poison Oak, matiho kale [ma'tí'ho]. This plant was not used, except that charcoal or soot from it was used for tattoo pigment. Herman James had never heard of poison oak being used to poison a person. [Essie Parrish says that her mother's mother rubbed poison oak ashes over the bodies of her children who were fathered by a white man in order to make them more "Indian" in color.]

MAPLE FAMILY. *Acer macrophyllum* Pursh., Big-leaf Maple, kalam kale [qalam? q^hale; also a term for "fig tree" because it too has big leaves]. Dice for a gambling game were made of maple wood.

BUCKEYE FAMILY. *Aesculus californica* (Spach) Nutt., Buckeye, bashé [bahša, word for "apple" too]. The nuts were used both as food and as fish poison. When the nuts were ripe and fell from the trees, they were collected and peeled, then roasted in ashes. The roasted nuts were crushed and the mash was placed in a sandy leaching basin beside a stream. For about five hours water was dipped from the stream and poured on the mash as fast as it percolated through into the sand. Then the mash was ready to eat without further cooking. It was said to be tasteless, since the bitter flavor had been completely leached out.

BUCKTHORN FAMILY. *Rhamnus californica* Esch., Coffee Berry, also Pigeon Berry, basata [baša·ša]. The berries are poisonous. The bark was boiled and the decoction was drunk for constipation. Anyone could prepare the brew; a shaman was not required.

Rhamnus crocea Nutt., Red-berry, baxkum [unrecognized by Herman James or Essie Parrish unless it is bahqom?, "bush with white berries, not red"]. This plant was not used.

VINE FAMILY. *Vitis californica* Benth., California Wild Grape, shitim [šucum?]. The grapes were eaten raw. The vine was used for withes to tie things when hunting or traveling. It was not as tough as hazel and could not be tied in a knot without breaking. It was used to tie Western Service Berry thatch in place on the winter house.

GOURD FAMILY. *Echinocystis fabacea* Naud., Common Man-Root, beheschata [behešá·fa]. The root of this plant was the favorite fish drug because of its abundance. It was used both in fresh and salt water. In tidal pools various vertebrate fishes (bullhead etc.) and octopus were taken with it. No other use was made of the plant. [Essie Parrish says it was pounded with nuts, mixed with skunk grease, and rubbed on the head to cure falling hair.]

ARALIA FAMILY. *Aralia californica* Wats., Elk Clover, sitabati kale [sišabá'ti?]. This was an important medicinal plant, used for various ailments. The root was boiled and the decoction was applied externally; it was never taken internally. Sores were bathed with the liquid. It would cure all kinds of open sores, including itching sores. Anyone could apply it, but a shaman could make this medicine more effective by singing.

PARSLEY FAMILY. *Carum kelloggii* Gray, chibutá [sibu'ta]. The foliage was eaten raw as greens. The white flowers were boiled and the decoction was drunk to stop vomiting. The roots, which are stiffer than chlorogalum fibers, were tied in a bundle to form a brush for the hair or for cleaning mush baskets. The specimen collected for identification was found at a place called Yuká, from yuhuh "pinole," ka "water" [yuhq^ha; probably aphetized ?ihyu "cold" and aphetized ?ahq^ha "water, spring"].

Ligusticum apiodorum (Gray.) C. and R., Lovage, tulebachuwa [tule bá?čowa] (tule "hummingbird," bachuwa "angelica"). The root was boiled and the decoction drunk to check hemorrhage from the lungs.

Heracleum lanatum Michx., Cow Parsnip, shoshokale [šošo q^hále] or butakashosho kale. This plant grows mostly along the coast. The roots, which resemble carrots, were pounded raw, cooked or warmed, and applied as a poultice for swellings and rheumatism. It was not used on open sores. A shaman could make the poultice more effective by singing. The affected part was also bathed with the decoction.

The dried hollow stems were used by boys for toy blowguns to discharge green pigeon berries or small pebbles.

HEATH FAMILY. *Rhododendron occidentale* Gray, Western Azalea, bicha kale [biča? q^hale]. The flowers were admired and are used for dance wreaths nowadays. Herman James did not know whether they were so used earlier.

Rhododendron californicum Hook, California Rose Bay, michakawani [biča? q^hawá?ni (q^hawá?ni "digging stick")]. Now the flowers are used for dance wreaths, but Herman James did not know whether they were so used in the early days.

Gaultheria shallon Pursh., Salal, koishosho [košó'ššo]. The berries were eaten either raw or cooked; they were not used as medicine.

Arbutus menziesii Pursh., Madroño, kaba [kaba?]. The berries were not eaten or used for a drink. The bark was boiled and the liquid was used to wash skin sores, except from poison oak. The wood was burned, but was not particularly sought for firewood.

Arctostaphylos columbiana Piper, Hairy Manzanita, bakaikale [bahqáy q^hale] (bakai, the fruit; kale, "bush"). This species grows at Kashia and nearer the coast. It was not eaten because it was too sour. A boiled decoction of the bark was drunk to check diarrhea. Anyone could prepare this medicine; it did not have to be done by a shaman. At Kashia, manzanita berries ripen later than at Haupt's Ranch about fifteen miles from the coast, perhaps because Kashia has more fog and less sunshine.

Arctostaphylos glandulosa Eastw., Eastwood Manzanita, kaya kale [qaye q^hále]. This species was collected.

Plants of a smaller unidentified species of manzanita growing near Haupt's Ranch were used for both food and medicine, Herman James said. The berries of these plants were not cooked but were pounded in a mortar, stored, and mixed with water before being eaten. They were difficult to swallow otherwise. They were not used to make a percolated drink as they were in interior California.

Vaccinium ovatum Pursh., California Huckleberry, sununu [śu?nú?nu]. This plant gives its name to the top of the mountain ridge upon which the Kashia reservation is situated. This summit is called Sununushinal [śu?nú?nušinal], "huckleberry top," by the Southwestern Pomo. Huckleberries were eaten either fresh or sun dried. The dried berries were stored in large coiled baskets and boiled before using. Fresh berries were either eaten raw or were stone boiled in a coiled basket. Huckleberries were not used for medicine.

MORNING-GLORY FAMILY. Convolvulus arvensis L., Bindweed, Orchard Morning-glory, datichim [daʃiʃim? q^hale "tangled plant"]. Naturalized from Europe. A boiled decoction of this plant was drunk to stop excessive menstruation.

MINT FAMILY. Micromeria chamissonis (Benth.) Greene, Yerba Buena, mishekale [mišé·q^hale; miše "to smell"]. The term "mishe" is said to refer to the odor of the plant. It was used for a tea to purify the blood. It was boiled and drunk when a person had an upset stomach and was getting thin.

NIGHTSHADE FAMILY. No specimen of native tobacco, called kawa kale [ka'wa q^hale], was obtained, so it cannot be determined whether the species used in this region was Nicotiana attenuata or N. bigelovii. It was not cultivated. Herman James said that the plant grew inland along streams, not near the coast. The leaves were collected in the summer by men, not women, and were mashed between the hands and stored in a skin pouch. In Herman's time it had been superseded by store tobacco. Tobacco was not eaten, either by itself or with lime. No snuff was used.

Tobacco was not kept in baskets but in the skin of a small mammal which had been case-skinned. Herman James named fawn, wildcat, and rabbit as skinned in this way for tobacco bags. For actual use tobacco was kept in a smaller deerskin bag (not made from a deer scrotum). Pipes were made of elderwood or of clay. Formerly no solid wooden pipes, like those of the inland Pomo, were used.

FIGWORT FAMILY. Scrophularia californica Cham., Figwort, hakacha kale [haqaʃá q^hale "hornet plant"]. The leaves were warmed and used as a night poultice until boils came to a head.

HONEYSUCKLE FAMILY. Sambucus racemosa L. var. callicarpa Jepson, Elderberry, tekale [t^heqhále]. Although

the berries were used as food by the whites, the Southwestern Pomo did not eat them. The root of the plant was boiled and the decoction was used as a healing lotion on open sores and cuts. The branches were used for whistles and clappers.

Lonicera hispidula Dougl. var. californica Jepson, California Honeysuckle, pipakale [pí'pa q^hale; pí'pa "pipe" < Spanish pipa]. The hollow stems were used as stems for clay elbow pipes, which were made from Russian times on.

SUNFLOWER FAMILY. Madia sativa Milina, Chile Tarweed, mushchakili [muhca kíli; muhca, "grain," kilí "black"]. Naturalized from Chile; a sample was collected at Yuká, the place where Carum kelloggii was also collected. The seeds of the Chile tarweed were parched in a basket plate with hot coals, pulverized in a hoppers mortar, and eaten as pinole. The meal was moistened to keep people from choking on the dry meal. The seeds were stored raw and parched and pounded only when needed for food.

Gnaphalium chilense Spreng, Cotton-batting Plant, nachalon dabo kale (nachalon, deer-antler disguise; dabo, lining of disguise; kale, "bush"). Hunters used this plant for a disguise in deer hunting. The lining of the disguise was fastened inside a turned basket, so that the lining rested against the hunter's head. This plant was also boiled and applied as a poultice to a swollen face. [Unknown to Herman James and Essie Parrish but probably contains da'bow "to stuff."]

Artemisia vulgaris var. heterophylla Jepson, California Mugwort, ka'pulá [qa?phula "wormwood"]. The plant grows more abundantly in the hills than on the coast. It was used in childbirth. The warmed leaves were placed on a baby's umbilicus after the navel cord had been severed with an obsidian knife. It was repeatedly applied for four days until the cord came off. A boiled decoction of the leaves was drunk to stop excessive menstruation.

Cirsium lanceolatum (L.) Scop., Bull Thistle, pôtlo [pó·thlo hi?ʃi? "thistle"; pó·thlo "gonorrhoea" < Southwest Pomo, hi?ʃi? "thorn"]. The plant was naturalized from Europe, though Herman James thought that it was an indigenous species. It was not used for anything.

Herman James mentioned two plants of which no specimens were obtained for identification: sataba, a small bulb, or corm, worn for magical protection [sa?tabu "a small grass bulb," sa?ta "crybaby," plus aphetized hi?bu "Indian potatoes"].

ETHNOZOOLOGY

MAMMALS

Herman James's grandmother (see p. 24, fn. 2) told him that elk, kashisi [qasi'si], were formerly common at Del Mar (now Ohlsen Brothers' ranch), south of the Gualala River mouth. Actually they were exterminated during her lifetime, for by the time of Marie James, Herman's mother, they had all been killed. Elk were hunted with bow and arrow. There was no driving of elk or other game over cliffs.

Elk were killed for food and for the hides and antlers. The hides were laid over a pile of canvas to lay things on to dry. The antlers were used for prying off pieces of redwood bark for houses and also as tools for digging a depression for a bed or a house pit. A piece of antler, like wood, was burned a proper length for its purpose instead of being cut.

The Columbian Black-tailed Deer (Odocoileus columbianus columbianus), called bishê [bihše], was snared or was tracked when fresh marks were seen by the hunter. Sometimes a hunter, with his bow and arrows, lay in wait at a spring, concealed in a brush blind on the leeward side. When stalking deer, a hunter wore deer horns and carried two sticks to knock together to attract the attention of a buck. The deer-head disguise, called nacholon, was used in the season before the bucks shed their antlers. Does' heads were never used as a disguise.

Snares were set for deer. If the snare caught the deer around the neck, the animal usually strangled as it struggled to free itself. If the snare caught around the body, the animal had to be dispatched with an arrow.

In butchering deer, the hunter pulled the windpipe up through an incision in the neck and tied it in a knot. He then cut the throat and cut off the head before eviscerating the animal. A wounded deer was killed by knocking in its head with a rock; to use a stick for this purpose would bring bad luck. Sometimes a hunter might carry a round rock with him to knock out a disabled deer. When hunters hunted together, they divided the kill. The meat was divided between them, and the actual killer got the hide, head, sinews, and horns. Sometimes stay-at-homes received some of the meat. Sinews were taken only from the back. They were used for cords for a sling, mêshên [mehšen], the belly of the sling being made of buckskin. One end of the cord was looped over a finger or wrist. Herman never heard of a sling used in war.

Deer bones were burned. Ears, eyes, brains, and other parts, even hooves, were eaten. The hooves were peeled, and the interior part was pounded and cooked on hot rocks. Ears and eyes were cooked on hot coals of dry manzanita wood. Brains were spread on hot rocks and cooked; these were eaten only by old people, because they were supposed to turn the hair gray.

If a man violated the taboo by hunting at the time of his child's birth or when his wife was menstruating the deer might take him into the sweathouse and he would lose his mind. After such an experience a man might see deer around his house which no one else could see. He could be cured by a shaman, a sucking doctor not an outfit doctor (yomta). There was no taboo against hunting if some other woman in his family, a daughter for example, was menstruating.

Herman James gave names for two small bears: mima, a brown bear; butaka, a black one [butaka "grizzly," nowadays "any bear"]. These are probably dichromatic forms

of one species. They were hunted for food and for skins for bedding. The young ones were considered especially good for food. The meat might be eaten fresh, broiled on hot coals, or it might be dried in the sunshine, like venison. Dried meat of either bear or deer was cooked lightly, then pounded on a rock to tenderize it.

Bears were killed with the bow and arrow. Winter, when the bears were hibernating, was regarded as a good time to kill them. Their dens were usually in hollow trees. Bear hides were stretched and staked in the sun to dry, with the inside of the skin up. When dry, the hide was scraped with a stone blade to remove any fat that adhered. It was then rubbed with a rough stone, like sandpaper, to soften it. Bear hide was not tanned.

The raccoon, kadus [q^haʔdus], was killed for food. It was smoked out of its den, under a log or in a hollow tree, and was clubbed as it emerged. Raccoon was cooked on hot coals. The backbone was pounded with a stone to keep it straight while it was being cooked. This was done also when squirrels, jackrabbits, and cottontail rabbits were cooked.

The ring-tailed cat or civet, kadus hibakoyi [q^haʔdús hiba' koʔyi; literally "raccoon tail ring"; not the name, just a descriptive term], was not eaten but was sometimes killed for its skin, which was used to make a quiver (matso).

The fisher, wê'ke [wehke], was killed to make a soft fur bag in which to keep arrowheads, stone drills, stone knives, and other such objects. In modern times it was used for clamshell money.

The weasel, kaltsa [q^hâlʔša], was not killed. Its bite, like the rattlesnake's, was believed to cause death. Herman James said it would attack a person if molested when it had young.

The mink, a'kashibashi [ʔahq^ha šíʔbaši "water animal"; a descriptive phrase, not the name of the species], was not eaten but was killed for its skin, which was sometimes used in the cradle of a small child.

No otter was known except the sea otter, which was called wê'ke, like the fisher. It was never caught in early times until the Russians took to killing them.

The common skunk, nūpeh [nup^he-], was killed with a stick while it was digging. The animal must be struck a fatal blow at once, or it would discharge its scent. For that reason it was not shot with the bow and arrow. The skins were not used nor was the meat. The animal was killed only for its fat. It was cut open and the fat was removed and dried. The oil from the fat was used to prevent gray hair and baldness. The fat was warmed at the fire and the oil was rubbed on the hair by both adults and adolescents.

The small striped skunk (Spilogale tenax), called batsisi [bašiši], was not used for anything.

The Redwood Gray Fox (Urocyon cinereoargenteus sequoiensis), hakau' [haqaw], was a "bad animal." It sometimes foamed at the mouth; then its bite was poisonous. This species was not killed unless it was feared that the animal was rabid. Sometimes rabid skunks attacked human beings. (At this writing, 1955, foxes and skunks in California are commonly afflicted with rabies.) [The name of the fox wasn't mentioned if there were small children around or they would grow up "tricky."]

Coyote, duwi, was not hunted or killed in early times.

The mountain lion, yamut [yahmuʔ], was feared by the Southwestern Pomo. It was hunted with the bow and arrow

for food; its skin was used for a blanket. Some of the meat was dried for later consumption. When a mountain lion killed a deer and ate only a little of it, it covered the uneaten portion with leaves and returned to it later. When a hunter found a deer's carcass thus covered, he lay in wait for the mountain lion's return.

The bobcat, dolom [dolom?], was killed with the bow and arrow but was not eaten. The hide was used for a quiver.

Herman James named two kinds of bats. The smaller of the two, kachatinana [qahca fína?na; qahca "knife"], he said was the "barn bat." The larger bat he called shijotinana [šiyotína?na; šiyō "deep forest"]. He said it spent the daylight hours hanging in grooves in the bark of redwood trees. This species was not molested, as it was supposed to cause blindness.

The mole, ka'wa [q^ha?wa?], was not eaten but the skins of albino moles were supposed to bring good luck in gambling. Ordinary mole skins were not used. The little animals were dug from the ground in search of albinos, the albino skins being kept in a skin bag like a quiver. Shamans, however, did not use these skins in their profession.

A tiny mammal, smaller than a mouse and with a shorter tail (probably a shrew), was called kachata [qahcá?ta]. It was found on rotten logs and was not killed, not because it would bring bad luck but because it was not used.

The limb bones of the tree squirrel were used as awls in sewing small hides.

The ground squirrel, mamkolo [mámkolo], was eaten. This is the gray, not the spotted, squirrel. Herman identified it as the California Ground Squirrel (*Otospermophilus grammurus beecheyi*) shown in plate 23 of Anthony's Field Book of North American Mammals. It was snared with a spring trap baited with acorns or other nuts cracked in half.

The chipmunk, basimsi, is too small to eat. Its skin was not used.

A red squirrel, shiyoko [šiyókko], which is larger than a chipmunk and lives in trees, was eaten.

The Western gray squirrel, chuma [cuma?], was eaten. Both this and the red squirrel were taken with snares of the spring type, with a noose held in place by four pegs. The gray squirrel's hide was sometimes used for a small baby basket.

The gopher, alamê [ʔalame], was eaten. It was caught in a spring snare baited with acorn. It was thrown whole on the coals and after a little cooking the hair was scraped off. Then the body was opened and eviscerated. The backbone was pounded and the gopher was broiled over hot coals.

The field mouse, kadishoko [qa?di šóqo?; qa?di "grass," šóqo? "mouse"], a dark-colored, short-tailed animal which nests in the grass, was killed with a stick and eaten. It was singed in coals, scraped, and opened. The backbone was pounded before it was cooked.

The house mouse, hopunê [hop^húne "long-eared field mouse"], was not eaten.

The wood rat, mi'yô [mihyo?], was eaten. The Indians first took the stored hazel nuts and acorns from the rats' nest and then destroyed it. When the rats took refuge on twigs, they were speared with sharp ash sticks.

The jackrabbit, amala [ʔama·la], was shot with bow and a small arrow, not caught in a trap. It was cooked like other small mammals and eaten. Sometimes, if many jackrabbits were killed, the meat was sun dried and stored in baskets. The brains of all mammals were cooked and eaten, except those of dried animals. The fur,

laid over a deerskin in a basket, was used as a covering for a baby. Blankets were made of twisted rabbitskin, with lupine-root twine for web. The rabbitskin warps ran lengthwise. Herman James had never seen one made. These blankets were about three feet wide and were not used for clothing.

The "cottontail" rabbit, presumably the Redwood Brush Rabbit, numi, was eaten. It was knocked over with a club or speared, like the wood rat, with a sharp-pointed stick, from ten to twelve feet long, called hochi. It was prepared for eating like other small mammals. Its fur also was used for blankets, twisted around lupine or sinew string.

Whales [pu·šu] were not eaten. (Herman did not know whether Point Arena people ate whale.) Whale ribs were used as medicine for rheumatism or paralysis. A fire was allowed to burn down to coals. The ribs were chipped, the chips sprinkled on the hot coals, and pigeon-berry branches were placed on them. The sufferer lay on these.

Bone from the mouth of a whale, kishi [perhaps kik^{hi}, "a cartilaginous substance just before the gills of any fish, which is harder, like a bone, in the whale"], was not used. A hunter carried a piece of whalebone as a protection against rattlesnake bite.

Herman's grandmother once saw a huge whale with barnacles on its back at a place a little south of Fort Ross.

Herman related a story about a Dukashal man who violated the first-born taboo and went fishing for salmon. The man found a whale in fresh water on Soule Creek, an affluent of the middle fork of the Gualala. He came back and told people he had seen a whale. All the men fixed their salmon harpoons, which could be used for whale also, and went with him to see what they could do about it. They saw the whale in a big pool (where they catch salmon). The whale leaped up and looked as though it were standing upright. Salmon came out of the whale's womb and filled the stream. Then the whale went up on dry land.

Then the people went after the salmon and caught more than they could pack. So they sent a messenger to bring whole families for a big salmon feast. They brought acorn mush, bread, and other food. They camped there nearly a month and dried salmon, as well as eating it fresh. This was in the springtime. After a while they went back home laden with dried fish. After this they believed that salmon were produced by whales.

Herman had not seen any whalebones at this place. He thought the whale had been stranded there by a great flood.

Herman told of a horned sea creature, tiwintutu [t^hiwiñsu·su], fifteen to sixteen feet long, which killed whales. Its horns were branched like elk horns. It was only seen swimming. Herman once saw it off Fisk's Mills and Salt Point.

The Southwestern Pomo did not kill or eat seals and sea lions, although the Central Pomo of Point Arena did so. The common seal was called kabîshê [q^habîshê; q^ha < tahq^ha "water," bîshê "deer"], but Herman James knew nothing of the fur seal.

He said there were two kinds of sea lion. One, called sohoi [sohoy], was reddish brown in color. It was seen on the rocks at Point Arena. The other, called kabutaka [q^habútaqa] ("sea bear"), was bigger than the sohoi and blackish. It was seen only in the water, never on the rocks.

BIRDS

Band-tailed Pigeon (*Columba fasciata*), ta'bata [t^ha?baťa], was eaten. It was shot with a bow and arrow when it was feeding.

Mourning Dove (Zenaidura macroura), mayu [ma'yū]. This was not hunted particularly, it was too small. It was eaten by old people but not by the young since it caused deafness. Mary James's grandmother told her not to eat it or it would make her deaf.

California Valley Quail (Lophortyx californica), sha-kaka [šaqa'qa]. These birds were caught in a long basket trap with a funnel fence leading to it. The trap might be baited with oats. The trapped birds were trampled on to kill them.

Mountain Quail (Oreortyx picta) djidjachá [čica'ca]. This quail, unlike the Valley Quail, could not be induced to enter a basket trap. It was lured to the hunter by a low whistle imitating the bird's call and was shot with the bow and arrow. The arrow had a small stone point, not a large one like the one used for deer.

Sooty Grouse (Dendragapus obscurus), choibôchebô [čobôčbo]. One day, with Herman James, we saw several. Herman said they were formerly shot with bow and arrows when they were in trees or were killed with a stone when on the ground. They nested on the ground like quail but, unlike quail, they could not be taken in a basket trap. They were eviscerated, picked, and cooked on hot ashes.

Turkey Vulture (Cathartes aura septentrionalis), chū'chi [cuhč'i]. The vulture was not eaten but was killed for its feathers, which were worn on a dance cape. The cape, called eshêdu, hung down the back between the shoulders and the buttocks and was tied with a cord around the middle. Crow feathers were not used on this cape.

Osprey (Pandion haliaëtus carolinensis), ba'chan [pahcan]. This bird was not eaten but was snared for its feathers, used for arrows.

The Red-tailed Hawk, djiya [čiya'], was taken from the nest when half grown and kept in a cage. The birds were fed on field mice, insects, and the like. Later they were killed for their tail and wing feathers, which were used for dance regalia.

Gulls, kischá [kihša], were eaten, though only when food was scarce. Gulls nested on cliffs like cormorants and were taken with a hook baited with abalone entrails. The hook was of manzanita wood, with a barb tied on to the shank with sinew string.

The Screech Owl (Otus asio), was called datotó [da'čôfo], imitating the call "ti-ti-ti." It was not eaten. If the call was heard close to a house, it was a warning of bad luck.

The Horned Owl (Bubo virginianus), was called mututu [muhtu'tu]. If an owl hooted near the house, Herman's grandmother said for it to go away and hoot in the woods. The Horned Owl was said to speak the Southwestern Pomo language.

A story was told of a young man who spoke to a hooting owl and asked it what the white band was under its chin. The owl replied that it was clamshell-disk beads [ku nohp'how, kuhnu "living alone, clamshell beads"]. The young man was frightened and asked no more questions.

Another owl story is told of a man and his wife traveling. When evening came and they were going to make camp, a horned owl was hooting near by and getting closer. It sounded like a whole lot of owls coming toward them, but the man and woman could not yet see them. All at once the owls swarmed around them. One alighted on the man and then the whole bunch swarmed on him, picked out his eyes, and killed him. His wife could not do anything to help him, so she sat down under a large carrying basket for protection. The owls tried to get at her but she held the bottom of the basket firmly to the ground so they could not knock it over.

In the morning she went on and told the people how her husband had had his eyes picked out and had been killed by the owls. The villagers went out and burned his body on top of a funeral pyre. After this people were afraid of owls and didn't bother them.

Herman said that two years before (1948) a horned owl swooped twice at his son Curtis. They were waiting at dusk at the bridge over the Gualala for a third man who was going deer hunting with them.

Herman's grandmother told another owl story about a family living in the village of Seepinamachi [se'epi'na ma'ccy] in the wooded mountains back of Meteni:

The family lived in a conical bark house. A little boy was outside when an owl came hooting near by. The mother wanted to open the door and get the boy in but his stepfather held the door so she could not open it. Finally the owl swooped down and seized the child. The mother heard the direction the owl took as it flew away. The owl ate the child and dropped the bones beneath a tree.

In the morning the man went to the beach for seafood. The mother went in the direction she had heard the owl take. She picked up her son's bones and brought them home, built a fire, and threw the bones in. When they were burned, she picked them up and crumbled them fine. She made acorn mush and put the bone powder in it and had a meal all prepared for her husband's return. She did not scold him when he came, just gave him his breakfast of acorn mush. The man ate it. About midnight he choked up and could not talk. He died. The calcined bones had poisoned him. That was the only way the mother could avenge her son.

Next morning the woman got up and set fire to the house with her husband's body in it. Then she went to her parents' home.

Formerly owls were not killed; nowadays they are killed if they are troublesome, like the one that threatened Herman's son.

The California Brown Pelican (Pelecanus californicus), called kaichi [q'áyhe'pi] was not eaten. (There are no white pelicans here.) A man going into rattlesnake country carried a feather of the Brown Pelican in his pocket to prevent a rattlesnake from biting him. Pelican skin was not used for clothing. Herman did not know where pelicans nested nor did he know any stories about them.

The Cormorant, kaiyu [q'hayu'], nests on cliffs on the mainland. Neither the birds nor the eggs were eaten. Herman said there was only one species here.

The Great Blue Heron, kawala [q'hawá'la], was not eaten. The bird was killed to get the tibia for the dance whistle used in the toto kôô [to'to qô'o] (kôô "dance"). Herman knew no old-time stories about this heron.

The Mallard, hôtotakala kayal [ho'to šaq'ha-la qayal]; hôtô, "head," takala, "green," kayal, "duck") was shot with bow and arrow or with a sling and eaten. No nets or nooses were used for the Mallard nor did a hunter swim under water to take it. The green feathers of the head of the male Mallard were used for feather baskets.

Herman knew no name for the Canvasback Duck except kayal [qayal], the term for "duck."

The Coot, chista kili [šinta k'li] (chista, "bird," kili, "black") was caught in a basket trap baited with green grass. It was cooked on campfire coals or hot ashes. It was singed with the feathers on, then cleaned and cooked on the coals.

The Black-chinned Hummingbird. The male is called sule, the female sule mataina. The larger hummingbird is called tule, the smaller species tule mataina. [Sule unknown to Herman James and Essie Parrish; tule má'tama? "male hummingbird" according to Essie Par-

rish; but ma'ta could be an aphetized form of ?ima'ta "female."

The feathers of the California Woodpecker, kachá [káta?], are used for baskets by the Valley people but not by the Southwestern Pomo.

The Pileated Woodpecker, sokacha [sokáta?], is considered "poisonous"; it is bad luck to touch or harm it.

Acorns stored in the bark of trees by woodpeckers were gathered by the Southwestern Pomo and often provided a large stock of nuts. The bark was easily pried off the tree and the acorns fell to the ground. If they were stored in a tree which had been stripped of its bark, the Southwestern Pomo did not take them because there was no way of felling the tree.

The Kingfisher, bidasshawal ("freshwater creek bird") [bi'da sáwala; bi'da "stream," sáwala "stellar jay"], is not killed.

The Flicker, kochiya [ko'ciya "red-shafted flicker"], is eaten by adults. Children do not eat it for it would make them spotted. It is cooked on coals or ashes. The wing and tail feathers are used for dance headbands.

The Crested Jay, sawalá [sawala], is eaten.

The Varied Thrush, ishuwa [ʔusuwa], is eaten. It is caught with a snare of the spring type, baited with acorn. Four little sticks set in the ground hold a sinew-string noose open. The trigger, a horizontal stick, is released when the bird pecks the acorn. The noose catches the bird around the neck. The Varied Thrush lives in the woods and comes only in the fall.

The Robin, chitoto [si'tóto], is eaten. It is caught with a spring snare set in damp places where there are worms. Many snares are set in one place.

The Meadowlark, hachakali [hača qáhle; hača "rump," qáhle "white"], is eaten. Its feathers are used by Valley people for baskets.

The Ouzel, kashim [qahšim?], is said to make its nest "under water."

The following birds were not eaten by the Southwestern Pomo:

Willet, kapilili [q^hapfli?li "semi-palmated plover"]
 Scoter, kachokoko [q^hacóko?ko "scamp"]
 Barn Swallow, ka'lala [qalala]
 Western Bluebird, shapenda [šahp^hénta]
 Crow, kaai [q^ha?ay]
 Brewer's Blackbird, chamchata [cámčata]
 Sparrow Hawk, tulol [t^hólol "chicken hawk"]
 Timber Hawk, shiyotololi [šiyó t^hólol "Cooper's hawk"]
 California Jay, saiyai [saiyi].

No owls, vultures, hawks, cormorants, or crows were eaten.

Herman did not know the Loon, Wood Duck, Swan, or Goose (not even the Black Brant). He gave us the names for Killdeer, tuwitili [duwé?tili], and Roadrunner, donoswala [donóswa-la] (done, "mountain"). He described an unidentified large bird called ôo [ʔo'ow?] which was about the size of a turkey vulture but taller and with talons like an owl. It was said to call like a human being.

REPTILES AND BATRACHIANS

A small lizard was called mutunu [mut^hu:nu]; a larger, slender lizard, kaikôtôlu [háy?qoto-lo]. Neither kind was eaten.

There were rattlesnake, muti [muht^hi], only in the eastern part of Southwestern Pomo country, about fifteen miles inland from Kashia.

The king snake was called hôdidu [hodidu], the bull snake suti [šuti]. Snakes in general were called musala [musa-la].

A large water snake with a red stripe on the back and the top of the head red was called yumashukakai [cumá-?šúqay?; cuma? means "squirrel" but the rest of the word has no separate meaning].

Frogs and toads were not eaten.

Turtles, kauwina [q^hawina] were taken in creeks and rivers and were eaten. The turtle was placed in a slight depression, covered with hot ashes, and cooked for two hours. It was held down with a stick until dead to prevent its walking out of the fire. When cooked, it was broken open with a stone. Liver, stomach, heart, kidney, and lights were eaten, a statement true of practically all animals eaten.

FISHES

In the early days no deep-sea fishes were taken since the Southwestern Pomo had no boats, balsas, or rafts even at the mouths of the Russian and Gualala rivers.

Two fish vertebrae found on the site of Meteni were from the bullhead, which the Southwestern Pomo call shinabototo [šinabóto?to; šina "head," the rest of the word has no meaning]. This fish was easily caught with hook and line, since it will bite on any kind of bait. They were fished for from the rocks on the coast.

Blue cod, haishá [háyhša], were caught from rocks on the coast. The hook had to be baited with a small fish or a piece of octopus tentacle. Cod would not bite on abalone meat. The Southwestern Pomo did not know cod until Fort Ross fishermen brought it in from the deep sea. Red cod were called ashakis [ʔahšakis] ("fish red").

Sea trout, matasha [mača?ša], were caught from rocks with a hook baited with abalone meat or entrails. Trout were dried raw.

Perch, gaka [kahka?], coal fish, ashakili [ʔahša kíli] "fish black," and eels, tsaka [šaqa], were all caught in tidal pools by drugging. Perch and eels were cooked in an earth oven; they were not dried.

Sharks, for which Herman James had no native name, were never caught from the rocks.

The flounder, ushata [hu'ú?šati?] "crooked eyes," was also not caught from rocks; it lived in deep water. This fish was unknown until Russian times.

Smelt or surf fish, hanta [hánta], and night fish, nuweshá [nuwéhša], were taken at the mouth of the Russian River. Herman said there were none, at the mouth of the Gualala or on beaches between the two rivers. An inquiry to Dr. Wilson I. Follett, Curator of Fishes at the California Academy of Sciences, elicited the following information about the species mentioned.

Two of the fishes that you mention may be identified with a fair degree of certainty. These are the "surf fish," *Hypomesus pretiosus* (Girard) which we are calling "surf smelt," and the "night fish," *Spirinchus starksi* (Fisk), which we are calling "night smelt." Both of these fishes are referable to the family of true smelts, Osmeridae. I believe that both are taken in the vicinity of the mouth of the Russian River, but I cannot vouch for their absence from the vicinity of the Gualala or from the intervening beaches. The latter I am inclined to doubt.

The third form, which your informant called "smelt," might be either one of these, or might with equal likelihood be one of the representatives of the family of silver-sides, Atherinidae. Unfortunately, two representatives

of that family are called "smelt" in California, and the usage is so prevalent that we have felt compelled to follow it to the extent of calling one of them "jacksmelt" and the other "topsmelt." The "jacksmelt" is Atherinopsis californiensis Girard; the "topsmelt" is Atherinops affinis (Ayres). The impropriety of calling either of them "smelt" is apparent from the fact that they are more closely related to the barracudas than to the smelts.

The Southwestern Pomo of Shechatiu (Achachatiu) south of the Russian River mouth were on friendly terms with their neighbors north of the river and allowed them to take surf fish in their territory. Smelt and night fish were cooked overnight in an earth oven. Some were dried for winter use. They were dried on the ground, not on mats.

The smelt and surf fish were caught at ebb tide, either by day or night. Formerly a basket of hazel twigs, called ashabukal, was used to catch them. It had a funnel mouth to keep the fish from escaping and the handle was on the rim, running diametrically across from one side to the other. The basket was manipulated by a pole attached to it. The fisherman stood in the water, often above his waist, dipped the basket as the wave came in, then lifted it up full, walked ashore, and dumped his catch in a hole in the sand so the fish could not scatter as they jumped around. The basket was made and handled by men. Women picked up the fish as they were dumped out on the beach, and carried them home in a burden basket. Herman had never seen one of these baskets.

Nets were not used earlier but nets made of store string are used now. These string nets were first made by Kawas [q^ha·was], a sucking doctor from Meteni. Herman did not know who taught him to make them but it was not an ancient Southwestern Pomo technique.

Bullheads were cut open with a stone knife and the backbone was removed. They were dried without cooking for winter use. According to Herman his grandmother said salt was used to preserve them. (This contradicts an earlier statement that salt was not used as a preservative.)

The lamprey eel found in streams was called komkolo [k^hómkhólo]. It was not eaten by the Southwestern Pomo, though some groups in the Russian River valley ate it. Herman James could give no reason why his people did not use it as food.

INSECTS AND OTHER TERRESTRIAL INVERTEBRATES

The Southwestern Pomo ate the grubs, kôtolô, of yellow jackets, choô [co^o]. The grubs were dug from the ground and cooked, still in the nest, on a hot rock. They were eaten with acorn mush.

Hornets, nesting in trees, were not eaten. There was no medicine for a hornet's sting. There were no bees until the white man came.

All small spiders were called icha [ʔich^ha·]. The poisonous black-widow spider was called icha kili [ʔicha·kili] (kili, "black"); the tarantula, chôtô' [coh^hoʔ].

Caterpillars were not eaten but grasshoppers, shákô [šahqo], were. They were caught by burning a grassy clearing where there were many insects. A few people beat out the fire with bundles of green branches to prevent it from spreading, while others followed to collect the grasshoppers. The insects required no further cooking and were eaten with acorn mush. They were not dried

and stored. Grasshoppers were best when young, before the wings were fully developed.

No earthworms were eaten.

Centipedes, shimamochiyalau [šimamó ciya·law "crawl down the ear hole"], and millipedes, machititi [mac^hʔitiʔti], were regarded as poisonous.

Slugs, pa'la [paʔla·], found in the woods, were eaten, usually in the rainy season. They were spitted in a row on hazel twigs and roasted before a fire, being turned so as not to burn.

The snail (Helminthoglypta exarata), called kututu [kuʔhuʔhu], was regarded as poisonous and was not eaten. The small snail (Goniobasis nigrina Lea) was called bida [biʔda] kututu ("creek" or "river" snail; bida "stream"). I collected a few of these in the Gualala River at the Annapolis bridge. They were identified by Mr. Allyn G. Smith.

MARINE INVERTEBRATES

The Southwestern Pomo depend heavily on the sea for food. When we made a second visit to Herman James in October 1950, we found the yard of his house littered with Black Top shell (Tegula funebralis), tsuká [šúq^ha· "turban snail"]. The mollusks had been recently gathered and eaten by his family. Herman collected for us samples of marine species (mollusks, echinoderms, and crustaceans).

Goose Barnacle or Boot Barnacle (Metella polymerus Sowerby, sometimes called "Pig's Foot"), was called nokotosho [noʔqó cohšo; noʔqó "mussel," cohšo "hand"]. The stem part was eaten, cooked in hot ashes (not coals). Sand was brought from the beach to serve as a hearth so the barnacles would not be mixed with regular dirt. The barnacles were stirred in the hot sand and were examined occasionally to see whether the covering of the stem had slipped off, exposing the inner portion. When it did so, the barnacle was taken out and the stem was eaten. The barnacles, with their shelly heads removed, were sometimes dried in the sun and stored; they would keep a year thus. When they were to be eaten, they were cooked again in hot sand.

The large barnacle (Tetraclita rubescens Darwin) was called kachôh [q^hačo·].

The Sea Urchin (Strongylocentrotus purpuratus Stimson) was called katá [q^ha·ʔa]. The large ones are called pokata [p^hó·q^ha·ʔa]. Only the small and medium ones are eaten; the large ones are said not to be good and to cause vomiting. The yellow egg mass is eaten raw; it is best in the spring, when there are many eggs.

The Purple Shell snail (Thais canaliculata Duclos) was eaten but the water snail (Thais emarginata, hakututu [q^hakúʔhuʔhu]; and Thais lima) were not eaten.

Limpets, tsupih [šup^hiʔ], of all shapes and sizes were eaten. They are stone-boiled in a basket and the whole animal is eaten with acorn mush. Limpets are not dried and stored. The keyhole limpet, michila tsupih, "way out limpet" [mihilá šup^hiʔ; mihila "west, out in ocean," šup^hiʔ "limpet"] is not eaten. The following species were collected: Acmaea mitra Eschscholtz, A. kelta Eschscholtz, A. scutum Eschscholtz.

Sea Anemones, simú or simū [sihmuʔ], were cooked whole in the earth oven and eaten. Nowadays they are sliced in half and fried. Slicing makes it easier to fry them.

Large crabs, hīkī [hiki·], are caught for sale nowadays. The Coast Miwok call them amata. These large crabs are not caught at Stewart's Point but are found on sandy beaches on Bodega Bay in Miwok territory.

The Octopus, called pishil [pihšil] was taken in tidal pools with fish poison or speared with a sharp stick. It was never picked up with the hands while it was still active. Octopus was not dried, as it is in Oceania. It was cooked in the earth oven; it was too tough if cooked on coals. Nowadays it is boiled. Only the tentacles were eaten.

The Clam (*Saxidomus nuttallii*), called kutá [kú·ta "the shell"; halaŋi "the clam"], was commonly used by various Californian groups for the manufacture of clam-shell beads. It was not found in the coastal territory of the Southwestern Pomo, since there are no sheltered sandy beaches there. It was most abundant at Bodega Bay in Coast Miwok territory to the south. Sometimes, when shells were brought from Bodega, some Southwestern Pomo men might make shell beads. Herman James named two early beadmakers of Russian times, Toyon and Kawas. They used a hand drill operated like a fire drill, but with a stone point. No pump drill was used until modern times. The roughed-out disks of shell were drilled, then strung on a Wire Rush stem and rolled on a rock to smooth them. This operation was carried on at the shore in good weather, otherwise at home on a flat rock, like a slab mortar.

Abalone, dukash [du·káš], was dried raw. The dried meat was cooked in hot ashes. Fresh abalone meat was cut spirally in long strips and cooked on hot coals in an earth oven. It might be seasoned by letting it "hang" for a few days to make it tender. The guts were eaten fresh, broiled on hot coals.

Red abalone (*Haliotis rufescens*) was eaten, being kept for four or five days so it was less tough. It was then pounded and cooked.

Black abalone (*Haliotis cracherodii*), called dukash kili [du·káš kili] ("abalone black"), was rare and was not eaten.

The mussel *Mytilus californianus*, called no·kôh or nokô [no·qo], was eaten from October to May, beginning with the first rain. Herman James said these mussels were poisonous in summer. The live mussels were laid on hot coals. As the valves opened, a stick was inserted between the valves and the shells were removed from the fire. They were too difficult to open while the animals were alive. The meats were then extracted and, if not eaten at once, were laid out on swept, hard ground to dry.

About a week of sunshine dried them, but they were brought indoors at night to avoid the moisture of fog and dew. When dried, they were packed in grass-lined baskets and stored. The Southwestern Pomo did not use the mussel shell like an artificial thumbnail to split fibers from iris leaves, as the Yurok did.

Black Top Shell (*Tegula funebralis*), tsuká or tsuka [suq^ha·], was eaten. It was cooked in ashes and cracked on an anvil with a pounder six inches long called kapesho·lolo [q^ha·be šólo·lo; q^ha·be "rock," šólo·lo is only used in this phrase]. (The regular pestle was called dukul [duhku].) It was then winnowed to separate the shell from the meats. The whole animal, except the perculum, was eaten with acorn mush. It was not dried and stored.

Brown Top Shell (*Tegula brunnea*), pôchuka [p^ho·súq^ha], was eaten.

Purple Olive Shell (*Olivella biplicata*), pashi [puhšiy], was not found alive on the Southwestern Pomo coast and consequently was not eaten. Beach-worn shells were strung for necklaces, according to Marie James and Rosie Smith. The Southwestern Pomo, however, did not make long ropes of these shells as the Sierra Miwok used to do (Barrett and Gifford, pl. 66). A lop-spined *Olivella* shell was found on the site of Meteni.

Protothaca staminea, meyechi [meyécci]. This was found on sandy beaches. It was cooked in hot ashes and eaten. The flesh was not dried because the species was too scarce. The shell was not used.

The giant chiton with a red leathery back (*Cryptochiton stelleri*) was called imû [ʔimu·]. It was heated in hot ashes near a fire to loosen the leathery reddish brown epidermis on the back. This was scraped off with a mussel shell and the reddish brown part around the ventral edge was also removed. The appearance was then pinkish white. Nowadays the mollusk is scalded instead of being scraped. The chiton was cooked in hot coals or in the earth oven; nowadays it is boiled. The intestines were removed after it was cooked. Both the outer part and the foot were eaten. The valves were not used for anything. The meat might be eaten immediately or it might be dried and stored. The dried meat had to be boiled again before being eaten.

Small chitons, katé [qaŋe·] (one species was *Katharine tunicat* Wood), were also eaten. They were cooked in hot coals or in the earth oven without being scraped first. The intestines and shell were thrown away.

CULTURE ELEMENT LIST

The Southwestern Pomo section of the element list recorded in 1934 (Gifford and Kroeber, 1937, pp. 126-164) has been reviewed in the light of the knowledge of our very intelligent 1950 informant, Herman James. In 1934 Southwestern Pomo informants answered questions on only 398 elements out of the 1,094 we inquired about. This was the smallest total we obtained in any of the sixteen communities investigated at that time. In 1950 Herman James gave us data on 578 additional elements. We

also got from him definite data on 40 elements about which the 1934 informants indicated uncertainty. To questions on 69 elements Herman James gave answers that contradicted those of the 1934 informants.

Both sets of data are reported in the tabulations below, the 1934 answer first, the 1950 second. The Notes section following the list gives additional information on some of the culture elements. All of these were secured in 1950.

CULTURE ELEMENTS OF THE SOUTHWESTERN POMO

(x present; - absent; · uncertain)^a

Elements ^b	Occurrence	
	1934 data	1950 data
Clothing		
4. Twined rabbit-fur-strip robe (blanket)	x	
*6. Stick tied to rabbitskin to twist		x
*10. Men weave	x	-
*11. Women weave		x
*13. Sea-otter-fur robe (blanket)	·	-
*14. Puma skin around middle		-
*15. Hair-on deerskin cape, single		x
20. Breechclout (between legs)	·	-
21. Men's apron or kilt		x
*24. Of woven rabbitskin		-
*26. Men's 2-piece kilt (front and back "skirts")		-
*35. Woman's 1-piece skirt of skin		x
38. Buckskin leggings, knee length		-
39. Buckskin leggings, short (women's)		-
*40. Cap of animal fur		-
*41. Tule cape, shredded		-
*42. Tule cloak, shredded		-
44. Olive-shell belt		-
Hair		
*46. Hair cut with deer-bone knife		-
49. Hair cut with flint and singed		-
50. Hair singed without prior cutting		-
51. Hair singed with hot-edged flint		-
53. Mud plaster against lice		-
*55. Oak-ball or pepperwood hair dye		x
58. Depilation	-	
59. With stone flake		-
Adornment		
*66. Shell nose stick		-
67. Bone nose stick	x	-
*75. Soul of untattooed female not to heaven		-
*76. Red mineral for pigment		x
*77. Charcoal paint for pigment		x
Ceremonial Dress		
*83. Topknot of feathers other than magpie		x
*84. Flicker-feather visor for women dancers (cf. no. 89)		x
*94. Hairpin of hardwood		x
97. Feather rope		-
*98. Beads held in hands by woman		-

^aParentheses added to notations (x) or (-) indicate that the statement was made with reservation or seemed not wholly certain to the recorder.

^bNumbers correspond to numbers of elements in Gifford and Kroeber, 1937. An asterisk preceding the element number indicates a note in the section following (pp. 38-45).

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Cradles and Burdens		
*102. Man makes cradle		x
*103. Woman makes cradle		x
*104. Cradle design indicating sex of next baby desired		-
*106. Pack strap, woven (Handbook, pl. 23b)	x	-
107. Spreading pack strap . . . . .	.	-
110. Carrying net (Handbook, fig. 59)	x	-
*111. Adjustable loop		-
113. Whole-cased skin "bag"		x
114. Whole-cased skin "bag," fawn		x
*115. Carrying frame of sticks and cord		-
117. Net sack, for men	x	-
120. Carrying basket, bottom repaired with leather	-	x
122. Carrying basket coated with soaproot juice		-
*123. Man's burden basket	x	x
125. Litter for dead		x
126. Net for disabled or dead		-
Basketry		
127. Twined basketry of tule rush		-
*130. Feather insertions in twined basketry		-
132. Plain twining		x
*135. Lattice twining	x	x
136. Patterns in twined basketry		x
140. Twined bags of cord warps (Handbook, pl. 63)		-
*141. Twined rush mat of whole tule	-	-
*143. Coiling worked to left (bottom to body)		-
*144. Circular winnowing tray, coiled		-
*145. 1-rod coiling	x	-
*146. 2-rod and splint coiling	-	-
*147. 3-rod coiling	x	-
148. Feather covering	x	-
*149. <u>Cercis</u> (redbud) basketry	x	-
*150. Twined	x	-
*151. Coiled	x	-
159. "Flint" scraper for basketry material		x
Cordage		
*162. Rolled on thigh	(x)	x
163. 2-ply string	x	-
*164. <u>Apocynum</u> , Indian "hemp" . . . . .	.	-
*165. <u>Asclepias</u> (milkweed)	x	-
*166. <u>Iris macrosiphon</u> . . . . .	.	-
*167. Tule skin (3d layer)		-
*168. <u>Urtica</u> (nettle)		-
*169. Women's hair		-
170. Mussel-shell thumb scraper for iris		-
172. 3-ply string	x	-
*173. 4-ply string	(-)	x
*174. Kelp "rope"		x
176. Split stick to pull new string through		-
*177. Spinning stick with crosspiece (Russell, The Pima Indians, fig. 73)		x
178. Spindle whorl		-

ANTHROPOLOGICAL RECORDS

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Fishing		
181. White stones in bottom of pool to increase visibility of fish		-
182. Movable brush fence, woven; used like seine		-
184. Fish trap with door closed by fisherman		-
*185. Fish-spearing booth		-
186. Fish spear with nondetachable point or points		-
189. Basketry fish traps (Handbook, pl. 33)	x	
190. Men made		x
191. Eel pot		-
*192. Seine net	x	-
*193. Gill net	x	-
195. Circular-mouth scoop net like modern fisherman's landing net	x	-
196. Net on semicircular pole	x	-
*197. Surf fish caught with net	x	-
*198. Caught on receding wave		-
*199. Unworked stone net sinker		-
*200. Grooved-stone sinker (Handbook, fig. 7d) . . . . .	.	x
*202. Net floats		-
*203. Double-pointed fish "hook" (gorget)	x	x
204. Sharp-angled fishhook	-	x
206. Kelp line—abalone bait		x
*207. "Grass" in hand to catch lampreys		-
211. Toggle head of antler (bone), pitch, and cord	(-)	x
212. Fish club	-	x
213. Break neck of fish	-	x
214. Biting fish to kill	-	-
215. Shooting fish with bow	x	-
*216. Fish carrier		x
*217. Fire for night fishing		x
Hunting		
*225. Deer fence (long)		x
*226. Brush burning to drive game	(-)	-
*227. Sex and menstrual functioning hostile to hunt and venison		x
*228. Root smoked before hunting deer		-
*229. Angelica chewed for luck		-
231. Tie dead deer's nose		-
*234. Long basketry quail trap (Barrett, Bask., pl. 28)	x	x
235. Game-shooting booth		-
237. Netting of game	(x)	-
238. Deer nets . . . . .	.	-
239. Rabbit net	(-)	-
240. Quail bag-net trap	x	-
241. Duck or goose net		-
*243. Quail snaring		-
245. Quail fence of sticks with nooses in openings	x	-
246. Converging fences with quail trap, no. 234		x
248. Rabbit fence of sticks with nooses in openings	x	-
249. Deer fence of sticks with nooses in openings		x
250. Deer fence of sticks with nets in opening		-
251. Woodpecker bag-net trap		-
*252. Woodpecker basket trap		x
255. Decoys (effigy of tule with skin over)		-
258. Game run down—wear-out pursuit	x	.
260. Flares for flying geese		-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Hunting (cont'd.)		
261. Hardwood stick to club geese		-
*262. Barbed wooden duck arrow		-
265. Skin dressing by men (only)	x	
*266. Edged scraper of stone	-	x
267. Scraper of ocean mussel		-
*268. Deer shoulder blade, pelvis, or rib for scraper	x	x
*269. Rubbing stone	-	x
270. Elkhorn dehairer		-
271. Mussel-shell dehairer.		-
272. Buckskin	-	
274. Marrow for curing		-
*276. Straight stick to punch out woodrat		x
278. Fan for blowing smoke	x	
278a. Winnowing basket for fan		x
279. Feather fan		-
280. Leaf fan		-
*281. Basket as fan for fire starting		x
Food		
*282. Small mammals pulverized whole, fresh	x	-
*283. Eating of ground bone, cooked	x	-
*284. Dried salmon pulverized	-	-
286. Marrow hair oil and cosmetic		-
289. Earth oven	x	
294. Fern leaves to cover food		x
295. Steam cooking, water on stones		-
*297. Openwork sifting basket, interstices used		-
*298. Leaching acorns, buckeye, etc., in sand basin	-	x
*299. Cold water only		-
*300. On conifer boughs	-	x
*301. In openwork basket	x	-
303. Buckeye nuts leached in creek	x	-
*307. Acorn "biscuits" by chilling gruel in water		-
*308. Taboo on youth eating first kill	-	x
309. Children leave before deer head cooked		-
311. Quail eggs give luck in having many children		-
312. Fetuses eaten		x
317. Seaweed eaten for salt . . . . .	.	-
321. Grasshoppers eaten	-	x
322. Angleworm soup . . . . .	.	-
*323. Yellowjacket larvae eaten	x	x
326. Sugar-pine pitch as food		x
327. Pine pitch for gum		-
328. Honeydew (from leaves)		-
329. Drying of sea foods	-	x
330. Platform on 4 forked sticks for cooking or drying food (see also no. 493)	(-)	x
334. Soaproot as detergent	x	
336. Soaproot shoots eaten		-
337. Soaproot adhesive for coating basket (includes 122)		-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Utensils		
343. Substitute mortar, slab of wood		-
344. Wooden mortar (Handbook, pl. 45)		-
*348. Portable bowl mortar of stone	-	x
*349. Reputed made by Coyote	-	
*350. Used by "poisoner"		-
*351. For paint, tobacco, etc.	-	x
352. Steatite used like chalk for marking		-
353. Steatite powder for baby's umbilicus		-
359. Bone "knife" for bark stripping		-
*360. Bone awl (Handbook, fig. 67) for making coiled basketry	x	-
*361. Handle wrapped	-	-
*362. For lamprey slitting		-
363. Eyed bone needle for mat sewing (cf. no. 158)		-
364. Deer-bone knife (cf. no. 359)		-
*366. Hairbrush of anise roots (cf. no. 347)	x	x
367. Swab for sipping (e.g., deer tail)		-
369. Bundle of loose sticks marking days for invitation	x	-
370. Stick mat as invitation (mnemonic)	-	x
*371. Sticks as mnemonic in trading, representing com- modities wanted		-
372. "Fire plough"		-
*374. Fire making with stones by percussion	x	-
*375. Fire making by "rubbing quartz"		-
*377. Stone bowl to carry coals		-
381. 2 sticks to handle hot stones (Handbook, pl. 14)		x
383. Digging stick		x
384. "Stone blade inserted in split end"		-
385. Digging-stick weighter, perforated stone		-
*386. Staff for aged		x
388. 2-stick arrow polisher and straightener		-
389. Holed arrow straightener of wood (Handbook, pl. 16)		-
*390. Powdered blue rock to polish arrows		-
*391. Scouring-rush arrow polisher	x	-
394. Mussel-shell spoon	x	
395. Mesh spacer of horn		-
*396. Wooden mesh spacer	x	-
397. Net shuttle of wood (1-piece)		-
398. Net shuttle of horn		-
*399. Wooden net shuttle (2-piece)	x	-
*400. Bark platter		-
401. Cylindrical box with lid		-
Tools		
*408. Drill has stone point, wooden shaft		x
*410. Wooden vise (cleft stick)		-
*411. Toes as vise		-
*412. Horn wedge	x	-
414. Long elkhorn wedge		-
416. Grooved stone axe		-
*417. Wedge of whalebone		-
418. Maul stone a cobble		-
419. Maul stone rudely shaped cobble		-
420. Maul stone, shaped (Handbook, pl. 19)		-
421. Stone maul (shaped) used to drive stakes		-
422. Madroño maul		-
423. Flint-flaker of antler for pressure retouching		x
424. With wooden handle		-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Tools (cont'd.)		
426. Retouching by percussion (without horn flaker)		x
428. Sapling against tree as ladder for climbing		x
429. Crook for gathering acorns or wood		-
430. Straight pole for knocking off acorns		x
Weapons		
*431. Self bow		x
432. Long self bow		-
*433. Sinew-backed bow	x	x
434. Made (locally)		x
435. Imported		-
436. Bow broad, thin, short	x	-
*437. 3-ply bowstring	-	-
438. Sinew bowstring		x
*439. Vegetable-fiber bowstring		x
441. Bow held slantingly		x
442. Bow held vertically		-
*443. Bird arrow, sharp wooden point	(x)	x
446. Arrow foreshaft		-
*447. Arrow feathering triple, radial	x	x
448. Double, tangential, for small game, etc.		-
449. "Triple, tangential, for distance"		-
*450. Arrowhead with barbs	x	x
*451. Arrowhead without barbs	-	x
*452. Arrow poison	-	x
453. Arrow release of primary type		x
454. Arrow release between tertiary and Mediterranean		-
*455. Quiver of animal hide		x
456. Quiver on back, arrows pulled over shoulders		-
*457. Quiver carried at side		x
458. Sling in war	(-)	-
*459. Sling in hunting	(x)	x
*460. Spear used great deal in warfare . . . . .	.	x
462. "Deer-hide armor"		-
464. Bear-skin armor		-
465. Armor of twined (?) soaproot fiber		-
466. Whale-bone dagger		-
467. Hardwood dagger		-
468. Elkhorn dagger		-
469. "Deer-bone dagger"		-
470. Hardwood thrusting spear for war		-
471. Thrusting spear with stone point		x
*472. Ball-ended club for war		x
473. Simple club (straight wooden war club)		-
474. Ball-ended club for killing game		x
Assembly or Dance House		
*478. Earth-covered assembly house, single center post	x	
479. Tied-rung ladder		-
480. Notched ladder		-
*481. Used as winter residence	-	x
*482. Owned by chief . . . . .	.	.
483. Also used to dance in		x
*486. Tunnel entrance faces south		-
*487. Tunnel entrance not oriented		x
*488. Rear door	x	x

ANTHROPOLOGICAL RECORDS

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Assembly or Dance House (cont'd.)		
489. 4-door ghost-society house		-
*516. Brush dance house for summer	x	
Dwelling House		
490. Multifamily house		-
*491. Round or oval house frame of poles		x
*492. Thatch covering		-
493. Drying frame inside house (cf. nos. 497, 498)		-
*494. Conical house of bark slabs	x	
477. Double lean-to, thatched or bark-covered		-
*495. Withe lashings for house frame	x	
496. Bed scaffold		-
*498. Frame, platform, or domed brush hut for drying		x
*499. Shade roof on 4 posts without walls		
Sweathouse		
501. Mat-covered small sweathouse		-
502. Mats inside, brush outside		-
503. Steaming in sweathouse (prob. not ancient)		-
504. Tule sponge in mouth		-
505. Earth-covered small sweathouse, distinct from assembly house	x	
*507. Sweathouse proper owned by chief		-
*508. Sweating for hunting		x
509. Sweating for curing		-
*510. Assembly house used as sweathouse, with direct fire		-
*511. Sweathouse fan	x	
*513. Sweathouse as clubhouse		-
515. Women in true sweathouse		-
518. East vs. West competitive sweat groups		-
519. North vs. South competitive sweat groups		-
520. Sweat group hereditary in male line		-
Navigation		
521. Simple dugout boats (post-Caucasian)		-
522. Hollowed by burning		-
523. Split poling rods		-
524. Balsa (tule-rush raft boat)	(-)	-
525. Paddle, single-bladed		-
526. Paddle, single-bladed compound		-
527. "Sculling"		-
*528. Log raft	x	
530. Ferriage in baskets		-
Ceremonial Stones, etc.		
*531. <u>Haliotis</u> pendants and ornaments		x
532. Large obsidian blades, resembling Yurok (Handbook, pl. 2)		-
533. Doughnut stone		-
534. Charmstone	(x)	-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Ceremonial Stones, etc. (cont'd)		
535. Charmstone, plummet-shaped		-
536. Charmstone, spindle-shaped		-
536a. Charmstone fetish for game taking		-
537. Petroglyphs made		-
Musical Instruments		
*538. Cocoon rattle (Handbook, fig. 37)	(-)	x
*541. Foot drum	x	
545. Whistle of bone	x	
549. With bead inlay		-
550. Flute, blown at edge of end (Handbook, pl. 43)	x	
552. 5-holed		-
Money and Beads		
*554. Olivella shell as bead	x	
*556. Clamshell-disk money	x	
*557. Counted, not measured	x	
*558. Magnesite cylinders used as treasure	x	
Pipes and Tobacco		
*560. Wooden pipe with bulb end (Handbook, pl. 30)	x	
561. Wooden pipe with double bowl end (Handbook, pl. 30a)		-
562. Tobacco kept in any little basket		-
*564. Bedtime smoking		-
565. Pipe used by shamans, smoked		-
*566. Tobacco offerings	-	x
*567. Angelica offerings		-
568. Tobacco in curing (uses other than smoking)		-
Games		
569. Throwing sticks at stake		-
570. Throwing rings at stake		-
571. Hoop and pole game	x	
572. Stick hoop		-
573. Hazel-brush hoop		x
574. Ring and pin game	-	
575. 2 pins		-
576. 4 pins		-
577. With salmon vertebrae (Handbook, fig. 14)		-
580. Women's lacrosse with oak-gall ball		-
581. Lacrosse (men, women) with hard ball		-
582. Degenerate lacrosse racket		-
596. Guessing game by hiding stick in sand		-
597. "Four-stick guessing game"		-
598. Held in hand		-
599. 3 sticks, unmarked, in hand, division matched by opponent		-
600. Many sticks, none marked, divided, number guessed		-
601. Many-stick guessing game with 1 marked stick		-
602. Odd-even guessing game	x	-
603. Game of removing fours and guessing remainder		-

ANTHROPOLOGICAL RECORDS

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Games (cont'd.)		
*604. Kneecap game with single die		x
606. 6 mussel valves instead of sticks		-
610. Pyrographic etching on wood dice		x
611. Mat or basket for dice or guessing		-
612. Jackstones (pick-up juggling)		x
Calendar, Astronomy, Counting		
*617. 4 seasonal names only, no moon series		x
*618. Descriptively named moons		x
*619. Numbered moons		-
*620. Finger-named moons		-
*621. Stars as month markers		-
622. Person in moon		x
623. Tree in moon		-
631. North bottom, south top		-
632. North top, south bottom		-
Marriage		
634. Sororate	x	
635. After death		x
636. During life of sister		-
*637. Adultery punishment		x
638. Man marries wife's daughter		-
639. Man marries wife's brother's daughter		-
642. Parallel cousin marriage		-
643. Polygyny permissive	-	
644. Separate housing in polygynous marriage		-
*645. Price or presents or service for bride	x	
*646. Bride's parents also make gifts	x	
*647. Village exogamy	-	
652. First residence of newly married patrilocal . . . . .	.	-
653. First residence of newly married matrilocal . . . . .	.	x
*654. Final residence patrilocal . . . . .	.	x
656. No rule with respect to residence		-
657. Parent-in-law avoidance or bashfulness	-	x
*659. Mother-in-law, son-in-law	-	x
*660. Father-in-law, daughter-in-law	-	x
*662. Avoidance on trail	-	x
*663. For life	-	-
664. Bride scratches groom to show modesty		-
*665. "Girl unchaste before marriage killed"		-
Birth		
*667. Special hut at childbirth	x	
*668. Midwife		x
*669. Mother sits at delivery	x	
*670. Afterbirth buried or specially disposed of		x
*671. Navel string kept or specially disposed of	x	
672. Kept in house		-
673. Placed in creek		-
674. Thrown in certain direction		-
675. Thrown by sprung sapling		-
676. Buried		-
*677. Childbirth drink for mother		x

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Birth (cont'd.)		
*678. Baking in pit after birth . . . . .	.	-
*679. Warmed ground for mother to lie on . . . . .	.	-
*680. Fear of twins . . . . .	.	-
*681. Lie on side to prevent twins . . . . .	.	-
682. Semicouvade for both parents	x	
683. Duration in days 4 to 30 for man		x
684. Duration in days 4 to 90 for woman		x
*685. First child only		-
*686. Scratching stick (cf. no. 710)		x
*689. Taboos on travel		x
*690. Baby steamed		-
*691. Baby's ears pierced	-	x
*692. Abortion admitted		-
*693. Infanticide admitted		x
*694. Adoption		x
695. Baby named at birth	x	
696. Before weaning		x
697. After weaning		-
*698. Named after dead grandparent or kin	x	
699. Nickname type		-
700. First teeth lost put in gopher's burrow (Spanish?)		-
*701. First tooth lost thrown toward sun		-
702. First teeth placed in excrement		-
Puberty		
*703. Girl's ears pierced		-
704. Menstrual "pad" worn . . . . .		.
*705. Menstrual hut	x	-
706. Girl's puberty rite		x
707. "Repeated" every menses		-
*709. Basket hopper on head when goes out		x
*710. Uses head scratcher	x	
713. Parents use hand to scratch her		-
*715. Women (and men) dance	-	
*716. Girl dances		-
717. General sexual license admitted		-
*718. Duration of confinement 4 to 8 days		-
719. Duration of food taboo 4 to 8 days		-
721. No fixed time		-
722. Visor worn		-
*723. "Wands"		x
*725. Girl does not sleep		-
*726. Girl tattooed		-
Death		
727. Corpse constricted for burial		-
728. Corpse stretched for cremation		x
*729. Cremation of dead	x	
*732. Partial cremation in 1 place, balance elsewhere	-	
733. Bones rubbed to dust		-
734. Ceremonial eating of flesh of corpse admitted		-
*735. Bones put in basket with beads, buried		-
*736. Cemeteries near settlements		x
*737. Interment of dead	-	

ANTHROPOLOGICAL RECORDS

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Death (cont'd.)		
*738. Destruction of property after death	x	
*739. Undertakers' taboos		x
740. Undertaker unclean		x
742. Undertaker's purification by sweating		-
743. Undertaker's purification by washing		x
744. Undertaker sings for self		x
745. Bereaved family sweat themselves		-
746. Bereaved family "bathe" with pepperwood, etc.		-
*747. Taboo on name of dead		x
*748. Mourner's hair cut with flint (obsidian)	x	
753. Clay on stubble		-
754. White clay on forehead and bangs		-
*756. Breast beaten in mourning	-	x
757. "2-strand bead necklace worn by bereaved woman"		-
*758. "Braided mourning necklace" (NW type)		-
759. "Mourning necklace of pitch lumps"		-
761. Widow pitches face	-	
762. Does not wash during mourning period		-
763. Widow confined		-
*764. Parents wash widow's face at end of mourning		-
*765. Widow washes self at end of mourning		-
*766. Mourning by family begins before death		x
*767. Offerings for dead person after dream of him	-	x
*768. Mourner's claims satisfiable before dance		-
769. Altered terms for kin-in-law after death		-
770. Altered terms for blood kin after death		-
772. Angelica rubbed on body if dead dreamed of		-
*773. Angelica chewed to stop dreaming of dead		-
*774. Angelica burned in house to stop		-
Social and Political Status		
776. Generosity with property a virtue		-
*777. Berdaches (transvestites) admitted		x
778. Berdache lives with man		-
*779. Women become berdaches		-
*780. Twins favorite or signalized		-
*781. Special heaven for twins		x
*782. Women get water	-	x
*783. Men get water	x	
*784. Men get wood		x
785. Women get wood		-
*786. Political unit has separate subdialect		-
787. Lineages (kin groups) political unit or basis of same . . . . .		.
*788. Multiple-lineage villages		-
*789. Multiple-family villages	x	x
790. Village autonomous		x
Chiefs		
*791. Wealth influence		-
792. Chieftainship hereditary	x	.
793. Primogeniture	x	.
797. Female chief with title	(-)	-
798. Sister or daughter, not wife of chief		-
800. Title for chief's wife		-
801. Assistant chief for administration	x	-
*802. War leader usually not chief . . . . .	.

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Chiefs (cont'd.)		
*804. Fire-tender office (largely a ritual)		x
*805. Ceremonial oration from top of assembly house	x	-
*806. Herald or messenger		x
*807. Orator other than chief	x	-
*808. Moral lectures to children		x
809. Chiefs equated to birds		-
810. Eagle or hawk rearing by chief or others		-
*811. Aeries owned and inherited		-
Land Ownership		
*812. Definite community holdings recognized (cf. no. 814)	x	
813. Boundary marks		-
814. Autonomous political unit owns definite territory (cf. no. 812)		-
*816. Private ownership of land		-
818. "Stick fight to settle boundary disputes"		-
819. Burial places privately owned		-
820. Trade		-
821. Messenger to arrange trade	x	-
War		
*822. War to avenge witchcraft		-
*823. War for poaching	(x)	-
*824. War to avenge abduction of women or children		-
825. War "for adventure"		-
826. War for slight on chief		-
*827. War dance of incitement		x
*828. And of settlement		x
*829. Dancers abreast		-
830. War dreams by leader		-
831. War dreams by shaman		-
832. War omens		-
833. War paint		x
834. War paint black		x
835. War paint red		x
836. War paint white		-
837. Prearranged battles		-
838. Declaration of war, but no prearranged battles		-
839. Surprise attacks		x
*840. Scouts		-
841. Owl calls by scouts as signals		-
842. Chiefs neutral in battle		-
*843. Chiefs make peace		-
844. Scalps taken		-
*844a. Heads taken		-
*846. Enemy slayer disinfected		-
847. "Special keeper for scalp"		-
848. Enemy slayer used scratching stick		-
*849. Victory dance		x
850. Scalp on pole		-
851. Women and children killed		-
852. Women captives enslaved		-
853. Women captives married		-
854. Not violated		x
855. Shamans go to war		-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Shamans		
*856. "Mostly women" (as in NW Calif.)	-	
*857. Bathing for supernatural power		-
*859. Novices dance to acquire control		-
860. Disease object kept in shaman's body		-
*861. Spirit pains are supernatural objects		-
*862. Spirit pains are arrowheads		-
*863. Pains are living objects		x
*864. Pains are concrete objects		x
865. Shaman declining case blamed if patient dies		-
*866. Animal guardian spirits		x
*867. Acquired in trance or faint		x
*868. Acquired in dreams		x
869. Singing and sucking shamans distinguished	(-)	x
870. Sucking doctor drinks through bark tube		-
871. Fetish sacks for shamans	-	
872. Sack shamans in secret society		-
*874. Feathers and beads on stick for curing		x
875. Ventriloquism		-
876. Shamans' public competition		-
*877. Shaman cuts with flint before sucking	x	-
*878. Shaman sucks out disease object	x	
879. Spirit tells sucking shaman location of disease object		x
880. Shaman diagnoses or cures by singing or dancing		x
881. Singing shaman presses ashes on patient		-
882. Shaman cures by brushing		-
*883. Shaman cures by sprinkling water with feathers		-
*884. Shaman sprays water from mouth		-
885. Shaman uses quartz crystal		-
886. Shaman uses portable mortar		-
*888. Treatment by showing patient image of disease- causing monster		-
*890. Black magic, i.e., "poisoning" by shaman	*	x
*891. Weather shamans	x	-
*892. "Bear doctors," disguise as grizzly bears	x	
*893. Put on bearskin	x	
*894. Rattlesnake shaman		-
895. Charms snakes as exhibition		-
897. Cures snakebite		-
898. Sun associated with rattlesnake bite or shaman		-
899. Personal guardian or "life"		-
*900. Prophecy by shaman through dreams		-
901. Omens		x
*902. Cloud omen		-
*903. Animal movements		x
*904. Owl calls near house are bad		x
905. Stuffed bird in dwelling as protector		-
*906. Bull snakes give luck		-
*907. Albino animals give luck		-
Souls and Ghosts		
*917. Ghost in whirlwind		-
918. Spirit (not ghost) in whirlwind		-
919. Water thrown at whirlwind		-
920. Beads thrown at whirlwind		-
922. Ghosts visible		x
923. Ghosts audible		-
*924. "Soul"		x

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Mythology		
929. Man made of sticks		-
930. Man made of earth		-
*931. Man made of feathers		-
*932. Animal creator		x
*933. Coyote as assistant		-
934. Anthropomorphic creator		-
*935. Marplot antithesis of creator		-
936. Parallel prehuman race (as in NW Calif.)		-
937. "First People" animals		(x)
*938. Fairies, gnomes, etc. ("outside people")		x
*939. Water monsters or spirits		x
*940. Offerings to		-
941. Milky Way path of the dead		-
942. Milky Way thunder's road		-
943. Milky Way bear's road		-
Ritual, Various		
*944. New moon prayed to for health, luck, etc.	x	
945. Face rubbed		-
946. Body, arms rubbed		-
947. Running		-
948. Shouting		-
*949. Position of horns has omen value		x
*950. Children thrown in air		-
951. Children jumped		-
953. Prayers		-
*954. Angelica burned for luck		-
955. To stop thunder		-
*956. Shouting at sun eclipse		-
957. Sun dying		-
958. Bear eating sun		-
*959. Ritual number 4		x
*960. 4 or 8		-
*961. 4 or 6		-
*963. Eagle-down offerings		-
*964. Offerings of feather wands		-
*967. Trail offering places		-
Ghost Society		
968. Ghost society		-
969. Ghost impersonators		-
970. Run		-
971. Dance		-
972. Twigs in nostrils and lips to distort features		-
973. Horizontal bands of paint		-
974. Throwing or holding over fire to initiate boys		-
975. Boys tossed, not over fire		-
976. Women spectators		-
977. Women members		-
978. Girls also tossed		-
979. Ash ghosts (ash covered)		-
980. Play with live coals		-
981. Eat coals		-
982. Clownish		-
983. In earth-covered house		-
984. Held annually		-
985. At intervals		-

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Kuksu Society		
*986. Kuksu impersonation (cf. no. 1002)		x
*987. Staff carried		-
*988. "Comes from" south		-
*989. Painted black (face)		-
*990. Painted white (face)		-
*991. Shalnis impersonation (Shanis)		-
992. Masan-bate impersonation (Dasan)		-
993. From "south"		-
994. Big-head costume		-
995. Black paint on face		-
996. Grizzly-bear impersonation		-
997. In skin		-
998. By dancer		-
999. By woman as well as man		-
1000. By bear shaman		-
1001. All-over cloak impersonation (corresp. to Moki)		-
*1002. Kuksu ceremony (cf. no. 986)	x	
1003. Thunder (kalimatoto) ceremony		-
1004. Food-pole (ma'ahai) climbing ceremony		-
1005. Dama ceremony (cf. no. 1014, probably same)		-
*1006. Kilak dance	x	
*1007. Lole dance	x	
1008. Hiwe dance		-
1009. Coyote dance		-
*1010. Djane dance		x
1011. Condor dance		-
1012. Eagle dance		x
1013. Deer dance		-
1014. Idam (cf. no. 1005)		-
*1015. Yukash dance	x	
*1016. Shukin dance		-
1017. Yo-ke dance		-
1018. Acrobatics		-
1019. "Trapeze" from rafters		-
1020. Sliding headfirst down pole		-
1021. Diving through smoke hole		-
1022. Dance-house floor seat allotment		x
*1023. To visitors vs. home people		x
1024. To groups or ranks of performers		-
1025. Boys' initiation		-
1026. Back scarifying, publicly	-	
1027. Boys		-
1028. Girls' initiation		-
1030. Boys and girls poked with kuksu stick		-
1032. Shooting		-
1033. Initiates go "crazy"		-
1034. Men only initiated		-
1035. Women also		-
1036. Women in kuksu society		-
1037. "School"	-	
1038. Confinement		-
1039. Instruction		-
1040. Summer		-
1041. Boys only		-
1042. Boy's nose pierced		-
1043. Nose piercing of adult male		-
1044. Dance season in summer		x
*1045. In winter	-	x
1046. Dances in earth-covered assembly house		x

Cultural Elements of the Southwestern Pomo (cont'd.)

Elements	Occurrence	
	1934 data	1950 data
Kuksu Society (cont'd.)		
1048. Clowns (prob. in ghost society)	x	-
1049. Heron-head cane		-
1050. Woodpecker-scalp belts (cf. no. 88)	-	
1051. Buckskin base		-
1052. Woven base		-
1053. Worn by women		-
1054. Men		-
*1055. Six directions	x	-
*1056. South first		-
*1057. North first		-
*1058. "Dextral" order (anticlockwise)		x
1060. Cardinal direction deities		-
1061. Directions associated with impersonated spirits		-
1062. South only		-
1063. Meal offerings in fire	-	
1064. Elsewhere		-
*1065. Secret-society head called yomta		-
1066. Master of ceremonies is village chief		x
*1068. Master of ceremonies is other than chief, orator		x
*1069. Regalia kept by chief		-
1070. By orator		-
1071. By fire tender		-
1072. By individual dancers		-
*1073. In dance house		-
*1074. Bird spirits impersonated		x
*1075. Singers suck water through bone tube		-
*1076. Winter singing for acorns	-	
*1077. First-salmon ceremony	x	
*1078. First-fruits ceremony	x	
1078a. Pressing of each eater by shaman or old person		-
*1079. First-acorn rite		x
Varia		
*1080. Bad to point at rainbow	-	
1081. Sneezing indicates someone talking of sneezer		x
*1082. Dogs named		-
1083. Dogs talked to		-
Postures and Actions		
1085. Swimming, breast stroke		x
1086. Swimming, dog fashion		-
1087. Swimming, on back		x
*1089. Males urinate squatting		-
*1091. "Toilet chips"		x
1092. Women sit cross-legged (Turkish)		x
*1093. Women kneel on knees and toes, buttocks on heels		x
1094. Women sit with 1 foot under, other at side		x

NOTES ON CULTURE ELEMENT LIST

Clothing and Blankets

6. In early days rabbitskins were twisted with a 2-stick swivel as rope is twined in the Southwest.

10-11. Rabbitskins for blanket are prepared by men; woven (twined), not sewed, by women.

13. Sea-otter skins were not used. Sea otters were not known until the Russians came.

14. Puma skins were not worn, but were used for bed comforters. Their possession, like ownership of bearskins, gave a man prestige. There was little distinction between rich and poor.

15. Women wore a deerskin cape in winter or in rainy weather.

24. Woven rabbitskin not used for this. One piece.

26. One piece was wrapped around the waist, like a sarong, and was secured by a sinew cord (or cords) passing around the waist. This cord was attached to the upper corners of the kilt, was passed around the body and tied in front.

35. One-piece dress of skin was wrapped around the waist.

40. No cap or hat whatever.

41, 42. No tule was available in Southwestern Pomo territory, hence none was used.

Hair

46. Hair was not cut until scissors were introduced by the Russians.

55. Pepperwood-nut charcoal was rubbed into mustache to groom it.

Adornment

66. No nose stick of any kind.

75. Herman's grandmother was not tattooed. She had her ears pierced and wore in them sticks or five-finger fern stems.

76. A dark red pigment, called po, is deposited around the edges of certain springs.

77. Charcoal and white clay were used on the face on festive occasions. Charcoal for pigment was made from pitchy wood (no special tree) burned on a stone. The carbon was scraped off the stone and applied to the face.

Ceremonial Dress

83. Feather topknot was worn by women in dance; men's topknot was worn on back of head.

84. Flicker-feather visor worn in Toto dance only.

94. Manzanita hairpins were worn by men in Toto dance to hold the hair up.

98. Women hold nothing in the hands in dance. In the Toto dance, they clench their fists. In the Lehuye dance, they hold their hands open, with fingers interlocked, in front of the abdomen and swing them slightly from side to side.

Cradles and Burdens

102. One of the baby's grandfathers or the father or an uncle makes the cradle. A mole's hand (used because of its likeness to the human hand) might be hung on the cradle's handle to ensure health for the child.

103. In modern times women sometimes made the cradle.

104. Cradle pattern does not indicate the sex of child. Cradle is not made until the baby is born. It should never be turned upside down while the baby is living or the baby will die. The cradle of a dead baby is hidden in the woods. A dead baby is cremated.

106. A deerskin packstrap was used for the cradle, which was carried on the back. The packstrap was worn, hair side in, over the forehead. In late times it was sometimes worn across the chest instead of around the head.

115. A litter (djata) was used for a sick person or for a corpse. Herman had never seen one but his grandmother had described it as made of two long poles with two cross-sticks and lupine-root crossties on which a deerskin was laid. It was kept at the house where the invalid (nonambulant) lived. The last time a litter was used was in Gold Rush days to carry a Southwestern Pomo from "Sacramento" to Fort Ross.

123. Men's burden basket was larger than women's because a man can carry a bigger load than a woman. It was used, like the women's, for seed- and acorn-gathering or when men assisted at a bountiful harvest.

Basketry

130. Feathered baskets of the Valley Pomo were called keyashe's. According to Mary James, her father, Tom Smith, said that the Bodega Miwok used to make feather baskets.

135. Haidjoshe'e, "lattice twined." Lattice-twined baskets were used for water and for acorn mush. The wefts were yew roots. The black design was dyed bracken (mo'oda) roots. Pounded acorns were mixed with mud and the roots were buried in it. It took four days to dye them black.

141. Tule mats were rare, since there was no tule in the region.

143-147. All negative, since the coiling technique was not used.

149-151. No redbud was available in Southwestern Pomo territory.

Cordage

162. Process was called dasiu.

164-169. Two-ply string was sinew or lupine.

173. Four-ply string was made by doubling 2-ply.

174. Kelp rope was not twisted. The natural kelp was used after it had wilted and while it was still soft. Kelp and twined lupine were both used for fish lines.

177. Swivel stick was used to twist rabbitskin; the other end was tied. Herman thought this was a pre-Russian practice. An awl was used to make a hole in the rabbitskin or to separate it so the thread could be put through.

Fishing

185. No fish-spearing booth. A brush hut, however, was used by a man watching a fish trap. It was called komka chumau (komka, "hut"; chumau, "sitting down").

192-193. Known nowadays as used by other people, modern fishermen.

197. Surf fish "net" was formerly of hazel.

198. Surf fish were caught on an approaching wave and the net was raised quickly.

199. There were no nets or net sinkers, but sinkers were used on fish lines.

200. Grooved and notched stone sinkers were used on fish lines, not nets.

202. Since there were no nets, there were no net floats.

203. Double-pointed gorget but with crosspiece to which line was tied.

207. Lampreys were not eaten, but ocean eels were poisoned and eaten.

216. Burden basket was used for fish when a big catch was expected, as, for instance, in the spring when salmon gather in deep holes. For ordinary fishing on riffles where salmon spawn the fish are strung through the gills on hazel withes.

217. When the food supply was low, fire was used on edge of a deep pool when fish were harpooned, or as a torch at a riffle.

Hunting

225. The deer fence was not long, perhaps 20 yards. It had two sections converging on a noose tied to trees on both sides of a trail.

226. Brush was burned only to clear undergrowth and to promote better wild crops.

227. A man did not hunt for four days during his wife's menstruation, for four weeks at the time of a child's birth.

228. Songs were sung before deerhunting.

229. A gambler might chew angelica or rub it on his arms and legs.

234. The quail trap was sometimes set where quail habitually dusted themselves. It was owned by one man but he might give away some of the catch to relatives or neighbors. Quail meat was not dried and stored.

243. The Varied Thrush, however, was snared.

252. Woodpeckers, also flickers, were caught for food.

262. Ducks, mostly mallard, were shot with an ordinary stone-pointed arrow.

266. Used to remove the fat from hides.

268. Scraper of deer shoulder blade was used only after fat was removed from hide with stone scraper. The deer-bone scraper was also used on hides of other animals as well as on deer hides.

269. Rubbing stone was used especially on heavy, thick hides.

276. The woodrat was impaled with a sharp stick, once it was out on a branch.

281. A basket, like a seed-beater but smaller, was used when starting a fire, especially when renewing a banked fire. A deerskin over it made it more effective.

Food

282, 283. Herman repeatedly declared that bones were not eaten. Vertebrae of small animals being cooked on coals were pounded to make them lie flat, so they could

be easily separated from the meat before eating.

284. Dried salmon was not pulverized. Herman told of some Southwestern Pomo men visiting in Lake County. They were unable to eat the fish soup their hosts set before them. Until they sampled it, they thought they were being given acorn soup.

297. Meal was not sifted through the interstices of a basket. The basket was shaken and tapped so the coarse stuff was sifted to the edge and could be pounded again, the fine meal being retained on the basket.

298. The use of a basket as a leaching basin is modern.

299. Water of varying temperatures is used for leaching. Hot water hastens the process.

300. Water was poured on redwood foliage or ferns to break the fall of the water, not to impart flavor.

301. Leaching in openwork baskets is a modern degeneration; it was not done formerly.

307. Acorn pancakes, however, were made on a hot rock. No red earth was added.

308. Youth might partake of his first kill when it was served as a feast for relatives and neighbors. Subsequent kills could be eaten without ceremony.

323. A fire was built over a yellowjacket nest and the larvae were dug out.

Utensils

348. Less popular than slab mortar. Oats were often pounded in a bowl mortar. Herman's grandmother never used one but did use a hopped mortar. Acorns, prepared in large quantities, required a hopped mortar.

349. Herman did not know the story of Coyote's making bowl mortars.

350. Poisoner, however, had a stone with several holes through it, which would cause paralysis if touched.

351. Tobacco was pounded in a small bowl mortar, then stored. Paint, however, was ground in small quantity on a rock, moistened, and applied with the fingers.

360. No coiled basketry but a bone awl was sometimes used for twined baskets, as well as for fish slitting.

361. Bone awl without wrapped handle.

362. No lampreys were eaten. Herman thinks this was because there were too few of them and there were other good fish.

366. Hairbrush of anise roots. Young tops of anise (sibuta) were eaten green.

371. There was, in fact, no trade of coast products for valley products. The Valley Pomo came to the coast and got what they wanted and the Southwestern Pomo did not object. The Southwestern Pomo did not go to the valley because they had everything they needed—both land and sea products.

374, 375. Sparks were produced by percussion but stones were not used to make fire.

377. The stone bowl was too heavy to use in carrying coals. Instead, coals were placed on ashes on a flat rock inside a basket and covered with bark peeled from the outside of a madrone tree. Tan Oak bark was used for coals because it lasted well. Tan Oak coals were also used in banking a fire so it would last until next morning.

386. Maple, which is light but solid, was preferred.

390. Arrow was polished with an abrasive stone after it had been scraped with a flint scraper.

391. *Equisetum* was not used. Another plant, which has leafless stalks 3-4 feet long, was used. It was dried and used, like sandpaper, for smoothing arrows, folded over the arrow and rubbed back and forth while the arrow was turned.

396, 399. Probably lacking in early times if, as Herman said, there were no nets. They may, however, have been used in recent times.

400. Baskets used for platters, even for mussels.

Tools

408. Used to drill abalone pendants, i.e., for cradle ornaments.

410, 411. The piece to be drilled might be set in a hollow in a rock. A man's wife might hold it at the beginning of the drilling.

412. No wedge was used, although iron wedges were used at Fort Ross in working stone. A forked elkhorn was used to pry off bark, one prong being thrust under the bark, the other used as a handle to lever it off.

417. Whalebone was used as a cure for rheumatism, being burned in fire and covered with pigeonberry and fir foliage, on which the patient lay. The fire was made in a slight depression outdoors.

Weapons

431. Called si'mi, used for small game and sometimes deer. It was about 4 ft. long, made of hazel, and was either plain or backed with sinew.

433. The bow was of yew wood, about 5 ft. long, and thinner at the ends, which were bent back. Herman said that the sinew was fastened only at the ends by a sinew wrapping; it was not attached in the middle. This sounds unlikely. Herman once saw a man making a bow. The sinew, chewed before it was applied, formed a broad band in the middle of the bow and tapered to a narrow strip at the ends. The bow was about 2 in. wide at the widest part (about 1-1/4 in. thick in the middle, 1/4 in. at ends); smaller at the grip, with the chief width at the ends.

437. Bowstring was 4-ply, i.e., 4 thin fibers twisted together.

439. Lupine bowstring also used. It was almost as strong as sinew.

443. The wooden point was tapered, not too pointed or sharp.

447. Three half-feathers always, radially placed on arrow; sinew wrappings were glued with pitch.

450. Arrowhead with barbs, for big game.

451. Arrowhead without barbs, for small game.

452. Used in warfare but not in hunting food animals. Poison used was snake's blood (any kind), or blood from the large lizard (haikô tolo). No rotted liver or tarantula or snake venom was used.

455. Quiver was made of fawn or wildcat hide.

457. Quiver carried by bandoleer over the right shoulder so it hung at the left side. Arrows were drawn out with the right hand. Sometimes an arrow was held in the mouth for quicker action.

459. Sling used for small game, jackrabbits, birds, etc.

460. Spear was sometimes used at close quarters but not a great deal in warfare. It was also used in an emergency for a large animal. The spear, only 6 ft. long (actually a stabbing pike) had a stone point. It was not thrown, except sometimes at an animal.

472. Club used also for killing wounded deer. It was of yew or manzanita, about 2 ft. long. The end was not actually a ball but was a knob shaped on an abrasive rock. The wood was cut with a flint or was burned to length.

Assembly or Dance House

478. The earth-covered assembly house probably had more than one center post, Herman thought, but this type is late. Herman's grandmother said there was no dance house before the Russian period; she thought it was because people moved around so much. An earth-covered house at Haupt's Ranch had an excavated floor and one center post, with rafters resting on the ground at the edge of the pit. The smoke hole was in front of the door, as in modern types. Herman said there were two old pits of earlier dance houses at Haupt's and one at Dukashal.

481. The dance house was sometimes used as a winter residence by one or two families, Herman's grandmother said. The occupants lived close to the fire and had lots of grass for bedding.

482. Herman was not sure that the chief owned the dance house, because it was the yomta who usually built it or had it built. Tehawa built the earth-covered dance house Herman saw at Haupt's Ranch. Tehawa was a sort of yomta; he dreamed a little. He died before Herman's time but they did not burn the dance house at his death.

486, 487. The entrance must face west, according to the yomta's ruling. The earth-covered house at Haupt's Ranch, however, faced east.

488. Sikamili is the name of the little rear door, which Herman saw in the earth-covered dance house at Haupt's Ranch.

516. At Haupt's Ranch there was a brush dance house for summer. It had four doors, and the roof and walls were brush. It was built by Hosebate ("Big" José), in Herman's mother's time. Herman never saw it, but he once saw José, when José was an old man. He was a big man, about 300 lbs. No shoes would fit him.

Dwelling House

491. There was a pole frame only when the redwood bark was not long enough. If bakom or redwood foliage was used as thatch, a frame was always provided.

492. See 491. Bakom or redwood foliage was used for thatch because fir or pine dried out and shed needles.

494. The redwood bark house had a center post, but usually had no pole frame.

495. Hazel-withe lashings were used over both frame and thatch; grapevine was also used in the interior. Even the house of redwood-bark slabs had hazel-withe lashings on the outside.

498. Sometimes there was a platform for drying, raised on 4 forked sticks. Usually, however, drying was done on the ground.

499. Herman's mother used a shade roof set on 4 posts and without walls. His grandmother never said anything about this type of structure, so it is probably modern.

Sweathouse

507. The chief was not the owner. Any man could use the sweathouse, and all helped build it. It was used by men only.

508. Sweating was followed by bath in pool.

510. This was a late custom.

511. This was a late practice in assembly house.

513. Sweathouse was not big enough to use as clubhouse.

Navigation

528. A log raft was formerly used to cross the Russian River. Apan, a Southwestern Pomo man from the south side of the river, living at Shokawi (Russian River) on the south bank of the lagoon, used to ferry visitors from the north side on a log raft. His father did the same before him. Apan probably lived at Chalanchawi. Musubacho "log raft" (musu "log"; bacho "boat").

Ceremonial Stones, etc.

531. Very few in early times.

Musical Instruments

538. Herman now thinks the cocoon rattle was present from early times. It is mentioned in a Coyote story. The yomta used a cocoon rattle, but the yomta was not early.

541. In the dance house.

Money and Beads

554. Apparently rare.

556. Most of this clamshell-disk money came from the Miwok, though probably some was made by the Southwestern Pomo. Herman earlier said it was not made but was bought or received as gifts.

557. Clamshell money was not measured but was counted by fives: each unit of 5 was called 1, 2, 3, etc. When 20 fives had been counted, a stick was laid down to record 100.

558. Magnesite cylinders were rare and highly valued. They were obtained by purchase or gift. Herman's grandmother said they were present in olden times. A small one was worth a thousand clamshell beads. Magnesite [cylinders] were worn in a necklace, mostly by women, as a display of wealth. Rosie Smith has a cylinder 2-1/16 in. long which is worth 2,000 clamshell beads. It was in a necklace of very thick clamshell beads (namuli "valuable things"). The thickest bead in the lot is 1/2 in. Rosie made the necklace under the direction of Hosebate, who dreamed the pattern. It has a clamshell cross-arm with triangular abalone pendants and a quail crest at each end.* The triangular form of abalone beads is called tilel. On the ends of the cross-arm hand opaque white and transparent red beads, making a string from which the pendant hangs down about 1-3/4 in. Glass beads in general are called walholyo. Color designation may be added.

Pipes and Tobacco

560. Wooden pipe with bulb end was a late trait, obtained from Valley people.

*N.B. This cruciform bead pendant is now (1958, 1959) used as a badge of membership in the present Maru ceremonial group headed by Essie Parrish. Whenever a Maru ceremony is held at Kashia, these pendants are worn by all members, old and young. Inquiry about persons not wearing this emblem brought the reply that this was because he or she was not a true believer. A person might be a member of some white man's church but he could wear this emblem only if he was also a member of Essie's group. Some, at least, of these people are Mormons and at the same time are members of the Maru. Herman James' son, as a matter of fact, is a Mormon elder and also ranks second only to Essie in the Kashia Maru group.

564. The middle of the day was preferred for smoking.

566. Herman's grandmother did not mention tobacco offerings except for one occasion, when she put tobacco in the fire as an offering to Great Horned Owl. Owl had been hooting near her house and she told it to stop. Then it began talking Southwestern Pomo, saying "Mata, Mata" ("You, you") and so on. Then she got scared and made an offering of her husband's tobacco. This happened before Herman was born.

567. Angelica was used as medicine and to bring good luck.

Games

604. Played with 12 counters. Any number of players. An astralagus die is pictured in 6 positions in Barrett, 1952, Pt. 1, pl. 16. See also Barrett, 1952, Pt. 2, figs. 4, 5 and pl. 60.

Calendar, Astronomy, Counting

617. Four seasonal names were all informants gave me.

618. I got a hint of months (moons) descriptively named but no precise names except kôkû for the month of February.

619, 620, 621. Kamot lanko ("stars seven"), the Dipper, is said to measure the passage of night. There were no names for the hours. Pleiades, amalibu (lit., "earth whistle"); morning star, ka kamot ("daylight star"); evening star, duweli kamot ("twilight star").

Marriage

637. Injured husband might kill his wife.

645. The bride price, food or skins (i.e., a bearskin), was given by the bridegroom's mother to the bride's mother at the time the young couple were married. There was no fixed amount. The bridegroom's mother received a gift in return.

646. Gifts were exchanged by the two mothers-in-law.

647. But often there was marriage with a person from another village, except from Point Arena. Anyone who married a Point Arena Indian might be "poisoned." Nowadays, however, there are marriages with Point Arena people.

654. After two or three years the couple might move to the bridegroom's settlement.

659, 660. The two might talk if necessary but not carry on a sustained conversation. The son-in-law might not ask the mother-in-law to cook for him.

662. There were no rules against conversation between in-laws of the same sex, e.g., mother-in-law and daughter-in-law or father-in-law and son-in-law.

663. After the in-laws were well acquainted, perhaps after three or four years, they might be friendly.

665. Herman's mother told him that the Lake County Pomo killed an unchaste girl.

Birth

667. Childbirth hut, kawilaicha, was built by the prospective father. It was of redwood bark, with a fire pit in the middle.

668. Usually the midwife was a close relative, perhaps the woman's own mother. A sucking doctor might be called in.

669. The mother sits at delivery, with someone sitting behind her and holding her. Another woman is stationed in front as well.

670. The afterbirth was buried in a gulch by an older woman, the mother or aunt, to get it out of sight and put it where no one would walk over it. If someone walked over it, he would die of a swollen abdomen. Three or four inches of the navel cord were left.

671. Wormwood (kapulá) was warmed and laid on as a poultice. This might be done by the attending woman. After 5 or 6 days the cord dropped off. The navel string, whether a girl's or boy's, was put in a small twined basket and tied in the branches of a fair-sized tree. A redwood was a good tree to put it in because it is hardy. If the tree died, the child would not grow.

677. The new mother drank a bitter medicine, called kilawenu, once each day. Kilawenu was also drunk by any person as an appetizer.

678, 679. The woman stayed in the childbirth hut four weeks. During this time the husband did not hunt or fish, although he fetched wood and water. At the end of the four weeks a fire of hardwood was made in a shallow pit. When it burned down, pigeonberry foliage and pine needles were laid over the ashes in the pit. The new mother stayed in the pit two or three hours, covered with skins. If she became too warm, more foliage was put on the ashes. She was then well and could resume her household duties. She might live in the family house again, and the man resumed his hunting and fishing. They kept track of the 4-weeks period by the moon. The "baking" was done out-of-doors in good weather.

680. Twins were liked but there were not many.

681. Lying on the back might cause twins to form.

685. Semicouvade for all babies, not merely the first.

686. The pregnant woman must not scratch herself with her fingers [fingernails] before her child was born, or she would have permanent streaks on her body. A manzanita-twig scratcher, not a bone scratcher, was used.

689. The father might travel, but not the mother.

690. The baby was washed in a basket about 24 hours after birth.

691. The ears of babies of either sex were pierced by the maternal grandmother when the baby was two days old. A squirrel bone was used to prick the ears, and sinew thread kept the perforation open.

692. The means of abortion were not known.

693. Herman's grandmother knew of only one woman who gave birth away from the house and returned without the baby. She did not know how the baby was disposed of.

694. If the parents died, a child might be adopted, but only by relatives.

698. Usually named after relative, either dead or alive.

701. The first tooth lost was thrown to the south by either grandmother, who called on Coyote (duwi) to give the child good new teeth.

Puberty

703. Ears of both sexes are pierced in infancy. See 691 above.

705. No menstrual hut, but a girl is confined in the house for one month. Her head is covered with a deerskin and she is led out to toilet by her mother or grandmother. She is not allowed to cut meat. She can eat acorn mush and mollusks (mussels and Tegula) though not abalone or fish or salt. (Likewise a parturient cannot eat salt for 4 days after giving birth.) A story is told of a girl who ate

meat or fish; in about a month she went out of her mind.

709. The basket used to hood the girl menstruant was a burden basket, not a basket hopper. This was done only for the first menstruation. At subsequent menses, the girl was not hooded, and her abstention from meat and fish lasted only 4 days.

710. Girl must not scratch herself with her fingers but must use a scratching stick of any small hardwood. She must not look at anyone. If a girl menstruant saw her father going hunting, he might meet with an accident. At the first menses a girl must not name any person, or the person would die.

715. There was a feast attended by relatives and neighbors. The girl's father killed a big buck. The feast and singing went on all night. The singing was called bichemakali ko'o (biche, "deer"; makali, "put in mouth"; ko'o, "singing"). Near dawn the girl ate a small piece of meat wrapped in a laurel leaf. After this her food taboos were ended.

716. Girl does not dance but sits holding a deer's antlers all night. Her hands are tied to the horns so she will not lose her grip if she goes to sleep. This is at the girl's home.

718. Described above as 1-month confinement; reckoned by moon phase.

723. Both men and women sit around the covered girl on the first night of her confinement (and sometimes on later nights) and tap her cover with pigeonberry twigs as they sing. They have many songs: "When you get over this you'll be healthy. Nothing will bother you." This is to bring her long life and health. Herman last saw this at Haupt's Ranch 45 or 50 years ago.

725. See 716 above.

726. Tattooing was not mandatory; there was no special time for it. Women were tattooed on the chin, men on the breast.

Death

729. No part of the house was used for the funeral pyre. Hardwood was preferred. Neither Herman nor his mother had ever seen a cremation. Toyon, however, was cremated after Russian times. Gold nuggets, given him by Benitz, were put on his pyre.

732. The corpse was carried home. Once in Gold Rush days a Fort Ross Indian who fell ill in Sacramento was carried in a litter to Fort Ross, where he died.

735. Bones were sometimes put in a skin sack and kept, but were not kept in the house. People stopped moving bones after a man was "poisoned" by his wife's putting pulverized baby bones in his acorn mush (see p. 18). However, bones were not always saved. Some people preferred to let them lie at the funeral pyre. The burning pyre was attended by a man who poked the fire so the corpse would burn up completely. Property was burned with the dead according to sex.⁴

736. The burning place at Fort Ross was not far back from the settlement.

737. No interment until after people left Fort Ross for Haupt's Ranch.

738. The house was burned after death. If it was too close to another, it might be pulled down and hauled off a little way to burn. At Haupt's Ranch houses were not

⁴[The meaning of this statement is not wholly clear, but it probably means that different kinds of goods were sacrificed according to the sex of the dead person. Ed.]

burned, but small possessions were burned after the burial, usually three or four days after. Of course, more valuable things, such as beads, were buried with the dead.

739. One who handles a corpse cannot touch anyone for 4 days. He must feed himself with a musselshell spoon, eating only acorn mush and pinole; he must not touch food with his hands. (Herman's grandmother told about a man who put his child on his lap after he had been handling a corpse. The child died next day.) An undertaker sang and bathed himself; if he ate the wrong food, he might die. No plant is used.

747. Mention of the dead by an outsider might arouse enmity and cause the bereaved family to "poison" the speaker.

748. A woman mourner, related by blood, might cut her hair short, but a widow would not dock her hair. Afterwards, the hair was allowed to grow out to about ear level. Herman said that haircutting in mourning was a recent practice; it was not done in his grandmother's time. But see Kostromitonov's account (p. 3), which mentions cutting the hair and placing it in the fire.

756. Mourners pounded the chest with their fists, but did not scratch themselves. Kostromitinov's account mentions mourners' pounding their chests with stones. Herman had seen mourners pound their chests but not with stones.

758. Herman did not know the custom of making a belt of the mourner's hair.

764, 765. Some woman, a friend or relative, would wash the widow's face when she had been crying.

766. Mourning begins a day or so before death is expected. Herman had seen this himself.

767. Offerings are made at a feast to which people are invited. This is done for fear the dead will take the dreamer. Food for the dead person is burned. Mourners will not go to dances for a year because they would feel bad when recalling the part the deceased took in the dance.

768. Dance givers did not pay mourners.

773. Angelica is chewed for good luck in gambling, not to stop dreams of the dead.

774. Angelica is burned to prevent illness; it is a prophylactic used before actual sickness.

Social and Political Status

777. Men who acted like women and did women's jobs. The Indian term for berdache is djapia ("hermaphrodite").

779. None known, but Herman knew one woman berdache among the whites, Dickson.

780. Twins are neither liked nor disliked. Cf. 680.

781. It is believed, however, that if one twin dies, the second will soon die also because they have one heart.

782, 783. Women get water when men are out hunting; men get it when they are home. If the men are getting wood, then women get the water.

784. Men get wood all the time.

786. One language, but slight differences of a few words, say between Metini and Muchawi. Herman thinks there is a slight dialectic difference south of the Russian River, as evidenced by Maria Santos.

788. Herman's grandmother never mentioned a place with more than one noponopo ("chief") or more than one group. Hence there were apparently no multiple-lineage villages. The lineage in a village is not a named group except as it is named for the place.

Apparently most children are referred to now according to their mother's village, though Herman says it could be either way.

789. No doubt about multiple-family villages.

Chiefs

791. Bodega people with their shell money were considered rich. Some got clamshells from Bodega and made disks themselves. Herman's grandmother did not mention any rich men.

802. No real wars so there was no war leader. Toyon never took his people to war. He was very good-natured and tried to have his people avoid trouble.

804. The ceremonial fire tender and door watchman was called howamadjeje (howa "door"; madje "watch"; ya "person"). He supplied whatever was needed, i.e., water for the dancers. The chief stood up and assigned the job of getting wood before the dances commenced. The doorkeeper also conducted strangers to seats. The doorkeeper's job was a lifetime one and hereditary; a son would succeed his father. Herman thought there were dance houses before the Russians came.

805. The chief did not orate from the top of the assembly house but walked back and forth in front of the houses early in the morning, urging the people to prepare for their guests, exhorting them to treat strange visitors well, and so on. There was no official orator, the chief did the talking himself.

806. The door watcher acted as messenger, going to other hamlets with dance invitations. Sticks tied together were taken to the headman of the band to be invited and he informed his people what was planned. They, in turn, might send reply sticks.

807. The door watcher conveyed verbal messages explaining what was planned, when to come, and so on.

808. Moral lectures were given when children were old enough to comprehend.

811. Eagle aeries were not owned. The fish-hawk aerie in the canyon near Stewart's Point was not owned by anyone.

Land Ownership

812. All Southwestern Pomo north of the Russian River were one group without any individual land ownership. Only the Southwestern Pomo south of the Russian River were a separate people, although the language there was also Southwestern Pomo.

816. No private ownership of land. If a woman found a nice seed tract she did not claim it for herself but told other women about it and they all used it. The same with other facilities; there was no tree ownership either.

War

822. A sucking doctor could determine the identity of a poisoner, who was usually "poisoned" (or his family was) in retaliation. Hence there was no war to avenge witchcraft.

823. There was no argument with outsiders over food. Outsiders, e.g., Point Arena people, were welcome but few came because it was too far.

824. There was no abduction. The only kidnapping recorded was during Russian times when mounted Indians took some people away.

827. Members of a party going to avenge a killing painted their faces red and black. They used charcoal from soft-wood coals, i.e., redwood (makei), and a red

clay (ipo) which was redder than the earth used in acorn bread. The pigments were mixed with water and put on the face and body with the fingers.

The men sang a war song, mentioning the pigment and saying that the enemy would be harmless as children: "Their arms shall be down and their eyesight dull." The men stood in a bunch and danced.

828. Like the dance for the war party. When the dancing is over, they say "yi'li'i" and "e'e'e" (no meaning). Song to prevent harm before the war party.

829. Dancers dance in a bunch.

840. There were no war scouts but the warriors would familiarize themselves with the location. There was no leader except the man of the family seeking revenge.

843. Peace was made by the feuding families.

844a. No heads were taken, but once, when a Hopland man was killed by other Hoplanders, his head was cut off by a friend, who took it home to show the dead man's relatives. The victim's attackers were armed with revolvers, as he was.

846. No, but no meat or fish was eaten for 40 days. This only for first slaying. Death followed violation of taboo.

849. Victory dance at place of slaying.

Shamans

856. Formerly all doctors were men, but Herman saw a woman sucking doctor at Healdsburg; she was not a Southwestern Pomo.

857. Power comes naturally without seeking.

859. No dancing by novices. Yomta doctor is the only one who dances.

861. Disease objects may be in the form of a worm, stone, fish, etc. Sucking doctor may extract a sample to let some of the patient's relatives see it.

862. Herman's grandmother mentioned arrowheads. If the arrowhead is to be inserted in the victim's body, the sorcerer must touch him with it ever so gently.

863. Arrowheads are not alive. (The large blades we saw at Mrs. Poff's place, however, are believed capable of locomotion, but none of this size has ever been removed from a patient.)

864. Sometimes the pain is a living worm (earthworm or white grub) of a kind seen in rotten wood.

866. A snake (musakalakol) is the helper (guardian spirit) of a sucking doctor. This snake has never been seen and is probably imaginary, Herman thinks. Herman knows of no other guardian spirits for a sucking doctor. Yomta gets guardians or dream-spirit from heaven. Yomta is "later model," acquiring power in dream.

867. A woman, or a man, might fall over in a trance and see a snake. There is a definite distinction between a sucking doctor and a yomta.

868. The yomta acquires power through a dream.

874. By yomta only.

877. Patient merely tells where the pain is.

878. Herman once saw Solomon, a fake shaman, put something in his mouth before sucking. Solomon was a Lalako man. People got onto him and he was no success as a doctor.

883. The doctor, however, may order a bath after a period of 2, 4, or 8 night's treatments.

884. The shaman may have water in his mouth to moisten the afflicted part before sucking.

888. Marie James once saw a black fish dash under a rock when she was getting water. This stream was supposed to have no fish. The shaman, called Kawas, sucked

the fish out of her. This was at Danaga when Mary was about 40 years old.

890. It is claimed that Solomon poisoned people; at least, there is a strong suspicion that he did. He was not killed, however.

891. There was no weather shaman but Marie used to sing songs to stop storm and rain; she would call for the north wind to blow the clouds away. Even Mrs. Benitz at Fort Ross used to tell the women to sing that song to make clear weather so that her clothes would dry.

892, 893. There are both disguised and transformed bear doctors.

894. Poison man (paschi acha) might mix snake blood with "poison" for evil witchcraft. Medji, who came from Muchawi, and Solomon were both said to be poison men. Solomon "put people away" by pretending to doctor them, then letting them die.

900. Only by a yomta, not by a sucking doctor.

902. People were admonished: "Don't watch the sunset or your mother will die." This was Herman's grandmother's advice to him.

903. A seagull inland presages a storm.

904. A great horned owl or a screech owl calling near the house presages bad luck. A hooting owl must not be mocked.

906. No snake brings good luck. All snakes are kôkû (taboo) and matam. Matam refers to the punishment that follows transgression.

907. Albinos are usually bad luck. The sight of a certain white hawk might cause illness. White deer are kôkû; you should not look at one. It might lead you into the woods or drive you out of your mind.

Souls and Ghosts

917. The term for whirlwind is tulush.

924. The term for soul is pusi. The soul's destiny is unknown.

Mythology

931. Coyote made a dance house and put madrone leaves in it. Then he went outside and said: "Acha och mēēē" (meaning probably "people create"). He said this four times. After awhile they made lots of noise in that roundhouse.

932. Coyote.

933. Coyote had no assistant.

935. Our hands were first made like the coyote's paws. Rosie Smith said that neither the mole nor the lizard had anything to do with the human hand. But according to Herman James, man's hand was ordained by the mole (kahway, or ka'wah). Mole said his hand was good for work and would be good for man to have.

938. "Outside people" are called matisaiyana. Small people are sometimes seen in the forest.

939. Some places in streams are kôkû, like the YMCA camp on the river. There is a snake that stays in the water, called musala akol ("snake long"). Lakes also have snakes in them and are kôkû, too.

940. No offerings, but songs are sung to water monsters or spirits.

Ritual

944. Children are patted on the back at the time of the new moon; they are told "Sachi duya maka ("healthy old people grow").

949. Horns up (horizontal) means a dry month; there is no name for a "dry" moon. The horns in vertical position mean a rain moon (icha kalasha).

950. When a new cradle was made, children ran off with it and were pursued. This pursuit and the recovery of the cradle has a magical value for the growth of the baby.

954. Angelica was chewed, not burned, for good luck. In the springtime a man blew angelica from his mouth in various directions to ensure good luck for the year.

956. Nothing was done.

959. Children were patted on the back four times.

960-961. "Six times no good, 8 times no good."

963. Eagle down was used on the head with a net (waiya). Rosie Smith said this was an early custom, not learned from the Valley people.

964. Male dancers, however, wore feather wands, one on each side of the head.

967. When a man is tired, he strikes his legs with a pepperwood twig and says "Tunotumto" ("Don't get tired") as he does so. This is done anywhere, not at some special place on the trail. No spirit is invoked.

Kuksu Society

986. Kuksu impersonation is said to be ancient. The performance is in the dance house. Children are not allowed to see it, but women may. Rosie Smith never saw it herself, but her mother, from Muchawi, told her about it.

987. Kuksu carries a bow and arrow, not a staff.

988. Kuksu came from around here. He ran around in the dance house with a drawn bow and shot a man, called the yomta, in the stomach. Then Kuksu doctored him by singing. The man shot became a yomta (different from the modern dreamer-yomta). The yomta had to refrain from meat or fish for one month, after which time he made a feast and danced.

989, 990. Kuksu's face, body, and limbs were painted with black, red, and white.

991. Kuksu had no partner.

1002. Kuksu dance is called kuksu ko'o. Rosie Smith had never seen it but her mother once saw it at Haupt's Ranch. It had also been seen at Meteni.

1006. Kilak is the eagle. This dance, kilak ko'o (also called yukash ko'o) is given to make a sick person well. The invalid is brought into the roundhouse. Dancers carry brush (any kind) in their hands and slap one another, crying "yīī."

1007. This dance is danced in the roundhouse in the spring. The women wear flower wreaths on their heads and let their hair hang loose so it falls over the face. Men hold long sticks, which they plant on the ground, and sway back and forth. Rosie Smith took part in this dance at Haupt's Ranch.

1010. At Haupt's Ranch. It was said to be a pre-Russian dance and was performed in the dance house any time of

year. It was a women's dance, the women exclaiming, "Henh, henh, henh."

1015. Yukash ko'o was performed in the roundhouse. Sometimes in the summer it was done outside in the brush dance house. It was an ancient dance.

1016. This was a dance of the Valley people.

1023. Visitors were given a special place to sit on the side.

1045. Sometimes danced in the roundhouse in the winter.

1055. Four directions only. Up and down are not usually named. Herman James is probably wrong in this answer, since 1934 informants gave six native terms.

1056-1058. East (wishali) is named first, then north (chuhula), west (mihila), south (ashol).

1065. Yomta here is a dreamer. In the early days he was the head of a dance organization; for a month before the dance he ate only acorn mush and pinole. (This suggests that he may have been a sort of society head.) The Yomta was different from the noponopo (chief).

1068. At Meteni, Tihanu was the chief (noponopo) and preacher. Tihanu's father was Toyon, chief of all the Southwestern Pomo between the mouths of the Russian and Gualala rivers.

1069. The regalia were kept by hakokochi ("crazy man"). Mostach was his real title; hakokochi was a nickname. This was an ancient custom.

1073. The regalia keeper kept the regalia in his own house.

1074. Eagle is represented in the kilak ko'o; but informant said this was not an impersonation.

1075. Singers drink from their own basket cups.

1076. Prayers are said for acorns when hail comes from the north: "bidu, bidu; basha, basha; behe, behe, behe, behe; sununu, sununu; bachkock, bachkoch; kamtudu, kamtudu." (Ridu "acorn"; basha "buckeye"; behe "pepperwood nuts"; sununu "huckleberries"; bachkock or bachkoch "wild raspberries"; kamtudu "strawberries.")

1077. Not prayer, but a picnic is held to eat the first salmon. The noponopo (chief) makes a special priest. Eating is not prohibited before the picnic.

1078. Eating is prohibited before the first-fruits ceremony. Wild strawberries, for instance, may not be eaten until the picnic.

1079. There was a picnic before eating. Acorns and huckleberries could be eaten without harm before the picnic, but not strawberries. It was not much of a rite, merely a feasting together.

Varia

1080. It was taboo for young girls, though not for boys, to look at a rainbow.

1082. No dogs in ancient times.

1089. Men urinate standing.

1091. Spanish moss.

1093. When doctoring; men doctors kneel in the same way.

APPENDIX: COMPARATIVE NOTES ON TWO HISTORIC VILLAGE SITES

BY
CLEMENT W. MEIGHAN

In September 1951 test excavations were carried out under the direction of the California Archaeological Survey in two named village sites¹ of the Southwestern Pomo in northern Sonoma County near Stewart's Point. Site Son-256 (Kapashinal) is on the coast overlooking the beach; site Son-369 (Achashinashawali) is in the coast ranges at an elevation of 1,000 feet, 3 miles airline distance from the coast. The two sites are within 6 or 7 miles of each other. Both villages are known to have been occupied by the Southwestern Pomo in the historic period. Barrett's observation (1908a)² was recently checked and confirmed by E. W. Gifford.

After having identified the named sites, it occurred to Gifford that excavation would yield information of interest in terms of archaeological methodology. A field project of the University of California Archaeological Survey was accordingly set up, and the problems proposed by Gifford were examined. The inquiry posed two major questions.

1. Are the sites sufficiently alike to allow the archaeologist to classify them as of the same culture or are they so different as to obscure the fact that they were occupied by the same people at roughly the same time? In other words, could the archaeologist, lacking historical information, recognize both sites as seasonal villages of the same people? The answer to this question is an unqualified "no." Although a larger excavation sample might have changed the picture somewhat, present information shows virtually no points of similarity. On the basis of the material at hand the archaeologist would unhesitatingly define two "cultures" and he would have no reason to believe that there was any close relationship between the two sites.

2. What cultural variations (due to differences in location and season of occupation) are reflected in the material from the sites? This question was approached in two ways—an analysis of mound material, which threw light on dietary resources;³ and comparisons of artifact types, which are discussed below.

Archaeological Method

The same volume of material was examined from each site. Pits were 3 ft. by 6 ft. in size and all material was passed through a screen of quarter-inch mesh. Artifacts and faunal remains were recorded by 6-in. levels. At Son-369, the midden was shallow and rocky; eleven pits, ranging from 7 to 37 in. in depth, were excavated to the base of the site. In Son-256, the larger and deeper site, one of the shallower portions was dug in order to avoid distorting the results by digging through deposit representing too long a time span. Even so, only six pits, 24 to 49 in. deep, were required to duplicate the Son-369 sample.

The sample of 356 cubic feet examined in each site is of course too small for conclusive results. This sample, however, is large enough to show distinct differences between the sites, and a larger excavation would probably emphasize the difference.

Sites

Son-369 is a small and shallow site in the Coast Range, at a considerable elevation. Although some distance from the coast (several miles if traveled on foot, as the Indians did), the site is a shell midden, its most noticeable characteristic being the quantity of fragmented mussel shell on the surface.

More than 80 per cent of the artifacts recovered were in the top foot of this site; no artifacts were found below a depth of 30 in. The top foot contained glass beads, fragments of bottle glass (two shaped into artifacts), and two pieces of metal. The time span of the site may be placed, with reasonable assurance, entirely in the early historic period, probably between 1790 and 1840.

Son-256 is a much larger and deeper site, a typical coastal shell midden, with no visible house pits. It has undoubtedly been occupied for a longer time than Son-369. There may be an area of the site in which historic material is spread over the site so thinly that it can scarcely be detected. The excavation sample contained only one nail and one fragment of iron to indicate historic occupation. As mentioned previously, the sample was taken from a shallow portion of the site, but even so, the midden ran to some depth and there is a possibility that the artifacts are older than those from Son-369.

Yield

The sample from Son-256 yielded 45 artifacts and 143 animal bones; the Son-369 sample, 102 artifacts and 196 animal bones. Son-256 contained 3.4 artifacts per cu. yd. of midden whereas Son-369 had close to 7.8 artifacts per cu. yd. The figures for Son-369 include a number of indi-

¹Excavators included the writer, M. A. Baumhoff, assistant archaeologist of the University of California Archaeological Survey, and three students: Richard Brooks, Leroy G. Fischer, and Bruce Harding. Mr. F. H. Richardson kindly permitted work on his property (Son-256), and Mr. D. Richardson permitted excavation of the site (Son-369) on his land.

²Barrett (1908a, pp. 230, 236) identified the villages as follows: kapacinal (kapa, "bracken," cinal, "head") at a point about 2 miles northwest of Fisk's Mills and near the shore line; atcacinatcawalli (atca, "man," cina, "head," tcawal, "sitting down" (?), and li, "place") on the eastern slope of the summit of the ridge just east of the main branch of the Gualala River and at a point about 4-1/2 miles nearly due west of the present village of Potol.

³Richard Brooks, "Analysis of Soil Samples from Sonoma 256 and Sonoma 369," MS in UCAS files.

vidual shell beads; if these are omitted from the calculation, the artifact yield of the two sites is about the same.

No burials were found and no large features were encountered; this should make the comparison of the sites easier, since each sample was composed of ordinary midden refuse. One feature was recorded at Son-369—a rock fire hearth composed of a layer of rocks in an area 48 in. in diameter and 4 in. thick.

Table 1 summarizes the objects recovered.

TABLE 1
Artifacts from Sites Son-369 and Son-256

Artifacts	Son-369	Son-256
Beads		
Clamshell-disk	27	...
Glass	16	...
Saddle Olivella	1	...
Points		
Obsidian	6	...
Chert (incl. fragments)	5	9
Glass projectile	1	...
Scrapers		
Obsidian	10	7
Chert	3	5
Glass	1	...
Core scrapers and choppers	3	6
Bone awls (and fragments)	7	1
Bone flakers	3	...
Pestles	1	2
Hammerstones	1	5
Pecking stones	1	1
Pitted stones	4	5
Chipped stone (natural perforation) . . . . .	...	1
Nail . . . . .	...	1
Fragments		
Worn Haliotis (artifact blanks?)	3	2
Worked steatite	1	...
Glass	5	...
Metal	2	1
Red ocher	1	...

Comparison

Even though the diagnostic items are few, there is a definite difference in artifact types between the two sites. The only specific types shared by the sites are the pestles and the pitted stones, neither of them particularly distinctive. The projectile points from the sites differ in both shape and material. At the inland site, the points are small, corner-notched, and made of obsidian. Points from the coastal site are slightly larger, leaf-shaped, and made of chert of various colors from beach cobbles. Shell beads, moderately abundant at the inland site, are entirely absent from the coastal sample, and bone artifacts are so few that no comparison can be made. The rest of the specimens cannot be segregated into clear-cut types for comparative purposes. They include such artifacts as flake scrapers, which are almost universally found in California sites.

The differences between the two sites may be due to temporal, areal, or occupational factors. Temporal differences should be largely ruled out, since ethnographic information indicates that the sites were used by the same group of people. However, in view of the larger area and greater time span of Son-256, it is possible that the sample taken from this site does in fact represent a time difference. Even a small time difference here may alter the picture considerably, since Son-369 appears to belong to the full historic period when Caucasian influence was strongly felt.

The second possibility, that of areal variation in culture, seems quite unlikely. The sites are only a few miles apart and there is no reason to suspect areal variation in artifact styles.

This leaves only occupational difference to explain the different artifact complexes. A difference in seasonal living patterns appears to be the major factor involved and this is strongly demonstrated in the mound analyses. When at the inland village, the people spent more time hunting deer and other land animals. On the coast, shellfish and sea mammals formed the subsistence of the group. This difference may be reflected in the different types of projectile points; apparently a heavier point, made of local chert, was used in hunting sea mammals.

Until further excavation can be done at these sites, it is impossible to draw more general conclusions. However, one problem of major importance to archaeologists may be raised. If two sites occupied by the same people at the same time can show as much difference as reported here, then some refinements in methodology will have to be worked out to avoid confusion in designating archaeological cultures.

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UC	University of California Publications
-AR	Anthropological Records
-PAAE	American Archaeology and Ethnology

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