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THE ETHNOLOGY OF THE SALINAN INDIANS

BY
J. ALDEN MASON

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INTRODUCTION

The major part of the material embodied in the present paper was collected in Monterey County, California, during the month of September, 1910, while the writer was enjoying the facilities afforded to him by the University of California as University Fellow in Anthropology at that institution. The oldest two members of the stock, Perfecta Encinales of the San Miguel, and José Cruz of the San Antonio division, afforded information through various interpreters, foremost among whom was J. Alonzo Forbes, Esq., Justice of the Peace of San Antonio Township, who performed the same service for Dr. H. W. Henshaw in 1884. Many thanks are due to him for his kindly aid, and also to Miss Muriel Dutton for her kind permission to inspect and photograph many objects of ethnological and archaeological interest in Dutton's Museum, at Jolon. Indebtedness must also be acknowledged to the authorities of the Academy of Pacific Coast History—the "Bancroft Library"—of the University of California for permission and aid in inspecting their records, and particularly to Miss M. H. Van Gulpen for permission to read her manuscript translation of Fages.[1]

As data on many important points was entirely missing, due to the almost complete loss of aboriginal culture among the present Indians of the northern missions, material has been incorporated from various other sources. Through the courtesy of the Bureau of American Ethnology access has been had to certain ethnological notes collected by Dr. Henshaw in 1884 from informants now deceased, and other items of importance have been gleaned from the writings of various travellers and visitors to the missions. Notable among the latter is Alexander S. Taylor, who visited the missions in 1856, sent many of his manuscripts and other material of the mission period to Washington, and recounted his observations in *The California Farmer* in 1860.

Little attempt has been made to give the scientific names of

[1] See note 9.

plants or animals mentioned, as it was usually impossible to secure specimens or descriptions sufficiently accurate for identification. Native names, when given, are generally of the San Miguel dialect. San Antonio words are accompanied by the symbol (A).

As the matter of Salinan phonology and linguistics will be dealt with exhaustively in other papers, merely a brief description of the values of characters used in native words will be given here.

p, pʿ, p!	Intermediate-sonant, aspirate and fortis bilabial stops respectively.
t, tʿ, t!	Intermediate-sonant, aspirate and fortis dental stops.
ṭ, ṭʿ, ṭ!	Intermediate-sonant, aspirate and fortis tongue-blade alveolar stops. These are common sounds in several stocks surrounding the Salinan. While simple sounds, they resemble a t with following r glide, and have generally been written tr by untrained English-speaking observers. They are produced by the blade of the tongue instead of the tip, and with a difference in the release, producing a semi-affricative effect approaching tc.
k, kʿ, k!	Intermediate-sonant, aspirate and fortis palatal stops.
ts, ts!	Intermediate-sonant and fortis dental affricatives.
tc, tc!	Intermediate-sonant and fortis alveolar affricatives (c = sh).
s	Dental sibilant, like English s.
c	Alveolar sibilant. Acoustically midway between English s and sh.
h, x	Voiceless spirants of less and greater palatal friction.
l, L	Sonant and surd variants of lateral intermediate. The degree of sonancy depends on position in word.
m, M; n, N	Sonant and surd variants of nasal intermediates. The degree of sonancy depends on position in word.
w, y	As in English.
ʾ	Glottal stop or catch.
ʰ	Aspiration.
ʿ	Nasalization
a, e, i, o, u	Vowels possessing their usual phonetic values. They are generally and normally open. In some words a close quality is approached which has not been here differentiated.
A	As in English "but."
E	Indeterminate vowel, as in English "sir" with suppressed r.

GEOGRAPHY

NOMENCLATURE

The existence of the Salinan family as an independent linguistic stock was first definitely settled by Major J. W. Powell[2] in 1891 following the investigations of Dr. H. W. Henshaw among the Indians of California in 1884. In pursuance of his ideas regarding priority of nomenclature, he adopted the term Salinan from Latham[3] who, in 1856, had applied the name to the aboriginal inhabitants of the drainage basin of the Salinas River. Latham, however, used the term Salinan more comprehensively than Powell, including the Esselen; the Ruslen, the Carmel, and the Soledad dialects of the Costanoan stock; and "possibly" the Gioloco, a Pomo people. For many years the affinities of the languages of southwest California were in dispute, but since the appearance of Powell's *Linguistic Families,* the independence of the Chumashan, Salinan, Esselen, and Costanoan families from one another has not been questioned.

Like many of the stocks of California, the Salinan Indians seem to have had no name for themselves, and no name for them is known in any other Indian tongue, so the name "Salinan," while of European origin, must be unconditionally accepted. Duflot de Mofras[4] speaks of the Indians at San Antonio as Tatche or Telamé. These are easily identified as Tachi and Telamni, two neighboring tribes of the Yokuts stock, some of whom were brought to the missions. Shea[5] in his preface to Father Sitjar's *Vocabulary of San Antonio Mission* says that Taylor calls the Salinans Sextapay, but also "gives the same name San Antonio or Sextapay in a list of the ranches of the Mutsun Mission of Soledad," for which reason he hesitates to use the term.

[2] J. W. Powell, "Indian Linguistic Families," 7th Ann. Rep. Bureau of Ethn., 101–102, 1891.

[3] R. G. Latham, Trans. Philolog. Soc. London, 1856, 85.

[4] Duflot de Mofras, Exploration du Territoire de l'Oregon, II, 392.

[5] J. G. Shea, Vocabulary of the Language of San Antonio Mission, p. vii.

HABITAT AND BOUNDARIES

Little is really known concerning the limits of the Salinan territory. According to Kroeber,[6] their country comprised "from the sea to the main ridge of the Coast Range, and from the head of the Salinas drainage to a short distance above Soledad," comprising the southern half of Monterey County, the northern part of San Luis Obispo County, and parts of San Benito County, California. These boundaries may be somewhat too extensive. The head of the Salinas drainage is within a few miles of San Luis Obispo, the native name of which was tixilini according to Taylor.[7] It is not known whether the latter name is Salinan or Chumashan, but as the blood at this mission was prevailingly Chumashan with a mixture of Salinan, it may be assumed that the boundary was somewhat north of San Luis, very probably, as the writer was informed, at Santa Miguelita, or Chuquilin as identified by Taylor.[8]

Santa Lucia Peak was probably the northern limit of the Salinan stock, it being reported to the writer that the mountain was shared equally by the Soledadeños (Costanoan), Carmeliños (Esselen?), and Antoniños (Salinan). This peak, as the largest in the region, could naturally have served as a division point, and the above statement is at least plausible. From the mountain the line would run generally northeast to the Yokuts boundary, and southwest to the sea in the vicinity of Lucia. Fages,[9] however, whose observations usually seem to have been carefully made, gives all the country for twelve leagues around San Antonio to its dependent natives. This territory would

[6] A. L. Kroeber, "Salinan Family," Handbook of American Indians, Bureau Am. Ethn. Bull. 30, II, 415.

[7] A. S. Taylor, "The Indianology of California," California Farmer, Feb. 22, 1860.

[8] *Ibid.*, Apr. 27, 1860. On this date appeared Taylor's article on the Indians of San Antonio Mission, and is the date to be understood whenever reference is made to Taylor without accompanying date.

[9] Probably the best account of the natives of the coast of California between San Francisco and San Diego is that written in 1775 by Don Pedro Fages, lieutenant of Portolá and afterwards comandante and governor of California. A partial translation is published in Nouvelles Annales de Voyage, tome CI, Paris, 1844. A copy of the text is in the Bancroft Library. This is the work referred to whenever Fages is mentioned.

extend to Posts, and include a region generally assigned to the Esselen. Of the boundary between the Salinan and Yokuts, or Tulareño, as they are called by the present Salinans, one can do no better than to repeat the statement of Taylor[10] to the effect that it is not known how far to the east the Salinan ranged. It has generally been accepted that the Salinan territory extended to the crest of the Coast Range, the watershed between the Pacific and the Tulare lakes. While this conviction is based largely on the negative evidence that no Yokuts tribes are known to have lived west of the range, yet there is no clear cause for disputing the accepted theory, unless it may be the doubtful statement by one of the aged informants that the boundary was near San Lucas. The present town of Cholame[11] is at the foot of the range, though the Salinan village of that name is said to have been the nearest village to San Miguel Mission. At any rate the mountains of the Coast Range were probably merely hunting grounds and contained no permanent settlements of either stock.

Nothing is known concerning the Esselen-Salinan boundary.

TOPOGRAPHY

The country is, generally speaking, rough. The greater part of the coast is extremely rocky and mountainous, the cliffs generally rising sheer from the water to a considerable height.[12]

[10] A. S. Taylor, *op. cit.*, Feb. 22, 1860.

[11] Cholame is the most persistent of native village names. Taylor says, "Cholami or Cholam is the nearest rancheria to San Miguel, 30 miles s.e. of San Antonio." Henshaw's Migueliño informant, Anesmo, claimed to speak the dialect of tco'alamtram, the largest of the villages of San Miguel, at the town of Cholam. Duflot de Mofras (I, 383) states that it was projected to build a fort against the incursions of the Yokuts in a place three leagues to the east of San Miguel called Telamé. The same writer speaks of the natives at San Antonio as Telamé, the connection with the Yokuts Telamni being evident. Modern maps place the town, rancho, and creek of Cholame about twenty-two miles east of San Miguel at the head of Antelope Valley, the easiest pass to the Tulare Lakes. It would seem, then, that the name Cholame may be from the Yokuts Telamni, and that the rancheria tco'alamtram may mean "Tulareño village," i.e., the nearest village to the Yokuts country.

[12] "A coast running northwest and southeast full 20 leagues; all this coast is a bold coast without any harbor, and there extends a chain (cordillera) of sierras along the whole of it, very lofty, and it is as high by the sea as on the land within; the sea beats upon it; they saw no population or smokes, and all the coast, which has no shelter on the north, is uninhabited." Cabrillo, Translation in U. S. Geo. Surv., Wheeler, VII, 309.

The country from ten to fifteen miles inland is mountainous, inhospitable and nearly impassable. It is heavily wooded and furrowed with cañons and the streams are small and unnavigable. Towards the south, near the bay of Los Esteros, the country becomes more open and the cliffs less precipitous, and several good bays appear, such as San Simeon. Inland, the San Antonio and Nacimiento rivers have cut narrow valleys running generally southeast. These streams, like the Salinas River, are generally dry in the summer and torrential in the winter. The valley of the latter river is relatively narrow and the surrounding country hilly and well wooded.

Oaks of various species dominate the flora and redwoods are common in the mountains near the sea. Bears were formerly found in great numbers, together with mountain lions, which are still occasionally shot. Antelope are said to have been common; deer are still very numerous and the country is over-run by ground squirrels, though the excessive number of the latter may be due to the great diminution in the number of coyotes and predatory birds. Fages says of the fauna and flora, "There are the same land animals here as in the former places—bears, deers, antelope, wild sheep, rabbits, hares, squirrels, etc. Of vermin and poisonous animals there are vipers, tarantulas, and scorpions, larger than usual, but their bite does not correspond proportionately to their size. Among the birds no species is lacking which has been mentioned in other chapters, and besides these, quail and very blue ring-doves and turtle-doves, swallows and calendar-larks are seen here. Of fish in fresh water there are large trout and that called machuro. Lastly the timber is the same as in the other regions."

DIVISIONS

At present the Salinan stock comprises two dialects, not very dissimilar, and apparently mutually intelligible. These are known as Antoniño and Migueliño, from the missions at which they were formerly spoken. The former dialectic divisions can be only conjectured. From Mission San Antonio in 1811, the following report was forwarded to Mexico,[13] "Two distinct

[13] A. L. Kroeber, A Mission Record of the California Indians, present series, VIII, 13, 1908.

languages spoken by the Indians are known: the predominant language, that of the site of the mission, which is understood to the east, south, and north and the circumference of the west; and the less important, which those speak who are called 'beach people' (playanos), on account of having come from the bays of the ocean. These are few in number, and not only understand the predominant language but also speak it perfectly." From San Miguel it was reported,[14] "The neophytes at this mission speak four languages: that of San Antonio, which is reputed the principal one; that of the shore (la playana), which is the one spoken by those settled on the coast; the Tulareño; and another, that of the people of the south." Eliminating from the last-named report the language of the Tulareño (Yokuts), and that of the south (Chumash), we find that there are two languages mentioned from each mission, not the dialects now known as San Antonio and San Miguel, but the speech of the people of the inland—the principal dialect—and that of the people of the shore. Had this "Playano" language been reported from San Antonio alone, it would probably have been interpreted as Esselen, but reported from both of the missions it is doubtless a mere variant dialect of the Salinan. These people are reported as having been "few in number," and doubtless succumbed very early. Fages[15] probobly refers to them when he remarks that the fishing people on the shore were inferior in build and in courage to the hunting tribes inland. There would seem, therefore, to have been two "languages" of the Salinan stock, one of the valleys, comprising the existing dialects of San Antonio and San Miguel, and a language of the shore which has entirely disappeared, leaving to us no idea of its degree of divergence. It is worthy of note that in the above quoted "Mission Record" the dialects of the two missions are not differentiated and were probably considered as similar if not identical. Shea[16] states that "It is said that the dialects amounted to twenty." Dr. Henshaw was similarly informed that each village had a more or less divergent dialect. These statements are difficult to reconcile; the uniform condition in California is one of

[14] *Ibid.*
[15] Fages, *op. cit.*
[16] J. G. Shea, *op. cit.*, p. viii.

practical agreement between the villages composing a dialect except for a small number of words under temporary tabu. The limits of the dialects, moreover, are generally sharply defined. The probable explanation is that the two dialects of San Antonio and San Miguel, while variant, were conceived as similar when opposed to the divergent language on the coast, and the speech of the component rancherias of the respective dialects, while practically identical, had sufficient peculiarities to enable their respective inhabitants to be identified.

VILLAGE AND PLACE NAMES

According to Fages, there were twenty villages within a radius of twenty miles of San Antonio. Taylor copied the names of many of these from the records of the mission and succeed in locating some. They are:

Atnel	(Possibly atNe'L, plu. of at = "oak.")
Chacomex	(tc!āxome'c. See below.)
Chitama	In the mountains near the coast. (tāma'—"men," ṭā'ma—"my house.")
Cholucyte	
Chunapatama	(See Chitama.)
Chuquilin	San Miguelita.
Chuzach	
Chinnisel	On Monterey River.
Ejmal	On the beach.
Ginace	
Iolon	On Rancho los Ojitos. (Probably Jolon, holō". See below.)
Lamaca	On the shore. (laM, stem "to eat," or "food.")
Lima	(Possibly lemaṭa'M. See below.)
Quina	Quinada.
Seama	
Steloglamo	
Subazama	(z = ṭ in Sitjar's orthography; ṭā'ma — "my house.")
Tecolom	Rancho Arroyo de San Lorenzo of Rico. (Cholam?)
Tetachoya	Ojitos.
Texja	(Possibly tcxa'—"rock." See below—Teshaya.)
Tsilacomap	
Zassalete	
Zumblito	

Derivations in parenthesis are by the writer, others by Taylor.

Taylor personally collected and located the following native village names:

Teshaya	The nearest rancheria to San Miguel. (tc!ōla'M. sibly texa', "rock." See above, Texja.)
Sapaywis	On present Salqualco, (sapē'wis. See below.)
Cholami or Cholam	The nearest rancheria to San Miguel (tc!ōla'M. See above, Tecolom; below, tc!ōla'M and tco'alamtram; also note 11.)

Other rancherias were on the present sites of Piojas and Copeta de Goronice. Henshaw gathered the following village names and information:

tĕssospĕ'k	Four miles northwest of San Antonio.
skâtĭtâ'gi	Two miles north of San Antonio.
ko'ic	Meaning "flag" or "bulrush."

These three villages belonged to the San Antonio division. About ten rancherias originally formed the Migueliño branch. These disintegrated very rapidly after the founding of the mission and the names of only three were remembered. These are:

tco'alamtram	At the town of Cholam. This is said to have been the largest and most important of the San Miguel villages. Henshaw's informant, Anesmo, claimed to speak this dialect. (See above, Cholami or Cholam.)
tĕcau'mistram	In upper Cholame Cañon.
trolole'tram	Near the Santa Margarita Ranch in San Luis Obispo County.

The suffix tram (ṭāM) is the word for "house." According to Henshaw it means also "village."

Village names remembered by the writer's informants are:

mA'tiL'ce"	A village on the coast.
tc!āxome'c	A village eight miles northwest of San Antonio. From tc!āxo'M—"face-washing." (See above, Chacomex.)
ts!ilā'kaka	A village on the coast.
sapē'wis	A village near Pleyto. (See above, Sapaywis.)
na'siL	A village at Pleyto. na'siL is acorn atole.
holō"	Jolon.
tc!o'xwaL	A village near Bradley. The word means a red stone.
tc!ola'M	A village near San Miguel. Cholam. (See numerous notes and references.)
ṭ'olole"	A village near Cholame. (See above, trolole'tram.)

Other native names are Sagollin—the headwaters of the Salinas River between San Miguel and Santa Margarita, reported by Taylor; pĭmkolA'm—Santa Lucia Peak; holAmna'—the vicinity of Jolon, meaning an arroyo; and tcau'tĕmmak (tc!au'tēmak)—the site of Jolon, meaning "where there is plenty of cattle," reported by Henshaw. The writer was informed that Santa Lucia Peak was called ti'aṭ'āula from the name of a plant (unidentified) which grows there. Reliz Cañon is known as cemē'ni.

Two groups of people to the west of the mission are mentioned. According to Henshaw the lemătra'm lived about twenty miles west of the mission, and were not connected with it. This may refer to one of the villages of the "playano" group.[17] Both Henshaw and the writer were informed of a group of Indians about twenty-five miles to the west of San Antonio, known as lemeknela't. These may also be a group of beach people, but more probably are the Esselen, the name somewhat resembling Ecclemach, one of the synonyms for the Esselen.

The Indians afterwards gathered into Soledad Mission are said to have been the greatest enemies of the Salinans; probably this refers to one of the southern Costanoan groups. Fages makes the statement that the natives of the Santa Lucia mountains were eternally at war and always in fear of enemies a few leagues away. Numerous items make it appear, however, that the Salinan Indians were on perfectly friendly terms with the Yokuts tribes to the east, and that frequent visits were made by the former to the Tulare lakes and by the latter to the sea.

HISTORY

PRE-MISSION PERIOD

The dearth of material on Salinan ethnology is due mainly to the fact that there is no pre-missionary history of the region. In fact, less than two years elapsed between the time of the first expedition of Europeans through the country and the founding of San Antonio Mission. A second factor contributing to the

[17] lēM means "above"; lemaṭa'M would be "house above" or "village above."

lack of knowledge, and one of equally great importance, is the relatively small number of travellers who visited the region. The situation of the country between the two important ports of Monterey and San Luis Obispo, together with the absence of seaports within the region itself, made it a country of relative isolation. Comparatively few visitors made the rough journey to the Salinan missions, and those who did spent little time there. Compared with the information at hand concerning the Chumash of San Luis Obispo and the Costanoan and Esselen of Monterey, what we have on the natives of San Miguel and San Antonio amounts to practically nothing. There must be, however, considerable unpublished and as yet unavailable material from these missions, both in the great libraries of the Church and of the Franciscan Brotherhood, and in other public and private collections, which, it is hoped, may on inspection reveal much of the vanished culture of the people.

The first European to behold Salinan territory was Cabrillo, who sailed up the coast to Cape Mendocino. His description of the Salinan coast has already been noted.[18] He saw no natives and declared the coast to be uninhabited. Between his voyage in 1542 and the expedition of Portolá in 1769 many ships sailed along the coast. Sebastian Vizcaino[19] skirted the coast in 1602 on his way to Monterey Bay. Four rush canoes put out to meet him from a bay said by Taylor to be "probably San Luis Roadstead or that of San Simeon." Coming from the former port the natives undoubtedly would have been Chumash, but if from the latter they may have been Salinan. "Rush canoes" (tule balsas) were probably not used by the Chumash. Vancouver[20] reports that, while sailing down the coast from Monterey in 1792, in about latitude 35° 35′–40′, a canoe of wood resembling those used by the Nutka put out. These natives were probably Chumash, but in both of these cases we are in doubtful territory, as indeed is the case with most records of early travellers.

The expedition of Portolá which discovered San Francisco Bay in 1769 offered the first undoubted view to European eyes

[18] See note 12.

[19] The Voyage of Vizcaino, probably by Padre Ascension. Translated and published in Taylor, *op. cit.*, June 26, 1861.

[20] George Vancouver, A Voyage of Discovery—round the World, IV, 317.

of the Salinan Indians. The Jesuit missionaries who had established missions along the coast of Lower California were expelled by royal decree in 1767, and their stations turned over to the Franciscans. Don Gaspar de Portolá was appointed governor of the Californias, and sailed from Tepic in that year with a number of Franciscan friars to replace the Jesuits. Fray Junipero Serra was appointed head of the missions of California. Disturbing news now came of the encroachments of the Russians on the shores of Alaska and the Northwest, and it was decided that to insure to the Spanish the possession of the ports of San Diego and Monterey, discovered by Vizcaino in 1602, they should be fortified. Portolá, the governor, volunteered to lead a land expedition, and two vessels were sent by sea. With all the zeal of a pioneer, Serra accompanied the expedition together with four other friars, for the purpose of founding missions in Upper California. The twin expeditions left Lower California in the spring of 1769 and met at San Diego, where Serra founded the first of the Upper California missions, San Diego de Alcalá, July 16, 1769. Portolá decided to push on to Monterey with his force, leaving Serra at the newly founded mission. He left San Diego July 14 on a journey, the main facts of which are probably well known. They did not recognize Monterey Bay and pushed on until they reached San Francisco Bay, October 31, 1769. Realizing the fact that they had passed Monterey Bay, they returned, reaching San Diego January 24, 1770. Many of the members of the expedition kept diaries of the trip; some of these have been printed, others are as yet inaccessible and may contain valuable ethnological information.[21]

Little mention is made of the Salinan Indians in any of the published diaries by members of the expedition. Fearful of missing Monterey Bay, they kept close by the sea during the

[21] The Official Account of the Portolá Expedition and the Diary of Portolá have been published by the Academy of Pacific Coast History, University of California (Publ. Acad. Pac. Coast Hist., I, nos. 2–3, 1909), but contain little of ethnological interest. The Narrative of the Portolá Expedition, by Miguel Constansó (*ibid.*, I, no. 4, 1910), contains much of interest on the Santa Barbara Chumash. The diaries of Vila and Costansó have been published by the Academy of Pacific Coast History (Publ. II, nos. 1 and 4, 1911); those of Font and Anza, and Fages' document are in preparation. The latter has already been referred to as of great interest. The diary of Anza contains much on the Pima, Yuma, Papago, Maricopa, etc.

entire trip. After reaching the site of San Luis Obispo about September 4, instead of following the easy road down the valley of the Salinas, they followed the sea, and for three weeks cut their way through the rough Sierra de Santa Lucia to Monterey Bay. During these three weeks they encountered seven rancherias of natives. Portolá[22] estimated their respective numbers at 60, 30, 80, 400, 60, 200, and 220. Not all were on the direct route of travel. The Indians welcomed them, came in bodies to meet them, escorted them to their villages, and gave them considerable food, for which Portolá returned beads and other trinkets. They returned by the same route and revisited four of these villages besides three new ones of 60, 30, and 60 estimated population. Had the expedition travelled by way of the Salinas River, it is probable that greater numbers of natives would have been met.

Of the various natives of the southern half of California, the highest degree of culture seems to have been reached by the Chumash of the Santa Barbara Channel and the Shoshoneans and Chumash of the Channel Islands. The Chumash north of Point Concepcion were, if we may believe early reports, much poorer and less capable than their brethren on the Channel, probably being culturally not very different from the Salinan. Most of the early travelers to the region compare the Indians of San Francisco and Monterey Bays unfavorably with the Chumash. Vancouver[23] says of the men he saw in a wooden canoe a little to the north of San Luis, "By their ingenuity they seemed to differ materially from the insensible beings of San Francisco and Monterey." Fages terms the Santa Barbara Indians "the Chinese of California." Boscana[24] divides the Indians of California into three groups. Two of these are those between Monterey and the extreme northern boundary of the Mexican domain and those between Santa Barbara and San Lucas. "Those between Santa Barbara and Monterey differ materially from these as regards their habits; being much more industrious and appear as an entirely distinct race."

[22] Diary of Gaspar de Portolá, Publ. Acad. Pac. Coast Hist., I, no. 3, 33 [63], 1909.

[23] G. Vancouver, *op. cit.*, IV, 317.

[24] Gerónimo Boscana, Chinigchinich, published in Robinson's Life in California, 239, 1846.

This classification includes the Chumash and Salinan as a higher type. Boscana, however, probably knew of the natives to the north of Point Concepcion only by report, and is using the Chumash of the Channel as a type of all the Indians to Monterey. Generally the Salinan aborigines are classed with the Monterey type of native and compared unfavorably with the Chumash. Costansó[25] says that the country north of the Santa Barbara Channel was not so thickly populated nor were the natives as industrious as those to the south, but they were equally affable and gentle, and in another place[25a] remarks "This part of the country is practically uninhabited." Portolá[26] remarked of some natives at the foot of the Santa Lucia Mountains that they were more docile than the natives of the Santa Barbara Channel, that they did not live in regular houses like the latter and that the villages consisted of fewer inhabitants. This particular group may have been visiting the coast on a fishing expedition, thus accounting for the absence of permanent houses. Palou[27] states that the region between Santa Barbara and San Antonio and that between San Antonio and Monterey were not so populous as the Channel region, but yet sufficiently dense to support other missions.

Of the actual life of the Salinan Indians in pre-mission times, more must be assumed than can be actually proven. The general mode of life probably differed in no important phase from that of the other stocks of Central and Southwestern California, and will be considered in detail later.

The stock probably never numbered more than a few thousand individuals.

MISSION PERIOD

Less than two years after the passage of Portolá through the country, Frayes Junipero Serra, Buenaventura Sitjar and Miguel Pieras journeyed up the Salinas from Monterey, where they had established Mission San Carlos Borromeo de Monterey, June 3,

[25] Miguel Costansó, The Narrative of the Portolá Expedition, Publ. Acad. Pac. Coast Hist., I, no. 4, 51 [141], 1910.

[25a] Costansó, Diary, 53.

[26] Portolá, *op. cit.*, 31 [61].

[27] Francisco Palou, Noticias de la Nueva California, 1857.

1770, twenty-five leagues to Los Robles, and founded Mission San Antonio de Padua, the third mission in Upper California, July 14, 1771 (pl. 21, fig. 1). One native witnessed the ceremonies. Taylor reports that the nearest Indian rancheria was called Teshaya, Texja, or Texhaya; other reports refer to it as Sextapay. The neighboring country seems to have been very well populated, Fages remarking that there are said to have been more than twenty villages within a radius of seven leagues from the mission, without counting those on the route to Monterey. The mission grew very rapidly, as the natives were friendly. Within two years 158 converts had been made and by 1820–1830 there are said to have been no more gentiles within seventy-five miles.[28] At one time (1790) it was the largest mission in California, and was always noted for its well-kept condition. Its maximum size was attained in 1805, from which date the number of the natives gradually decreased until its secularization in 1835. The following table gives the population at the mission at various dates. Those not specifically designated are taken from A. B. Lewis.[29]

1780		585	1820		878
1790		1076	1822	(Taylor)	834
1800		1118	1828	(Wilkes)	671
1802	(Humboldt)	1052	1830		681
1805		1124	1834	(de Mofras)	1400
1805	(Engelhart)	1296	1842	(de Mofras)	150

These figures show a gradual increase to 1805, followed by a gradual decrease to 1834 and then a sudden collapse. De Mofras's figure for 1834 is clearly a great over-estimate; Engelhardt's sum for 1805 disagrees with Lewis's and would seem to have less claim to correctness. Otherwise the figures have the appearance of accuracy.

The Mission of San Miguel (pl. 21, fig. 2), sixteenth in point of age of the missions of California, was founded July 25, 1797, twenty-six years after the establishment of San Antonio. In the presence of a great number of natives Padre Lasuen, who became the resident, assisted by Padre Sitjar from San Antonio,

[28] A. B. Lewis, "San Antonio Mission," in Handbook of American Indians, *op. cit.*, II, 424.

[29] *Ibid.*

founded the mission. Engelhardt[30] refers to the native name of the site as Vahia or Vatica,[31] but most authorities, including Taylor, speak of it as Cholam. As the leaven had already been spread, the mission grew very rapidly; fifteen children were offered for baptism the first day and the maximum size was reached in 1814. From this time the population gradually decreased until the mission was secularized in 1836. A table of population at different dates, taken from Lewis[32] and other authorities follows.

1800	362	1828 (Wilkes)	748
1802 (Humboldt)	614	1834	599
1810	973	1834 (de Mofras)	1200
1814	1076	1840	350
1822 (Taylor)	936	1842 (de Mofras)	30

Here also is a rise, a fall and a drop. Excepting for De Mofras's estimate of 1200 for 1834, which is manifestly high, the table seems to give a correct impression of the rise and decline of the mission. Up to 1834, 4348 baptisms had been performed at San Antonio and 2562 at San Miguel. Included in this number were practically all the members of the Salinan stock then in existence and all the neophytes who had died in the sixty-three years since the founding of the mission, besides considerable numbers of Yokuts at either mission, some Chumash at San Miguel, and possibly a few Costanoan and Esselen at San Antonio, though of the latter we have no record.

The Salinan Indians welcomed the missions and gave no trouble. Engelhardt[33] states that the natives of San Antonio were more tractable than those at San Diego or Monterey, and gladly helped in the erection of buildings. The neighboring Yokut tribes, however, frequently raided the lands of the mis-

[30] Zephyrin Engelhardt, The Franciscans in California, 404.

[31] The sound usually denoted by the symbol v, either bilabial or dentolabial, is absent in the Salinan language and initial w is very rare.

[32] A. B. Lewis, "San Miguel Mission," in Handbook of American Indians, *op cit.*, II, 449.

[33] Z. Engelhardt, *op. cit.*, 258. Fages, "They are gentle and affable and willingly divide with the Spanish the little that they have." Taylor, "They learned the Spanish very soon and were very docile and tractable."

sions.[34] San Miguel was particularly open to their attacks, as de Mofras[35] remarks, "donnant un accès facile à la grande vallée des Tulares."

Under the mission regime, every inducement was held out to the natives to give up all their old culture and customs and to adopt that of the Spanish *in toto*. All the Indians were concentrated at the missions, and after baptism were not again allowed to leave, except to bring in new material for conversion. Whether the latter came willingly or by force was not considered important. Such encouragement was given to the production of gentiles for neophytic candidacy, that if we may believe the claims,[36] by 1830 all the living Indians of the Salinan stock, as well as numbers of the Yokuts[37] and other neighboring stocks, had been gathered into the missions. The neophytes were taught the rudiments of civilization and Catholicism; they built the buildings of the missions, raised the crops and tended the stock. In every respect except that of the loss of liberty they were in a condition far preferable to the native one, as there was always an assurance of food and shelter. At both of the missions the padres took a keen interest in the welfare of their flock. Both Fathers Sitjar at San Antonio and Juan Martin at San Miguel were credited with great familiarity with the native idiom, the former having left a large and valuable vocabulary,[38] besides other material in the language. Engelhardt[39] states that the huts of the neophytes were of a more substantial character at San Antonio than at San Carlos. Robinson[40] reports that everything at the mission was in perfect order in 1830, the natives cleanly and well dressed.

[34] E. Bryant, What I Saw in California, 371, says of the country between the two Salinan missions in 1846, "But few attempts appear to have been made to settle this portion of California. The thefts and hostilities of the Tular Indians are said to be one of the causes preventing its settlement."

[35] D. de Mofras, *op. cit.*, I, 383.

[36] Engelhardt, *op. cit*, 264; A. B. Lewis, *op. cit.*

[37] A. S. Taylor, *op. cit.*, "Both missions always contained Indians from the Tulare lakes."

[38] Buenaventura Sitjar, Vocabulary of San Antonio Mission, edited by John G. Shea, New York, 1861.

[39] Z. Engelhardt, *op. cit.*, 260.

[40] Alfred Robinson, *op. cit.*, 81.

Naturally, every phase of primitive religion was strictly tabu, and all contra-European customs prohibited. It is not strange that with such an atmosphere there should now be left merely faint recollections of the primitive culture.

POST-MISSION PERIOD

Following the secularization of the missions and the departure of the padres most of the Indians dispersed, to some extent returning to their old customs, but retaining the best features of civilization. At San Antonio Padre Ambris came and spent the remainder of his life ministering to his scattered flock, while at San Miguel the mission is still in use. A. B. Lewis[41] gives the population for San Miguel as 350 in 1840, but de Mofras[42] reports only 30 in 1842, and 150 at San Antonio.

While the Salinan country was not one of the great mining centers yet it had its share of frontier troubles, and it is probable that the natives suffered greatly through the diseases and the demoralizing influences of the time. This was probably the time of their greatest numerical loss. Taylor gives no idea of the number in 1856, but Shea[43] in 1861, stated that "less than fifty Indians still remain." Henshaw[44] estimates the population at "only about a dozen" in 1884, and Kroeber[45] states that "at present their total number is perhaps twenty, most of them near Jolon." Both of the latter estimates are probably rather low. The scattered condition of the Indians at present, as well as their complete civilization, provokes an under-estimate. From personal impression the writer was inclined to place the number at about Kroeber's estimate, but careful inquiry produced the names of forty-one full-blood Salinans, thirteen of whom claim to be of the Migueliño division, and twenty-eight of the Antoniño, but as they have intermarried to a considerable extent, little

[41] A. B. Lewis, *op. cit.*, 449.

[42] D. de Mofras, *op. cit.*, I, 320.

[43] J. G. Shea, *op. cit.*, viii.

[44] H. W. Henshaw in J. W. Powell, *op. cit.*, 102. "In 1884 when Mr. Henshaw visited the missions he was able to learn of the existence of only about a dozen Indians of this family, and not all of these could speak their own language."

[45] A. L. Kroeber, "Salinan Family," *loc. cit.*

purity of speech or blood is possible.[46] Of the thirteen Migueliño, none are children and all are able to speak the language, but three only are of sufficient age to remember anything of the older culture. Only one patriarch exists among the group of San Antonio, while eleven are children or unmarried young people, unable to speak the tongue. The other sixteen are of middle age.

These few survivors of the stock live in scattered families in the valleys of the San Antonio and Nacimiento rivers near Jolon, and, except in blood, differ in no wise from the other native sons. Ranching and stock-raising afford employment for the majority of them. Some have ranches of their own with houses of adobe, while others are employed by the larger ranchmen of the region. Several raise fruit and vegetables. Intermarriage to some extent with the Mexicans of the district has taken place, and this will probably be the fate of the rest of the Salinan blood. Scattered as they are, Spanish has become almost more of a mother tongue than the "idioma." The latter is used only by the older Indians when conversing with each other; the children use Spanish, except those who have been educated in the public schools, who can speak and read English. The language will doubtless disappear in a comparatively few years, and the blood and physical type will probably not survive much longer.

ECONOMIC LIFE

FOOD

With the Salinans, as with most of the natives of California, vegetable food doubtless supplied the greater part of the sustenance. As we have seen, game was more than ordinarily plentiful, especially deer, but with the primitive weapons upon which the aborigines depended, it is doubtful if venison could ever have been a staple food. Acorns, which are very abundant in the region, doubtless formed the principal staple, seeds and smaller animals being also of more importance than the meat of larger game. Of the dietary Taylor merely remarks, "For food

[46] Henshaw was informed in 1884 by his San Antonio informant, Hilario, that there were but five natives who spoke the San Antonio idiom correctly. The others used more or less of the San Miguel dialect in their conversation.

they used the pine-nuts and acorns which are still extraordinarily abundant in the vicinity." Fages goes into greater detail, writing, "There are three kinds of acorns and other seeds and fruits, one round like a cherry with a red color, from the substance of which seed they make good tamales. They call it it 'yslay'[47] and they eat the little meat that it contains. There is also much 'pil' and 'tecsuma' about which I will speak later. There are madroñas and three different kinds of chia (sage), one bulky like a lentil, and the others more slender, much nut-pine like that of Spain and a kind of seed, very small, white and of the shape of a nut, which mixed with flour makes food like tortillas, delicate and agreeable to the taste as if they had kneaded them with lard. Another seed is like rice, of a yellow color, and ripens best when there is the greatest rain. It has a very sweet flavor. This when cooked resembles vermicelli. They roast them to make their porridge. They have plenty of sugar and molasses." "Tecsuma" is later described as a plant with a flower like a rose and a thick stalk with a pod containing an oily seed known as "pil." It is further said that the sap of the reed-grass and of another tall leafy shrub was collected and dried to make the good sugar and molasses above mentioned.

This account is very circumstantial and doubtless correct, but as none of the plants mentioned are used for food at the present time, it has not been possible to identify any of them.

Oaks of divers species supplying great quantities of acorns are found in the Santa Lucia Mountains and the valleys of the San Antonio and Nacimiento. At least six of these species were distinguished by the Salinan natives, who valued them for different purposes and in varying degrees. While the statement is not definite, it seems that acorns from live-oaks were preferred for mush, those of deciduous oaks for bread. Of the former three varieties were used, cxau'wAt', t'io'i, and paxa'kiL in the order of preference. Of the latter p'a'pix and p'ā't were

[47] Islay. *Cf.* A. L. Kroeber, Mission Record, 12, Report from San Fernando: "chia (seeds of sage), called pasill in their language; islai, called chamiso by them." Also, note, *ibid.*, 13: "Compare P. S. Sparkman's *Prunus ilicifolia,* Luiseño chamish, Spanish islaya." pa'siL was given as the Salinan word for chia. The identity of these words is evident, but unexplained. They are evidently Indian names, but whether adopted by the Spanish from some stock and spread by them, or whether a case of pre-historic identity or borrowing, is not known.

used. Cmo' was another oak sometimes used.[48] Fallen acorns afforded the principal stock, but they were also secured by knocking down such as could be reached with long poles, trees never being felled for their yield.

Until required for use, acorns were stored in granaries, k!atā'. These were large basket-like receptacles made of white willow twigs, built on the ground adjacent to the houses, without any stone foundation and lined and covered with grass. When desired, the acorns were taken out of the granary, broken open with a small stone and placed in the sun to dry. After thorough drying, they were pounded in a stone mortar until a fine flour was obtained. The acorn flour was always leached in a basket, the stitches of which were sufficiently far apart to allow the water to percolate through, but it is said to have never been done in the sand. The latter method is by far the more common in California, being noted among the Costanoan,[49] Yokuts,[50] Luiseño[51] and other peoples of the central and southern culture, as well as being the exclusive method of the northern area. The practice among the Chumash is not yet known, but practically all the other people of California used the sand-hole for leaching. Fages reports the use of the basket at Monterey and does not mention the sand-hole. Too much reliance should not be placed on unsupported individual testimony, but the statement by an aged Californian Indian woman that sand-leaching was not known among her people is at least worthy of note. After leaching, the acorn flour was made into either mush, na'siL, or bread, k!one'. For the former, the flour or dough was mixed with water to the proper consistency and heated in the cooking-basket until it was considered done. It was generally eaten from the basket

[48] Specimens of these varieties could not be obtained, nor an accurate description of them. An unsuccessful effort was made to identify them from the following brief descriptions: cxa'uwAt', a live-oak with spined leaves; t'io'i, a large white tree with a white acorn growing on the coast; paxa'kiL, an oak with pointed leaves and a very large acorn which grows on the hills; p'a'pix, an oak with serrated leaves, called by Henshaw "post oak"; p'ā't, an oak with small serrated leaves and a large acorn, called by Henshaw "white oak"; cmo', an oak with smooth, non-spined leaves. Acorns were known by the generic name, k'āp', (A) k'a'.

[49] A. L. Kroeber, Mss.

[50] A. L. Kroeber, Mss.

[51] P. S. Sparkman, The Culture of the Luiseño Indians, present series, VIII, 194, 1908.

by means of the hollow of the hand, expert performers being able to clean the entire hand with one swift sweep, according to observers. Abalone shells and basket-hats were occasionally used by more fastidious diners. Acorn bread was baked in the earth-oven. Cakes of dough about three inches in diameter were placed between two layers of grass and cooked over night.

Seeds of many varieties were eaten and doubtless formed a considerable item in the Salinan dietary. They were gathered with seed-beaters and baskets in the usual manner and kept in seed-granaries, sAp'k'a'ts!, until required for consumption, when they were ground and boiled in the cooking-basket to make soup or mush, not parched on trays with coals as is the common Californian custom. Wild oats, which covered the hills in many places, were the staple seed, and are said to have been cultivated, but this statement is probably applicable only to the post-mission period. No agriculture has ever been proven for any Californian Indian people, despite claims to the contrary.[52] The seeds of three species of grass were eaten, as well as the seeds of the wild sunflower. Chia, the seeds of the sage, pinole which was made from white corn,[53] and other unidentified seeds were eaten.

In common with most of the Californian aborigines, the Salinans were probably termed "diggers" by the immigrant whites. Whether or not they merited the name is not certain. The oldest woman of the tribe does not remember the use of the digging-stick, and does not recognize the digging-stick weight. But at least one root was eaten, the mescal. This ubiquitous plant is subjected to practically the same treatment wherever found. It is dug up with a stick and cooked for two days in the earth-oven, after which it is considered ready to be eaten.[54]

Clover, of which three species are distinguished, was greatly relished and eaten from the stalk without preparation. Buck-eyes were eaten, probably after having their poisonous properties leached out, as is the custom among the Yokuts and other neigh-

[52] La Pérouse, Voyage Autour du Monde, II, 202, claims that the natives at Monterey raised maize before the coming of the Spanish. Powers states that the Klamath are reported to have raised tobacco.

[53] Pinole was given as an aboriginal food material. La Pérouse (see note 52) supports the claim. Yet corn was probably introduced by the Spanish and at once became a staple product.

[54] Fages describes the preparation at San Luis Obispo.

boring tribes. Elderberries, blackberries, strawberries, gooseberries, Christmas berries,[55] chuckberries,[56] Indian potatoes,[57] wild grapes, prickly-pear cactus, and numerous other berries and fruits were eaten. Two species of pine-nut were known, one of them a very common variety, and the other found only in the mountains on the coast. Mushrooms were not eaten, though Fages reports that they were relished by the Costanoans at Monterey, and the Yokuts make use of them. The habit of chewing gum from a plant or tree, as is reported for some of the groups to the south,[58] seems to have been unknown.

As regards animal food, the California Indians in general are practically omnivorous. Of the larger game, bears alone, and particularly grizzly bears, are not often eaten, a fact due probably as much to their ferocity as to the supernatural shamanistic power and human resemblance imputed to them. Among the smaller animals the dog, wolf, and coyote are tabu among some groups, while among others the skunk alone is not eaten. Of the birds, owls, hawks, condors, buzzards and eagles are not eaten in some localities, due partly to reverence for them and partly to a dislike for their flesh.

Like the other California natives, the Salinan Indians ate all flesh, fish, and fowl, with a very few exceptions, including most of the reptilia and some insects. Of the mammalia the skunk alone was specifically excepted, while the custom regarding the canine family is unknown. Old bears were not esteemed, but cubs were considered a delicacy. All birds without exception are said to have been eaten, as well as their eggs, which were prepared by boiling. In dietary matters the Salinans resembled the Miwok much more than the Yokuts, for the latter relish the skunk and tabu the carnivorous birds.[59]

The tribes of central California were less fastidious in the matter of reptilian food than were the people to the south. The

[55] *Cf.* P. S. Sparkman, *op. cit.*, 194, "Toyon or Christmas berry, *Heteromeles* or *Photinia arbutifolia.*"

[56] Not identified. Possibly a corruption of "choke-cherry."

[57] Possibly camass. Powers, *op. cit.*, 426, states his belief that a potato-like plant consumed by the Yokuts is a species of camass.

[58] P. S. Sparkman, *op. cit.*, 196.

[59] A. L. Kroeber, Mss.

Shoshonean tribes of Kern River share with the southern Yokuts a dislike for all reptiles, while the northern Yokuts[60] and Miwok[61] consider them proper food. The Salinans, on the whole, shared the view of their northern neighbors. Snakes and most other reptiles were eaten, being cooked in the ashes of the fire, while frogs were eaten or not according to individual choice. The Antoniños, the more northern group, are said to have eaten lizards, but they were not relished by the people of the San Miguel moiety. Yellowjacket larvae were held individually over the fire on a spit and eaten, but other grubs were not favored. Grasshoppers were rare in the country.

Sea-food doubtless furnished the major part of the sustenance of the people on the coast. Those inland probably speared salmon on the Salinas and caught trout and suckers in the smaller streams. Journeys were made to the sea and also, it is said, to Tulare Lake for fish. Bullheads and sep'ta'L, an unidentified fish, were procured from the ocean, besides red and blue abalones, clams and sk!en', an unidentified shell-fish. These were eaten either raw or cooked. Crabs were eaten, as well as sea-weed. The latter was heated over the fire on a stick and eaten with mush or bread, probably for the salt flavor it imparted. Powers[62] and Goddard[63] have noted the eating of sea-weed among other groups of Californian Indians.

All meat was prepared in one of three ways. If desired for immediate consumption it was roasted over the flames or in the coals of a fire. For gradual consumption it was baked over night in the earth-oven, after which it would keep a week or more. If it were necessary to keep it a longer time, it was dried in the air or "jerked." Meat was seldom or never boiled in the cooking-basket.

The "cooking-basket" mentioned is a water-tight basket in which boiling is done, and is found all over California. The food to be cooked is put in the basket and covered with water. Then heated stones are continually introduced until the water

[60] A. L. Kroeber, Mss.

[61] S. Powers, *op. cit.*, 351.

[62] *Ibid.*, 50, (Yurok); 150, (Pomo)

[63] Pliny Earle Goddard, Life and Culture of the Hupa, present series, I, 31, 1903.

becomes hot enough to cook the food. The "earth-oven" is likewise an almost universal method and is made by digging a hole in the earth which is then lined with stones and a fire built therein. When the stones are hot the fire is removed, grass laid over the stones, and the food to be cooked placed in the hole and covered with more grass. Sticks and earth and more hot stones are then laid over the hole and left for a considerable period. The heat is retained very well and the food gradually cooked. Most foods were cooked during one night, but others required a longer time, as much as two days.

Fire was made by twirling a drill of poison-oak wood, t'ENEple", upon a hearth of willow. Two men to relieve each other and continue the friction were often necessary for the operation.

HUNTING AND FISHING

A sharp line of distinction seems to have separated the Salinan people into two divisions marked by physical, linguistical and cultural differences. Throughout most of western California a difference was noticed and recorded by the earlier travellers[64] between the fishing people on the coast and the hunting people inland. The latter are generally credited with being larger, better built, and more courageous. While the shore people undoubtedly hunted game and the inland group made journeys to the ocean for sea-food, yet the one were primarily fishers and the other hunters. Although San Antonio Mission is not more than fifteen miles from the sea, yet the ruggedness of the intervening mountains renders it a journey of so much hardship and duration that it is doubtful if it was undertaken often by villages of sedentary hunters. Fishing trips are said to have been made to Tulare Lake, but whether this information is applicable equally to the pre-mission and post-mission period is not known. Since game, however, is said to have been very plentiful in the Salinan mountains it probably furnished by far the greater supply of animal food.

Deer were generally hunted by stalking, a method which obtained among almost all of the California natives. The hunter

[64] Fages, *op. cit.*

covered his head with a stuffed deer-head and cautiously approached the deer under cover of the brush. The direction of the wind was ascertained by dropping a little dirt, and the deer were approached from the leeward side. A good hunter could imitate the movements of the deer so accurately that he could approach quite close and kill several before the animals suspected any danger. The careful hunter always chewed tobacco assiduously while approaching the game, as this tended to make it drunk and less wary. Bears were caught by putting bait near their accustomed trails or caves and hiding in holes near by, from which the animals could be shot several times with ease. Smaller game, such as rabbits and small birds, were probably caught by the use of nets, t'e'LTAL, though this was denied by the Antoniño informant, José Cruz. The practice was admitted among the San Miguel division. Snakes were caught by means of sticks. No specific mention was made of communal hunts for deer, bears, antelope, and rabbits, but as these were practiced by all Californian Indians, there is little doubt that they were known. Nor was mention made of traps and pitfalls for larger game such as are in use over most of California, but as the use of these latter is denied by some of the Yokuts,[65] their existence among the Salinan may also be doubted.

Salmon probably were speared on the Salinas, but the country was not a salmon region, due to the lack of rivers on the coast. Trout are found in the mountain streams, but fish on the whole are scanty in the inland country. Fish are said to have been caught in Tulare Lake by means of nets of milkweed fibre, and certain other fish, probably salmon, were speared with a fish-spear, cik'nai'. Fish were also obtained by poisoning the water of lakes and streams. For this purpose two plants were used, ṭepā'lomoi and tēni's (A). The former is described as a tall plant with a pungent odor. The Yokuts tribes[66] similarly used two plants for poisoning the water. One of these is the buckeye, the other probably the soap-root, which was often used by the California aborigines for this purpose. Fish-hooks and lines

[65] A. L. Kroeber, Mss.
[66] *Ibid.*

were used by the Chumash,[67] and fish-traps by practically all the neighboring stocks, but the use of either is not a matter of record among the Salinan natives. It is probable that the "playano" people had developed an exclusively fishing culture, and had methods of their own for the procuring of sea-food, but their entire disappearance has rendered our knowledge of their culture impossible.

The knowledge of any possible hunting or fishing ceremonies or restrictions has long since disappeared.

ARCHITECTURE

One of the distinguishing features of the southwestern culture area is the use of communal houses sheltering four or five families. They are described[68] as being fifty or sixty feet in diameter and accommodating fifty or more people. They were dome-shaped "like the half of an orange," and were arranged in a semicircle in the village. In the central Californian area small houses for one family were the rule. Powers[69] says of the Miwok houses that they were "very rude affairs of poles and brush-wood," and early travellers[70] declare the same to be true of the other members of the "Mutsun" family, the Costanoans at Monterey. They evidently had no definite village arrangement. The Costanoans are said[71] to have made several different kinds of houses. Some were entirely of tule, some brush shelters over excavations in the hillsides, while others were round, with a high conical roof like an inverted basket. The Yokuts tribes[72] made conical or wedge-shaped houses of poles and tule thatch, generally without excavation. These houses were nicely arranged in a straight row and often connected to make a communal house. Summer brush shelters were also used. Nothing is known of the Chumash sweat-houses, but those of the entire south-central region were small semi-subterranean structures used only for sweating.

[67] U. S. Geol. Survey, Wheeler, VII, 222, 1879. Also Diary of Anza, mss. translation by Mr. C. E. Chapman.

[68] Costansó, Narrative, 43 [133]; Fages, *op. cit.*

[69] Powers, *op. cit.*, 350.

[70] F. W. Beechy, Narrative of a Voyage to the Pacific, II, 51, 1831.

[71] A. L. Kroeber, Mss.

[72] *Ibid.* Also S. Powers, *op. cit.*, 370.

The houses of the Salinans were also probably of several different kinds. The common house is described by native informants as a quadrangular but made without excavation. No standard size was mentioned, but Mr. Forbes is the authority for the statement that they averaged about ten feet square. This is about the usual size of dwellings in the central area. A post was erected at each corner and one in the center. Four roof poles connected the center and corner posts and across these other poles were laid and the whole covered with a thatch of bundles of tule or a species of rye-grass lashed on with strips of bark or withes. The walls were also made of tule. A smoke-hole was left in the center of the roof and the fire built in the middle of the house. No mention was made of sleeping stages such as were used by the Chumash at San Luis,[73] nor is it known how the houses were grouped in the villages. Houses of a larger size were mentioned, but no details given. But as their erection was attended by a celebration, it is probable that they were communal houses similar to those in use by the neighboring Chumash or Yokuts people. Other houses are said to have been sometimes made of brush with roofs of tule, the door being merely an opening in the brush. By this may be meant the summer houses used by the majority of Californian Indians.

Sweat-houses, kwap', were ordinarily small, hemispherical, partly subterranean structures. A circular excavation of about four feet in width and half a foot in depth was made and brush placed around, arching over to meet at the top. Earth was heaped on the brush to keep it in place and to retain the heat. The fire was built in the center of the house, the bath being taken in the heat and smoke, as among all California Indians. Both men and women are said to have frequented this sudatory or "temescal."

On the occasion of the erection of a large dwelling house, a very large sweat-house was also made and kept as a permanent place for dances and ceremonies. This use of the sweat-house for dances is usual in the northern part of the central culture

[73] Fages, *op. cit.*; Costansó, Narrative, 47 [137].

area, as among the Maidu,[74] but is not found among the Yokuts or the other people of the south-central and southern culture areas.

Menstrual huts are claimed to have been unknown, but Taylor says that the expectant mother retired to a brush hut near a spring. Whether this was a special hut or the usual brush shelter is not known.

DRESS AND PERSONAL ADORNMENT

As nearly a century and a half has elapsed since Padre Sitjar commenced his task of clothing the nakedness of his flock, little reliance can be placed on the statements of the present Salinan Indians concerning the dress of their aboriginal forefathers, and most of our information must come from early reports. While there are many descriptions of the dress of the natives of Monterey (Costanoan) and San Luis Obispo (Chumashan), there is little on the intervening territory.

There is no ground for belief that the Salinan costume differed in any marked degree from that of the majority of Californian natives. Broadly speaking, in all of the central and southern part of the state men wore nothing in the summer, or at most merely a breech-clout. Women wore an apron, generally consisting of two pieces, front and back. In winter both sexes wore robes or blankets, cLēmī′, of fur, or of woven rabbit or otter skin. Moccasins were ordinarily not worn.[75]

The costume of the Salinans probably followed this general plan. Vizcaino[76] makes the ambiguous statement that each rush canoe which met him off the Salinan coast contained two naked Indians who were covered with goat-skins when they came aboard. The women wore aprons of tule, according to Taylor. Neither moccasins nor any other coverings for the feet were known. Rabbit skins and more rarely otter skins were sewn together with twine and woven to make cloaks and blankets for protection in the winter. Basket hats were worn by the women

[74] R. B. Dixon, The Northern Maidu, Bull. Am. Mus. Nat. Hist., XVII, 168, 1905.

[75] Costansó, Narrative, 45 [135]. H. H. Bancroft, The Native Races, I, 367, gives many references for the dress of the California natives.

[76] Vizcaino, *op. cit.*

and may have been sometimes worn by the men when carrying burdens, as among some other groups. In later times they were worn by the vaqueros of the missions, while the women wore cloth turbans on their heads. The neophytes of the missions were dressed fully in cloth or buckskin.[77] No scarfs of any kind were made by the natives previous to the coming of the Spanish.

The aboriginal coiffure is nowhere mentioned, but the abundance of the hair and beard is remarked by many observers.[78] The latter was plucked in pre-missionary days.[79] Much disagreement is found in the writings of early travellers[80] with regard to the native Californian method of wearing the hair and beard. But since most of the observations were made subsequent to the founding of the missions, the natural suspicion is that with a few exceptions, whenever cropped hair and full beards were noted, it was due either to the universal habit of cutting the hair short during mourning, or else to the example of the whites. Possibly all of the natives of southern California wore the hair long and plucked the beard close.

No yellowhammer head-bands, feather cloaks or aprons, or other feather ornaments such as are typical of California are remembered by the surviving Salinan natives. The use of feathers for decoration by the Yokuts is known to the older Salinan Indians, but they deny the existence of the custom among themselves. No mention is made by any traveller of the use of feather decorations by the Salinans, but such evidence is negative

[77] A. S. Taylor, *op. cit.*

[78] A. S. Taylor in particular noticed the pilous development.

[79] *Ibid.* "In the old times, before becoming Christians, they pulled out their beards."

[80] S. Powers, *op. cit.*, 280, says that the Kombo (Yana) alone of Californians cropped their hair to within an inch of their heads; Fages, *op. cit.*, noticed that the hair was worn loose at San Luis Obispo; Boscana *op. cit.*, 239, states that "all Indians between Monterey and the extreme northern boundary of the Mexican domain shaved their heads"; Palou, in Forbes' History of California, 182, says, "All natives of Upper California, both men and women, cut their hair very short, particularly on the death of any of their friends or relatives"; La Pérouse, *op. cit.*, II, 197, says that the natives of Monterey cut their hair to four or five inches, and that about half of the adults had beards. The Northwest Maidu, according to Dixon, cut their hair. Among most of the Yokuts tribes, according to Kroeber, the hair was worn long, but some of the men of other tribes cut it. The majority of other observers report long hair in California. Bancroft, *op. cit.*, 365, gives many references on hair and beard in the state.

and inconclusive; differences are quickly noted by observers, resemblances taken for granted. The sole mentions of feather ornaments by native informants are that feathers were attached to the shaman's sticks, and that head-dresses of feathers reaching to the shoulder, with single eagle feathers extending from the forehead forward, were used by dancers at the Kuksui dance.[81] This probably applies to the "big head" head-dress used in the same dance by the Maidu and other central Californian natives and may be an extraneous influence. While it is very doubtful if a usage so typically Californian as the wearing of feather decorations could have been entirely lacking among the Salinan, yet evidences seem to point to the conclusion that it did not reach the same development here as among the other stocks of central California.

Ear ornaments of abalone, kaneLt'E', were worn, but nose ornaments were not used, though the use of the latter by the Yokuts tribes is known to the Salinans.

Tattooing was practiced by many of the neighboring tribes,[82] principally upon the women. Palou[83] says, "The coast people tattoo, chiefly the women, but less so than the natives of the islands." The usage among the Salinans is nowhere stated, and was specifically denied by one informant, but as in the former case was probably practiced.

The Salinan natives shared with the other stocks of the coast region a great fondness for painting themselves on frequent occasions.[84] Red, white, blue and yellow were the favorite colors. The red was made from cinnabar,[85] which is mined in the surrounding region, and the yellow from the root of a plant, possibly

[81] See pp. 177, 188; also note 183.

[82] Yokuts, A. L. Kroeber, Mss.; Costanoan, La Pérouse, Beechey, Petit Thouars, and others quoted in Bancroft, *op. cit.*, 370.

[83] F. Palou, in Forbes' History, 183.

[84] Costansó, Narrative, 45 [135]; Fages, *op. cit.;* and many other writers note the considerable use of paint and stain by the natives of the coast.

[85] The Spanish word was translated by Mr. Forbes as "a mercury ore." Cinnabar (mercuric sulphide) is common in the country and is generally accepted as the basis for the native red paint. *Cf.* Bancroft, *op. cit.*, 370. Putnam, in Wheeler, *op. cit.*, 22, states that the supposed cinnabar found in the graves on the Santa Barbara Channel turned out to be hematite (ferric oxide), and that Dr. Yarrow doubted the use of cinnabar on physiological reasons. Sparkman, *op. cit.*, 209, reports the use of hematite for red paint by the Luiseño.

Psoralea macrostachya.[86] The blue may have been wad;[87] the source of the white paint was not ascertained.

TRANSPORTATION

The Salinans were doubtless thoroughly sedentary in their habits and little given to travelling. Their habitat was restricted and mountainous and the rivers unnavigable. Occasional journeys to the sea and to Tulare Lake for fish probably accounted for most of their migrations. The inland people probably never made or used boats or rafts, though information is ambiguous on this point. It was a matter of knowledge to them, however, that tule balsas or rafts, tuwipē', were used by the Yokuts. The "playanos" or fishing people of the coast must have had some variety of boat and probably made balsas of tule after the general central Californian type. In about the same latitude Vizcaino[88] met a tule raft and Vancouver[89] a wooden canoe with energetic and intelligent occupants. As the Chumash are known to have made wooden boats of boards, and were considered to be a superior type of native, the natural inference is that the canoe in question was made by the most northerly Chumash, while the balsa was a product of Salinan handicraft, and that in this respect at least the cultural and linguistic boundaries coincide.

Burdens of all kinds were doubtless "packed" on the back. The large carrying basket was carried by means of a rope of bark which went over the forehead and under the basket like a net, but it is claimed that it was used for carrying seeds alone. The use of a carrying net of hide was admitted, but later denied by the same informant. It may be that the carrying basket was set in a net to be carried, as among the Cahuilla.[90]

Babies were carried in the ubiquitous cradle, tc!aname''. This was of a triangular shape, the framework consisting of two strong sticks with smaller sticks laid across to form a bottom or

[86] Used by the Luiseño, Sparkman, *op. cit.*, 209.

[87] Hydrous oxide of manganese; used by the pre-historic Chumash, Wheeler, *op. cit.*, 262.

[88] Sebastian Vizcaino, *op. cit.*

[89] George Vancouver, *op. cit.*, IV, 317.

[90] A. L. Kroeber, Ethnography of the Cahuilla, present series, VIII, 47, 1908.

back. The child was held in by strips of rawhide, or probably originally of buckskin, with a band going over its head. This cradle is similar to one of the two types used by the Yokuts and the Maidu, the description corresponding well with cradles still in use among the latter Indians.

The use of snow-shoes is unknown to the present natives and probably never was known to their ancestors. Little or no snow falls in the country.

MATERIAL STANDARDS

Currency[91]

Beads, xe'nes, constituted the standard of wealth and value. Those of Salinan manufacture were made from mussel or abalone shells in three colors. Blue beads, kicho'tĕl, were valued the most, pink beads, k'mĕllĭ, so-called because of their shinyness, next, and lastly white beads, trĕ'pĭnoctu'. The most valuable beads were elongated and came from an unknown locality at a considerable distance. Two of these would make a man wealthy. These may have been either the dentalia of the northerly peoples, or the "long beads and noselets made by the 'islanders'" as suggested by Dr. Henshaw. These latter were made of the columella of a univalve mollusc[92] and were also highly valued by other natives, such as the Yokuts.

Beads were put on strings, probably of sinew, and the string valued according to its length. As among all Californian Indian tribes, the strings were measured to certain standard distances on the body.

Dr. Henshaw's San Antonio informant, Hilario, gave the following units as the standards for value in beads:

1. The smallest unit was called wâse'na' and was measured from the tip of the middle finger to the wrinkle in the middle of the palm, or more accurately, to the knuckle. A string of common white beads of this length had a value of about five cents.

[91] For the following notes I am solely indebted to Dr. H. W. Henshaw, by whom they were collected in 1884, and to the Bureau of American Ethnology, by whose permission they are here presented.

[92] Probably similar to those found in graves on the Santa Barbara Channel. See Wheeler, *op. cit.*, pl. xiii.

2. The principal unit was the distance from the base of the thumb folded against the forefinger obliquely across to the tip of the little finger. It was known as tâlta'so, "one its name," and had a value of about ten cents.

3. The third unit ran from the base of the thumb over the tips of the fingers, around the wrist to the starting point. It was termed mawi'ya and valued at about twenty-five cents. This was the largest unit, and was merely repeated for the measurement of greater lengths.

Anesmo, the San Miguel informant, gave a multiplicative system which is rather uncharacteristic of California and probably due to European influence. His units were:

1. A string of beads from the tip of the middle finger to the wrinkle in the middle of the palm is called tewi' and valued at about five cents. It is identical with the Antoniño wase'na.

2. Double the length of the tewi' is the main unit, tâiitra'so, "one its name"; it corresponds to the Antoniño tâlta'so, and is valued at a like amount, ten cents.

3. kûkstra'so, "two its name," is double the length of the preceding, and worth twenty-five cents.

4. kecotrā'so, "four its name," is double the length of the preceding, and worth fifty cents.

5. catĕltra'so, "eight its name," is double the length of the preceding, and worth one dollar.

6. A unit of practically the same length as the kecotrā'so is the kama'wi. This was measured by passing the string of beads from between the index and middle fingers over the tip of the little finger, around the elbow and across the forearm to the starting point. This measure may have been used also by the Antoniño under the name kicatra'sko, but the information on this point is not clear.

From between the index and middle fingers at the base, across the back of the hand to the tip of the little finger somewhat extended was a bead measure used in paying small gambling debts. It was known as (A) tâ'lhenna ("one ——") and (M) kû'kslumawi ("two ——").

The reply from the Mission of San Miguel in the "Mission Record"[93] is largely devoted to a discussion of currency. It reads, "The money of the Indians has been, and still is, beads, which they now lend without usury. In their wild state, usury consisted of the daily augmentation of the value of the amount lent, for instance a real of beads; and those who lent the real grew richer by as many reales as the original real was days in returning to their hands. This custom was practiced by those

[93] A. L. Kroeber, Mission Record, 18.

to the east of this mission." Dr. Kroeber's note that "No such custom of borrowing at interest has been otherwise reported from California" needs no further comment. Yet the report is very circumstantial and has the appearance of authority, and must have some basis. Just what this basis was can hardly be conjectured.

Measures[94]

"The San Antonio Indians computed time by moons, the new moon being the point of departure. Time of day was reckoned by the height of the sun. Night was irregularly divided into intervals, as darkness, a short time after darkness, midnight, and so on until dawn."

Other measures are primarily for length, but may be used also for beads. These are as follows:

1. Small objects were measured by the span of the thumb and index finger extended. This was termed tŏlmä'n, "one hand," by the Antoniño, ma'wu by the Migueliño.

2. A still smaller measure was used at San Antonio, the width of the thumb, tŏlmeä'n, "one finger."

3. An arm's length measured from the tip of the thumb and forefinger joined was called tewai'yutopoka by the Antoniño.

4. The span of the outstretched arms was used as a measure by both groups. It was measured across the breast, from the tip of the thumb against the forefinger, and was known as ko'kcutapoka, "two ——."

5. A step or pace was called a'cĭlcĭli'ya and was used in measuring short distances.

6. Long journeys were estimated by suns. A short distance was called te'lowanayu, a long distance te'kwaona'yu.

Seeds or other commodities bartered in bulk were measured in baskets of a standard size. Four different sized baskets are named, spo'kaiha, s'la, wû'kkupt' and kilpa'hl'.

[94] The following data, exclusive of the word-derivations, are also from the notes of Dr. Henshaw.

Numerical System

The numerals have been observed and noted by various writers[95] and, allowing for variations in orthography, they show practical uniformity as far as eleven. Lists collected by the writer are appended with others for comparison.

SAN ANTONIO

	Sitjar	*Coulter*	*Mason*
1	tôl	kitol	t'oL
2	caquiche	kakishe	ka'k'cu
3	lappay	klap'hai	kLa'pai
4	quicha	kisha	k'i'ca'
5	ultrao	ultraoh	o'Lt'au
6	painel	painel	payā'neL
7	que'tté	t'eh	te'
8	shaanel	shaanel	caa'neL
9	tetatsoi	tetatsoi	te'te't'o''e
10	zoe	tsoeh	t'o''e
11		tsosoktohl	t'o''e-ta'x-t'oL
12		lapaiksha	t'o''e-ta'x-ka'k'cu
13		lapaiksha-trekh-tol	
14		huoshosho	
15		lapai-ultrau	
16		k'pesh	

SAN MIGUEL

	de la Cuesta	*Hale*	*Mason*
1	toi	tohi	toix
2	kakisu	kûgsu	kā'kec
3	lappai	tlûbahi	La'paiL
4	kisa	kesa	k'e'ca'
5	ulthrat	oldrato	olt'ā'to
6	payátel	paiate	paya'teL
7	tep	tepa	t'e'p
8	saatel	sratel	ca't'eL
9	titithrupe	teditrup	te'te't'o'paL
10	thrupe	trupa	t'o'paL
11	thrupe-thracolop-toi		
12	thrupe-tracolop-kakisu		
	(up to two-tens, etc.)		

[95] Sitjar's list is published in Shea, *op. cit.*, p. xii; it is the oldest list, but the Spanish orthography is misleading. De la Cuesta's list was taken in 1821; it is in Santa Barbara, but a copy was made for the Smithsonian Institute and is now in the Bureau of American Ethnology. The lists by Coulter and Hale are published in vol. II of the Transactions of the American Ethnological Society. Further available lists were those by Drs. Henshaw and Kroeber and the writer.

According to Dr. Henshaw's information, the term for one means "all alone." For all purposes it is simple and unanalyzable. Coulter's kitol is k't'oL, "it is one." The symbol for two contains the root for four, ca', and may mean "half of four." The root for three is la'pai, the k- prefix being the sign of the intransitive verb, "it is three." Four seems to be the smaller unit; the root is ca', the k- prefix as before. The term for five appears to contain the same root as ten, and is said by Dr. Henshaw to refer to the first, which is very probable. It would then be (t)o'L-ṭ'a'o, "one-his-fist."

The terms for six are evidently derived from those for three by adding a plural suffix -a'neL (A) or -a'teL (M). Thus payā'neL is Lapaia'neL, "threes," the syllable La disappearing. The terms for seven appear simple. Eight is again caa'neL or caa'neL, "fours." Nine is evidently a subtractive word, "one-from-ten," and ten is analogous with five and may be one of the numerous Salinan plural forms, "fists."

Above ten, the terms in all but Coulter's list proceed by regular addition, "one-and-ten," "two-and-ten," "two-tens," etc. Coulter's system, however, is so like similar systems among the surrounding stocks, that there is little doubt that it is the aboriginal one, the others being adapted from the European systems. Eleven is plainly "one-and-ten." Twelve, lapaiksha, is evidently Lapaik'ca', "three-it-is-four." Thirteen is plainly "twelve-and-one." Fourteen, like seven, betrays no evidence of composition. Fifteen is "three-five," possibly "three-fists." Sixteen is a simple term as would be expected of "four-fours." The k- prefix is again the verbal sign, confirming the simplicity of the term, "it-is-?"

The simple terms of Salinan are thus seen to be one, three, four, seven, ten, fourteen, and sixteen. Two, five, six, eight, nine, eleven, twelve, thirteen, and fifteen are compounded. The system is a multiplicative quaternary one, as was determined by Dixon and Kroeber,[96] proceeding by four, fours, three-fours, and sixteen. The smaller unit appears to be four, the larger one sixteen. The system probably continued on to two-sixteens,

[96] R. B. Dixon and A. L. Kroeber, "Numeral Systems of the Languages of California," Am. Anthr., n.s., IX, 690, 1907.

etc., but data to prove this are lacking. The quaternary system was that in use by the neighboring Chumashan stock and by one of the Yuki languages.[97] For numerals not reached by the multiplicative quaternary system, there are other devices; of addition, as in eleven; subtraction, as in nine; multiplication, as in fifteen; and possibly division, as in two. The original system of the San Antonio dialect, with the probable derivations would then probably be

1	t'oL	"all alone"
2	ka'k'-ca'	"half-four"
3	La'pai	three
4	k'ca'	"it-is-four"
5	t'o'Lṭ'a'o	"one-his-fist"
6	Lapai-ā'neL	"threes"
7	te'	seven
8	ca'-a'neL	"fours"
9	t'o'L-te-ṭ'o"e	"one-from-fists"
10	ṭ'o"e	"fists"
11	ṭ'o"e-tax-t'oL	"fists and one"
12	Lapai-k'ca'	"three-it-is-four"
13	Lapai-k'ca'-tax-t'oL	"three-it-is-four-and-one"
14	wococo	fourteen
15	Lapai-(t')oL-ṭ'a'o	"three-one-his-fist"
16	k'pec	"it-is-sixteen"

MANUFACTURES

With the exception of basketry alone, the topic of Salinan manufactures would be germane more to the subject of archaeology than to that of ethnology. With this single exception, no objects are manufactured by the present Indians. Very few specimens of any description of native manufacture are preserved, and, except for several objects of wood of known authority, all of these are stone implements of which it can merely be said that they were found in the region ascribed to the Salinan people. As with all of the typically Californian natives, there is no cause for belief that any other people ever inhabited the region, and all archaeological objects occurring there may be assumed to be the product of the ancestors of the present natives.

[97] *Ibid.*

Work in Stone

Mortars, toxo'L, and pestles, pa'nE, of various shapes and sizes are found in numbers throughout the Salinan region. Plate 25, figure 1, shows many such mortars of varying sizes and shapes. In some the hole is insignificant compared with the size of the stone, while in other cases the cavity occupies most of the rock, walls only being left. On a number of them may still be seen the circle of pitch or asphaltum where the basket hopper was attached. Many of them are of irregular shape, while others show carefully rounded exteriors and two in the foreground are delicately made specimens of a truncated cone shape. In the case of these as well as some of the others it is probable that they were used for vessels as well as for mortars. At least one of the objects shown in the group is obviously a pot rather than a mortar, but is made of the same hard sandstone as the rest. Several of them have large holes in the bottom, probably the result of continued use.

Mortar holes in the bedrock are found in many places throughout the Salinan area. One place noted (pl. 29, fig. 1) is not a stone's throw from the house of Perfecta Encinales at the foot of Santa Lucia Peak. Yet she was unable to give any information concerning it. The holes are of varying sizes and depths. No pestles remained.

The question of Californian mortars has been a prolific source of dispute even when the aboriginal usage is known. Large stone mortars with carefully made exteriors are found over the entire state, but are never manufactured by the natives. To the north of San Francisco, possibly as far south as Monterey, they are regarded as having supernatural powers and their true purpose is not recognized. In this region acorns are ground on a flat stone, generally by the help of a basket-hopper rested on the stone. The usage among the Yokuts and the other tribes of eastern California varies. The most usual method is probably the use of the bedrock mortar,[98] though the Yokuts say that

[98] The bedrock mortar has been observed among the Yokuts, A. L. Kroeber, Mss.; the Maidu, Dixon; the Luiseño, Sparkman; and others.

both these and the portable mortars were made by Coyote.[99] Occasionally by the latter stock a basket-hopper was made and attached to a stone mortar by pitch or asphaltum.[100] Wooden mortars are also used by the Yokuts[101] and the Cahuilla.[102] In the southwestern culture area the typical method is the attachment of a basket-hopper to a mortar by means of asphaltum,[103] but for the latter unshaped stones of the proper size are taken, the exteriorly worked mortar being here as elsewhere archaeological.

The latter method of making mortars by affixing basket-hoppers to unworked stones was probably the method in vogue among the Salinans, as evidenced both by the statements of the surviving natives and by the testimony of the rings of asphaltum, sma'k!, seen on mortar stones. An equivocal statement would seem to indicate that the mortars were also used occasionally without the basket-hopper attachment. The use of the bedrock mortar is not remembered by the present Indians, though their former use is attested to by their frequent occurrence in the region.

Diminutive mortars are also often found in the region (pl. 26, fig. 1; pl. 27, fig. 1). Those observed vary from six to eighteen centimeters in diameter and are made of sandstone of different degrees of hardness. The depression is generally less in proportion to the bulk of the mortar than is the case with the larger specimens. These were probably used for macerating pigment or toloache, or as cups for drinking the latter, for which purpose similar objects are used by the Indians of the southern missions.[104] A broken metate is represented among the mortars on plate 25, figure 1. It is of considerable size and bulk with a concave surface. Of the former manufacture and use of these

[99] A. L. Kroeber, Mss.

[100] S. Powers, *op. cit.*, 377.

[101] A. L. Kroeber, Mss.

[102] A. L. Kroeber, Cahuilla, 40.

[103] The stone mortar with basketry rim is the typical form among the Luiseño, *cf.* Sparkman, and the Cahuilla, *cf.* Kroeber. It is frequently found in the archaeological remains of the Santa Barbara Channel, and was probably the form used by the recent Chumash.

[104] *Cf.* T. T. Waterman, Religious Practices of the Diegueño Indians, present series, VIII, 294, pl. 21, 1910.

metates nothing could be learned. Mexican metates of the typical tripedal concave "chute" type with rectangular mullers of the same material are possessed by many of the Indians as well as by some of the whites, but were not observed in use.[105]

Pestles and mullers are frequently found and are difficult to distinguish. Some were doubtless used for both purposes. Ten are shown on plate 26, figure 2. Most of them are of a black rock, well shaped and smoothed, and ranging from twenty to thirty-five centimeters in length. It is noticeable that none of them are of the rough, irregular, bulky type used by the Yokuts and Miwok, but approach rather the typical well-made archaeological Chumashan specimen.[106] Probably only the best examples of pestles have been preserved, and ruder specimens may be found on closer investigation, but on the whole it seems probable that a better type was made and used than those of the Yokuts and Miwok. Some of them show slight irregularities in shape. All of the mullers have evidently been used also as pestles, being differentiated from the latter mainly by shorter length and by the flattening of one side. Both of the ends were used in the mortar.

One pestle observed is of such fine workmanship as to provoke a suspicion that it may be an importation from Chumash territory (pl. 25, fig. 2, specimen 4). It is 46 centimeters in length, circular in section and 6.5 centimeters in greatest diameter. The handle end is finished in a knob which has been roughly carved to represent a head (pl. 27, fig. 2). The carving may be post-mission and possibly not even native. Realistic carving is unknown in California except in the region of the Santa Barbara Channel. The latter region is, however, sufficiently near to the Salinan to exert some influence on it, if not to cause the interchange of objects of manufacture. A diminutive pestle probably intended for use with the small mortars was observed (pl. 27, fig. 4). It is of black stone, and is 12.5 centimeters in length.

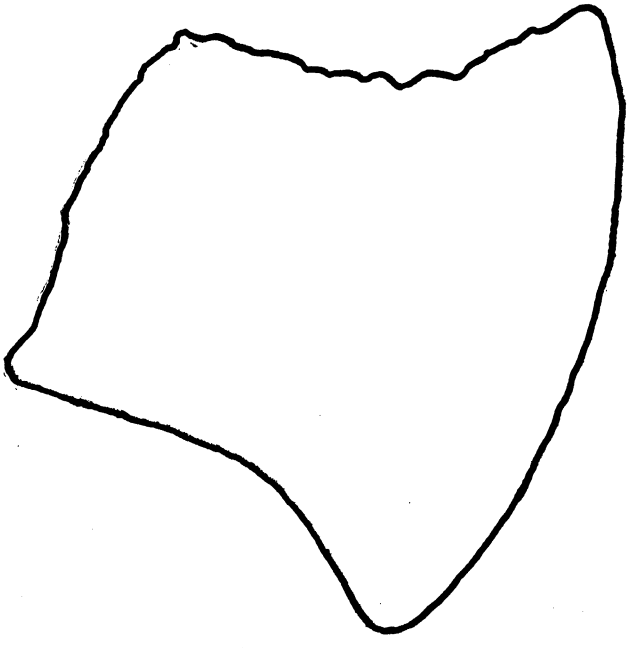
Two large vessels of steatite were observed (pl. 25, fig. 2, specimens 2, 3). One is a finely worked, regular bowl, and stood in a niche beside the door of San Antonio Mission, containing

[105] *Cf.* A L. Kroeber, Cahuilla, 51.
[106] G. W. Wheeler, *op. cit.*, 70–86.

holy water. It is of nearly faultless outline, 25 centimeters in diameter, and there is a noticeable rim around the lip. It is not impossible that it may have been brought from the Santa Barbara region, where similar vessels are more common. The other vessel is a cooking pot, a black concretion on the exterior betraying its use. It is 16.5 centimeters in height by 24 centimeters in greatest width, and with an opening of 15 centimeters in width. There is a rim around the lip. Nothing is remembered by the natives concerning these steatite vessels, but it is said that the stone can be obtained at the coast.

Two well-made arrow straighteners of black stone were observed (pl. 27, fig. 3). These are roughly oval in shape with a flat base, and are respectively 15.8 and 9.7 centimeters long. Both are decorated with rough striations, the larger also with cross-hatching. The implement and its use are recognized by the natives. The stone, pomnawe''e, was heated and the arrow, tete'yen', pulled through. Whether the purpose was to straighten or to smooth the arrow was not ascertained.

Examples of the ubiquitous perforated stone known as the



digging-stick weight[107] are found in the region. Specimens are not recognized by the present natives, who suggest them as weights for nets. An interesting specimen is figured on plate 27, figure 1. It is about 6.7 centimeters in diameter and 3 centimeters in height. One edge is much battered and broken. The central hole perforates the stone at a considerable angle, and a ridge surrounds either orifice. A stone object, shown in outline in text figure 1, was recently found near Jolon. No similar implements have been reported from the region, but the object is strongly reminiscent of the stone mauls used by the Yurok and the other Indians of northwest California. Nothing is known about the specimen, which may be an importation.

Arrow points and knife blades display no great individuality. They are generally of white, black, or red flint and do not show much care or delicacy of workmanship. The arrow-heads (pl. 28) are often of rough and irregular design and few show the careful flaking which is generally given by Indians to their hunting weapons. The shapes vary from roughly triangular to diamond shaped, and few show barbing. Plate 27, figure 4, shows a well-shaped and barbed flint spear or arrow point, 14.5 centimeters in length, and a rough "knife-blade" of the same length. Nothing of ethnological interest could be learned concerning these flint implements; their use is evident.

Work in Other Materials

A good type of pottery is made by the Yuman and the southern and eastern Shoshonean groups in California, but this art was unknown to the Chumash and their near Shoshonean neighbors. A different and much inferior variety was made by the southern Yokuts and the Mono, the culture being probably indigenous.[108] The Yaudanchi Yokuts made diminutive hollow balls of clay as receptacles for tobacco.[109] The aboriginal usage among the Salinan is doubtful. In later times lumps of clay, Loi'to, found near San Miguel were moulded by hand into small cups and fired in a wood fire, care being taken not to make the

[107] *Cf.* H. W. Henshaw, Perforated Stones from California, Bull. 2 Bur. Am. Ethn., 1887. Also Wheeler, *op. cit.*, 135–189.
[108] A. L. Kroeber, Cahuilla, 55.
[109] A. L. Kroeber, Mss.

heat great enough to break the clay. The principal use of these little pots, t'EKAUSNE'', seems to have been to hold candles at Christmas, it being admitted that pottery was never used for cooking. This may be an outpost of the Yokuts pottery culture, or it may be indigenous, but more probably it is entirely post-mission and due to European influence. Specimen 1 in plate 25, figure 2, which was used to hold holy water at the door of San Antonio Mission as a companion to the steatite bowl, is of a coarse pottery, but of its previous history nothing is known.

Dishes were sometimes made of wood. A suitable piece was taken and the interior hollowed out until the desired shape was attained. Whether they reached the excellence claimed for the wooden dishes made by the Chumash[110] is a matter of doubt. Spoons were sometimes made of small abalone shells. The pipe, ṭ'ono^{n}, was of a straight piece of reed, tco'TLE, tubular pipes of stone and wood, such as are typical over the greater part of California, being not recognized. Dr. Kroeber[111] reports the same fact for the Yaudanchi Yokuts whose pipes were of cane. Combs or hair-brushes, CENOME'', were made of soap-root, as is the general custom all over the state. The root was first washed well, then a small piece of wood laid parallel with it and the rootlets tied to this to make them set in one plane. Hunting bows were of "pine" backed by sinew and with a sinew string. They were not long, about three feet, but it is said that it took a strong man to bend one. The fish-spear was made with a rigid, non-detachable point.

No work in feathers is recollected by the present natives and no specific description of any such work among them has been noted. The use of feather head-bands, capes, and aprons was denied, though their use by the Yokuts was known. A feather headdress was worn by the performers in some of the dances and the shaman's stick had feathers on it.[112] The only object made of bone which is remembered was the awl, tetā'xk. This was made as usual by sharpening the end of the ankle-bone of a deer. Mats of tule are said to have been unknown.

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110 Costansó, Narrative, 45 [135].

111 A. L. Kroeber, Mss.

112 See pp. 129, 183, 185; also note 183.

Articles of clothing were made from buckskin, at least in mission days. A carrying net was made of rawhide, probably superseding aboriginal buckskin. The skin was cut into strips and the net made by tying the strips together at the intersections by means of milkweed twine. The latter useful product[113] was also used for making nets for fish and rabbits, and is now used in basket making. The stalks of the milkweed are gathered and fully dried. The strong fibrous bark is then peeled from the stem, crushed and rolled on the knee into a long strand. Two of these strands are then twisted together to form a twine string of considerable strength. The fibre is called pita by the Spanish, t'matL by the natives.

Basketry

The preëminence of basketry-making among the aboriginal arts of the California natives is well exemplified by the beforementioned fact that it is the sole surviving representative of Salinan aboriginal manufacture. Yet the number of Salinan baskets known to be preserved is very few, and probably all of these are of quite recent manufacture. Some of the ranchers in the vicinity of Jolon possess a few of these, one is in the collection of the museum at Jolon, and several others may be in the possession of collectors. The University of California possesses thirteen specimens, constituting probably the majority of the Salinan baskets now in existence. So far as is known, all the basketry is the product of one woman, Perfecta Encinales, the oldest woman of the Salinan stock, and of her several daughters. It is evident that with such conditions, no unchallengeable statements can be made concerning Salinan basketry. On the other hand, the well-known conservatism of Californian basket makers in their work, the ready confession of any unaboriginal technique, as well as critical study of the baskets themselves, invite the conclusion that in all the more important respects the baskets observed exemplify the individuality of the aboriginal products. No baskets of any considerable age, and, with one

[113] Milkweed fibre was much used by the natives of southern California. It is mentioned by Sparkman among the Luiseño, by Kroeber among the Yokuts, several times by Powers, etc.

doubtful exception, none made by other women than the family named are known, neither is there any description of a Salinan basket published, so that willingly or not, the art and knowledge of these few must be considered typical of the stock.

Coiling is the typical technique of all central and southern California, including those natives of the Shoshonean stock whose culture is Californian rather than plateau, viz., the Mono, Panamint, Luiseño, Cahuilla and their neighbors. Twined weave is used in this region, but chiefly for rough work for the most commonplace purposes, for which coiled weave would be unsuited. Little is known concerning the aboriginal basketry of the Chumash, Salinan, and Costanoan, but it has always been assumed that they followed the typical preference for coiled weave. This conclusion may or may not be justified. Costansó[114] speaks of the "baskets and vessels of reeds" and again reports that "the large vessels which contain water are made of a very strong texture of rushes, coated inside with pitch, and they give them the same shape as our jars." Several of these water jars found in a cave in Chumash territory are in the collection of the University.[115] They are of twined weave. These jars are mentioned by other visitors to the region and were evidently very plentiful and typical. Other writers[116] mention baskets of roots from the Chumash, evidently referring to a coiled weave. Of Costanoan basketry absolutely nothing is known. But it is significant that the only specimen of Costanoan basketry known to the writer is a winnowing tray of twined weave, made with great care and in unique weave and design (pl. 36, fig. 2). While an assumption of equality between the two weaves, or a preference for the twined technique in the coast region south of San Francisco, would be gratuitous and probably misleading, yet evidences seem to point to a greater use of the twined weave in this region than is usual in California. The baskets in the possession of the University seem to support these conclusions. It is impossible to decide to what an extent modern example and preference have affected the art; doubtless they have wrought some changes, but the baskets of twined weave made by the

[114] Costansó, Narrative, 45 [135].
[115] Nos. 1–14495 to 1–14503.
[116] Fages among others.

present Salinan women are made with care and taste and serve no utilitarian purpose. New materials and new shapes have been introduced, and the weave has probably undergone an artistic development, but to be capable of such improvement, it must have been originally on a higher plane than twined weave generally is in central California.

The before-mentioned granaries, k!ātā′, for storage of acorns and seeds, may be considered under the term basketry. These were built of white willow twigs and probably without any regularity of technique, the twigs being merely interlaced. They stood about two feet high, about three feet broad at the base and sloping inwards to leave an opening of about eighteen inches, making a receptacle of a truncated cone shape and probably much like the granaries used by the Cahuilla, Mohave, Diegueño, and other Indians of the southern arid regions for the storage of mesquite, corn, and other products.[117]

Large carrying baskets, pɛta′tʟ, about thirty inches in height, were also made of white willow, the exact shape being unknown. The material, willow, and the fact that a strong loop was used at the rim of the basket to strengthen it, as well as a comparison with the common usage among the Yokuts and other known peoples of south and south-central California would seem to indicate that the carrying basket must have been of twined weave. This was at first stated, but later it was claimed that they were made with a coil.

The seed-beater, ṭōna′ʟ, was a looped stick of oak, and basketry beaters are said to have never been made. Shallow coiled trays, sāma′kˑ, were however used for this purpose as well as for winnowing seeds.

Basketry hats, ts!waketɛ″, were made in coiled weave, the exact shape being unknown. One made recently, but claimed to be on the old pattern, was round with a high crown, somewhat convex top, and a brim. The latter feature is doubtless modern. Hats with brims were nowhere made in California and Fages particularly remarks that the hats of the Chumash lacked brims.

Basket mortar-hoppers were also of coiled work and fastened

[117] Otis T. Mason, Aboriginal American Basketry, Rep. U. S. Nat. Mus. 1902, 356, pl. 102, 1904. A. L. Kroeber, Cahuilla, pl. 2.

to the mortar with asphaltum obtained at the coast. The bottoms were never cut out of ordinary coiled baskets and the sides used as mortar hoppers, and it is claimed that no hoop was used around the rim to strengthen them.

Ordinary coiled baskets, tEca", and trays, cla, were of various shapes and sizes and adapted to divers uses. The common deep baskets were used for storing and cooking and for keeping water in the houses. Baskets with fine interstices were used for leaching acorn meal. Trays and bowls up to eighteen inches in diameter were made and used for miscellaneous purposes.

Bottle-shaped or vase-shaped baskets were not made, though the natives are cognizant of the fact that they were made by the Yokuts. Asphaltum or pitch was never applied to baskets to render them water-tight, but the "lameknela't" Indians are said to have made such baskets. These natives may be the Esselen, of whose basketry nothing whatever is known. Asphaltum-lined baskets are known to have been quite typical of the Chumash, to whom the name "lameknela't" may refer.

Small trinket baskets, topE's, are made of twined tule in different shapes and sizes for various household uses. These must have played a small part in the aboriginal utilitarian scheme and have doubtless undergone an aesthetic development, but must have an indigenous basis and can hardly be ignored.

Two types of coiled basketry are found among modern Salinan baskets, but one of these, while unique and interesting, is admittedly not aboriginal. The other native technique strongly resembles that of the Yokuts and differs to a considerable degree from the few preserved specimens of Chumash work. It is generally very well made, the stitches and coils being small and regular, the shapes artistic, and the weave water-tight.

A bundle, generally about eight, of grass stems forms the foundation for the coil of the Salinan basket. This grass seems to be the same as that used by the Yokuts,[118] *Epicampes rigens,* t'onawE" The sewing is done in splints of "bunch grass," *Cladium mariscus(?),* k!o'i. This is preserved in water until required for use, when it is taken in the teeth and fingers and

[118] *Ibid.,* 474.

dexterously split into halves. These splints are then scraped with a knife to a uniform thickness and width and sewed around the coil by means of an awl, each stitch including several of the stems of the coil below, and generally appearing between two of the stitches of the coil below, the latter being seldom bifurcated. They average between fifteen and nineteen to the inch, equalling the closest of Yokuts work, and the coil foundation is seldom visible as it is in the basketry of the southern missions and in a large part of Yokuts work. Borders are regularly finished in a plain coil, the end being inconspicuous. Four baskets of this description, two of them unfinished, are in the University collection[119] and are shown on plates 31 and 32, figures 2 and 3.

A somewhat different type of coil is that of a large tray,[120] ska'pE (pl. 33). This was made about 1875 by Coleta, an old Indian woman who belonged to one of the Costanoan missions but had spent her life at San Antonio. The basket may thus contain extra-Salinan elements. It is identical in appearance with some similar trays collected from the Yokuts. The foundation is of a large, coarse grass, the weft of a broad, thick splint, and the stitches very far apart, averaging three or four to the inch, and including much of the grass of the under coil at each stitch. The border is finished in a two-strand braid, including most of the outer coil in the twine.

One of the baskets in the collection of the University of California[121] (pl. 31, fig. 2) has a most unusual technique consisting of two simultaneous coils. These two coils were commenced simultaneously, one enclosing the other so that they alternate up the side of the basket. This requires, naturally, a change at every revolution in the coil which is being sewed, for when the uppermost coil has been sewed as far as the end of the coil immediately below, it must be dropped and the then lower coil continued until it reaches a corresponding position above the former coil. When questioned in regard to this technique, the maker replied that the "old people" made baskets

[119] Nos. 1–14991, 1–14992, 1–14993, 1–14994.
[120] No. 1–14987.
[121] No. 1–14992.

in that way and she wanted to see if she could imitate them. This statement would seem to indicate that the technique is aboriginal; indeed, its individuality would preclude the explanation that it may be due to modern influence.[122]

The second variety of coiled basketry, however, is admitted to be unaboriginal, and is claimed to be an invention of the maker, Perfecta Encinales. The "invention" is rather an adaptation, though sufficiently radical a change to suggest at least an aboriginal basis for the technique, if no more. The technique may best be described as a one-rod foundation coil with duplex stitch. The rod foundation is taken from the wicker cover to demijohns, tana'st, while the weft may be either the outer bark of the root of the "bunch grass," *Cladium mariscus(?)*, or, more commonly, the raffia-like fibre from the milkweed, t'EMĀ'L, used by many California Indians for nets and cord and called by the Spanish "pita." The technique requires a weft of a soft and flexible material and this fibre is generally threaded on a modern needle which is used instead of an awl. The method of sewing is likewise unusual. The flexible weft tends to curl and to leave uncovered sections of the rod foundation. To obviate this all the stitches are made in the form of a figure 8. By means of the needle the threaded weft is brought from the inside of the basket over the topmost coil, in between this coil and the next one below, entirely around this inner coil, thus giving it a second sewing, and in again between this coil and the outer rod, sometimes being passed under itself in the crossing. Each coil thus receives two layers of weft, the second superimposed on the first.

Two unfinished baskets in single-rod coiling are shown on plate 32, figures 4 and 5. Figure 5[123] is the base of a milkweed fibre basket, the fibre dyed with modern colors. Figure 4[124] is made of the root of the bunch grass. A finished basket in this

[122] The duplex coil basket has never before been noted, to the writer's knowledge. There is, however, a basket of this technique in the collection of the University of Pennsylvania, said to come from the Cliff Dweller region. Whether these isolated examples are spontaneous individualities or have a connection is not at present evident.

[123] No. 1–14989.

[124] No. 1–14990.

technique is shown on the same plate, figure 6, by courtesy of the owner.[125]

In all of the coiled baskets observed the coil runs in a clockwise direction. No generalization should be made with such a poverty of material and authorship, but as the general tendency in Californian basketry, with a few exceptions, is toward a clockwise direction,[126] it seems probable that Salinan baskets follow this general rule. Nevertheless, although the direction of the coil is similar in every basket, the method of operation varies with the technique. Coiled baskets with grass foundation are held with the inside to the weaver, the coil progressing clockwise in that position, and the sewing being inserted from the inside, but in rod-foundation basketry, the basket is held with the base to the operator, the coil being thus sewed in a counter-clockwise direction.

The only native decorative material is the black from the root of the fern or bracken, *Pteridium aquilinum,* k!ē'ciapowat. Whether the varicolored juncus so typical of southern mission basketry or the redbud employed by the Yokuts were ever used will probably never be known. They are not used to-day. The fern root, as in the case of the weft material, is kept in water until it is needed, and is sewn in place of the latter when it is desired to make a design. As a substitute the ordinary weft splint is sometimes soaked in the juice of the elderberry, which dyes it a dark blue. This color is of course less intense and less permanent than the fern root, but is often used at the present time. A still more degenerate substitute for the fern is the use of modern ink which is occasionally painted on the stitches after the weaving is completed. The raffia-like weft of the rod-foundation basket lends itself easily to modern dyes which are often used in this technique, almost spoiling the baskets from an ethnological point of view.

Most of the baskets now made are further cheapened by the introduction of modern glass beads and yarn. The former are used on both coiled and twined work, being threaded on the

[125] The Dutton Museum at Jolon, California.

[126] A. L. Kroeber, Cahuilla, 49; "California Basketry and the Pomo," Am. Anthr., II, 339, 1909.

stitches or on the twines of the weft. Yarn is sometimes caught between two stitches of the coil.

The materials used for making twined basketry are limited to two, tule, k!a'mtE, and the white willow, pEsxe't'. The latter is used for large and coarse work only, such as granaries, if these can be included in the term basketry, and twined carrying baskets. Tule is used for the small trinket baskets which have been already mentioned and discussed. These are of small size, but of different shapes and with different variations in the weave. In their present state they serve no useful purpose except to contain small objects. Five baskets of this technique are shown on plates 34 and 36, figure 1.

Both warp and woof of twined weave are of the same material, either twigs of white willow or young shoots of tule, and the weaving is always done in two-strand twining. Tule baskets are commenced with four thick groups or bundles of dry shoots, the bundles arranged in pairs, one pair over and at right angles to the other pair (pl. 35, fig. 2). Around these bundles two strands of tule are twined, the bundles gradually separating into smaller groups and finally into single warp elements as the diameter of the basket increases, and the weft elements enclosing progressively fewer warps at each twine. Additional warp elements are added as needed, the ends being allowed to project for an inch or so on the outside until the basket is finished, when they are cut off close to the body. As new weft strands are needed, the unused end of the former strand is laid parallel to a warp strand and included in the twine, thereby requiring no cutting of the end. The end of the new weft, however, is left projecting like a new warp element until finally trimmed off. Most of the baskets are made with a constricted top, the width of the opening being less than the greatest width of the basket. To accomplish this the diameter is lessened by pulling the warps closer together, by dropping some of them, or most commonly, by combining several warp elements in one turn of the weft.

The border may be finished in one of two ways. The warp elements may be turned over outwards and caught under the last row of twine against the next warp to the left. The more

common finish, however, is a double border. The warp elements, after being caught under the last row of twine, instead of being cut off, are intertwined to form an outer border. Passing down through the last row of twine they pass under the end of the second warp to the right, turn upwards and to a height of one-eighth inch above the inner border, over the end of the next warp to the right, and then turn down under the second warp to the left and are cut off.

Artistic feeling is generally displayed in tule baskets by changes in the weave, principally by means of crossed warp. This is generally accomplished by crossing adjacent elements, the twining resuming a short distance above when the elements have again separated to their normal distance. The twine is continuous, traversing the crossed warps at a slight angle, at which point a double crossing of the warps is required because of the double width. Here irregularities of weave sometimes occur, due probably as much to the carelessness of the maker as to the requirements of the weave. Uneven crossings are found as well as substitutions of the warp and weft. The twine never incloses the warp in pairs at the point of intersection, but always entwines single elements at regular intervals, making a more or less hexagonal opening. When more than two warps are crossed, making more than one row of openwork, variations of the weave sometimes occur. A row of twining always separates every crossing of the warp. When no more than two rows of open work are made, the warp elements are twined on each other, so that each returns and approaches its normal position. As many as three successive rows of open work are seen on some of the baskets.

One unfinished tule twined basket (pl. 35, fig. 1)[127] is unique. Around the widest part of the body extend two rows of crossed warp separated by two continuous rows of twine. The crossings of the warp are very irregular and careless. Above this the normal twine begins in four places at approximately equal distances apart, the inter-spaces being filled with a continuation of the crossed warp weave, the warps being crossed and turned irregularly. Since the warps are always entwined above the

[127] No. 1–15000[a].

point of crossing, this necessitates a constantly increasing elevation of each successive row of twine, causing a wavy border line to result. It is probable that the basket would have been finished with the wavy border line now shown, but such cannot be predicted with certainty.

Modern decorations in the form of beads and ribbon are applied to these baskets, the former being caught in the twines of the weft. Tule baskets are made from the exterior, the basket being finished in its proper condition, not subsequently turned inside out, as is the practice among some California Indians. In making, the bottom of the basket is held towards the worker, the twine progressing clockwise as the hollow of the basket is looked into, and the strands taking a downward direction on the exterior.

Unfortunately little is known concerning the basketry of the Chumash and the Costanoan. As evidenced by a few baskets in the possession of the University,[128] the basketry of the Santa Barbara Chumash was built on a three-rod coil, the sewing generally in juncus. Archaeological specimens show a tendency to replace the three rods by a bundle of rods, stems and twigs of different sizes, at least in the large storage baskets. In either case the stitches are wide apart and show the foundation plainly. They display no resemblance to Salinan coiling, and differ from the basketry of the southern missions by having a rod foundation. The typical pitched water-jars of the Chumash have already been mentioned. Of Costanoan basketry we also know little, practically no baskets or descriptions remaining. According to Petit-Thouars,[129] the baskets at Monterey were decorated with colors, feathers, and pearl beads. It is probable that their basketry most closely resembled that of the Miwok. The Salinan work on the whole, except for the greater importance of twined work, which as we have seen, may be typical of the whole coast region, shows greatest affinities with Yokuts work, and little or none with that of the Santa Barbara Chumash.

[128] Nos. 1–14495 to 1–14503. *Cf.* O. T. Mason, *op. cit.*, 294, pl. 49.
[129] Petit-Thouars, Voyage autour du Monde, II, 115.

AESTHETIC LIFE

DECORATIVE ART

In California the artistic impulse is displayed almost exclusively in basketry, painting and carving being entirely absent except for occasional occurrences in restricted areas. Work in feathers is typical of the state, bead-work practically unknown.

As before stated, no trace, almost no recollection, of featherwork remains among the Salinan Indians, yet the practice of making featherwork is so universal in California that it could hardly have been absent here. Dresses also were probably adorned with shell pendants and other such decorations as are commonly used in the state.

Plastic art reaches its greatest development, as far as California is concerned, in the neighboring region along the Santa Barbara Channel, and may have exerted some influence on the Salinan area. Since, however, the only example of carving from the region, if we except the well-made pestles and mortars, is the carved pestle head already noted (pl. 27, fig. 2), the Salinans may be classed with the other non-carving people of the state. A rude attempt at decoration is seen on the arrow straighteners (pl. 27, fig. 3), consisting of striations and cross-hatching.

The practice of tattooing was, as has already been stated, denied by one of the surviving natives, but the knowledge of the informant may be questioned on this point. Painting was much used, both on the body and elsewhere. The pipe of the shaman differed from those used by plebeians by being painted. Paint was probably applied to other objects, such as hunting bows, but information on these points is lacking.

Pictographs are not typical of Californian culture and very few of them are known. North of Monterey they are practically unknown, while to the south a few scattered examples exist. In the southeastern part of the state, in the arid desert regions which are un-Californian in every respect except politically, the typical Shoshonean pecked petroglyphs occur. In the mission

area, the coast region in the neighborhood of Monterey and to the south, a few typical Californian pictographs are found. These are always painted in several different materials, probably the same colors as those used for body-painting. Taylor[130] speaks of several in the vicinity of Monterey and one fifty miles southeast of San Miguel.[131] A famous "piedra pintada" and several other well-known pictographs exist in the Chumashan region. In the Salinan area but one collection of pictographs is known, a cave known as "la cueva pintada" near the top of the hills forming the eastern wall of the valley of the San Antonio River and about five miles above San Antonio Mission (pls. 29, fig. 2; 30). The cave is large and easily entered and affords a perfect shelter from storms. The greatest height is about ten feet, width thirty, and depth fifteen to twenty. The rock appears to be a sandstone; the floor is free from dirt and shows a polish as if by much use. The roof is much blackened by smoke, said to be the result of the use of the cave by sheep herders, and most of the pictographs are partly or entirely obliterated by the soot. Yet some of the pictures are evidently painted over the soot, showing the use of the cave in aboriginal times. They are said to have been much clearer when first observed, some having still the appearance of very recent production, while others seem to be of considerable age.

The walls of the cave are well covered with paintings in different colors and designs. Most of them are merely outlined in a red ochre or paint. A yellowish-white material like a clay, and a black, probably of charcoal or soot, are evident. Some of the pictographs are entirely filled in with color, while others are made of lines and dots, resembling the Shoshonean pecked petroglyphs of the plateau area, the resemblance in some cases extending also to the design and figure. A characteristic feature is the utilization of natural features in the rock, such as depressions, as parts of the painting. Thus a round or oval cavity is in several cases encircled by a painted line and used as a head, arms and body being added. This fact may be advanced

[130] A. S. Taylor, *op. cit.*, April 5 and 20, 1860.

[131] Probably the same as the "piedra pintada" and sometimes known as "corral rock."

as evidence that the drawings are the result of impulse and imagination, and had no other *raison d'être.* They may have been made as a pastime by Indians taking shelter in the cave, but the fact that other caves show evidences of occupation, such as mortar holes in the bedrock, but do not contain pictographs, while this "cueva pintada" shows no evidences of permanent occupation, and the additional facts of the great paucity of pictographs in the country together with their abundance in a few isolated places, point to a ceremonial explanation. Ceremonial paintings are made by boys and girls at the puberty ceremonies among the natives of the southern missions,[132] and as some puberty rites are known to have been held by the Salinans, the probable explanation for these pictographs in the region south of Monterey is that they were made in some esoteric ceremony, probably that of puberty. No explanation for them is offered by the living Indians.

The figures themselves are in many cases truly pictographic, the human figure, turtle, and sun being among those recognized, while others are unidentifiable, and some must be either devoid of meaning or else ideographic. Some of the paintings somewhat resemble specimens of Shoshonean work, but the figures most common among the latter, deer, antelope, and other animals and hunting scenes, are conspicuous by their absence in this Salinan group. Some specimen figures from the cave are given on plate 37. They are taken from rough sketches by the writer.

Art in California reaches its greatest development in basketry. To such an extent are all the other arts neglected in its favor that the California Indian, generally considered a low type of mankind and lacking in many other phases of culture and art, is undoubtedly the world's best basket maker.

It was repeatedly claimed by the sole surviving Salinan basket maker that the aboriginal baskets of her people were undecorated, and that she had evolved and developed her own basket patterns. Every Californian Indian people of whom we have any knowledge decorated their baskets, and there is ample evidence that all of the stocks surrounding the Salinan used

[132] T. T. Waterman, *op. cit.*, 293; Sparkman, *op. cit.*, 225; Constance G. DuBois, The Religion of the Luiseño Indians, present series, VIII, 96, 1908.

decorative designs in their basketry. The Salinan designs themselves, as shown on the basketry collected, show individuality, though bearing some resemblance to both Yokuts and Miwok work. It is not impossible that Salinan basketry may have been plain, nor that all designs may have been forgotten and the present ones evolved from individual fancy under Yokuts influence, but either supposition is very improbable and cannot be considered on such slight grounds as the unverified statement of one individual.

Decorative figures on grass-coil basketry are done entirely in black, those on rod-foundation basketry in various dyed colors. With the few specimens at hand, little can be said with regard to the designs. They occur in vertical-zigzag, horizontal, diagonal, and individual arrangement. An odd number of groups—three or five—seems to be preferred. Some resemblances with the designs of other stocks may be noticed, but the individuality of the others is evident.[133]

Modern baskets are decorated with beads, ribbon, and yarn. Whether these are degenerate survivals of feathers and abalone shell pendants is problematical. Ribbon is entwined through the mesh of twined tule baskets. Yarn is caught between the stitches of coiled work. Beads are threaded on the stitches of coiled weave. They may be sewn in rows, draped in festoons, sewn over a continuous surface to make a filled-in design, or arranged in any other way that the fancy of the maker may devise.

MUSIC

Probably in reply to a specific question, information regarding music is given from most of the missions of Alta California in the "Mission Record." From San Gabriel to San Antonio flutes, whistles, and rattles are mentioned as being in use at most of the missions. To the south of San Gabriel the sole mention of music is to the effect that the Diegueño used no musical instrument except a "timbrel" (sonajilta). Of the Costanoans to the north, the use of rattles at San Carlos is the only mention. Fortunately, the report from San Antonio is particularly full

[133] As all the basket designs known to the writer are shown in the basket plates, no drawings of the designs have been made.

and complete. A transcription of the report as translated by Dr. Kroeber reads:[184] "From their native condition they still preserve a flute which is played like the dulce. It is entirely open from top to bottom, and is five palms in length. Others are not more than about three palms. It produces eight tones perfectly. They play various tunes, nearly all in one measure, most of them merry. These flutes have eleven [*sic*] stops; some more and some less. They have another musical instrument, which consists of a wooden bow to which a string of sinew is bound, producing a note. They use no other instruments."

In general this description accords well with our knowledge of Californian musical instruments, but in detail it cannot be accepted as accurate. The flutes described here were probably made under the more technical musical influence of the friars, as they ran a perfect octave. The aborigines did not understand the principle of the pipe and made their flutes with three or four stops at irregular intervals, producing a scale impure to modern musical feeling. Two musical wind instruments are remembered by the natives, both of them made of elder wood. One, probably the typical ubiquitous flute, is said to have had six stops, while the other had four and was blown into at one end. The latter description would seem to apply to some instrument like a flageolet. This instrument is not known in the typical California region, being used only by the Mohave and other peoples of the southeastern corner of the state. The Salinan instrument may be an indigenous product, peculiar to the stock, or the result of European influence. Nothing could be learned concerning the musical bow, except that the mouth supplied the resonance chamber.

While from a narrow point of view the padre was no doubt right in declaring that the natives of San Antonio had no musical instruments but the musical bow and flute, yet under the broader ethnological interpretation of the term music he was incorrect, in that he ignored the monotonous instruments such as the whistle, and the instruments of percussion, the rattle, rasp, and drum. The latter instrument is not reported from the Salinan region and may have been unknown to the natives.

[184] A. L. Kroeber, Mission Record, 19.

The rasp has never before been reported from California, but was undoubtedly in use by the Salinans. A specimen which good fortune and foresight have preserved (pl. 32, fig. 1) is an instrument of much more delicacy and beauty than the average Shoshonean creation. It is of a coniferous wood, about 50 centimeters in length and less than 2 centimeters in height and breadth, with 67 notches about 5 millimeters apart, showing a remarkably close resemblance to the rasps of the Tarahumare Indians of Northern Mexico, one of which is figured in Lumholtz's "Unknown Mexico."

Several varieties of rattles were in use. The common split-stick rattle made of elder-wood was the most common. The stick was split and wound with fibre twine at one end to prevent it from breaking apart. When in use the thumb was held at the wrapping and the rattle struck sharply on a tree or rock. Rattles were also made from the rattles of a rattlesnake, teṭ!aut!onE", as well as from cocoons, tc!oxo'k. The latter are used solely by shamans throughout the greater part of California, but among the Salinas were used by the singers at a dance. They were made by attaching several cocoons to a stick. Rattles of deer-hoofs were used by neither the Salinan nor the Yokuts groups. Whistles are claimed to have been made from an unidentified variety of soft-cored wood, and whistles of eagle or other bones are not remembered. The bone whistles are most typical of the state.

The "Mission Record" further continues with regard to the San Antonio Salinan: "In singing they raise and lower the voice to seconds, thirds, fourths, fifths, and octaves. They never sing in parts, except that when many sing together some go an octave higher than the rest. Of their songs most are merry, but some are somewhat 'mistes' in parts. In all these songs they do not make any statement (proposicion) but only use fluent words, naming birds, places of their country and so on."

These statements agree so well with our knowledge of most California music of which we have any accurate information that they may probably be accepted at their face value. As Dr. Kroeber writes in his note to the above report, songs in California often consist of disjointed words with no evident context,

though many other songs contain complete sentences. In regard to some singing an octave higher, Kroeber believes that women are referred to, but it is doubtful if the friar would have reported a fact so obvious, or would have couched it in such ambiguous terms. More probably the statement is to be taken dogmatically, possibly meaning a falsetto voice.

Nothing could be learned from the surviving natives with regard to singing, nor does any writer treat of the subject, except Taylor when he reports: "They had their feasts and dances in which they sung their songs of love and war, of hunting and of adoration." At least one of the old men of the stock, José Cruz, remembers some of the native songs which were used in myths, dances, and games, but it was unfortunately impossible to obtain a record of any of these.

SOCIAL LIFE

PERSONAL RELATIONS

Birth

"When their women were about to bring forth, they retired to a brush hut, by a spring of water, accompanied by a female friend. When the infant was born, the navel string was cut with a sharp stone, and it was immediately washed in the spring, and in two days the mothers were about their work." Taylor thus describes the conditions of birth among the San Antonio Indians, and little more could be learned from the surviving natives. A few restrictions, now forgotten, had to be observed before the birth of the child, and for a month thereafter the mother stayed in seclusion and the father took care not to become drunk or to commit any other sin or crime.

The above scanty notes are so general that they might be equally applicable to almost any group in California, if not in the greater part of America. The couvade in modified form, imposing restrictions on both the father and the mother, and both before and after the birth of the child, exists almost everywhere in the state. Minor details such as the kinds of labor and of food tabu to the respective parents, details of birth, of wash-

ing the infant, of post-natal seclusion, customs with regard to the disposal of the umbilical cord and the after-birth, sweating, and many other details, differentiate group from group, but the general usage and idea is uniform over the entire state. As these details have long since been forgotten by the present Salinan Indians, it can be merely stated that the general purpose and concept were the same as those in effect over the rest of the state and that minor details doubtless existed. A custom of steaming or sweating mother and child similar to that followed in the girls' puberty ceremonies at the southern missions is reported from both the Monterey Costanoan[135] and the San Luis Chumash[136] and therefore probably was in effect in the intervening Salinan region. Taylor gives the further information, "Their women were well treated; many of the mothers had ten children."

Nothing is known concerning the naming of children and, indeed, this custom plays little part in the Californian scheme of life. Taylor copied a few names from the old records of San Antonio Mission. These are: men—Stapocono; women—Motzucal, Tacchel, Chiguiy, Cizacolmen. The meanings of none are evident. Kroeber[137] reports from the Rumsien Costanoan that children were named under redwood trees and the same custom may have obtained among the Salinan.

Concerning the education given to children, Fages reports the following: "The education of the children consists of what the Indian teaches the males—to use the bow and arrow, and he makes them practice their lessons in the field, hunting squirrels, rabbits, mice and other small animals. The Indian woman takes the little girls with her, that they may learn to gather seeds, and may accustom themselves to carrying the basket. In this retinue are generally included some of the worthless creatures which they call 'joyas.'"[138]

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135 A. L. Kroeber, Mission Record, 22.

136 Fages, *op. cit.*

137 A. L. Kroeber, Mss.

138 Berdaches or women-men. *Cf.* p. 174.

Puberty

Ceremonies attending adolescence are of great importance throughout the state, and are practically universal therein. Ceremonies for the two sexes differ, but of the two, that for the girls is the more uniform, being universally held on the occasion of the first menstrual period, and in large measure merely accentuating the restrictions which obtained at each successive period. The ceremony is featured in the southernmost missions by the often described[139] custom of "roasting" the girls, and everywhere the possession of peculiar supernatural powers by the initiates and their defiling contact are believed in. Throughout the entire south-central region of the state, between the Maidu and the Luiseño, the existence of the practice is not definitely known, and indications point to its absence. Among the Chumash and Costanoan, investigation sufficient to warrant an expression of opinion has not been made. No mention of the custom is found in any of the accounts by early travellers, while details of much less interest are described. Powers[140] makes the significant assertion concerning the Miwok, "They observe no puberty dance, neither does any other tribe south of Chico" (Maidu). No girls' puberty ceremony is mentioned among Kroeber's notes on the Yokuts, though the boys' ceremony is described. The same condition obtains among the Salinan; the boys' ceremony is remembered, while the existence of a corresponding one for the girls was denied by the informants. Neither Taylor nor any other writer mentions the custom as among the Salinan group. These facts seem to point to the conclusion that in this south-central region the puberty ceremony for girls was absent. Between the custom as practiced by the Maidu[141] and by the Diegueño[142] and Luiseño,[143] few resemblances are noted.

The corresponding ceremony for the males is of wider distribution, but of less uniform character. In some form it is

[139] *Cf.* C. G. DuBois, *op. cit.*, 93; T. T. Waterman, *op. cit.*, 285; P. S. Sparkman, *op. cit.*, 224; A. L. Kroeber, Cahuilla, 66; etc.

[140] S. Powers, *op. cit.*, 355.

[141] R. B. Dixon, *op. cit.*, 232.

[142] T. T. Waterman, *op. cit.*, 285.

[143] C. G. DuBois, *op. cit.*, 93; P. S. Sparkman, *op. cit.*, 224.

practiced by almost every stock in the state except those of the northwestern culture area. To some degree it is uniformly an esoteric ceremony and often amounts to an initiation into a secret society. The society reaches its greatest development among the Maidu,[144] where the initiation may be long subsequent to puberty. Powers' above-quoted note may be accepted as authority that no adolescence ceremonies obtained among the Miwok, and the same may probably be true for the Costanoan. The southern type of boys' ceremony centers around the administration of a decoction of toloache[145] to the novitiates. The boys undergo various trials and tests and receive much instruction and the entire ceremony may properly be termed an initiation, though not in the same degree as the Maidu secret society initiation.

The influence of the toloache cult extended to the southern Yokuts and to the Salinan, though probably existing in a weakened form. It was not practiced among the northern Yokuts or Miwok, and among the southern Yokuts tribes was evidently a ceremony, neither a secret initiation nor a puberty rite.[146]

Among the Salinan the practice was a true puberty ceremony. Toloache was administered to the boys so that they might see clearly and be able to detect witchcraft. A dance was held and the boys threw sticks at a ring of wood. The most successful one was given a charm to make him a good hunter and a prosperous man. Nothing more could be learned concerning the practice.

Marriage

From the surviving Salinan natives nothing whatever could be ascertained concerning primitive marriage customs, but fortunately the Spanish missionaries and travellers took an unusual interest in this phase of society. From San Antonio it was reported in the Mission Record:[147] "They were as easily married as unmarried. For the former, nothing more was required than that the suitor should ask the bride from her parents, and at

144 R. B. Dixon, *op. cit.*, 322.

145 Jimson-weed, *Datura meteloides.*

146 A. L. Kroeber, Mss.

147 A. L. Kroeber, Mission Record, 18.

times it sufficed that she of herself should consent to join herself to the man, though more often verbal communication or agreement (trato) preceded. Many of them did not keep their wives. Some, when their wife was pregnant or had given birth, changed their residence without taking leave, and married another. Others were married with two, three, or even more women. It is certain that there are many who have come (to the mission) from the mountains already married, and who could serve as an example to the most religious men."

Little dispute can be found with the above note. Little or no ceremony or restriction accompanies marriage or divorce in California, mutual agreement of all parties being generally sufficient for either joining or separating. Each group had its own customs which, while simple, were strictly adhered to, but of those of the Salinans no record remains. With regard to polygyny, usage seems to vary. Fages says that both the Chumash and the Costanoan were limited to one wife with the exception of the chief or head-man, who might marry as many women as he pleased. Other travellers reported the same fact and it is possible that a like custom obtained among the Salinan, and that the "others" referred to in the above note were these heads of the rancherias.

From both the San Antonio Salinan and the Monterey Costanoan Fages reports a custom of considerable interest. A free translation would read: "It seems to me worth noting the customs which these gentiles follow in their marriages and the mutual pledges which they give for the security of so strict a union as is the case. Whenever a youth and maid appear in company, both marked by the scratches of finger-nails, they are thus known to have contracted matrimony on the preceding night. This alone is considered proof and they are publicly known as man and wife throughout the rancheria. But there is still more; the couple are not believed to be making a proper use of their marital privileges unless these are accompanied by the use of the finger-nails, repeating on such occasions the same cruel and barbarous expressions of love and connubial benevolence. This will seem an incredible thing, and perhaps without

precedent,—but there is no doubt that it is so, and I write it after careful investigation."

The usual restrictions between children and parents-in-law existed, communication between them being avoided except in cases of greatest necessity.

The women were well treated, according to Taylor.

The institution of berdaches or women-men is one of frequent occurrence among the Californian natives, but has never been satisfactorily explained. Among the coastal stocks south of San Francisco the custom flourished, and the individuals, termed "joyas" by the Spanish, were found at San Antonio. Those of the Santa Barbara Channel "lived like women, associated with them, wore the same dress, adorned themselves with beads, earrings, necklaces, and other feminine ornaments, and enjoyed great consideration among their companions."[148] In this latter region, the custom seems to have enjoyed its greatest development, there being two or three joyas to every village. To the north of San Luis Obispo, the rule was one to each rancheria.[149] Palou[150] describes the horror felt by the resident padre at San Antonio on discovering one of the class in the vicinity of the mission.

Sickness

Illness, at least when of a serious or prolonged character, is universally regarded, not only in California but over most of the uncivilized world, as having a personal cause, earthly or supernatural. It is caused by the use of magic and must be counteracted by the same means. To this end the services of the shaman are required. Minor disorders or indispositions are, however, often treated without the shaman, either by medicine formulae or by the use of herbs. In the latter case, the natural pharmaceutical properties of the herbs are generally not recognized, but they are believed to possess sympathetic magical powers sufficient in themselves to counteract the magic of the complaint. In some cases the herb or substance used possesses true curative elements, while in others the benefit can only be

148 Costansó, Narrative, 47 [137].
149 P. Fages, *op. cit.*
150 Francisco Palou, Life of Junipero Serra, 1787.

psychological. The use of the magic of the shaman is more properly considered under the religious topic of Shamanism, but the use of herbs and other substances may be treated under sickness.

For a general statement of the cure of disease we are again indebted to Dr. Henshaw. "Bleeding, scarification and the use of herbs and sweat-baths constituted the medicinal practices of the Salinans. They did not dance and sing around the sick as did the Yokuts. Anesmo was aware that the latter method was in use among other tribes." This assertion is partially corroborated by Kroeber's[151] information from the Tachi Yokuts that curative herbs were favored by them and by the northern tribes, while singing and shamanistic practices were preferred in the south.

White willow was considered to be a cure for fever. The method of its administration is not known. Curative herbs were generally chewed by the shaman or some other person and spread on a cut or wound. Red ants were allowed to bite the part of the body affected when in pain. The same insects play a prominent part in the boys' puberty ceremonies of the southernmost missions.[152] They may be considered to possess some magical property, or their use may be due to a widespread belief in the virtue of "fighting fire with fire" shown even among civilized races, as in the belief of some persons in the efficacy of vinegar and salt in the relief of burns, etc.

The narcotic principle of the toloache was used in ceremonies, but it is not certain whether it was utilized as a medicine. Among all of the surrounding peoples, however, it was used as an opiate in event of broken bones and serious diseases, and probably filled the same office among the Salinan. Mescal was used only as a food. Tobacco plays an important part in California ceremonially, religiously, medically, and socially. Tobacco smoking was an important factor in the ceremonies and the religious practices of southern California.[153] When used as a medicine it was eaten or chewed. A native species of *Nicotina* was used, and generally mixed with lime before being eaten,

[151] A. L. Kroeber, Mss.
[152] C. G. DuBois, *op. cit.*, 91.
[153] T. T. Waterman, *op. cit.*, 335; C. G. DuBois, *op. cit.*

throughout much of the southern part of the state.[154] That the same plan was followed among the Salinan is shown by a quotation from Taylor: "They burned the aulone[155] shells for the lime to mix with their tobacco, which they swallowed to make them drunk." At dances the leaves were chewed for the semi-intoxicating effect they produced. As a medicine it might be taken at any time but was preferred on retiring for the night. The leaves were then mashed and steeped in water and the decoction drunk. Nausea and intoxication ensued, followed by a deep sleep and a good appetite in the morning. It was considered particularly good for pains in the stomach, the narcotic principle alleviating the pain. Its use seems to have been very frequent and general and its effect claimed to be very beneficial. Magical properties were assigned to it and it held a place of considerable importance in the estimation of the aborigines.

Death

It has been generally accepted that cremation was typical of the greater part of California, but sufficient cause for this belief is not evident. There are more stocks which practice burial exclusively than those practicing cremation exclusively, and in the other cases the custom varies not only from group to group but even among individuals. Among the stocks where burial alone is used are: those of the southwestern culture area[156]—the Chumash and certain Shoshonean groups; the stocks of the northwestern culture area[157]—the Hupa, Yurok, and Karok; the Wiyot,[158] the Shasta,[159] and the Yuki.[160] The Miwok[161] as a rule preferred cremation, but the mountaineer groups buried; burial

[154] Costanoan, P. Fages, etc.; Yokuts, A. L. Kroeber, Mss; Chumash, P. Fages, etc.; Shoshonean, C. G. DuBois, *op. cit.*, 94.

[155] i.e., abalone, *Haliotis.*

[156] A. L. Kroeber, Types of Indian Culture in California, present series, II, 99, 1904.

[157] *Ibid.*, 87.

[158] S. Powers, *op. cit.*, 99.

[159] Those who died at a distance from home were occasionally cremated. R. B. Dixon, "The Shasta," Bull. Am. Mus. Nat. Hist., XVII, 465, 1907.

[160] S. Powers, *op. cit.*, 129.

[161] *Ibid.*, 356.

prevailed among the Maidu,[162] some of the Yokuts tribes[163] and the Costanoan.[164] The Yuman and most of the Shoshonean groups burned the dead,[165] but of the typically Californian stocks, the Pomo[166] alone, with possibly their Wintun neighbors, are known to have practiced cremation exclusively. Burial thus seems to have been more common than cremation even in the central Californian area. Cremation, nevertheless, was generally considered the greater honor and given to the few. Thus at Santa Cruz (Costanoan) "they burned the bodies of those killed in war, but interred at sundown those who died from natural causes."[167] The Tachi Yokuts buried those considered of not much consequence, burning the rest.[168]

At San Antonio the most distinguished dead were cremated, while persons of no particular importance were merely buried, thus following the usual plan in this region. At San Miguel all are said to have been buried. The latter may be an error, or it may be due to the influence of the neighboring Chumash.

On the death of a San Antonio native all his possessions, including his house, were at once burnt and the village was abandoned for a short time. If cremated, the ashes were collected and buried. His name was never spoken[169] and all his relatives endeavored to forget him. No ceremony accompanied the burning or the burial and no annual tribal mourning ceremony such as is common among Californian Indian groups is remembered.

Taylor says of the Antoniño: "They burnt their dead with songs and great wailings." The "Mission Record"[170] reads: "There were some few who set out food for the dead."

The dead of the San Miguel group were wrapped in skins

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162 R. B. Dixon, Maidu, 241.

163 A. L. Kroeber, Mss.

164 P. Fages, etc.

165 A. L. Kroeber, Types of Indian Culture in California, 100.

166 S. Powers, *op. cit.*, 152.

167 A. S. Taylor, *op. cit.*, April 5, 1860.

168 A. L. Kroeber, Mss.

169 That the mention of the dead was as serious an offence among the Salinans as with other Californian Indians is well illustrated by the incident that when asked jocularly for a Salinan word of profanity, Pedro Encinales gave ca'mteL and translated it "go to the devil" (ve al diablo). Sitjar writes chavmtel—"cadaver."

170 A. L. Kroeber, Mission Record, 19.

and a ceremonial burning of personal possessions was held by the rancheria in somewhat the following manner. The bow and arrows of the deceased were placed on a high pole in the village and around this the inhabitants congregated, the relatives on one side and the other inhabitants on the other side. Then the former brought out all the personal property of the deceased and piled it at the root of the pole. As the objects were thrown down it was the privilege of any villager to seize any article he craved and endeavor to escape with it. If he could elude the pursuit of the relatives and make the circuit of the village three [*sic*] times, he was entitled to retain the article. If caught, the object was returned to the pile with the other possessions and burnt. After ten days of mourning the house of the deceased was burnt and another one built and occupied by the family. After a reasonable length of time it was necessary for the male relatives to find a husband for the widow.

The above description, obtained by Dr. Henshaw, seems to imply that the burning ceremony was held at the time of the burial, and this agrees well with the writer's information that the entire possessions of the deceased were immediately burnt. A mourning ceremony held by the entire "tribe" about a year afterwards was also reported. Nothing was burnt at this ceremony. The Tachi Yokuts, whom the Salinans most nearly resemble in point of culture, held a similar ceremony every summer at which no property was burnt. It lasted several days and was given by a man who had lost a near relative. Property was, however, given away to visitors.[171] A mourning ceremony of this type is held over practically all of California and extends even to the Mohave and Paiute. The principal feature of it is always the destruction of property by burning. Generally the property is made for the occasion, which commonly occurs once a year. The privilege of seizing coveted articles is also of widespread occurrence. Most of the other details of the ceremony vary. It has not before been noted as following immediately after the death, and it is not impossible that the information may be faulty on this point.

[171] A. L. Kroeber, Mss.

The hair was cut as a sign of mourning, following the custom practically universal in the state, but nothing else concerning mourning customs is known at the present time.

FAMILY RELATIONS

Terms of Relationship

The native Salinan terms of relationship have long since been replaced by those of European origin and only a bare recollection of the former remains. Middle-aged Indians are unable to identify any of the terms and their elders generally correlate them with terms of the different Spanish system. A list of terms for each dialect was collected by Dr. Henshaw in 1884 and other lists were secured by the writer, and an effort was made to fit them into a definite system. The terms will, however, be discussed under their respective classifications.

Relatives in the direct line.—Two terms for father and two for mother exist in each dialect. Beyond the obvious fact that one term is commonly used with the possessive pronoun of the first person only, and the other with the second and third persons, nothing could be learned of the distinction between them. The roots of the words are—Antoniño, father tēle", ekˁ, mother apai" ēpx; Migueliño, father tāta′, pexk, mother apā′i, e′pex. A few of the Antoniño declensions are given below. Those in the second and last columns are possible but not in general use

My father	tēle"	(ekˁ)	My mother	apai"	(ē′pax)
Your father	ṭum'-e′kˁ	(ṭum-tele")	Your mother	tˁme′-epax	(ṭum-apai")
His father	e′kˁ-o	(ṭe-tele′-o)	His mother	ē′pˁx-o	(apai-o")

By the San Miguel division no distinction is made for the sex of children, the term pase′l being used for both boys and girls. The sexes are distinguished by the San Antonio moiety by the terms "as," son, and "ti′co," daughter. The same distinction is noted in the use of the Antoniño words "stexa"," boy, and "stau," girl, as opposed to the Migueliño "sapˁxā′," child. The term "as," son, may possibly be used exclusively by men, as Henshaw's informant, a man, gave the term "ti′co' " as the woman's word for both son and daughter. There are other traces of the use of terms exclusively by one sex, but the evidence

is not convincing. The words "as" and "pase'L" are etymologically identical, displaying regular dialetic changes. The San Antonio word "as" also means "name" and there is probably a connection between the two.

The terms for the relations of grandparents and grandchildren, while similar in each dialect and readily distinguishable, show such variations in meaning in all of the lists secured that it was necessary to reclassify many of the terms, following the list which is most like the typical Californian system. This gives:

	Father's parents	*Mother's parents*
San Antonio	xāla"	nēne"
San Miguel	ama"	nenE"

The term xāla" was given by all three male informants of either dialect as meaning "grandfather" of either parentage. It was not given by the Migueliño woman whose list is taken as most typical. It is furthermore contradicted by Sitjar's[172] definition of ajaláuô, "abuelo por parte de madre" (maternal grandfather). It may be an exclusively male term for men of either division, and its proper meaning is altogether very doubtful. ama" is a term given by the Migueliño informants only. It undoubtedly means paternal grandparent, and is probably a San Miguel word, though given by Sitjar[173] from San Antonio with its proper meaning "abuelo por parte de padre." The term nēne" or nenE" is used by both dialects and sexes equally and probably denotes maternal grandparents, though like the rest, it is contradicted in some of the lists secured. Arroyo de la Cuesta[174] translates the term as "grandfather." Whether there were more terms which have since been lost, or whether the known terms should be differently arranged, the material is insufficient to prove.

The relations of grandchildren show a reciprocity with the grandparents. The probable system for them is:

	Son's children	*Daughter's children*
San Antonio	ta'iyaL	tcaiya"
San Miguel	tema'k	tena'iyaL

[172] J. G. Shea, *op. cit.*, 9.
[173] *Ibid.*
[174] Arroyo de la Cuesta, Mss.

ta'iyaL is generally given as grandson, sometimes as grandchild; tcaiya", when given at all, is translated granddaughter. tema'k is the plain reciprocal of ama" and was properly translated as son's child. It was not given by the Migueliño man and may possibly be an exclusively woman's term. tena'iyaL was given by both Migueliño informants, but translated by the man as granddaughter. Great-grandchild is mâce'l according to Henshaw's San Antonio informant, and great-great-grandchild is setilka'i, but these distant relationships are naturally open to considerable doubt.

The collateral relations are fortunately full and probably correct. Distinctions for relative age and sex are made and reciprocal relations observed.

	Elder brother	*Elder sister*	*Younger brother*	*Younger sister*
San Antonio	kāi	pe'	tōs	t'oN
San Miguel	kāiyE"	pepe"	tos	t!oN

For the relations of uncle and aunt it would be expected to find the above table doubled for the medium of the father and mother. Appearances seem to indicate that such was the case, though the system may have been irregular and lacking in some of the relations. Here as elsewhere the terms as received from different informants did not agree and are given merely as probable.

	Father's elder brother	*Father's elder sister*	*Father's younger brother*	*Father's younger sister*
San Antonio	——	pas	ta'	——
San Miguel	La'pac	——	Ek!a'	apa'c

	Mother's elder brother	*Mother's elder sister*	*Mother's younger brother*	*Mother's younger sister*
San Antonio	sāk	——	——	——
San Miguel	asa'xk	asa'xk	mone"	mone"

The reciprocal nephew and niece relations of these are clear. Here also some arbitrary classification had to be done. Probably no more than four terms in either dialect existed here. There is no trace of more, and they would have been a too unwieldy system.

	Child of elder brother	*Child of elder sister*	*Child of younger brother*	*Child of younger sister*
San Antonio	tāk	——	tE'pacek	e'sxa
San Miguel	tE'nak	——	——	tEmasa'xE

The eldest uncle is said to have been termed sāk by his nephews among the Antoniño and the children of the eldest brother were known as tA'.

Terms for relatives by marriage are:

	Husband	*Wife*	*Son-in-law*	*Daughter-in-law*	*Elder brother's wife*
San Antonio	la	se	te'leM	tuke'wi	timta'L
San Miguel	laN	seN	te'le'M	tE'mai'	——

Irrespective of dialetic differences, there are about thirty-four terms, as many as are found in the most complete systems in America. This would seem to indicate that there has not been much if any loss of terms, though the definitions of the latter have become confused through European influence.

Analyzing the terms by categories, the tendencies typical to California are found to exist.[175] All of the terms recognize the respective generations of the individuals, their relationship by blood or marriage, and whether in the lineal or collateral line. The sex of the relative is considered in about 66 per cent of the cases, the San Antonio natives adhering to this distinction more uniformly than the San Miguel. The sex of the connecting relative is considered in about 50 per cent of the terms, and generally where such a distinction is possible. The sex of the individual appears to be of importance in certain relations, though this is not certain. About 25 per cent of the terms may display this phenomenon. The relative age of the parties concerned in their generation is of more importance than is usual in California, nearly 40 per cent of the words being thus differentiated. The condition of the connecting relative is not considered, but there may be another class, that of grammatical person, as is displayed in the twin words for father and for mother according to whether an affixed pronoun of the first, or of the second or third person, is used.

Of the actual family life, the organization of the family, and such other matters as are properly considered under the topic of family relations, absolutely no data remain.

[175] A. L. Kroeber, "Classificatory Systems of Relationship," Journ. Roy. Anth. Inst., XXXIX, 78, 1909.

SOCIAL RELATIONS

Government

The "chief" was selected because of his bravery. The older men of the rancheria would select one of their number and submit his appointment to the other inhabitants of the village. Nothing more is remembered by the present Salinan Indians concerning aboriginal government.

The relative power of the American Indian chief has been a fruitful source of polemic discussion. In California as in Mexico and elsewhere, early observers, both Spanish and English, biased by their European prejudices, found everywhere emperors, kings, and despotic chiefs. The essential democracy of Indian life, and the relation of poverty and democracy as opposed to wealth and plutocracy or autocracy, are both now recognized. Wealth reaches its greatest development on the Pacific coast and particularly in the Alaska-British Columbia area. Here the distinction between classes is well marked. The Santa Barbara Chumash seem to have had a culture in which wealth played a more important part than usual, as should be expected from the greater affluence of the people, and the reports of Costansó, Fages, and other early observers to the effect that chieftainship was hereditary, generally in the male line, and despotic, may be taken as fairly accurate. Over the greater part of California, chieftainship appears to be less autocratic and more an office of advisory character, though the greater stability of population and the greater importance of wealth which permeates the entire coast region causes a less democratic form of society in California than on the plains or in the eastern woodlands. There is generally a chief to each village in California, the office being either elective or normally hereditary, and the chief is ordinarily accorded certain special privileges, though his rule is limited by a council of the older men and by public opinion.

Fages merely reports of Salinan government that the people were governed similarly to the natives of the "Rio Grande de

San Francisco."[176] Concerning the government of these a full and circumstantial account is given. "Besides the chiefs of the rancherias they have in each district another chief who commands four or five settlements, the first named being his subordinates. Each one in his settlements collects the tribute every day [*sic*] which the Indians pay him of their seeds and fruits and game and fish. If anyone commits a theft, the wronged one appeals to the chief and he gathers together an assembly and deliberates with all the Indians concerning the punishment and the atonement which is becoming. If the theft is as usual, something to eat or some useful article, the entire penalty for the theft amounts to the restoration of the stolen object or its equivalent, but if the robbery is of a maiden, the abductor is forced to marry her, the same penalty being enforced in a case of rape, even when unaccompanied by abduction. The subordinate chief is obliged to inform his superior of any news or incident whatever, sending to him any offenders with the charges against them. During the accusation the culprit, man or woman, remains standing with the hair dishevelled and falling over the face. All that the subordinate chief collects from the daily contributions of the villages he submits to the chief commander of the district who, every eight or fifteen days, goes out to visit his district, and the settlements receive him with ceremony. They make him presents of the best and most precious things they have and appoint a few Indians to go in his company as far as the place where he resides."

This account reflects a far greater development of the power of chieftainship than is usual in California and, had it come from any other part of the state, it would, despite the evident carefulness of observation, be discredited. The report in the "Mission Record" from San Luis Obispo,[177] the nearest Chumashan neighbors of the Salinan, shows a similar tendency,

[176] Fages wrote his account before many of the geographical points of California had been finally named, 1775. As he describes the natives in order up the coast from San Diego, and speaks of the "Indians of the plain and Rio Grande de San Francisco and environs" next after those of Monterey, it is most probable that he refers to the western Costanoan, but the river referred to may be the San Joaquin and the natives the Miwok or Yokuts. The description would be very applicable to the latter if we may believe Powers' reports.

[177] A. L. Kroeber, Mission Record, 17.

attributing great importance to the chief, even to the extent that the natives are represented as taking up arms to avenge a slight upon his dignity. The probability of the truth of this report is discounted in a note by Kroeber.[178] The Yokuts tribes are said by Powers[179] to have had an organization much similar to this reported by Fages, being in fact, the only stock in the state, so far as is known, to merit the designation of tribe. Here, due possibly to the necessity of opposing the advances of the Shoshonean tribes, the villages were organized on a more or less military basis into tribes, with a tribal chief to whom the "capitans" of the rancherias were responsible, and to whom they made regular reports.

The power and importance of the chief is thus seen to be greater among the San Luis Obispo Chumash, the San Antonio Salinan, and certain of the Costanoan groups than is usual, and the general social organization, particularly among the Salinan, seems to have followed the Yokuts plan of tribal solidarity. Whether or not the Chumashan custom prevailed of allowing the chief the privilege of polygyny among other privileges is not known. Taylor says that the villages were named from the chiefs, but it is probable that it was not so until the Spanish began calling the villages, "rancheria of chief ——."

Games

Amusements of various kinds occupied much of the time of the Californian native. The rancherias were permanent; wars were few, and acorns and game plentiful and near at hand. Most of the amusements were games of chance in which gambling was prominent, but games of skill, strength, and endurance were also enjoyed.

The ubiquitous bone game, peū'ʿ, common to practically all of western America,[180] was very popular and often played by the Salinan. The objects were made of either an eagle's bone or of three shells joined, and one of them was plain, the other with a fibre-string wound around the middle of it. The players

[178] *Ibid.*

[179] S. Powers, *op. cit.*, 370.

[180] Stewart Culin, Games of the North American Indians, Ann. Rep. Bur. Am. Ethn., XXIV, 267–327, 1907.

formed two "sides" but the actual playing was limited to two men on either side. One pair of bones only was used, each of the players hiding one bone, while the opposite side endeavored to guess the location of the plain one. Both men on the inactive side guessed at each occasion and paid for their incorrect guesses with counters. Ten or twelve of these counters were used and much betting done by the respective sides. If both players guessed incorrectly two counters were paid to the opposing side; if one guess was correct, they paid one counter. It was said that the sides alternated in hiding the bones, but the general method of changing sides only when both men had been guessed correctly was probably the accepted custom. When a man had a long run of poor luck he resigned his place to another member of his side. Women likewise sometimes took their husbands' places in the game when the latter were unlucky. They also often played the game among themselves. The game was played by the Costanoan[181] in a manner nearly identical to this.

The game was probably attended with as much excitement as is usual elsewhere. Inter-rancheria games and games played with ceremonial significance are not reported, but may have been played. A "head-man," possibly the chief of the village, built a ceremonial fire and kept it going and kept the tally of the counters. Songs were sung by the players and possibly by all the participants and spectators during the progress of the game. Special gambling songs existed for these occasions and are still remembered by some of the older Indians. Unfortunately it was impossible to obtain a record of any of them.

The women had a game, tecoinE', played with ten bones which they threw with a basket. This is probably the common women's dice game played with walnut-kernels, acorns, or split and burned sticks, over much of western America.[182] The relative number of obverse and reverse sides showing decides the count. It is the most common gambling game for women.

The games wherein the interest is primarily in the skill, and where gambling is a secondary or negligible element, are not as

181 A. L. Kroeber, Mss.
182 S. Culin, *op. cit.*, 144, etc.
182a *Ibid.*, 420.
182b *Ibid.*, 527.

prominent among the sedentary people of California as among the more active and virile Indians to the east. The hoop-and-pole game[182a] was played at the boys' puberty ceremonies by the novitiates with a semi-ceremonial significance. According to Henshaw, me'nakwa'kwa was a game played by two persons who locked their middle fingers and pulled to see which one was the stronger. The ring and pin game[182b] was not remembered by any of the informants nor was the football race, but as both of the latter were very widespread in California they probably were known in early days.

Dances

Practically every occasion of social gathering in California is attended by some variety of dance. Not that the desire for dancing is any less widespread than the human race itself, but the custom appears to be particularly well developed in this section of North America. Dancing supplies much of the shaman's mysterious powers, aids him in employing and in overcoming magic, in thwarting death and in communing with spirits. It often is in itself a power in religion, and it supplies much of the social amusement of the people. Naturally all dances of a religious significance were strictly forbidden by the Spanish missionaries and have largely been forgotten.

Most of the Salinan dances were performed by individuals, the other spectators supplying the music and singing. Individual dances seem to be most common in the southern part of the state. The music was supplied by rattles of split sticks, cocoons, or rattlesnake rattles, and by rasps and whistles. Cocoon rattles are said to have been used solely by singers at a dance. Rattlesnake rattles were used by all participants. The flute and possibly other instruments may have been used at dances.

The dance called kuksu'i seems to have been the most popular one in this region and is performed by many of the other Californian peoples, having been observed among the Pomo, Wintun, Maidu, and either the Costanoan or Miwok.[183]

[183] A. L. Kroeber, The Religion of the Indians of California, present series, IV, 338, 1907; Indian Myths of South Central California, present series, IV, 189, 1907. Also pages 129 and 188, notes 81, 112, 207.

Two dancers impersonate Kuksui and his wife, who are now generally identified with Satan and his consort. The singers sat in a row and sang and clapped their hands, no rattles or other musical instruments being used. In front of the row the two dancers performed, naked except for a breech-clout and painted red, white, and yellow. A headdress of feathers was worn, reaching to the shoulders and with eagle feathers extending from the forehead forward. This was probably the same as the enormous "big-head" headdress worn in the same dance by the Pomo and Maidu.[184]

Various animal dances were performed, the Owl, Deer, Coyote, and Bear dances being known. These were individual dances, the performers imitating the action and the cry of the animal. Each of these dances had its own songs, some of which are still remembered. When it was suggested to the informant, José Cruz, that the purpose of the dances may have been to increase the number of animals, he readily agreed. Dr. Henshaw noted the words used in several of the dances with their meanings.

The Bear dance was performed in August if the prospects of a plentiful crop of acorns were good.

hau'—wa—ya he'—ne—ye
hau'—wa—ya he'—ne—ye
he'—ne—ye
hau'—wa—ya he'—ne—ye
("There's plenty, we are glad")
ta—we'—ye—he'
ta—we'—ye—he'
("We're chewing acorns")
hū'—hū'—hū'

The Owl dance was a favorite with the Migueliños in the month of April.

pa'—na—ta pa'—na—ta co'—ko—nai
pa'—na—ta pa'—na—ta co'—ko—nai
("Dance, dance, owl")
tro'—ki—kup'—ic—tun tro'—ki—kup'—ic—tun
tro'—ki—kup'—ic—tun tro'—ki—kup'—ic—tun
("In the cave, In the cave")
hū'—hū'—hū'
hū'—hū'—hū'

184 A. L. Kroeber, Religion California Indians, 337.

Dancing in groups was also enjoyed on occasions. Both men and women participated. The latter evidently did not engage in dances among the Chumash to the south, as Fages particularly noted that it was near the foot of the Santa Lucia Mountains near San Luis that the first dances in which women participated were held, and consequently they named the village "pueblo de las bailarinas."[185] The dance among the Salinans consisted of a row of men and a row of women alternately dancing, and then resting. The men's part was termed hiwē'i, the women's part lolē'i. Eight or ten singers with rattles supplied the music. Similar dances have been noted among the Pomo, Wintun, Maidu and Miwok[186] and may have been in vogue among other stocks. They are not reported from the Yokuts tribes, the Salinans in this respect showing affiliations with the north-central Californian area. Among the Maidu[187] a dance known as the he'si is performed by the men alone and another distinct dance, known as the lo'li, is restricted to women. It may be with these that the Salinan dances are related.

One occasion when festivities and dances were indulged in was on the completion of a communal dwelling-house. Then a large sweathouse was also built and all the inhabitants of the neighborhood gathered there for festivities, songs, and dances. The day following the festivities in the sweathouse, the dwelling-house was occupied, but the sweathouse was permanently kept for reunions, dances, and other ceremonies which would be held therein.

Trade

Considerable intercourse existed between the Salinan and the Yokuts natives and commodities were doubtless exchanged. Visits were frequently made by either stock to the country of the other and an "entente cordiale" evidently existed. The Salinans probably manufactured shell beads which could not be obtained by the Yokuts except by trade. What other products were bartered can only be surmised. The extent of trade with

[185] Costansó, Diary, 53, notes the same incident, but locates it only a short distance north of Point Concepcion, 34° 33'.

[186] A. L. Kroeber, Religion California Indians, 338.

[187] R. B. Dixon, Maidu, 288 ff.

the Chumash, Esselen, and Costanoan is not known, but was probably not great. Univalve columella ornaments were probably imported from the Chumash, as well as steatite vessels, wooden dishes, and other articles of peculiarly Chumashan manufacturer. Other objects such as the stone maul (*cf.* p. 140) give indications of trade from even greater distances. The general impression given one, however, is that there was a strict line of demarcation between the Salinan and the Chumash and Costanoan, and that little trade and considerable hostility existed between the several groups.

Warfare

The natives of the Santa Lucia Mountains were eternally at war with each other, said Fages, contrasting them with the inhabitants of the shores of Monterey Bay, who were smaller and more cowardly, and with the natives of the valley of the "San Francisco River," who were the least savage of all. Other observers also note the greater virility and courage of the inhabitants of the coast mountains as opposed to the meekness of the fishing people on the shores.[188] "They give no quarter to strangers," Fages continues, "and those in the neighborhood of Monterey practice the custom of having the parents of the slayer eat the flesh of his victim." This refers to the Costanoan or Esselen. "They are in continual war with their neighbors and before starting out on any warlike expedition both men and women meet for conference in the house of the chief, from whence the men leave for the conflict with their instructions. The war consists in setting fire to some settlement of the opponents, sacking it and bringing back some women, married or single." Taylor says of them: "In war they took scalps from their enemies, to use in their war dance; they also had the singular custom of cutting off the heads and arms of the enemy's braves, so as to inspire them with valor."

The above notes, which compose the entirety of what can be learned concerning Salinan warfare, give a probably correct idea of the method of warfare, but an exaggerated one of its importance. Californian warfare seldom rose to any considerable

[188] Duflot de Mofras, *op. cit.*

consequence and its part in the native scheme of life is insignificant when compared with the all-absorbing role played by war on the plains and in the eastern woods. The Yana[189] and the Mono[190] alone are credited with a warlike nature, and the only serious opposition to the seizure of their lands by the whites was afforded by the Modoc, who are rather an Oregon people. A lack of any feeling of tribal unity in California, except possibly among some of the southeastern stocks, precluded a development of any warlike propensities, and most of the so-called "wars" in the state were hostilities of a few days or weeks' duration between two or more rancherias and, while attended with some cruelty, were generally settled quickly with the shedding of very little blood. Such was probably the state of warfare among the Salinan villages. More or less hostility, open or veiled, probably existed among them continually and raids between rancherias were to be expected at any time, accompanied by torture of any unfortunate prisoners. The Indians who were afterwards gathered into Soledad Mission, the southernmost Costanoan, are said to have been the greatest extra-tribal enemies of the Salinan natives and the most northerly Chumash doubtless also shared Salinan enmity. As mountaineers, the Salinans probably were more warlike than the coast and valley people surrounding them, but proof of this supposition is entirely lacking.

RELIGIOUS LIFE

The care of the dead and the belief in disembodied spirits of the deceased which prevails not only all through California but throughout practically the entire world is significant of a universal belief in immortality. In addition to these "ghosts" there are also other unembodied spirits of ignoble or lofty conception, and persons and even inanimate objects endowed with superhuman powers. In California both the higher conception of omnipotent gods and the lower belief in powerful fetiches and idols are practically lacking. The belief in the power of the

189 S. Powers, *op. cit.*, 275.

190 *Ibid.*, 397.

shaman or "medicine-man" is as strongly, if not more strongly developed in this region than is usual. The all-pervading influence of religion in primitive life is such that it must enter into the discussion of practically every phase of life, economic, aesthetic, social, or mythological.

RELIGIOUS CONCEPTIONS

For data on Salinan religion the principal source must be the writings of early observers, and they, unfortunately, were generally biased by their accustomed point of view, and observed native customs through prejudiced eyes. Taylor reports that, "The Indians of San Antonio believed in a Superior Being; they believed he made the sun, moon, stars, earth, men and other visible things. One of their modes of adoration was, when smoking tobacco (indigenous), they raised their heads to heaven and blew the smoke upwards." This statement by Taylor concerning Salinan deity is open to very great doubt, as the ideas expressed are foreign to any known religious belief of California, if not of North America, unless the "Superior Being" is recognized as a personified mythological animal. Fages, whose observations have the appearance of reliability, displaying intellectual power far above most of the chroniclers of his time, says the following on Salinan religion. "Idolatry is greater and more open here than in the former places,[191] it being well understood that this report includes twelve leagues in the vicinity of the mission of San Antonio. I say that it is greater on account of the difference and plurality of the gods which they adore; these are the sun, the water, acorns, certain kinds of seeds, and, not content with these, they have raised certain old Indians of their village to the rank of gods, in whom they appear to have placed great confidence; offering them adoration with ceremony and various other gifts, they ask them that it may rain, that the sun may shine, that the crops may yield, etc."

The Chumashan Indians for twelve leagues radius from San Luis Obispo, and the Costanoan and Esselen for twenty leagues around Monterey are also said, both by Fages and by other

[191] i.e., than to the south, among the Chumash, Shoshonean, and Yuman.

writers, to have been sun worshippers, who greeted the sun with demonstrations and offerings. This testimony can hardly be ignored, and the offering of presents to the sun, if substantiated, would indicate a true sun worship. But water, acorns, and seeds were probably never worshipped as such, nor can the Salinans be charged with idolatry on that account. Most of the early writers, such as Palou, take a broader view and properly state that idolatry did not exist in the mission region.[192]

A belief in a previous as well as a future life appears to have been part of the Salinan religious creed. Fages' statement to the effect that the Monterey Costanoan believed in transmigration of souls—that the dead went to an island in the ocean and were later born again, would probably be equally applicable to the Salinan. The belief in a western island of the dead is found in all the neighboring region; Dr. Kroeber[193] has found it among the Yokuts, and Dr. Henshaw obtained a short myth proving it to be the belief of the Salinan (*cf.* p. 195).

SHAMANISM

The California shaman owes his importance to the peculiar personal, magical relation which he has attained with supernatural beings, objects, and forces. This power is attained in different ways among different groups of natives. The exact method of obtaining this power among the Salinan Indians is not known but probably was the same, or a similar method to that followed in obtaining an amulet or charm. Shamans, tA'kE, or "witches," as they are now termed by the natives who still remember them, are said to have been very numerous at the missions and many tales of their powers and deeds are told. Medicine women were unknown. A shaman's stick with powerful magical properties was used by him in his incantations, as well as charms and other material objects. His pipe was similar in size and shape to those used by the other natives, but it was decorated with paint, and doubtless most of his other possessions were differentiated from those of ordinary persons. He possessed no bull-roarer, nor was he the sole possessor of cocoon rattles,

[192] Francisco Palou in Forbes' History of California, 194.
[193] A. L. Kroeber, Mss.

according to the writer's informants.

The place and office of the shaman was generally misunderstood by the Spanish. The missionaries generally believed him to be in league with the father of all evil for the principal purpose of opposing their teachings, and even the lay mind accredited him with malice. Fages speaks of the medicine man as the god created by the natives themselves. His remarks on the Salinan shamans have already been quoted on page 182.

The office of the shaman centers principally about the cure of disease. With the Salinan natives as elsewhere, the cause of disease, or at least disease of any consequence, is always believed to be personal malice by means of witchery, which can be counteracted by the shaman alone. Thus Palou,[194] speaking of the missions in general, says, "Sickness is always believed to be due to magic." When called to treat a patient, the doctor made a cut, generally on the arm or at the point of pain, with a flint. He sucked at the cut and drew out small sticks or stones or other small objects which were supposed to be the cause of the complaint. In the case of wounds he chewed an herb and spit it on the hurt. Dancing and singing are said to have been also practiced as means of cure, but according to Henshaw's informant, the San Miguel Indians did not dance and sing around the sick, though such was known to be the custom among other stocks. According to information secured by Kroeber[195] from the Tachi Yokuts, it appears that the northern Yokuts preferred the use of herbs and the practice of sucking, while the southern tribes placed more dependence on the dances and songs of the shaman. The Salinan would seem to follow the northern preference, and it is probable that the Chumash preferred the practice of the southern Yokuts and southern missions.

The shaman appears to have been very much feared and no violence was attempted against him even in event of repeated losses of patients.

The customary California belief in special grizzly-bear doctors and in the power of the shaman to control the fall of rain seems to have obtained among the Salinan natives.

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194 Francisco Palou in Forbes' History, 195.

195 A. L. Kroeber, Mss.

CHARMS

The belief in the possession of supernatural power by material objects is universal in California, as well as common over the entire world. Charms, amulets, and other helpful objects are possessed by most of the aborigines as well as by the shamans. These are probably the "idols" referred to whenever idolatry is mentioned in California, though the majority of the early writers recognize this distinction and agree with Palou[196] in his statement, "Idolatry is found in none of the missions, only superstitions and vain observances and pretensions to supernatural power."

The most important charm was the stick of the shaman. This is said to have been made of the feathers of eagles, owls, and crows fastened on a stick. This charm was carried by the shaman in dances and used in his conjuries. Other charms possessed by the common people were for protection from bears and other dangers.

Dr. Henshaw collected the following notes on San Miguel charms and amulets:

"To obtain an amulet or charm, a San Miguel Indian goes into the sweathouse and then retires to an unfrequented spot and fasts for four days. During his sleep he dreams of the thing which is to be his amulet, and on awakening, he finds it in his hand. The nature of the object he keeps secret and never shows it to anyone. The value of the amulets lies in the safety which they insure the possessor from harm of all kinds and from disease. When held in the hand and pushed out towards a thunder cloud, the thunder will stop. Moistened with saliva and rubbed over the seat of pain a cure is effected. An amulet will render its possessor invisible when desired, as when a prisoner, and by its aid the captive may walk away unperceived in the midst of his enemies."

USE OF TOBACCO

Throughout California a semi-magical power is ascribed to tobacco. This is particularly well developed in the southwestern region. Among the coast peoples of the Yuman, Shoshonean,

[196] F. Palou in Forbes' History, 194.

and Chumashan stocks, tobacco is smoked in many ceremonies.[197] It is blown on the body at death, in sickness, and at other important periods, and is blown into the air as a part of many ceremonies. That it was used in this connection by the Salinan is shown by the already-quoted passage from Taylor,[198] and the usage among the Costanoan also is proven by the report from San Carlos in the Mission Record.[199] Its magical power is shown also in its use by deer-hunters to intoxicate the game. Its use in disease is probably due as much to its imputed magical powers as to its narcotic effect, though the former may be again directly due to the latter.

MYTHOLOGY

The Indian myths of south-central California have been treated under that title by Dr. Kroeber.[200] His material, however, is nearly exclusively from the peoples of the interior of the state, the Miwok and the Yokuts. Six short myths from the Monterey Costanoan are given, but no material was available on the Salinan or Chumash. The mythology of the latter is still entirely unknown and no further contributions have been made to that of the Costanoan. At the time of the appearance of the article mentioned, the sole statement on Salinan mythology was by Taylor that "They had a superstition or tradition of a deluge of water which covered the land in the old times and had their priests who were the sorcerers. One of their superstitions was that the humming-bird (chuparosa) was first brother to the coyote and he was first brother to the eagle." On this evidence Kroeber[201] quite justly deduced that the Salinan ideas of creation were similar to those held by the Monterey Costanoan.

The surpassing importance of cosmogonical myths in California is well proved by their survival from the wreck of aboriginal concept. Closely similar myths of origin are among the

[197] T. T. Waterman, *op. cit.*, 335; C. G. DuBois, *op. cit.*, 99, etc.; P. Fages, *op. cit.*

[198] *Cf.* p. 166.

[199] A. L. Kroeber, Mission Record, 22.

[200] A. L. Kroeber, Indian Myths, 167–250.

[201] *Ibid.*, 190.

few collected by both Dr. Henshaw and the writer. The former account contains the common incident of the flood and the diving for earth, the peculiarity of which lies in the fact that, together with one of the following shorter myths, it displays evidence of the belief in an antediluvian world. This must, however, incur the suspicion of missionary influence; the conception has not before been reported from the state. The actual creation of the world from earth by several animals stamps the origin myths as of the south-central Californian type. The trinity of creators, however, are not the eagle, coyote, and humming-bird, as at Monterey[202] and as reported by Taylor, but the eagle, coyote, and kingfisher. The humming-bird appears to belong exclusively to the Costanoan and is replaced by other characters among the Salinan, Miwok, and Yokuts. The actual diving, moreover, is done by the kingfisher instead of by the duck, mud-hen, or turtle as among other stocks. The eagle, as is general in the region, is a relatively lofty concept and the coyote is more a subsidiary character, a helper and messenger, rather than a marplot. The major parts of both versions of creations are, however, concerned not so much with the actual creation of the world as with the creation of man and woman, and with their discovery of their sexual relations. This idea is found elsewhere in California mythology, appearing in the creation myths of the Rumsien Costanoan[203] and the Yauelmani Yokuts.[204] The creation of people from bones or sticks and their separation into linguistic stocks and groups is likewise an incident of common occurrence in the region.

The only other myth of any size is of considerable interest as a type not common in this region, but more typical of the north-central and southwestern sections. Animals as usual are the characters, and these, the raven, hawk, crow, and shrike, play important parts in the mythologies of the other groups of the region. The peculiar features are the supernatural characters involved: the Rock, the Wind, the Two-headed Serpent, and the One-footed Cannibal are all foreign to the mythology of the sur-

202 *Ibid.*, 191.
203 *Ibid.*, 199.
204 *Ibid.*, 231.

rounding peoples. The local, topical character of this myth is also of interest.

In addition to the cosmogonical myths and the story of mythical adventure, two other types are illustrated in the present brief collection. First are short incidents or mythological notes which may be excerpts from forgotten longer myths. These are mainly brief tales of personified animals and show the tendencies native to the south-central region. The animals are in general the same as those found in the mythologies of the surrounding Indians. The bald eagle, condor, vulture, raven, hawk, crow, shrike, woodpecker, kingfisher, coyote, and skunk are all presented. The great preponderance of birds among the mythical characters is noticeable. The humming-bird of Costanoan and the prairie-falcon of Yokuts mythology are absent, and the kingfisher and shrike introduced. The raven was revered because of his services to mankind, and was not associated with the Chungichnish cult of the southern missions.[205] The typical coyote story of the Plateau region is conspicuously absent, but is not necessarily therefore foreign. Secondary to these animal tales are stories of shamans' adventures. While displaying much civilized influence in detail, and therefore termed "Tales of the Missions," they remain essentially native in concept.

The Kuksui dance mentioned on page 177 is an example of a mythological character of notably wide range, for a region whose population was so sedentary and so diverse as that of California. Kuksui is a prominent mythical character among the Pomo, Wintun, Maidu, either the Costanoan or Miwok,[206] and possibly other families of Indians, and dances in his impersonation are held by these groups. Kuksui is claimed to be a clown, but is generally identified to-day with Satan. Unfortunately the evidence is not above suspicion here, for the old Indian who gave the information concerning Kuksui was well versed in the customs of the San Jose Indians (Costanoan), where the Kuksui dance is known to have been a great favorite,[207] and he may have been slightly confused. But as he distinguished

[205] G. Boscana, C. G. DuBois, P. S. Sparkman, T. T. Waterman, etc., *op. cit.*

[206] *Cf.* note 183.

[207] A. L. Kroeber, Indian Myths, 189.

other such differences, his information would appear to be correct.

The explanatory tendency which has been adduced in theory as the cause for the development of all mythology is strongly represented in the myths given and is therefore of considerable interest. Thus in the few myths collected, explanations are given for the existence of different languages, death in childbirth, mescal, of the phenomena at sunset, of a rock of a peculiar shape, and for the gray eyes of the raven and the black breast of the woodpecker.

Together with the usual belief in the former existence of animals in human shape, an idea of evolution or rather of transmigration seems to have obtained, though only a vague impression of it could be secured. Some reference to a great fall of stars was made, and a regular development from earth and rocks through birds and animals to men was suggested, and the statement made that the present race of men will again become animals and eventually develop into a race of men of a superior type.

No theft of fire myth, a typical one in California, was obtained. Henshaw was informed that the Eagle obtained fire for the Indians. Mr. Forbes was told by elder natives, long since deceased, that fire was brought to them by a man who came in a "white-winged boat," and that in a natural amphitheatre termed the "Devil's Canyon," facing out on the ocean, the natives used to watch for the return of this benefactor. It was further reported to Mr. Forbes that the Indians who held their ceremonies in this place belonged to the Bear "totem" and that they furnished the renegades of the mission, resisted the padres, and never became entirely converted, while the other "totem," the Deer, became ready converts. The information is too circumstantial to be entirely rejected, and while totems are unknown in California, the information may refer to some possible secret society. This information is reminiscent of the story of Agueda, which is often referred to by the early Spanish missionaries and is thus reported by Palou.[208] Immediately after the founding of San Antonio Mission an old woman named Agueda requested

[208] Francisco Palou, Life of Junipero Serra, 124.

immediate baptism. "Being interrogated as to why she desired baptism, she answered that while young her parents had frequently told her of a man dressed in a habit similar to theirs who had not come to them walking as other men, but flying, and had preached the same truths they were preaching. All assured them it was true—they had heard so from their ancestors and the coming of the missionaries was a general tradition among them." Taylor[209] mentions the same legend at Santa Cruz. Whether there is any connection between the two legends, or any grain of truth in either, is problematical.

THE BEGINNING OF THE WORLD

(Collected by Dr. H. W. Henshaw, 1884.)

After the deluge the animals wished to get some earth. First the diving ducks dived into the water but failed to bring up any earth. Then the Eagle put a heavy weight on the back of the Kingfisher and he dived into the water for the earth and succeeded in reaching the bottom.

But the sea was so deep that when he came to the surface, he was dead. Between his claws the Eagle found some earth, and after reviving the Kingfisher he took the dirt and made the world. Then he revived all the other animals who had been drowned in the deluge, the Coyote next after the Kingfisher. When the Coyote found himself alive again, he shouted out for joy and ran around reviving the rest of the animals that he found dead, and then sending them to the Eagle.

From some of the earth brought up by the Kingfisher, Eagle made man, and then made woman from one of man's ribs.[210] Then he sent the newly made couple out into the world, but they did not seem to thrive very well, so at last he sent Coyote to bring them to him again. When they came before him Eagle said, "What have you been doing?" "Merely living" was the reply. "What have you been thinking about?" "O, nothing! Just living!" So Eagle told Coyote to go back with them and consider some way by which they could have more company.

[209] A. S. Taylor, *op. cit.*, April 5, 1860.

[210] Possibly a Biblical influence, but *cf.* T. T. Waterman, *op. cit.*, 339, note 149.

"Well," said Coyote to the man, "you had better make some more men!" "How?" asked the latter. "Why, with the woman," replied Coyote. "That is what she is for!" Then he told them to lie down together. "Well, why don't you commence?" "I don't know how!" replied the man. "Why, lie close together!" But they did not succeed in finding a way. So Coyote went back to Eagle and reported the failure, and was sent back again with further instructions. "The Eagle is very angry," he reported, "and says you must increase." Then he told them the way that Eagle said men were to be made. After several mistakes the couple at last found the proper method, and Coyote ran and reported to Eagle that all was going well.

Coyote was then sent to find more people. "If you can't find anything but bones," said Eagle, "bring them." Many bones were lying around and these the Coyote brought to the Eagle, who made a man out of each. Each of these bone-men had a different language of his own, and that is why we have so many different tribes and languages.

Then Eagle sent Coyote back again to the original couple to inquire about them. "I feel a little heavy," said the woman. Then Coyote told her that she had other people within her, and that under certain circumstances she might die in bringing them forth. That is why women sometimes die in childbirth.

THE CREATION OF MEN AND WOMEN

When the world was finished, there were as yet no people, but the Bald Eagle was the chief of the animals. He saw that the world was incomplete and decided to make some human beings. So he took some clay and modelled the figure of a man and laid him on the ground. At first he was very small but grew rapidly until he reached normal size. But as yet he had no life; he was still asleep. Then the Bald Eagle stood and admired his work. "It is impossible," said he, "that he should be left alone; he must have a mate." So he pulled out a feather and laid it beside the sleeping man. Then he left them and went off a short distance, for he knew that a woman was being formed from the feather. But the man was still asleep

and did not know what was happening. When the Bald Eagle decided that the woman was about completed, he returned, awoke the man by flapping his wings over him and flew away.

The man opened his eyes and stared at the woman. "What does this mean?" he asked. "I thought I was alone!" Then the Bald Eagle returned and said with a smile, "I see you have a mate! Have you had intercourse with her?" "No," replied the man, for he and the woman knew nothing about each other. Then the Bald Eagle called to Coyote who happened to be going by and said to him, "Do you see that woman? Try her first!" Coyote was quite willing and complied, but immediately afterwards lay down and died. The Bald Eagle went away and left Coyote dead, but presently returned and revived him. "How did it work?" said the Bald Eagle. "Pretty well, but it nearly kills a man!" replied Coyote. "Will you try it again?" said the Bald Eagle. Coyote agreed, and tried again, and this time survived. Then the Bald Eagle turned to the man and said, "She is all right now; you and she are to live together."

THE DESTRUCTION OF THE EVIL MONSTERS

Years ago, when all the animals were men, the country was full of monsters who preyed on the people. Finally the Hawk, realizing the gravity of the situation, persuaded the Raven to help him rid the country of the creatures. First they set out against a great rock named xu'i. This rock had the habit of catching people and killing them by throwing them back over his head where a flock of little birds would feed on the bodies. From their custom of living on fat, these birds had become entirely black, and were called ka'tca tsani'L. Furthermore the Crow and Shrike acted as sentinels for the rock.

The Hawk and the Raven came peacefully up to the rock and the Raven, in a spirit of bravado, rubbed his eyes against the rock. They have been gray ever since. Then the allies went a short distance off on a hill. "Now is the time!" said the Hawk. "I am ready," replied the Raven. "But you had better go first!" So the Hawk approached the rock which easily threw him over his head, but the Hawk carried with him a little flute, and when he stood on it, he always alighted gently on the

ground. Then the Hawk beckoned to the Raven and said, "Come along!" The Raven was likewise easily thrown over by the rock, but as he had his little guitar[211] with him, he fell lightly on that without any harm. "Well, we have escaped this time," said the Hawk. "That's so," answered the Raven. "This time I'll take the first shot." And he threw a stone at the rock which left a dent in his head. Then the Hawk took his turn and knocked the rock's head off. Then they chased away all the little black birds. Xu'i with his head missing may still be seen not many miles above the ruins of Mission San Antonio.

Hawk and Raven then went hunting for more monsters, and sought a terrible two-headed snake. When they approached, the snake, ṭaliyE' kA' ṭapelta, was sound asleep. "Now is the time! He is asleep!" said the Hawk to the Raven. They made arrows from some reeds growing there and shot at the snake. First the Hawk hit him on one side and then the Raven hit the other. "Let us go before he gets up!" said the Hawk and they flew away. They travelled swiftly in the direction of Morro Rock[212] on the seacoast, but the snake came swiftly after them, breaking down all the trees in his way. "Come on! Don't be afraid!" the Hawk who was in the lead kept calling to the Raven. Now the dust was close behind, but the Hawk said, "When we reach the Morro we'll be safe. The wind will help us there!" At last they reached the Morro, but in spite of the wind's efforts to foil him by breaking off pieces of rock, the snake encircled the rock and began to rise up. "Now's the time! We are going to die! Watch him come!" said the Hawk. "What are we going to do now?" said the Raven. "Don't ask me that but just get ready!" replied the Hawk, as he pulled out a knife and began to hack away at the snake. Then the Raven did the same on the other side of the rock, and the snake began to fall in pieces. When he was entirely dead, they went to destroy more of the man-killing monsters.

"Here's another one, and he has a very powerful weapon," said the Hawk. They went and found the Skunk in his hole, but when he heard the noise he came out and turned his tail to them.

211 Possibly aboriginally "musical bow."

212 A well-known landmark on the shores of Esteros Bay; mentioned by most early navigators and travellers, but probably in Chumashan territory.

"Now is the time," whispered the Hawk. "Now be ready," said the Raven. "I'm going to try first," and he threw a stone at the Skunk. The latter turned his tail and fired. Hawk and Raven got their flute and guitar while a crowd of people came up behind. Suddenly the Skunk made a great smoke. "Look out! Get away before the smoke reaches you!" At last they managed to kill the Skunk and went in search of new victims.

"There is one more," said the Hawk, "a dreadful one-footed cannibal." The creature was sound asleep when they arrived at his home. "There he is! I'll try first," said the Raven. "If I don't kill him, you take a turn." The one-legged cannibal woke up and sang a song when he saw them.[213] "Let's shake hands," said he. So the friends went up, seized his hands both together and threw him into a pool of tar.[214] Then they held a consultation as to the best means of disposing of him. Finally they adopted the Hawk's suggestion to fire the tar. They put some fire on the ends of their arrows and hit him on both shoulders at once. "What are you doing, boys?" he cried. "You are treating me as if you weren't my relatives!" Then he started to run, and at every place where the burning tar dropped the mescal began to sprout.

Thus was the land rid of the wicked monsters and enriched by the useful mescal, and the Hawk and the Raven are revered by all the Indians for their good deeds.

MYTHOLOGICAL NOTES

(Collected by Dr. Henshaw, 1884.)

Before the deluge, two mussels lived in a lake, and every once in a while they caused the waters to rise until a man was thrown in. Finally the Indians became so reduced in numbers that they refused to throw any more men in. Then the mussels caused the waters of the lake and the ocean to unite and the deluge ensued.

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[213] The song was sung here, but it was impossible to get a transcription or record.

[214] Probably asphaltum, which was plentiful at San Luis Obispo.

Tibe'kenni'c lives where the sun sets. All the dead, good or bad, go there.[215] He swam to the west to escape the deluge, and there he will remain until the end of the world, when he will return. He alone knows when the sea will again rise and overwhelm the world once more. At sunset the dead with Tibe'kenni'c toss the sun up in play. That is what causes the rays of the sun to shoot up in undulations. The red sky is caused by great fires which the people there light to play by.

The Eagle was the originator of all things. It was he who gave fire to the Indians.

The Skunk was once a wizard. His weapon was his urine and with that he was able to kill any living being.

The Red-shafted Flicker has black on the breast as a sign of mourning (*sic*). A savage animal was pursuing some Indians and when he found he could give no help, this bird cried out, and the black was put on his breast as a sign.

The Condor, titc, and the Red-headed Vulture, xopne'l, are relatives; they speak to each other and the first cuts and tears open the dead carcass for the weaker one.

Many supernatural beings formerly inhabited the country. Among these were dwarfs who left invisible footprints and aided the medicine men in their conjuries.

TALES OF THE MISSIONS

The Rainmaker

Atswen was an old shaman at Mission San Antonio who claimed to be able to produce rain. Once there was a great drought and the Padre sent for Atswen and put him in the jail, telling him he would keep him there until it rained. Then when the entire population had gathered inside of the Mission, the chief filled four barrels of water at the spring. He gave Atswen a sack and threatened him. Then he let him out and when the people came out of the church it was raining.[216]

The Rival Shamans

Ramejio and Pasquale were rival shamans, and each claimed to be the stronger. So they agreed to try to bewitch each other.

[215] Page 183.

[216] The shaman as rain-maker. *Cf.* page 184.

Pasquale lay down while Ramejio sang and danced over him, but Ramejio could not affect him. Then Pasquale sang and danced over Ramejio so that he could not arise. Then he bewitched Ramejio's dog also.

An Aboriginal Faust

Fruito was an inveterate gambler. One night after he had lost everything but his breech-cloth he felt so angry that he went to the grave-yard to see the Capitan. He knelt at the foot of a cross and soon he heard a noise like a great number of rats. Amid a great light the Capitan of the grave-yard appeared, but turned his back on Fruito and presently disappeared without saying a word. "I wonder why he did not speak to me?" remarked Fruito.

The next night at the same hour, eight o'clock after the curfew had sounded, Fruito went to the grave-yard again and when the Capitan appeared said to him, "I came to speak to you; I want to get instructions from you how to beat this other man gambling." "Come to-morrow night," said the Capitan, "and beside the gate you will find a little bone. If you have that you will always win. And now how are you going to pay me?" "I will pay you with myself," said Fruito. "Very well," replied the Capitan. "When you are through, leave the bone where you found it." Fruito got the bone and hunted for the other man. They spread out a blanket and started playing, and soon Fruito had all his opponent's goods—his clothes and his house.

A month or so later the Capitan of the grave-yard appeared to Fruito while he was sleeping. "Let us go," he said. "All right," said Fruito, "I'm ready to fulfill my agreement." But first he went to see the Padre. "It's too late!" said he. "You must do what you agreed." And Fruito immediately died.

The Powerful Charm

The brother-in-law of José Cruz was a shaman. One day his father seized his charm and put it in an oak tree. But the charm was so strong that it broke down the tree.

The Grizzly Bear Shaman

A famous shaman was able to turn into a grizzly bear.[217] His nephew came to see him one day and he said to the boy, "Would you like to turn into a grizzly bear?" "Yes," said the boy. "Very well! To-morrow we will go after blackberries." The following day they went and suddenly the boy missed his uncle. He looked around and saw a grizzly bear eating blackberries. "O! That's my uncle!" he said. The next day they went out again near a spring. The uncle gave the boy some tobacco and said to him, "Chew this and swallow the juice." When he had done so the boy fell senseless, and on recovering, saw a large frog. "Catch that frog and eat it," said his uncle, but the boy thought that was too much. He ran away and did not become a grizzly bear.

The Shrike

A long time ago a woman went out to gather some medicine when she spied a grizzly bear. Almost as soon as she saw it, a shrike saw it also and at once attacked it. The grizzly bear put his head between his paws, but the moment he lifted it to see, the little bird pecked both of his eyes out. Then the woman caught the bear and made medicine of its entrails.

Anesmo when out hunting once shot an antelope and a shrike lit on its horns and plucked out its eyes as it ran. This he saw. It is the bravest of all the birds.

CONCLUSION

In a region of such great diversity as California, where differences in culture as well as in language characterize the smallest divisions of the many families, it is very difficult to segregate and formulate the characteristics of any stock. Particularly is this true when, as in the case of the Salinan, merely the outlines of the old culture are recollected by the few surviving natives. It has been necessary, therefore, in this paper to

[217] The grizzly bear shaman. *Ibid.*

present all the data pro and con with regard to the various phases of aboriginal culture, to discuss hypotheses, and to endeavor to reconstruct the main features of this culture by means of probabilities.

The task of reconstructing the life of the Salinan people has been at once increased and rendered of greater interest by their geographical position. Had we been working with a stock such as the southern Wintun, who appear to have constituted the center of the great main Californian culture region,[218] the existence of certain practices and economic features could have been assumed practically without proof. From this geographical point appear to radiate the main features of the central Californian culture area. To the south, on the Santa Barbara Channel, is the center of another culture area, that of the Chumash and certain of their Shoshonean neighbors, a more restricted area and one of less influence than that of the central culture, but still radiating its influence to some extent to the adjacent stocks to the north and east. This culture we know only in outline, but its main features are sufficient to differentiate it from that of the central area. To the immediate north of this area is found the Salinan stock, separating it from the other stocks of the purer central culture to the north.

From Lake Tahoe two lines may be drawn to the great cities of California. One, running slightly south of west to San Francisco would follow with considerable accuracy the division line between the Wintun and Maidu on the north and the Miwok and Costanoan on the south. The other, running slightly east of south to Los Angeles, corresponds roughly with the boundary separating the typical Californian stocks to the west from the culturally extra-Californian Shoshonean people to the east. Three areas of nearly equal size are thus delineated, a northern and a southern typically Californian area and an eastern un-Californian area. The greatest inequality exists between these areas as regards ethnological knowledge. While the Tahoe–San Francisco line divides the central culture area in half, leaving one of the more restricted culture areas on either side, yet it also divides the state accurately into a "terra cognita" and a "terra

[218] A. L. Kroeber, Types Ind. Cult. Cal., 82.

incognita.'' To the north the ethnology of the Hupa,[219] Shasta,[220] Chimariko,[221] Klamath and Modoc,[222] Maidu,[223] and Pomo[224] is well known, and Powers, Taylor, and other writers have described the majority of other groups in detail. The Tahoe–Los Angeles line marks a similar distinction; to the east the ethnology of the Shoshonean Cahuilla,[225] Luiseño,[226] Chemehuevi, and Paiute,[227] and the Yuman Diegueño[228] and Mohave[229] is known with varying degrees of thoroughness. But in the south-central area, consisting of the Costanoan, Miwok, Esselen, Yokuts, Salinan, Chumash, and some Shoshonean groups, little has been done. A few chapters by Powers, a few articles by Taylor, and miscellaneous observations by Kroeber,[230] Barrett,[231] and others of the present era and by various observers in earlier days, complete the list of ethnological work published on these six stocks. With all of them not only are observations lacking, but the material itself has perished to a great degree, due to the comparative extinction of their members.

Thus the great dearth of information on the Salinan stock is due not only to the loss of data on the stock itself, but also to the existence of the same conditions among all the surrounding stocks, thus preventing detailed comparison and the formulation of hypotheses capable of any defence.

Geographically, the Salinan stock occupies a position between

219 P. E. Goddard, *op. cit.*

220 R. B. Dixon, Shasta.

221 R. B. Dixon, The Chimariko Indians and Language, present series, v, 293–384, 1910.

222 S. A. Barrett, The Material Culture of the Klamath Lake and Modoc Indians of Northeastern California and Southern Oregon, present series, v, 239–292, 1910.

223 R. B. Dixon, The Northern Maidu, *op. cit.*

224 S. A. Barrett, The Ethno-Geography of the Pomo and Neighboring Indians, present series, vi, 1–332, 1908. Some as yet unpublished work has been done upon the Pomo.

225 A. L. Kroeber, Cahuilla.

226 P. S. Sparkman, *op. cit.;* C. G. DuBois, *op. cit.*

227 Maj. J. W. Powell and numerous other writers have described the Shoshonean tribes in various articles.

228 T. T. Waterman, *op. cit.*

229 A. L. Kroeber, ''A Preliminary Sketch of the Mohave,'' Am. Anthr., n.s., iv, 276–285, 1902.

230 A. L. Kroeber, Mss.

231 S. A. Barrett, The Geography and Dialects of the Miwok Indians, present series, vi, 333–368, 1908.

the stocks of typically central culture to the north and the Chumash of southwestern culture to the south. A culture of a nature intermediate to these would therefore be expected and to some extent exists. Nevertheless, while the Salinan are much nearer the Santa Barbara Channel, the center of the southwestern culture, than to the lower Sacramento, the center of the central culture, they are properly included as a slightly variant part of the latter rather than of the former.[232] The southwestern culture appears to have been a local development due to peculiarly favorable conditions, as the Chumash north of Point Concepcion are known to have been inferior in culture to those of the Channel, and the northernmost Chumash, those of San Luis Obispo, were probably as variant from the main body in culture as they are in language.[233] Thus while both the southern Yokuts and the San Miguel Salinan were influenced to some extent by the contiguous Chumash culture, they still remain integral parts of the central cultural area, and display considerable reciprocal influence and ethnological agreement, the Salinan finding their closest cultural affinities in the Tachi Yokuts.

The Salinan betray the principal characteristics of a Californian people of the central area: a dependence primarily on vegetable food, of which acorns form the principal staple, a great stability of population, the absence of a gentile organization, and a weak development of the arts, of war, and of ritualism. Some tendencies, however, may be noted which incline to differentiate the Salinan from the surrounding groups.

Many cultural similarities are noted between the coastal stocks, the Chumash, Salinan, and Costanoan. This might be regarded as an influence from the southwestern culture-area, spread by means of water-transportation, but is probably better considered as delineating a cultural sub-area or intermediate area. Be that as it may, there are certain tendencies which are best exemplified by the Chumash and shared to a greater and less extent by the Salinan and the Costanoan, and which appear to be missing among the Yokuts. These agreements are evident

[232] *Cf.* A. L. Kroeber, Types Ind. Cult. Cal., 102.

[233] A. L. Kroeber, The Chumash and Costanoan Languages, present series, IX, 237–271, 1910.

more on the non-material than on the material side. Thus a probable slightly higher development of work in stone, the use of asphaltum on basket-mortars, a possible greater use of twined weave in basketry, the use of communal houses, and other minor agreements might be suggested as being typical of this coastal sub-area. On the non-material side, the Salinan and Chumash agree in their numerical systems, both being quaternary, a type which is found elsewhere in the state only among one Yuki group.[234] Other such agreements are, the greater importance of wealth and of chieftanship, the use of toloache at puberty and of sweating at birth, and the ceremonial smoking of tobacco. In these respects the Salinan, and to a lesser degree the Costanoan, appear to resemble the Chumash rather than the Yokuts.

With the typically central culture the Salinan and the Yokuts show an approximately equal degree of agreement and divergence. Here also, the agreement seems to be greater along the coast, less among the valley stocks. Thus the Salinan possess the kuksui and loli dances of the Pomo-Wintun-Maidu which are unknown among the Yokuts; they agree more closely with the Costanoan in their mythology, and their games; and seem to have possessed the large dance-sweat-house of the north-central region. In most of the other phases of culture the Salinan and the Yokuts agree rather closely, both being more variant from the typically central culture than the Miwok-Costanoan stocks to the north. Particularly do they seem to have possessed a similar tribal organization, if we may believe Fages and Powers, and among both war was probably of more importance than is usual in California.

In one feature, however, the Salinan stock seems to present unique characteristics. This feature is the language, which is considerably different from the majority of Californian languages. Its tendencies are shared to some degree, but less typically by the Chumash, but it will probably be found that the Salinan tongue stands alone as the exponent of the southwestern Californian type of language.[235]

[234] R. B. Dixon and A. L. Kroeber, Num. Syst. Lang. Cal., *op. cit.*

[235] R. B. Dixon and A. L. Kroeber, "The Native Languages of California," Am. Anth., n.s., v, 1–26, 1903.

APPENDIX

PHYSICAL ANTHROPOLOGY

Some descriptions of Salinan Indians are found in the writings of early observers which, when compared with personal observations and measurements, point towards certain conclusions.

Physically, the Salinan natives seem to have been of medium stature and heavily built. Taylor says, "Some of the Indians I saw in 1856 were short and stout," but at another time he states, "The Antoniños, as the Spaniards afterwards called them, were tall and well made." Padre Ascension remarked of the Indians in some tule balsas who met Vizcaino off the Salinan coast,[236] "They are taller, better made and more robust than any they had yet seen." Fages reports of them, "These Indians are very well-formed and the women very good-looking, some of a color somewhat ruddy. All have pretty hair—a people with a good disposition, affable and friendly, giving as much as they have to the Spanish." The various descriptions extant of California Indians are notable for their disagreement,[237] varying from "repulsive-looking wretches"[238] and "perfectly hideous"[239] to "handsome, well-proportioned, cheerful and interesting"[240] and "a fine-looking race."[241] These differences are too great to be referred entirely to opinion, and on the whole it seems that the diversity of California is not limited to language and to culture but extends as well to somatology. Fages notes many different types between San Francisco and San Diego, and limits the extent of each type in leagues. The general agreement seems to be as already stated, that the coastal fishing tribes lacked the independence of, and were generally inferior to, the hunting

[236] A. S. Taylor in California Farmer, June 26, 1861.
[237] H. H. Bancroft, *op. cit.*, 364.
[238] Borthwick, Three Years in California, 128. (Maidu.)
[239] Kneeland, Wonders of the Yosemite. (Miwok.)
[240] Morrell, A Narrative of Four Voyages, etc. (Costanoan.)
[241] Von Schmidt, Ind. Aff. Rep., 1856. (Mono.)

groups inland.[242] Particularly is the degradation of the Costanoan of Monterey and San Francisco noted.[243] The Chumash are described as well-built and as particularly intelligent.[244] The Salinan, on the whole, appear to have been of a physical type superior to their neighbors, with the possible exception of the Yokuts. This would naturally be expected of the inhabitants of a mountainous country, and is corroborated by the appearance of the surviving natives. Those observed are somewhat shorter than the average European, but would fall in Deniker's[245] "above-the-average" class. They are generally inclined to be stout, and with a rather deep-brown complexion, generally good-looking, if not handsome, pleasant, good-natured, and quite intelligent.

The question of beard has been discussed by Bancroft, who has quoted from many of his sources.[246] Whether the actual possession of beard, or merely the method of wearing or dispensing with it varied, is still a mooted one. Concerning the Salinans, however, it may be dogmatically stated that they possessed full and thick beards. The present natives possess hirsute adornments equal to those of most Europeans, as is well shown in the photographs on plates 22 and 23. These might be ascribed to a possible European admixture were it not for the denial of any such blood by the natives themselves and for early notice of the same fact. Fages says: "Both sexes have fine hair." Taylor in particular remarks on the hairy development several times. "Color light brown, with good heads of hair and many of them very thickly bearded. In the old times, before becoming Christians, they pulled out their beards." Again, after stating that in nine years' observation among California Indians, he saw not more than twelve with mustaches, he continues: "Some of the Indians I saw in 1856 were short and stout, with big heads and the hair coming low down over the forehead and with thick beards and mustaches." In another place he particularly remarks that a San Antonio Indian he saw in 1856 had as heavy

[242] P. Fages, *op. cit.;* De Mofras, *op. cit.;* etc.

[243] Many writers quoted in Bancroft, *op. cit.,* 365.

[244] Costansó, *op. cit.,* 45 [135]; Fages, *op. cit.,* etc.

[245] J. Deniker, The Races of Man, 30, 580.

[246] H. H. Bancroft, *op. cit.,* 367.

a beard and mustache as any white man, but the usual brown iris.

One of the few surviving natives noticed by the writer, a San Miguel Indian (pl. 23, fig. 1) had a pronounced goitre. Point and Mount Buchon near San Luis Obispo are named from a famous goitre possessed by the chief of the rancheria who greeted Portolá's expedition there.[247] The oft-noted pathological relation between mountainous countries and goitre may obtain here.

The following measurements and notes were taken on Pedro Encinales (pl. 22), a typical middle-aged Salinan Indian man.

Height	167 cm.	Length of head	18.9 cm.
Reach	180 cm.	Width of head	15.9 cm.
Height to right shoulder	140 cm.	Cephalic index	84.1
Height to left shoulder	140 cm.		
Sitting height	87 cm.	Height of face	12.3 cm.
Length of right forearm	48 cm.	Width of face	14.7 cm.
Length of left forearm	48 cm.	Facial index	119.5
Width of shoulders	46 cm.		
		Length of nose	52 mm.
Weight (estimated)	160 lbs.	Width of nose	45 mm.
Color (Hrdlič ka's scale):		Nasal index	86.5
Face	30		
Arm	26		

PSYCHOLOGICAL TESTS

The psychology of primitive people should be a very fruitful and interesting field of investigation, but as yet, due probably as much to the pressure of more important work as to the difficulties involved, this field, though open to both psychology and anthropology, is practically untouched. It was with the hope that future years will see an accumulation of material sufficient for fruitful comparison, that Pedro Encinales, a full-blooded Salinan Indian of perhaps fifty years of age, was induced to perform certain experiments in the psychological laboratory. The results compared with the average results for normal subjects of European blood are here appended, but must be accepted with the realization that the subject had spent his entire life in a civilized environment. He was rather disturbed by the novelty of the experience, but probably no more so than would be expected in the case of any uneducated person.

[247] Crespí, Fages, Costansó, etc.

1. With both right and left hand an average strength of grip of 34.5 kilograms was registered. Exact comparative data are not readily available here, and familiarity with the use of the instrument is of considerable importance. The results are, however, considerably lower than are usually registered for civilized white people.

2. The subject tapped 100 times with a point on a flat surface in 14.4 seconds for the right hand and 16.6 for the left. This is an average of 6.94 taps per second for the right hand. The normal is about 7.5 per second for Americans.

3. No color blindness was detected.

4. Memory. (*a*) Two geometrical figures were noted and after an interval correctly chosen from among a group of others. (*b*) Four of the figures given in Seashore's "Elementary Experiments in Psychology" were printed on cards and shown to the subject, who then endeavored to pick out the ones selected, from among the whole number on the page. None were correctly chosen, but in every case but one the proper figure was designated in a reversed position. The subject obviously did not realize that position was a differentiating factor.

5. In endeavoring to reproduce a straight line of 10 centimeters in length, the subject drew one 9.1 cm. with his right hand, 9.4 with the left. This is above the normal average of .5 cm. error.

6. A set of Hering's colors were arranged in spectrum order; the subject picked no. 1, purple, as the preferred color, no. 10, scarlet, as second choice, no. 9, orange, as the least pleasing. With the colors in mixed arrangement he chose no. 2, dark blue, secondly no. 6, yellow-green, and rejected no. 8, yellow. There is, of course, no standard of reference here, but the preference for blue and purple is generally considered a cultured rather than a primitive characteristic.

7. The results of the experiment as to tactile perception were very good. In the "two-point threshold" test, tried on the back of the hand, correct answers were given to practically every test down to and including a threshold of 2 mm. Out of twenty-eight tests at 5, 3, and 2 mm., five mistakes were made. This is probably somewhat better than the normal sensory perception.

8. Ten tests for rapidity of reaction to auditory and ten to visual stimuli were made on the Sanford vernier chronoscope. The average time of reaction to the auditory stimulus was found to be .22 sec. With the elimination of two abnormally long reactions of .35, probably caused by some external attraction, the average of the other eight decreased to .186. This is considerably above the normal average personal equation of .10 to .13 sec. To the visual stimuli the average time was .195, and the elimination of two abnormally long reactions of .35, probably caused time of from .15 to .20 sec. The subject would seem therefore to be more sensitive to visual than to auditory stimuli, whereas the opposite seems to be the normal condition among educated persons.

9. Cards containing respectively nine and eleven short parallel lines arranged vertically were shown to the subject and correctly counted by him quickly and without touching them with his fingers or other object.

SAN MIGUEL FOOD MATERIALS

kāp'	Acorn	tEXa'i'	Bear
cxau'wAt'	Live oak	ṭā'muL	Mountain-lion
t'io'i	Oak	moi'	Mountain-sheep
paxa'kiL	Oak	lowe'cAt!	Antelope
p'a'pix	Post oak	elk!ā'	Coyote
p'ā't	White oak	cowE'	Skunk
cmo'	Oak	cōkono'i	Horned owl
na'siL	Acorn mush	ckō'tAtE	Owl
k!one'	Acorn bread	spako'	Ground owl
ṭoela'M	Tobacco	ts!E'tenek!	Owl
mōno'i	Toloache	spēk'	Red-tailed hawk
mata'i'	Milkweed	ckā	Hawk
pEsxe't'	Willow	snai	Eagle
k!ā'ciL	Sunflower seeds	xopNe'L	Red-headed vulture
tetau'pkuL	Elderberries	te''tc!	California condor
tcāla'k	Christmas berries	talwa'x	Crane
p'a'siL	Chia	kala'k	White goose
toipe'N	Gooseberries	tikmo'	Band-tailed pigeon
eLpo'nE	Blackberries	ṭaxwe''N	Turtle-dove
k!eso'i'	Prickly-pear cactus	smate'xaN	Quail
atLō's	Wild oats	k!aiya'k'	Mountain quail
k!as	Grass	swī'yo	Unidentified bird
peL	Grass	elpa't!	Duck
t'o	Pine-nuts	tete'k'Enel	Eggs
k'e	Pine-nuts	ṭawE'	Turtle
ts!eta'kiL	Chuck-berries	smeko'i	Rattlesnake
pEca''	Buckeyes	ts!aike''	Snake
ōpc	Wild grapes	seNk!o'L	Snake
teta'i	Soap-root (small)	xapailE''	Lizard
ck!alE'	Soap-root (large)	toiyElE''	Mountain lizard
kotcE'L	Camass	wākā't!	Frog
k!ona'kas	Camass	t!īkolE'	Toad
t'Ema's	Unidentified plant	cwākek!a''	Horned lizard
tma	Mescal	cwaN	Trout
spo'k!at	Clover	p'u'Lxoi	Sucker
cpoku'mt!a	Clover	ṭ'eteya'u	Salmon
smō'kumeL	Clover	cat!	Bull-head
ṭaap'	Deer	septa'l	Unidentified fish
māp!	Rabbit	cmaiyE'k!	Blue abalone
koL'	Jack-rabbit	k!eLt'u'	Red abalone
cAMku'M	Ground-squirrel	naiyi'k!	Clam
ṭolo'c	Tree-squirrel	sk!eN	Unidentified shell-fish
mats!e'ko'	Chipmunk	taitc!ā'tak	Crab
mA'keL	Rat	powā't'	Sea-weed
sk!Almo'k!	Mouse	leme''M	Yellowjackets

EXPLANATION OF PLATE 21

Fig. 1.—Mission of San Antonio de Padua before restoration.

Fig. 2.—Mission of San Miguel.

Fig. 1

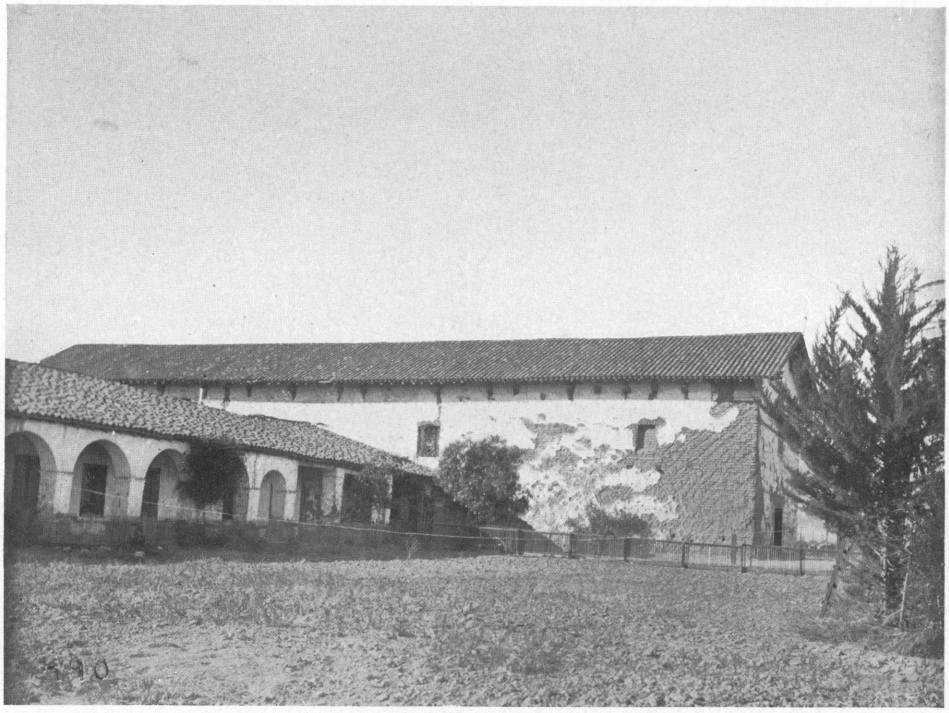
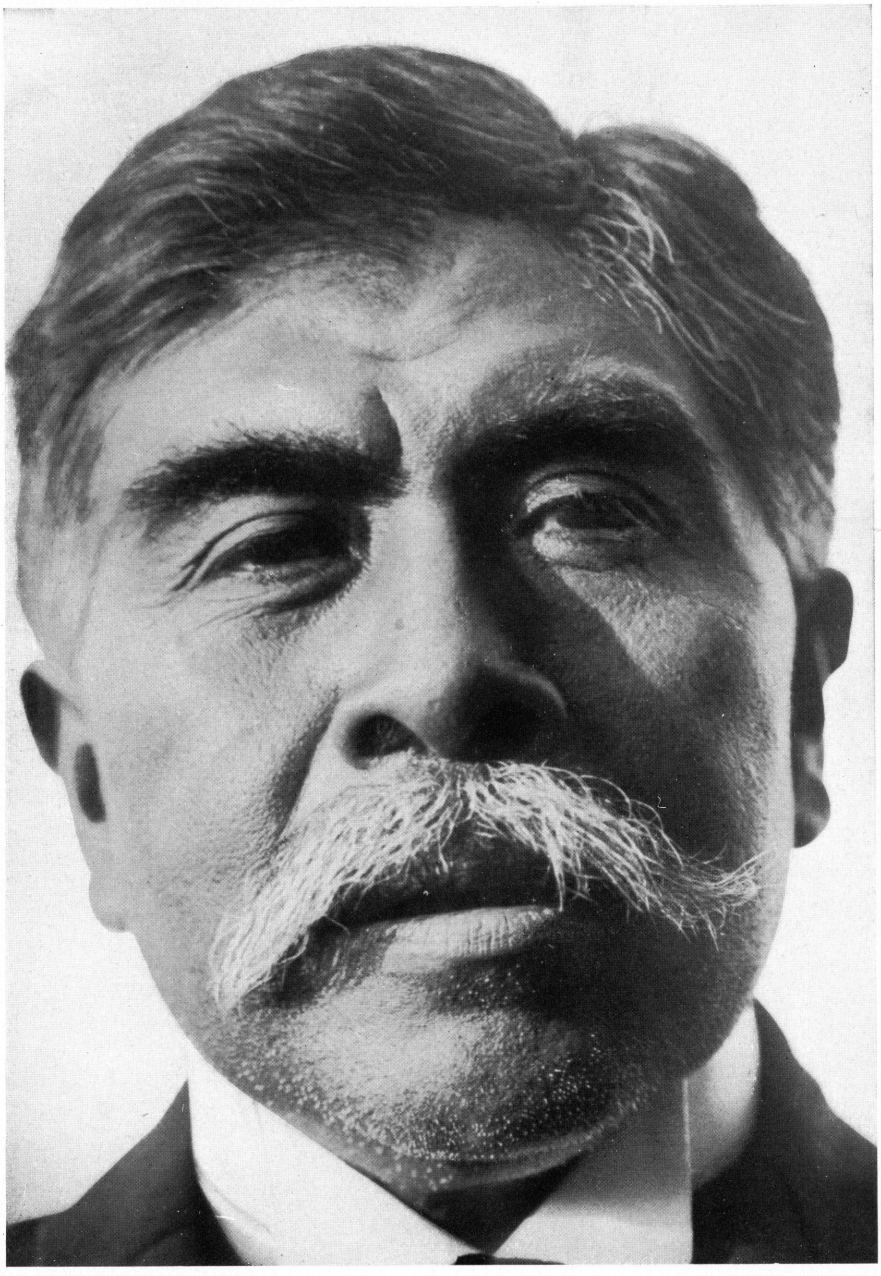


Fig. 2

EXPLANATION OF PLATE 22

Pedro Encinales. San Antonio Salinan man.



SALINAN MAN.

EXPLANATION OF PLATE 23

Fig. 1.—Flujensio Santana. San Miguel Salinan.

Fig. 2.—Josie Encinales. San Antonio Salinan.

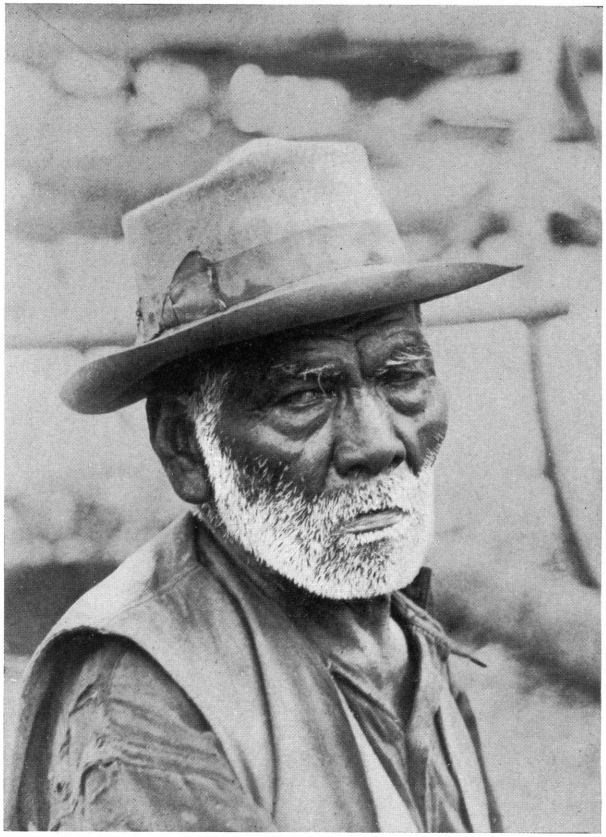


Fig. 1

SALINAN INDIANS.

Fig. 2

EXPLANATION OF PLATE 24

Household of Pedro Encinales.

SALINAN INDIANS.

EXPLANATION OF PLATE 25

Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Mortars and metate found in Salinan territory.

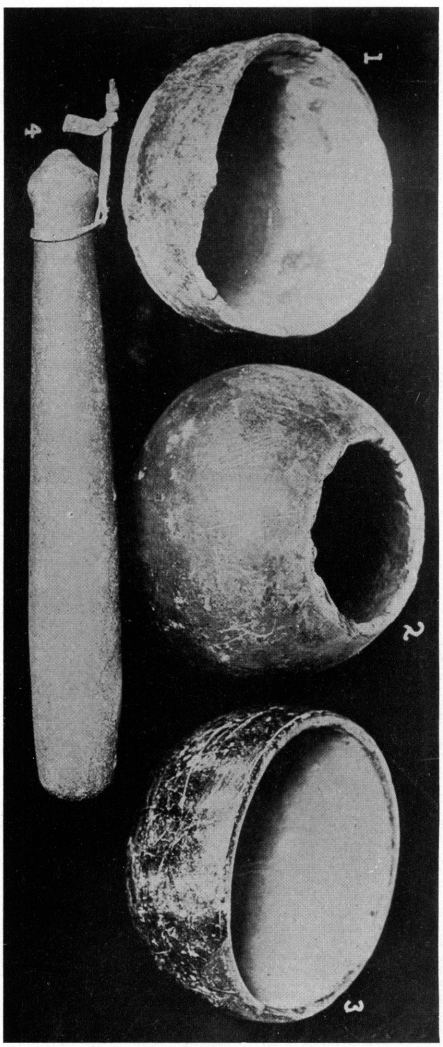
Fig. 2.—Archaeological objects found in Salinan territory.

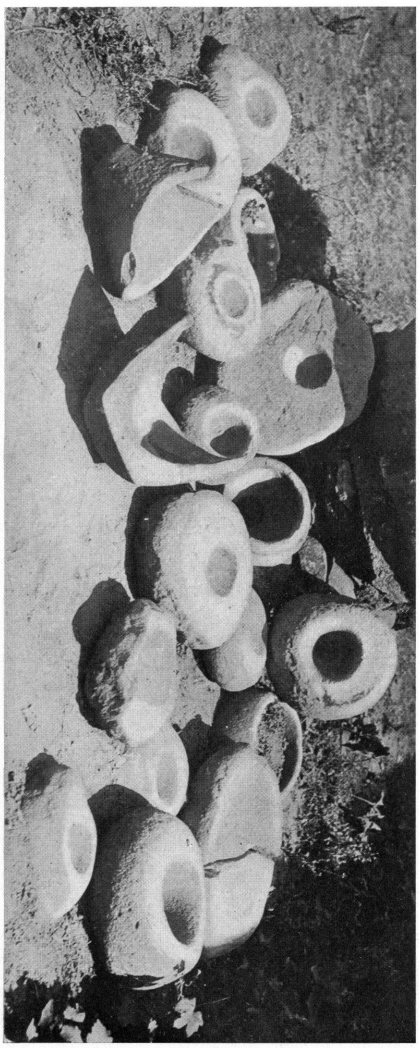
Specimen 1.—Pottery bowl from Mission San Antonio. Width, 22 cm.

Specimen 2.—Steatite pot. Height, 16.5 cm.

Specimen 3.—Steatite bowl from Mission San Antonio. Width, 25 cm.

Specimen 4.—Stone pestle with carved handle and buckskin thong. Length, 46 cm.





STONE IMPLEMENTS.

EXPLANATION OF PLATE 26

Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Small mortars found in Salinan territory. Objects are about .22 natural size.

Fig. 2.—Pestles and mullers found in Salinan territory. Objects are about .17 natural size.

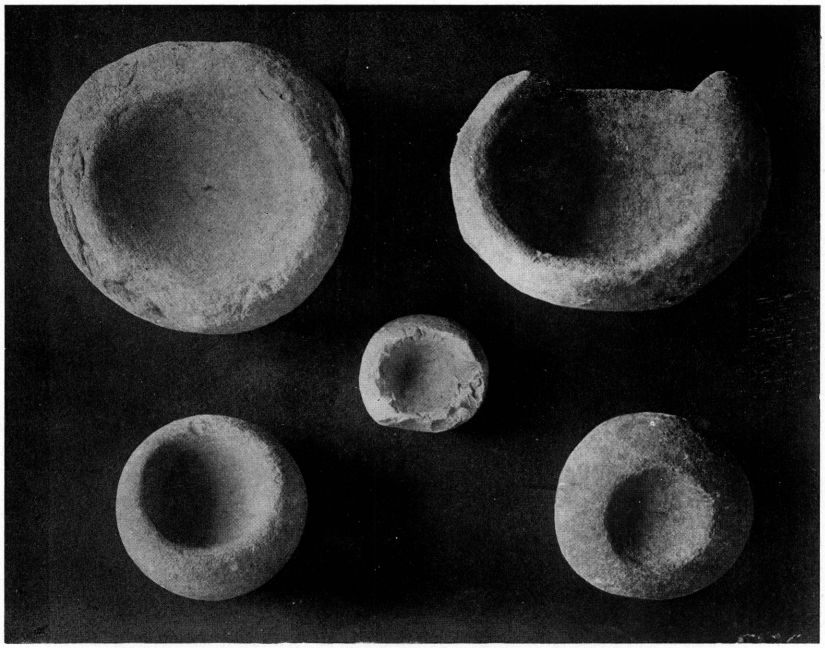


Fig. 1

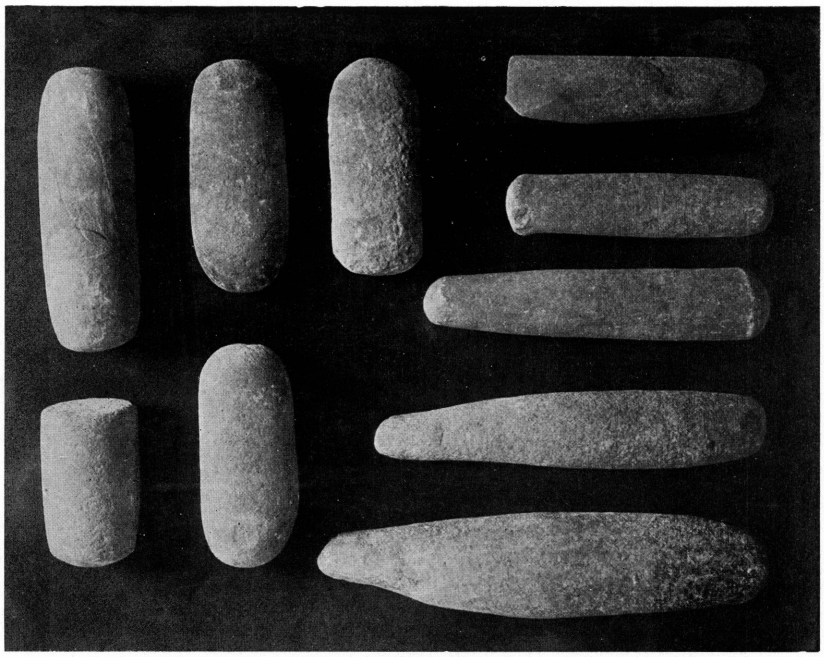


Fig. 2

EXPLANATION OF PLATE 27

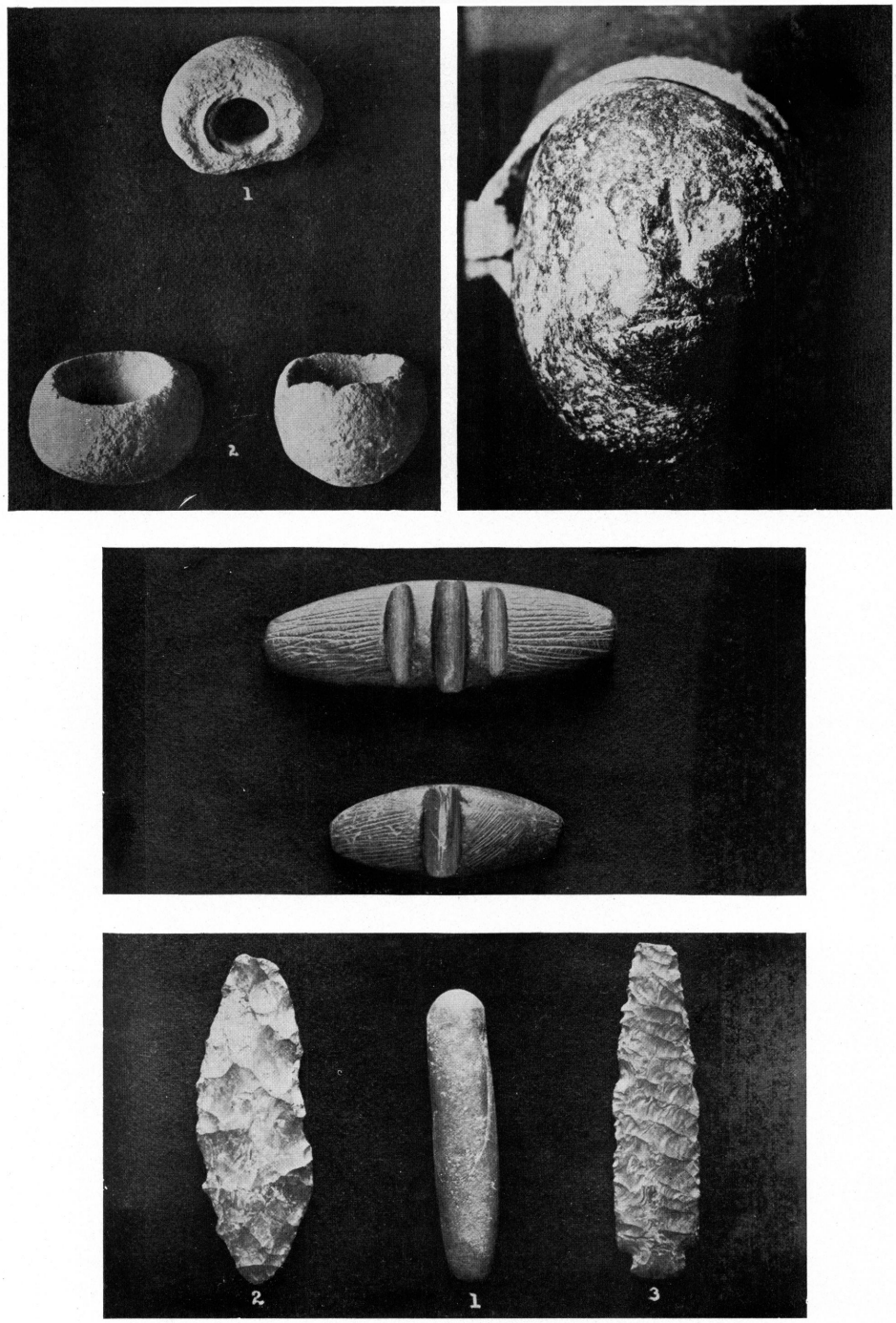
Archaeological objects found in Salinan territory. Photographed by courtesy of the Dutton Museum, Jolon, California.

Fig. 1.—Digging stick weight, width 6.7 cm., and small mortars, width 6 and 7 cm.

Fig. 2.—Pestle end carved to represent a head, .85 natural size.

Fig. 3.—Arrow straighteners, length 15.8 and 9.7 cm.

Fig. 4.—Small pestle, length 12.5 cm., and flint blades, length 14.4 and 14.6 cm.

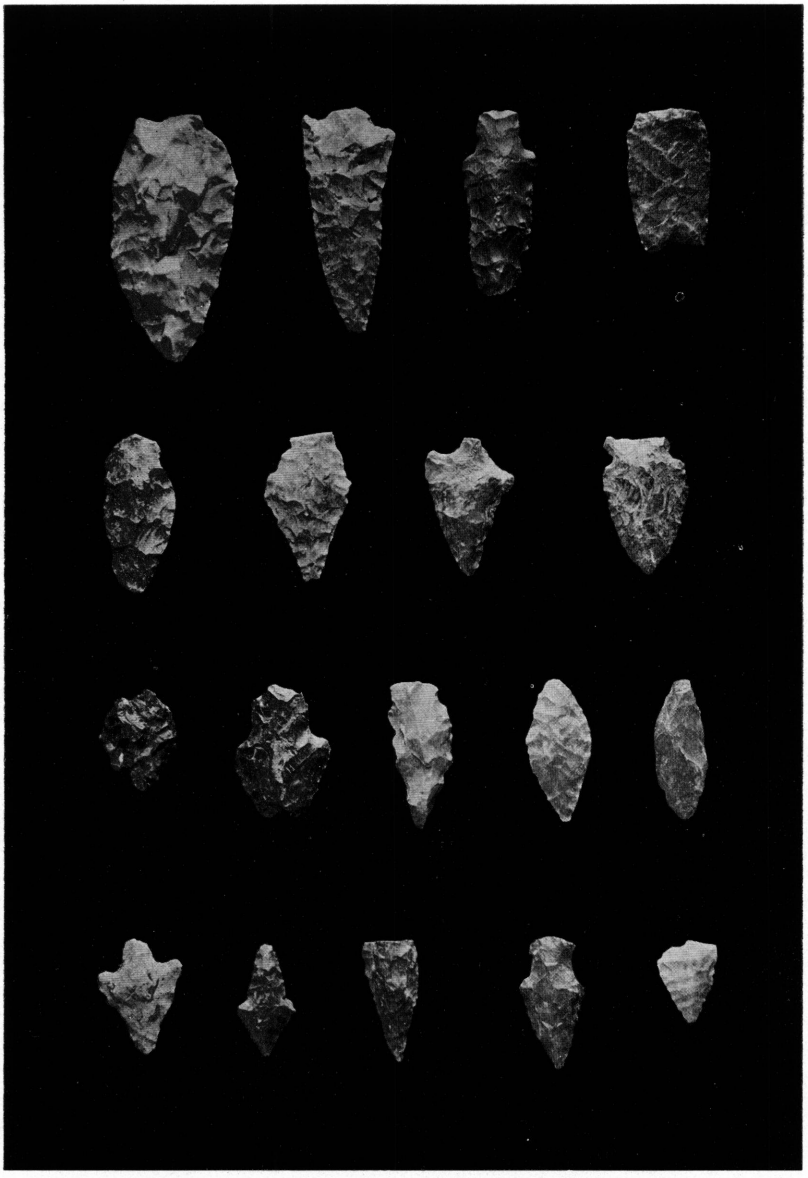


STONE IMPLEMENTS.

EXPLANATION OF PLATE 28

Photographed by courtesy of the Dutton Museum, Jolon, California.

Arrowheads found in Salinan territory. The objects are shown at about .35 natural size.



ARROWHEADS.

EXPLANATION OF PLATE 29

Fig. 1.—Bedrock mortar holes near Santa Lucia Peak. Relative size may be ascertained by comparison with pencil.

Fig. 2.—Pictographs from the "Painted Cave" near San Antonio Mission. See also plates 30 and 37.

Fig. 1

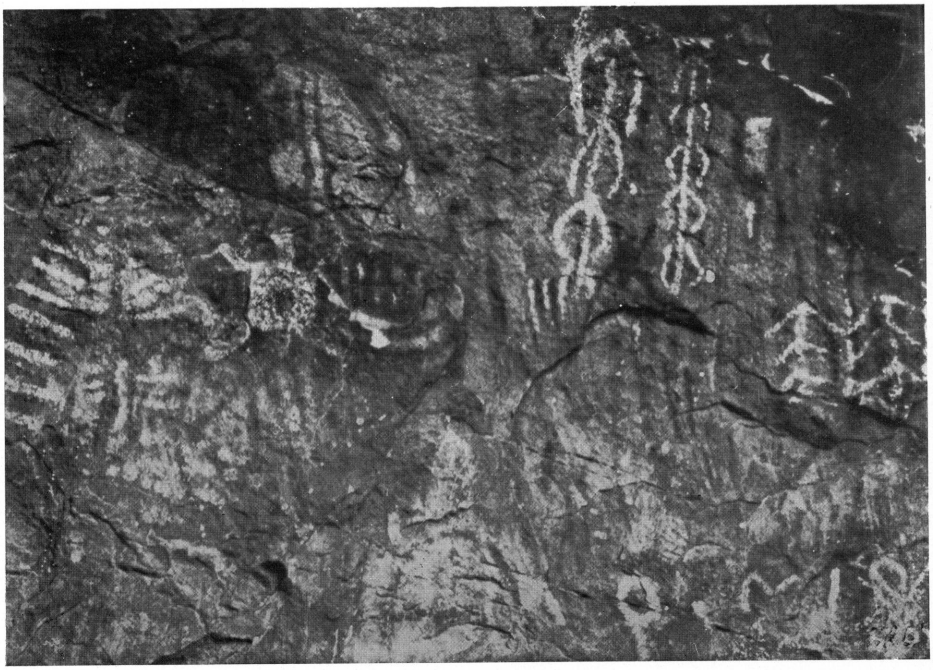
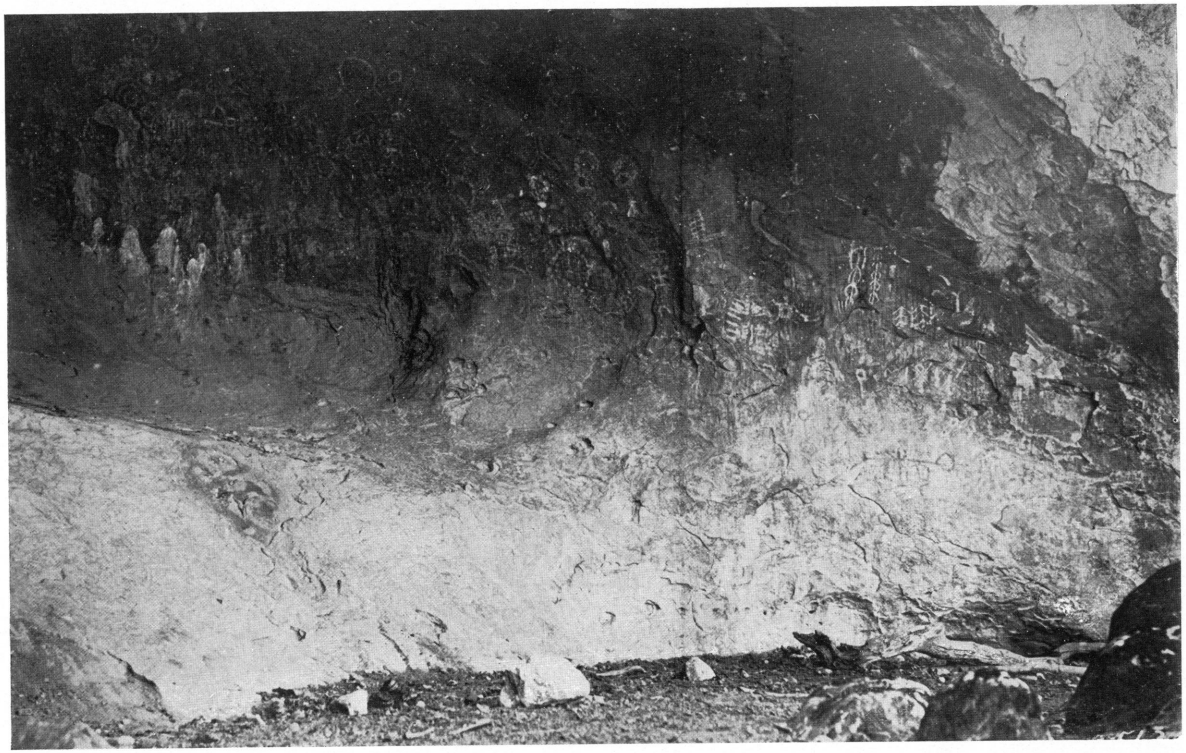


Fig. 2

EXPLANATION OF PLATE 30

Pictographs in the "Painted Cave" near San Antonio Mission.
See also plates 29 and 37.

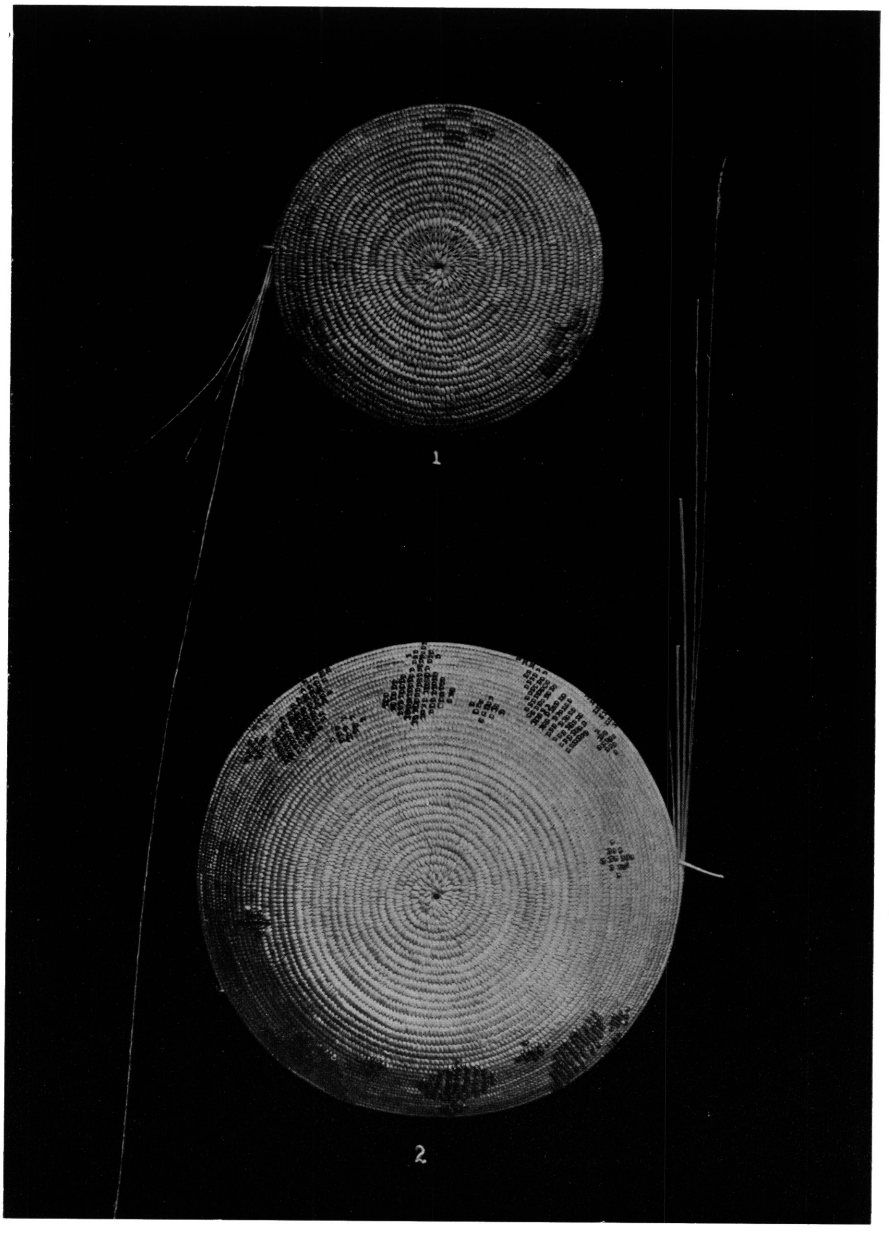


PICTOGRAPHS.

EXPLANATION OF PLATE 31

Fig. 1.—Unfinished basket with grass-foundation coil. Museum number 1–14991. Width, 13 cm.

Fig. 2.—Unfinished basket with simultaneous double coil of grass foundation, and bead-work decoration. Museum number 1–14992. Width, 19.4 cm.



COILED BASKETS.

EXPLANATION OF PLATE 32

Fig. 1.—Musical rasp. Length, 50 cm. By courtesy of the Dutton Museum, Jolon, California.

Fig. 2.—Grass-foundation coil basket. Museum number 1–14993. Height, 9.8 cm.

Fig. 3.—Grass-foundation coil basket. Museum number 1–14994. Height, 10.5 cm.

Fig. 4.—Unfinished rod-foundation coil basket. Museum number 1–14990. Width, 12.7 cm.

Fig. 5.—Bottom of rod-foundation coil basket. Museum number 1–14989. Width, 7.6 cm.

Fig. 6.—Rod-foundation coil basket. Height, 9.6 cm. By courtesy of the Dutton Museum, Jolon, California.

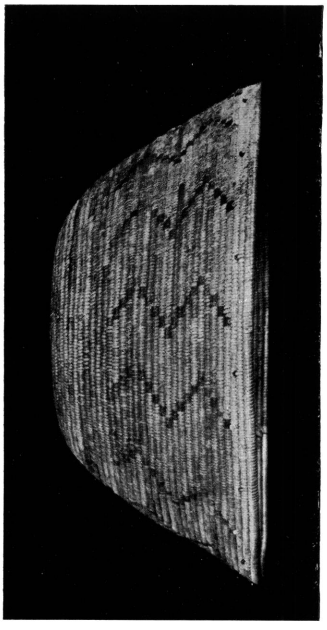


Fig. 3

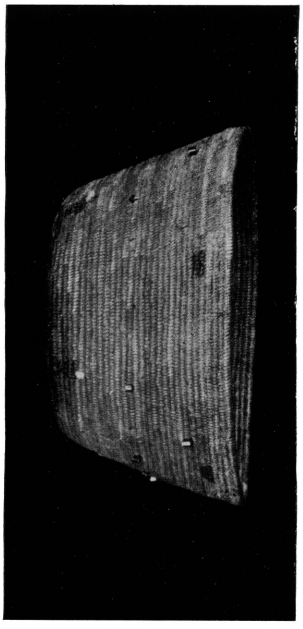


Fig. 2

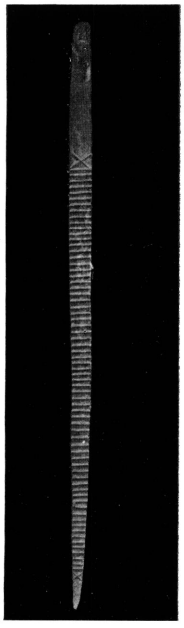


Fig. 1

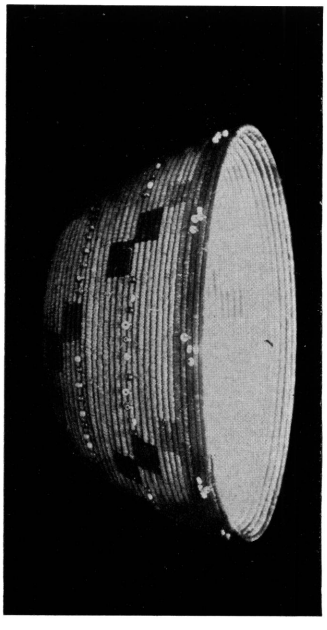


Fig. 6

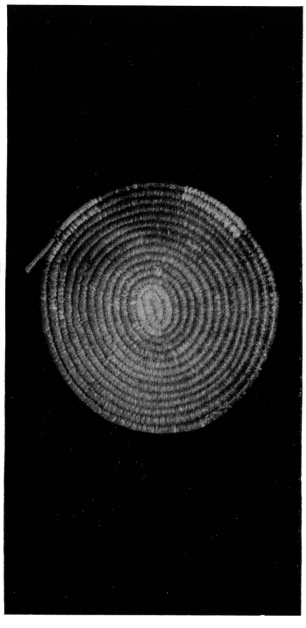


Fig. 5

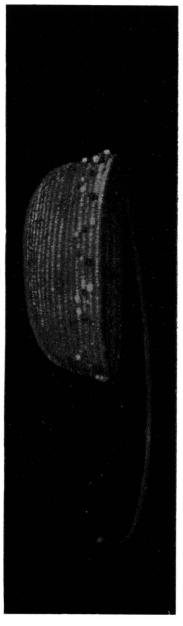
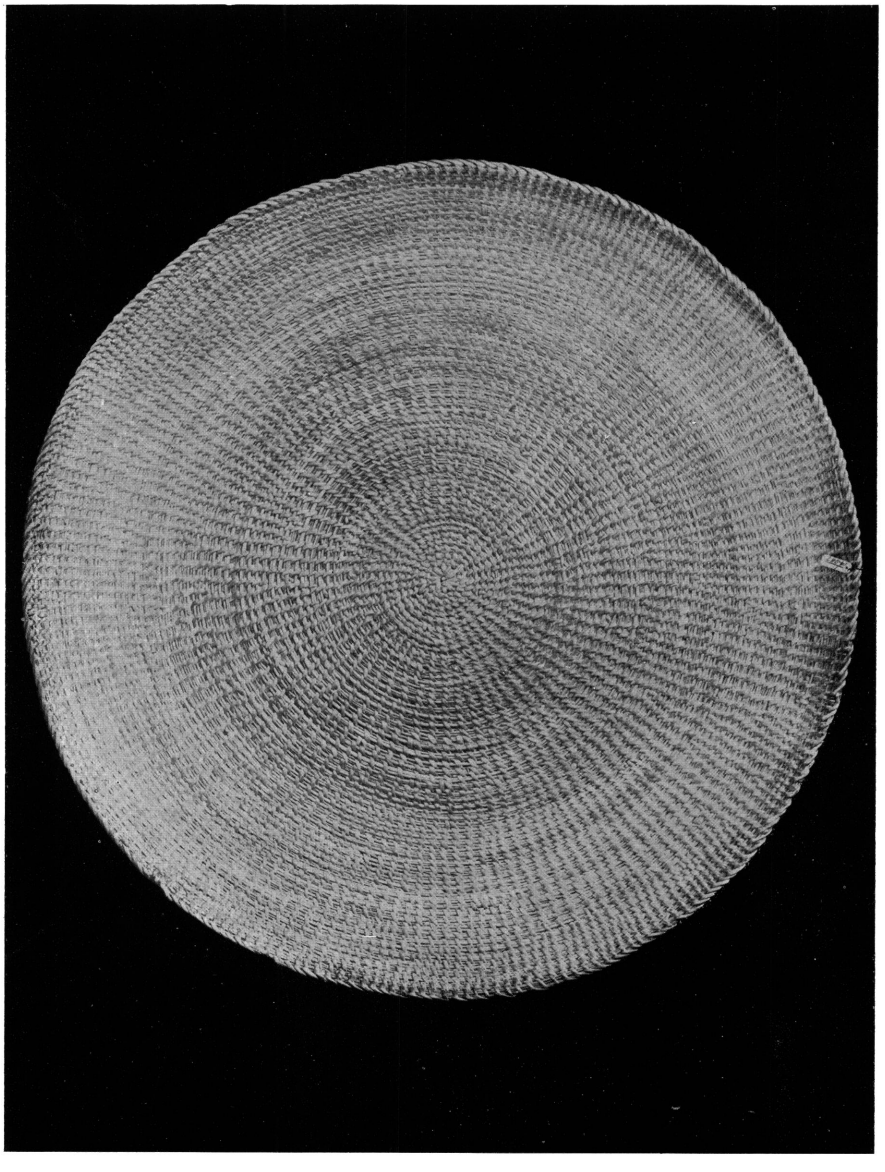


Fig. 4

EXPLANATION OF PLATE 33

Large coil tray made by Costanoan Indian woman at San Antonio. Museum number 1–14987. Diameter, 45.6 cm.



BASKETRY TRAY.

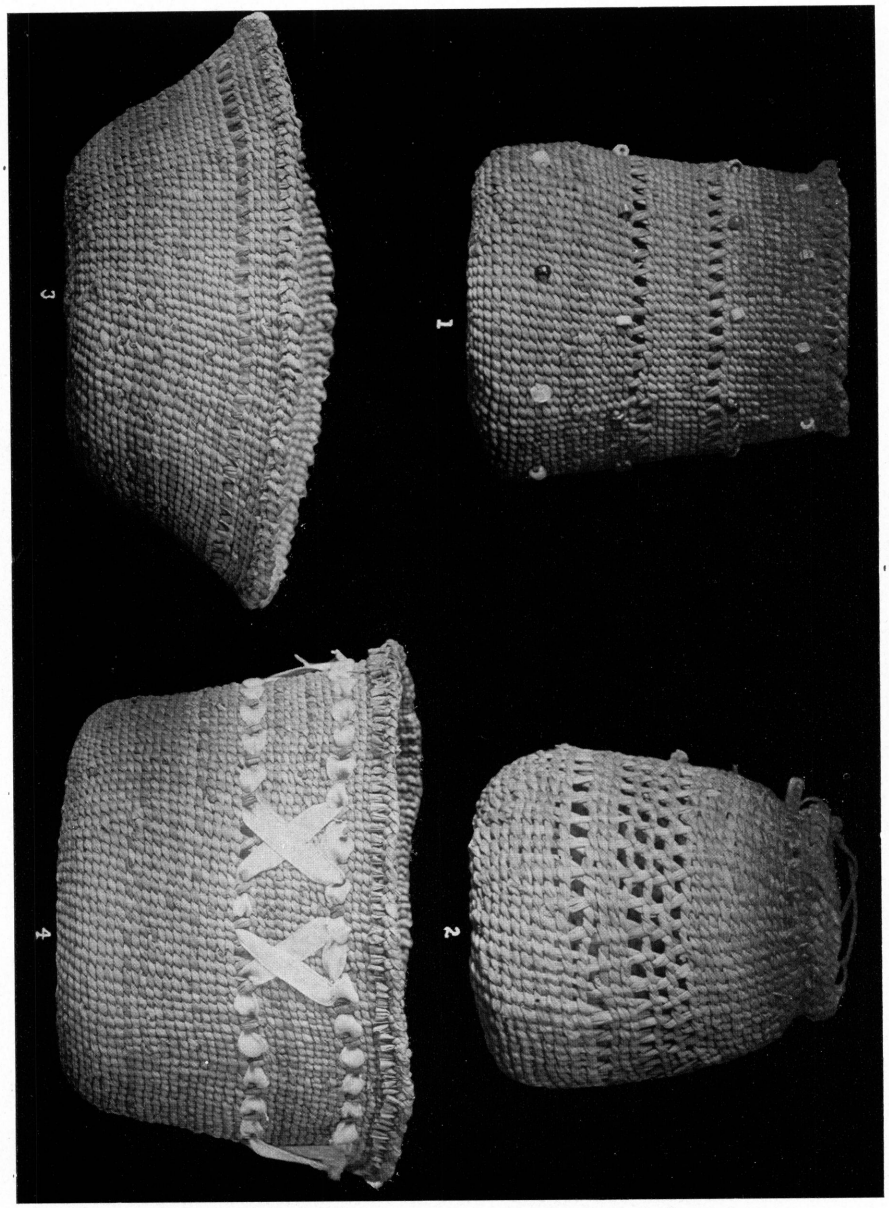
EXPLANATION OF PLATE 34

Fig. 1.—Basket of twined tule. Museum number 1–14999. Height, 15.1 cm.

Fig. 2.—Basket of twined tule. Museum number 1–14997. Height, 14.4 cm.

Fig. 3.—Basket of twined tule. Museum number 1–14996. Diameter, 21.6 cm.

Fig. 4.—Basket of twined tule. Museum number 1–14995. Diameter, 21.2 cm.



MODERN TWINED BASKETS.

EXPLANATION OF PLATE 35

Fig. 1.—Unfinished basket of twined tule with wavy border-line. Museum number 1–15000[a]. Diameter, 13 cm.

Fig. 2.—Base of unfinished basket of twined tule. Museum number 1–15000[b]. Diameter of woven portion, 18.1 cm.

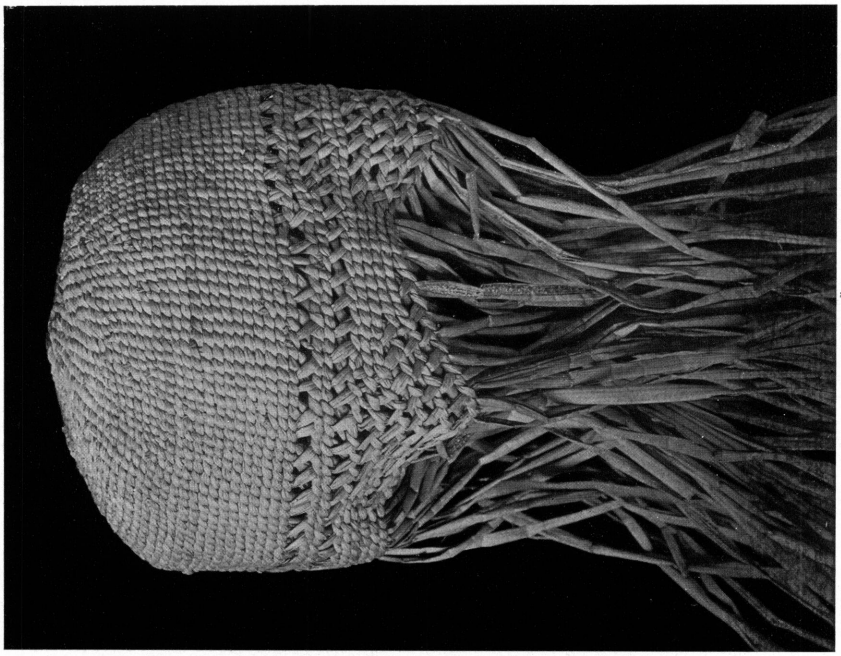


Fig. 1

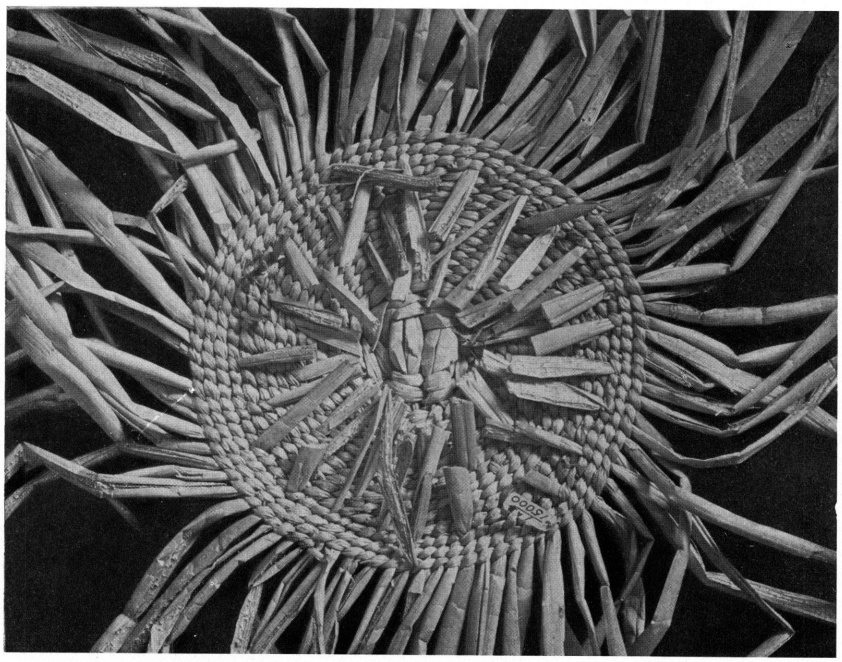


Fig. 2

TWINED BASKETRY.

EXPLANATION OF PLATE 36

Fig. 1.—Twined tule basket. Museum number 1–14998. Height, 21.4 cm.

Fig. 2.—Costanoan twined winnowing-tray. Museum number 1–14988. Length, 34 cm.

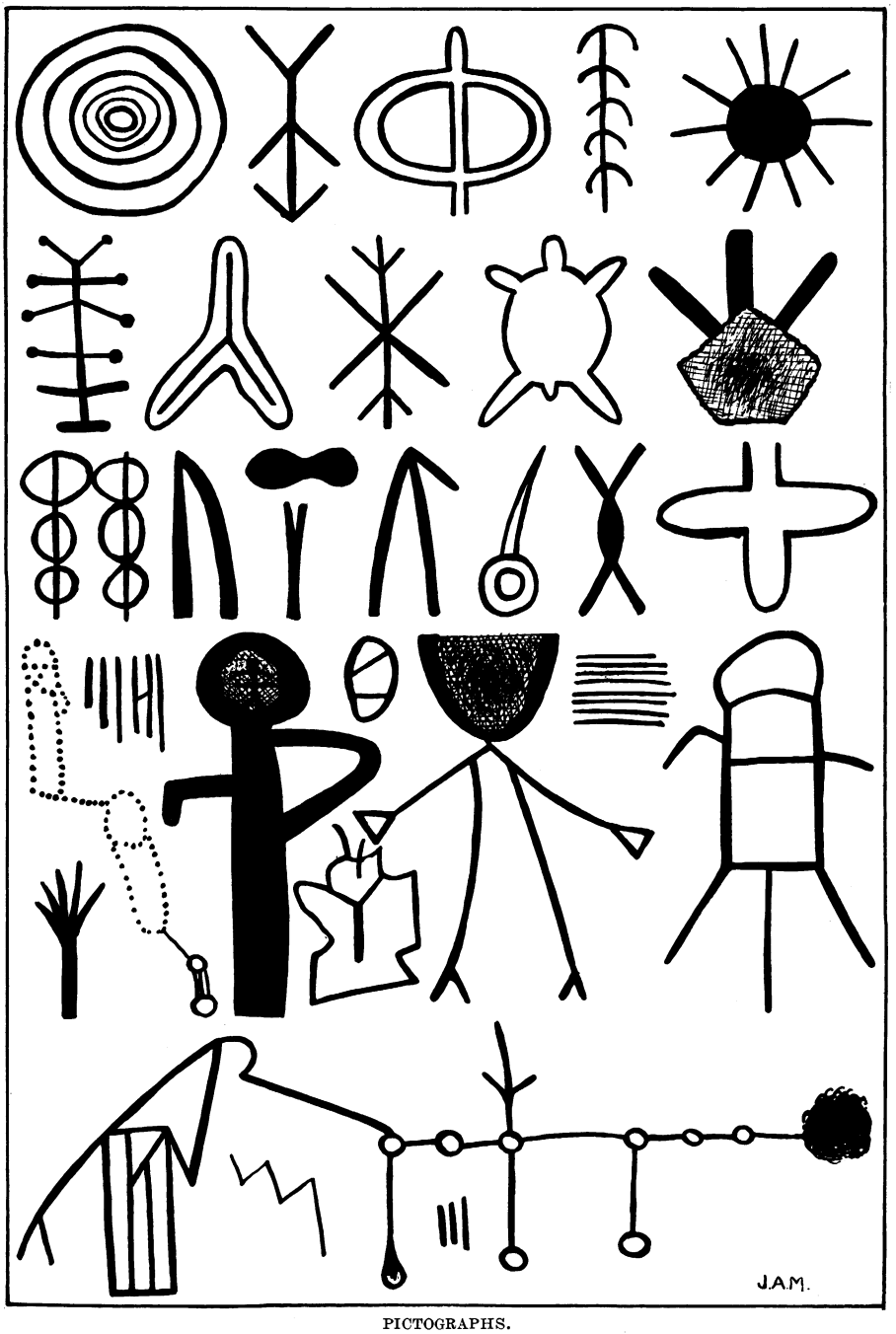
Fig. 1

Fig. 2

SALINAN BASKET AND COSTANOAN TRAY.

EXPLANATION OF PLATE 37

Drawings from the "Painted Cave" near San Antonio
See also plates 29 and 30.



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