

A SURVEY OF CAVE ARCHAEOLOGY IN CALIFORNIA

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Introduction

Caves have long been used for homes by man, and some of the most ancient implements and bony remains of man himself in the form of Sinanthropus pekinensis (Peking man) which are of Lower or Middle Pleistocene date (ca. 500,000 years old) have been extracted from cave deposits. Some idea of the importance of natural caves and rockshelters to ancient man in the European area may be gained from the following tabulation extracted from Hrdlicka (1927, p. 601):

Culture period	Open sites		Cave and rockshelter sites	
	Number	Percent	Number	Percent
Pre-Chellean	11	100	--	--
Chellean	32	94	2	6
Acheulean	36	78	10	22
Mousterian	45	34	88	66
Aurignacian	24	18	112	82
Solutrean	10	14	62	86
Magdalenian	17	10	148	90
Azilian-Tardenoisian	4	9.5	38	90.5
Neolithic	22	22.5	76	77.5

The notion has been advanced by psychoanalysts that the earliest dwellings were caves because here, in the warm, dark, enveloping surroundings, man recaptured the sense of security which he enjoyed in the prenatal state-- i.e. cave living was symbolic of the return to the womb (Freud, 1938, p. 139). One is inclined to take this explanation as pretty theoretical, for there are so many direct and practical reasons why man might seek out caves that the psychoanalytic one in the realm of the subconscious seems forced. Thus, a dry cave offers welcome protection from rain and wind and marauding animals (including men). Of course, there are disadvantages to caves as homes, for they may be distant from water, fuel or food, and also be so difficult of access that it is not worth the bother to use them for permanent shelter. Caves may serve a useful purpose as a place to store equipment and cache surplus food, and on occasion, as in the instance of many of the Central Sierran caves, as a convenient spot to dispose of the dead (Heizer, n.d.).

For the United States there is no summary of any sort of the distribution of and literature referring to caves used by man. Such a study would be of considerable use, but because bibliographic compendia and general distributional studies which have no immediate relation to one or the other processes of culture are rated as prosaic and pedestrian, such guides will perforce await preparation until a need for synthesis develops. For California the UCAS has accumulated a

large amount of data on cave and shelter sites, and has prepared a 1/500,000 scale map showing the distribution of some 240 occupation and petroglyph sites in 31 of the 58 counties.

Under the direction of its founder, Dr. F. W. Putnam, the Department of Anthropology of the University of California instituted the archaeological and ethnological survey of California (Wheeler and Putnam, 1903). A problem seen and attacked by Putnam was that of the antiquity of man in the New World, and he approached this problem in California in 1902 through the investigation of certain limestone caves in Calaveras, Shasta and Placer counties. Positive and unequivocal demonstration that man was contemporaneous with the several species of extinct Pleistocene mammals whose bones were found in these caves was not forthcoming, and the program, though rewarding of excellent and important paleontological materials, was abandoned about 1909. References to published summaries of the results of the excavation of Potter Creek Cave (Sha-48), Samwel Cave (Sha-49), Stone Man Cave (Sha-50), Mercer's Cave (Cal-11) and Hawver Cave (Eld-16) are contained in Heizer (1948, pp. 10-12). More recently, as a result of a preliminary investigation of Moaning Cave (Cal-13) by myself and A. Treganza, the UCAS carried out excavation in the floor deposits of the cave. The results of the limited exploration were published by Wallace (1951a; see also Orr, 1951). The cultural materials recovered appear to affiliate closely with those of the Middle Horizon of the lower Sacramento Valley (Beardsley, 1948, pp. 8-14; Heizer, 1949, pp. 38-39). Most recently, a vertical fissure "cave" near Murphys (site Cal-99, Winslow Cave) in the immediate vicinity of Mercer's and Moaning Cave, has been excavated for the UCAS by C. Meighan and M. Baumhoff, and the cultural materials are here also of definite Middle Horizon type. Quantities of human bones in most of the Calaveras County caves are ascribable to disposal of the dead by the simple process of throwing them down the opening. Recent Indians of the Sierra Miwok group deny adherence to this mode of corpse disposal (Merriam, 1909, 1910, pp. 231-232). Aginsky (1943) is silent on Sierra Miwok cave burial, and we may interpret the lack of mention as indicating no knowledge of the trait by his informants. In view of the known antiquity of the Middle Horizon culture and the presumptive equivalence of the recent Miwok Indians with the Late Horizon culture* in the region, the simplest conclusion is that the cave burials are ascribable to an earlier, pre-Miwok group.

The map at the end of this article shows the reference number and location of individual cave sites mentioned in this paper.

Archaeological cave sites in California

Proceeding from north to south, we shall review the known cave sites of archaeological interest. Sis-13, an occupation cave, is reported on by Wallace in this number of the UCAS Reports. Additional sites of this type occur elsewhere in this region, but have not been excavated. In Modoc County certain minor caves (sites Mod-2, Mod-3, Mod-14) in the vicinity of the Lava Beds National Monument

* Recent surveys and excavation between Milton and San Andreas in sites Cal-82 and Cal-83 by A.E. Treganza represent the only controlled excavations in Late Horizon sites in this region. Treganza's report will appear in a future number of this series.

have been excavated (Heizer, 1942), and many other cave sites in this locality await recovery of their archaeological treasures (Brown, 1927). In Shasta County, near Baird, are the famous Potter Creek (Sha-48), Samwel (Sha-49), and Stone Man Caves (Sha-50) excavated under direction of Putnam, and J.C. Merriam nearly 50 years ago (published literature cited in Heizer, 1948, pp. 10-11). In Samwel Cave a skeleton on the floor is connected directly with a Wintun Indian legend of a "maiden" who fell into the cave depths (Merriam, 1927; Furlong, 1906; also Mo. Rept. Stanford Grotto, N.S.S., Vol. 2, No. 5, pp. 44-45, 1951). Another Shasta County locality, Pluto's Cave (Sis-15) is believed to be an archaeological site on the basis of testimony of John Muir (1918, p. 89). Other writers, among whom are Brewer (1949, pp. 473-474), Clarence King (1903, pp. 321-322) and Howel Williams (1949, pp. 42-44) describe the cave but fail to mention evidence of prehistoric human occupancy. This site should be checked for aboriginal occupation.

To the west, in Lassen County, a dry, late occupation site named Tommy Tucker Cave (Las-1) has been excavated and described (Fenenga and Riddell, 1949; Riddell, n.d.). A small occupation shelter named Amedee Cave (Las-90) was excavated and briefly described by Riddell (n.d.).

In Tehama County a large lava cave with a deep occupation refuse deposit has recently been excavated for the UCAS by Martin Baumhoff. The site is known as Kingsley Cave (Teh-1). In addition to occupational leavings, a number of human burials were recovered. Two small caves in a volcanic cliff (Teh-54) named Inskip Caves contain evidence of Indian occupation. These have been described in a report by J. Werlhof (UCAS files).

Not far from Auburn in the Sierra Nevada foothills is Hawver Cave (Eld-16) excavated by J.C. Hawver and the Paleontology Department of the University of California. From the deposits were recovered a human skeleton and some flaked stone projectile points now in UCMA. The dozen or so flaked points are made of schist or slate, and have contracting stems or side-notched bases. The points are probably not of the Late period, but would fit nicely into either the Early or Middle Horizon types from the lower Sacramento Valley (Heizer, 1949). In addition to the points there are two long, pointed deer (?) bone awls or daggers. For the present these materials, by reason of lack of accompanying data; are unimportant. Whether the artifacts were found with the skeleton is not known. The human remains do not appear to be as ancient as the bones of the extinct vertebrates dug from the deposits. An analysis of the human and animal bone for fluorine content has been carried out by Cook and Heizer (n.d.).

In Amador County not far from Clements in a vertical exposure of andesitic tuff of the Mehrten formation is a large open cave (Bamert Cave, Ama-3) excavated by the UCAS. Human remains, including the naturally mummified child, basketry, and numerous wooden bone and stone objects were found. The archaeological report is being prepared by R. Heizer and A. Treganza. A special aspect of the Ama-3 cave deposits has already been published by Cook and Heizer (1951, pp. 283-286). In the same outcrop of tuff are about a dozen additional caves, some of them rather extensive, and most of them exhibiting some signs of aboriginal occupancy.

The limestone caves of Calaveras County are perhaps the best known of any in the state. Among those which contain human bones, and shell, bone and stone artifacts which accompanied the human bodies as grave offerings as they were thrown into the cave depths, may be mentioned Mercer's Cave (Cal-11; Holmes, 1902, pp. 171-172), O'Neil Cave (Cal-6), Winslow Cave (Cal-99), Calaveras Cement Company

(Cal-9), Moaning Cave (Cal-13), Cave of Skulls (Cal-29) described by Whitney (1868), and the Cave of the Catacombs (Cal-102, Danehy, 1951). These caves, and others, are discussed in a general article by Wallace (1951b), and further information may be found in the mimeographed bulletins of the Stanford University speleological group. In two caves (Cave of Skulls, Cal-29; Cave of the Catacombs, Cal-102) there is some indication that the human remains may not have been simply thrown, but were carried into the interior (Danehy, 1951; Mo. Rept. Stanford Grotto, N.S.S., Vol. 1, No. 7, p. 8, 1950).

In the North Coast Ranges there are numerous shelters and small caves, but few are specifically recorded, and none thus far have been properly excavated. In the pass between Napa and Wooden valleys is an open cave with occupation debris and bedrock mortar holes called Rock of Ages (Nap-46). Merriam (1910, p. 236) refers to a cave in Lake Miwok territory, and UCMA has some basketry from Napa and Sonoma County caves or shelters whose location and description is not recorded.

In the Coast Range south of San Francisco Bay are numerous caves in the Vaqueros formation. Two such caves in Monterey County, Hill Cave (Mnt-85) and Isabella Meadows Cave (Mnt-250) have been excavated. From both, whose fill is partly dry, came basketry, wooden, stone, shell and bone artifacts, and human remains. Mnt-85 was excavated in 1928 by W.W. Hill, and Mnt-250 was dug in May, 1952 by C. Meighan for the UCAS. Meighan will compile the report on both sites.

Near the eastern border of the state in the Panamint Mountains bordering Death Valley C. Meighan has excavated a cave habitation site (Coville Rock-shelter), Iny-222, for the UCAS, and has prepared a report on the findings (Meighan, n.d.). Earlier reconnaissance during which 13 occupation rockshelters and caves were found is reported by Lathrap and Meighan (1951).

In Kern County in the southern Sierra Nevada foothills we have the record of a basket-burial of a child in a small cave, site Ker-85 (Heizer, 1951), and not far distant, in Walker Pass, a small storage or cache cave containing a cache pit, rush matting with cord wefts, a twined burden basket and twined juniper bark textile has been described by Harrington (1950). Another small cave containing bedrock mortar holes and pictographs (Horse Creek Cave, Ker-93) is known from records in the UCAS files. A cave in Kawaiisu territory (Ker-29) contained broken pottery of the Owens Valley Brown Ware type (Riddell, 1951, p. 22). Some minor caves used by the Indians of Yosemite Valley are described by Merriam (1917, p. 205) and Beatty (1933).

In the hinterland of the Santa Barbara Channel, in the Hurricane Deck-Manzana-Sisquoc areas, are numerous caves which contain evidence of former occupation. Little is known about these sites beyond the preliminary notes of Orr (1942), Rogers (1937), Strong (1935) and manuscript notes in the UCAS files on a small occupation cave (SBa-102). A basket-cache cave is mentioned by Heye (1926), and there is a good record of a similar cache in Thatcher Cave (Ven-64) in the Sespe Valley (UCAS records).

Caves occur on most of the Channel Islands, but we are practically in the dark as to their location, size or contents. Orr (1952) has published a very general description of some Santa Rosa Island caves, and Finley (1951) describes an occupation cave with pictographs on Santa Cruz Island. A small occupation cave near Point Sal, Santa Barbara County, is reported by Schumacher (1875, p. 347) and a cave on Anacapa Island is briefly detailed by Yates (1890). Caves on Santa Cruz Island are mentioned by de Cessac (Hamy, 1951, p. 8). Woodward (1942) and

Hollenbach (1941) mention caves on San Clemente Island which yielded burials, basketry, wooden, stone, shell and bone artifacts, as well as European chickens (1) wrapped and deposited as ceremonial offerings.

The famous Cave of the San Martins (listed in the UCAS records as site Lan-36) from which S. Bowers secured, about 1885, numerous baskets, feather headdresses, bone whistles, wooden bullroarers, and hafted stone-discs was recently re-discovered by Richard Van Valkenburgh who has published a valuable report (1952). Earlier accounts of the cave are by Bowers (1885) and Putnam (1887). Henshaw and O.T. Mason in their respective monographs on perforated stones and North American basketry illustrate some of the articles from the cave, but the collection has not yet been described as a single lot.

In the region about Twenty-nine Palms, Riverside County, are numerous small shelters and caves in which Indians cached tools, food, basketry and pottery. The most complete report on these is by Campbell (1931).

Over a large portion of Southern California formerly occupied by the Yuman and Shoshonean speaking pottery-making tribes there are small rockshelters which were used as protected areas in which to store bulky pottery vessels, sometimes containing seeds (e.g. Treganza, 1947), or other valuables. Systematic accounts of storage and occupation caves in this region are few, though the number of such sites is large. Peck (1950) mentions a cave about 40 miles north of Barstow containing basketry, and several small occupation caves are reported in the vicinity of the San Bernardino County turquoise mines (Rogers, 1929, pp. 6-7; Lawbaugh, 1951).

In Orange County, J. Winterbourne (1939) conducted WPA excavations in Santiago Canyon Cave (Ora-79) and recovered, among other things, some twined basketry and cordage. A full report, to my knowledge, was not prepared, and the excavation data from this and a number of open sites in Orange County still await publication.

General considerations

The significance of caves in California archaeology is difficult to assess. The early hope expressed by Wheeler and Putnam (1903, p. 39) that the earliest evidences of man and his culture in California might be found in caves has, thus far, not been realized. The most significant materials from caves is perishable basketry and wooden objects. Altogether a very respectable amount of such material has been accumulated in museums, but aside from a few brief descriptive notes (e.g. Harrington, 1942; Heye, 1926; Irwin, 1946; Lathrap and Meighan, 1951; Heizer, 1951; Weltfish; Kroeber, 1925) no real effort has been made to utilize the ancient basketry in an overall study of the types, distribution and history of California basketry. Caves are not only uncommon relative to open sites in the state, but are almost without exception small, and rich rewards of cultural materials cannot be expected. The evidence recovered from such sites as are dry and protected is, however, of the highest importance in giving us materials of the type which have long since utterly disappeared in open sites.

Recent use and mythological reference to caves by California

Indians

A few of the caves mentioned earlier were known to and frequented by Indians in the historic period. Among these are Bamert Cave (Ama-3) which probably served as a refuge during the 1850's when the Miwok were under intense pressure at the hands of the gold miners of the central Mother Lode region; Isabella Meadows Cave (Mnt-250) where post-Caucasian objects were recovered; Kingsley Cave (Teh-1) which was an historic refuge of the Yana Indians; and the Yosemite Valley Indian Caves (Merriam, 1917, p. 205).

A cave near Oroville, Butte County, was the source of flint for making implements. The site's location is not known (Dixon, 1905, pp. 132-133). The Yana of Tehama County, of which tribe Ishi was the famed last survivor, used caves within the ethnographic period as attested by Waterman (1918, map 1, pp. 41, 42, 51, 59, Pl. 13). One may guess that large numbers of small caves and shelters distributed generally throughout the Coast Ranges and Sierra Nevada were so used at the opening of the historic period, but because of their size few, or perhaps none, were large enough or well enough situated to constitute the site of main villages. In these regions the Caucasian impact was so sudden and devastating that large numbers of permanent villages and occasional camp sites were abandoned in such a short period that no opportunity was allowed for the accumulation in their deposits of materials from the post-contact period. The abrupt termination of Indian occupancy therefore may account for the extreme scarcity or absence of historic materials in sites were probably occupied up to the year of Caucasian settlement.

The deep limestone caves of Calaveras County do seem to have been specifically avoided by the recent Miwok Indians, apparently because they contained quantities of human bones from ancient burials of a former (i.e. Middle Horizon) people (Merriam, 1909, 1910). For the most part these limestone caverns are not suitable for habitation because of their temperature, darkness, moisture, and vertical entrance.

The historic occupation of small caves along the Stanislaus River just above Knights Ferry is attested in the diary of the Moraga expedition of 1806 where it is stated: "This morning we set out along the river towards the east, and after a six league march came to an Indian village called "Taulanne". This village is built on steep cliffs, inaccessible because of their sharp, dangerous rocks. The Indians live in caves; they go to and from these caves by the use of thin poles, which one Indian holds while the other slides down or climbs along it (Moraga, 1946, p. 232)."

In the mythology of many California Indians caves enter as the homes or retreats of mythical persons or animal characters. There is no point at complete citation in this matter, and reference to the mythology of the Miwok (Gifford, 1917, pp. 316-317; Barrett, 1919, p. 3, reference to Bower Cave; Merriam, 1909;

Merriam, 1910, pp. 169, 191, 195, 231-232, 236*); the Owens Valley Paiute (Steward, 1936, pp. 372, 410, 424); the Yokuts (Gayton and Newman, 1940, p. 73); and the Pomo (Barrett, 1933, p. 33) will suffice to illustrate**.

There are other Indian accounts than that of the cannibal giant which were intended to explain the presence of the human bones in the Calaveras County caves. Blake (1858, p. 257) quotes a Miwok Indian account of an ancient battle in which so many persons were killed that it was impossible to cremate them, and they were handily disposed of by throwing them in a cave. This does not sound, in any way, like California Indian warfare as it actually was in the memory of informants who had lived in aboriginal times and as recorded in ethnographic accounts. An early newspaper account (reproduced in Danehy, 1951) in which is cited the testimony of a missionized Indian woman to the effect that the human bones in the Cave of the Catacombs (site Cal-102) are those of imprisoned Indians does not sound ethnologically correct. Although Danehy tends to see some support for the Indian testimony, the facts necessary for proof are not at hand, and the story is again likely to be pure invention to account for the known presence of the bones dating from an earlier period.

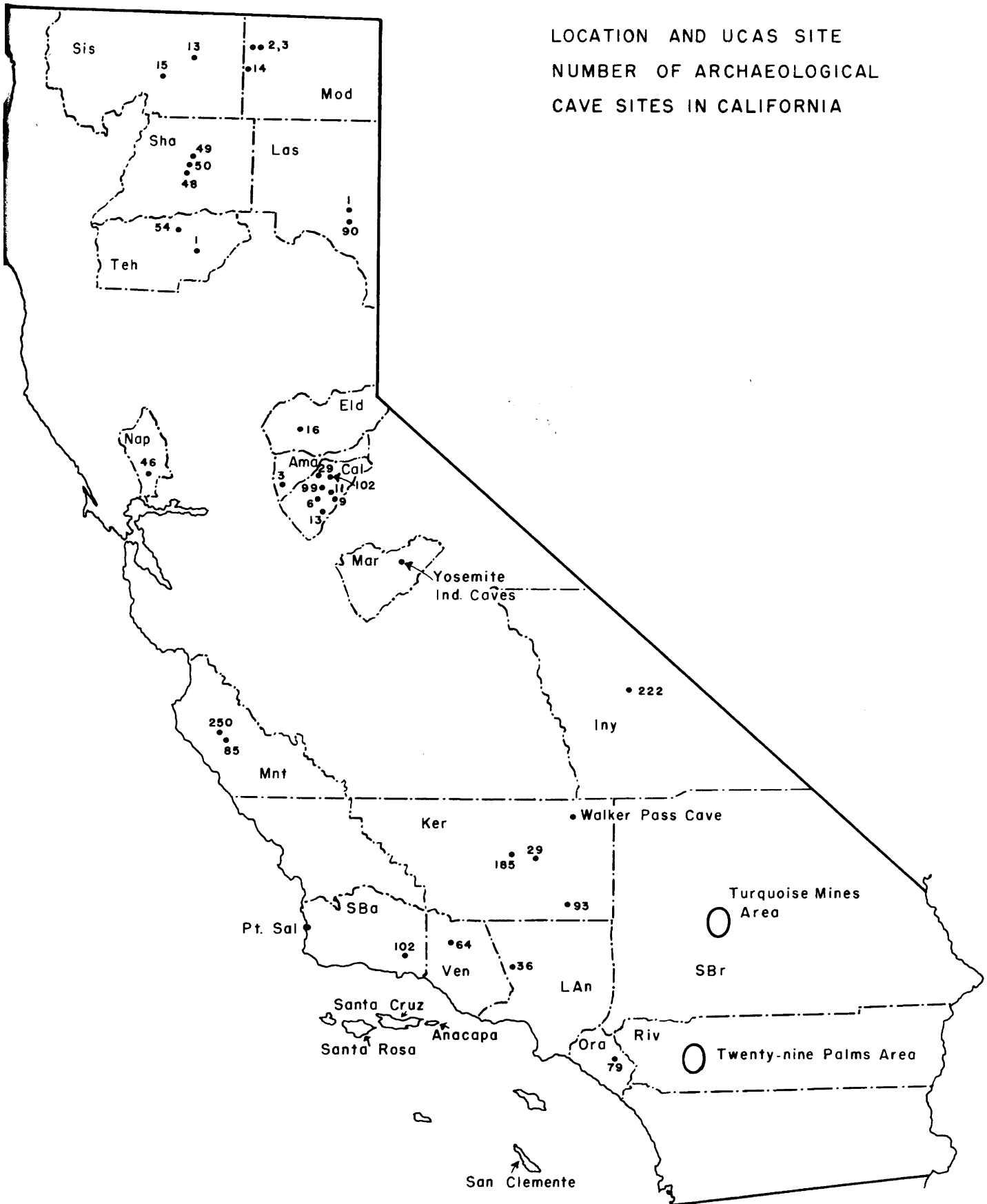
Furlong (1906) and Merriam (1927) who were led to Samwel Cave through a Wintun Indian's account of the cave which was used as a resort for those persons seeking a supernatural vision or magical luck (cf. DuBois, 1935, pp. 79-82, 91, who discusses such sacred spots and mentions specifically a cave near Wilson Flat on Pit River) cite these data, and the further details of a romantic story of 3 girls who entered the cave. One of the girls fell down a vertical chute. Furlong and Merriam believe the skeleton found at the bottom of the shaft was actually that of the maiden mentioned in the legend. Although this may be the case, it would be interesting to have had a competent physical anthropologist's opinion on the sex and age of the individual whose bones were found. The Samwel Cave skeleton is not in the University collections, and it is believed that Furlong reburied the bones in deference to the wishes of the local Indians. I offer this dampening remark on the identification of the skeleton as that of the particular girl mentioned in the Wintun Indian tale with the experience in mind that circumstantial Indian accounts of this sort rarely check out in fact and detail.

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* The stone cannibal giant (called Chehalumche by the Central Sierra Miwok) who lives in caves and carries his human victims there to devour them is paralleled in the mythology of other Central Californian peoples to the extent that such cannibal giants are generally known. Perhaps the existence in Calaveras County of ancient burial caves with bones scattered around is sufficient to account for the local association between the cannibal giant and the caves. Merriam (1909) says, "The Miwok feel that the finding of human bones in these caves must convince us of the truth of their belief in the occupancy of the caves by Chehalumche, the bones being those of the victims he has carried there."

** Mythology is sometimes associated with caves in the Great Basin area, as illustrated by Sarah Winnemucca Hopkins' (1883, pp. 73-75) account of Lovelock Cave, and the southern Oregon Paiute belief that dwarfs lived in caves near waterholes (Whiting, 1950, p. 29).

LOCATION AND UCAS SITE
 NUMBER OF ARCHAEOLOGICAL
 CAVE SITES IN CALIFORNIA



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