

REPORTS OF THE CALIFORNIA ARCHÆOLOGICAL SURVEY, NO. 2

A BIBLIOGRAPHY OF
ANCIENT MAN IN
CALIFORNIA

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A BIBLIOGRAPHY OF ANCIENT MAN IN CALIFORNIA

"The extraordinary character of the labors in California lead us to believe that any remains here will be more likely to see the day than in any other land; and as the great majority of the miners are persons of more than ordinary intelligence, we hope that they will carefully preserve all archaeological remains which they may find and make a full and exact report of the circumstances of each case."

Alta California (newspaper), Nov. 17, 1853.

Herewith the CALIFORNIA ARCHAEOLOGICAL SURVEY presents its second Report. No single aspect of local prehistory has been of more general or durable interest than the problem of the antiquity of man in California. This bibliography will furnish a guide to the published literature on this important subject.

This long list of works, in which are discussed several score of separate finds, produces a pitifully meager number of authentic and undoubted examples of truly ancient man or his works. This is due largely to the unfortunate (for the scientist at least) but natural inclination of a person who finds a bone or man-made tool protruding from the wall or floor of an excavation, to dig it out and look at it. This destroys evidence, since the exact and undisturbed position of the find will normally tell the trained observer more about its age than any other thing. Sometimes the necessity of a work schedule makes it imperative to dig the find out, and therefore destroy the evidence of man's presence or activity as it lies in situ in the ground. On most occasions, however, work can be halted at that spot until some trained observer can be called from a nearby college, university, or museum, so that the necessary facts may be recorded. Regarding such accidentally discovered human remains, implements, tools, campfires, and the like, there is always present the possibility that it will be extremely ancient if it lies buried in soil or sand or gravel at a depth of over 8 to 10 feet from the present surface, and does not lie in a dark colored layer which is due to accumulation of ash and charcoal from repeated fires made in a permanent camp. Such dark deposits (charcoal flecks may be seen on close inspection) may be old, but are more probably fairly recent in time. If the discovery is simply an Indian mound or campsite, this is important, and should be reported to a nearby institution by telephone or letter. But if it has the appearance or indication of great antiquity (for example, a skeleton, stone mortar, chipped flint arrowpoint, spearhead, or the like found at considerable depth in a roadcut, sewer trench, canal excavation, or vertical cliff) it should be left undisturbed and a specialist called to assist in its removal and recording of the essential facts on its occurrence in the ground.

If everyone who discovered, or was present when such a discovery was made, or who heard of such a discovery soon after it was made, would do two things, our knowledge of prehistoric California would undoubtedly, materially, and rapidly be enlarged. These two things are: first, don't dig it out; and second, call a specialist in archaeology from the nearest institution (university or museum) to make an accurate record of the find. If the discovery must be removed, an attempt should be made to do the following before removal:

1. Photograph the find in its original, undisturbed position.
2. Write down the exact and detailed circumstances of its discovery (when, by whom, in what manner) and record any testimony by witnesses who saw the discovery made.
3. Describe exactly the find as it appears, paying particular attention to any evidence of its having reached the point in a hole (animal burrow, pit dug anciently, etc.) from a higher level. If the overlying strata were even and undisturbed, the object is therefore probably not intrusive and is as old as the stratum in which it was discovered. Record the depth, its exact location by measuring from a permanent point, sketch and describe accurately the overlying stratification.
4. Get in touch with an archaeologist as outlined above.

* * * * *

The bibliography presented here is largely informational, and is not intended as a critical and analytical list of references on the subject. Published references are classified by subject (i.e. individual find) and listed alphabetically by author.

An effort has been made to include primary accounts written by persons who had personal acquaintance with the skeletal or artifact finds, or who were in a position to comment authoritatively on the discovery. It is safe to say about the Calaveras skull and the large number of auriferous gravel artifact finds that majority opinion rejects these as authentic Tertiary evidences of man or his works. Nevertheless, a few recent writers (see items No. 9, 10, 39, 49) imply that these may be reinstated as authentic finds evidencing ancient man of the Tertiary or Pleistocene periods. Some discoveries, made by reputable scientists, were never raised from the doubtful class because of the paucity of evidence--among such might be named the Potter Creek Cave finds. Many others, for example Tranquillity, La Brea, Los Angeles, and Angeles Mesa, must also be, at present, placed in the unproven class because the exact facts regarding the nature of their occurrence or removal from in situ position was such that the actual proof of their time relation to the overlying strata and enclosing medium of earth in which they lay, so necessary for any decision, is lacking. Another group of finds, for example those made on the margins of long-dry lakes in the southern California desert, have been variously dated by different authorities who agree only upon the general fact that the remains are ancient, but diverge on the assignment of how many thousands of years have elapsed since the men responsible for making the artifacts were living.

A bibliography of Early Man in North America has been published recently by E. H. Sellards in the Bulletin of the Geological Society of America, vol. 51, pp. 373-431, 1940; vol. 58, pp. 955-977, 1947.

To aid the reader, and as a substitute for an index, we preface the bibliography with a listing of localities and finds as they are presented below:

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I. CALAVERAS SKULL

This fragmentary human skull was said to have been found in 1866 at a depth of 130 feet in auriferous gravels in a mine shaft on Bald Hill, one mile northwest of Angels Camp, Calaveras County. It was removed by Mr. Mattison, owner of the mine, from the gravels which are variously attributed to Pocene or Pliocene age. It is impossible to summarize the testimony and evidence, and reference is made to the detailed presentations by W. H. Holmes (1899, 1901). No reputable scientist since Holmes' day has entertained any credence in the skull as representative of a Tertiary race because it has been demonstrated that the skull is that of the recent California Indian type, and could not have been found originally in the gravels of the Mattison shaft.

Few other skeletal finds ever made attracted the wide discussion, interest, and partisanship in favor of or against this skull. Protagonists of the theory of Homo sapiens of the Tertiary period used this skull to strengthen their arguments. Few general anthropological books written at the present time can forbear mentioning this discredited object as one of the most notorious anthropological hoaxes ever perpetrated. The skull is now in the Peabody Museum, Harvard University.

1. Ayres, W.O. The Ancient Man of Calaveras. American Naturalist 16: 845-854, 1882.
2. Blake, W.P. The Pliocene Skull of California and Flint Implements of Table Mountain. Journal of Geology 7:631-637, 1899.
3. Boutwell, J.M. The Calaveras Skull. In Lindgren, 1911:54-55 (cited infra in item No. 18).
4. Branco, W. Fragliche Reste und Fuszfahrten des Tertiären Menschen. Zeitschrift d. Deutsch. Geol. Gesellschaft 56:97-132, 1904. Berlin. (Pp. 102-104, Calaveras skull.)
5. Brewer, W.H. Alleged discovery of an ancient human skull in California. American Journal of Science 42:424, 1866.
6. Cope, E.D. Pliocene Man. American Naturalist 14:60-62, 1880.
7. Dall, W.H. The Calaveras Skull. Proc. Acad. Nat. Sci. of Philadelphia, 1899:2-4, 1899.
8. Desor, E. L'homme pliocene de la Californie. Nice. 16 pp.
9. Gates, R.R. Human Ancestry. Harvard Univ. Press, Cambridge, 1948. (Pp. 294-297, Calaveras skull: "Apart from the fact that the skull is Pleistocene, and not Pliocene, this would appear to be one of the outstanding records of early man in America," p. 296.)
10. Hay, O.P. The Pleistocene of the Western Region of North America and its Vertebrated Fossils. Carnegie Inst. of Washington, Publ. 322 B. (P. 225, Calaveras skull.)
11. Hitchcock, C.H. The Calaveras Skull. Engineering and Mining Journal 9:345-346, 1870.
12. Holmes, W.H. Preliminary Revision of the Evidence Relating to Auriferous Gravel Man in California. American Anthropologist, n.s. 1:107-121, 614-645, 1899.
13. Holmes, W.H. Review of the Evidence Relating to Auriferous Gravel Man in California. Smithsonian Institution Annual Report for 1899:419-472, 1901. (Pp. 454-469, the definitive study on the subject of the Calaveras skull.)
14. Holmes, W.H. Calaveras Man. Handbook of American Indians, Bureau of American Ethnology, Bulletin 30, Vol. 1:188, 1912.
15. Holmes, W.H. Handbook of Aboriginal American Antiquities. Bureau of American Ethnology, Bulletin 60, 1919. (P. 61, Calaveras skull.)
16. Hrdlička, A. Skeletal Remains Suggesting or Attributed to Early Man in North America. Bureau of American Ethnology, Bulletin 33, 1907. (Pp. 21-28, Calaveras skull. See also p. 105, Pl. XVIII a.)
17. Koch, F.J. The Calaveras Skull. American Antiquarian 33:199-202, 1911.

18. Lindgren, W. The Tertiary Gravels of the Sierra Nevada of California. United States Geological Survey, Professional Papers No. 73, 1911. (Pp. 52-53, Calaveras skull.)
19. McGee, W.J. and W. H. Holmes. The Geology and Archaeology of California. American Geologist 23:96-99, 1899.
20. Marcou, J. La Crâne Humain du Calaveras. Bull. Soc. Geol. France, 11:419-420, 1883. Paris.
21. Merriam, J.C. The True Story of the Calaveras Skull. Sunset Magazine 24:153-158, 1910. Reprinted in Carnegie Institution of Washington, Publication 500, Vol. III:1867-1875, 1938.
22. Merriam, J.C. Present Status of Knowledge Relating to the Antiquity of Man in America. Sixteenth International Geological Congress Report, Vol. 2:1313-1323, 1936. Washington. (P. 1315, Calaveras skull.)
23. Munro, R. Archaeology and False Antiquities. London, 1905. (Pp. 81-109, Calaveras skull.)
24. de Nadaillac, M. Les Premiers Hommes et les Temps Prehistoriques. Paris, 1881. (Pp. 435-439, Calaveras skull.)
25. de Nadaillac, M. L'Amérique Prehistorique. Paris, 1883. (Pp. 42-46, Fig. 14, Calaveras skull.)
26. de Nadaillac, M. Le Crane de Calaveras. Revue des Questions Scientifique, Deux. serie, vol. 18:341-358. Loven, 1900.
27. Newton, E.T. The Evidence for the Existence of Man in the Tertiary Period. Proc. Geol. Assoc. 15:63-82, 1899. London. (Pp. 77-79, Calaveras skull.)
28. Putnam, F.W. Statement on Calaveras Skull. In Sinclair, 1908:128-129 (see item no. 32).
29. Quenstedt, W. and A. Fossilium Catalogus 1: Animalia, Pars 74, Hominidae Fossiles. s'Gravenhage, 1936. (Pp. 412-414, documentation in anthropological literature up to 1933 of Calaveras skull.)
30. Schmidt, E. Zur Urgeschichte Nordamerikas. Archiv für Anthropologie, 5:153-172, 233-259, 1872. (Pp. 253-259, Calaveras skull.)
31. Schmidt, E. Die Altesten Spuren des Menschen in Nordamerika. Sammlung gemeinverst. wissenschaftl. Vorträge, N.F., 2nd. Ser., Vol. 38-39:1-58, 1887. Hamburg. (Pp. 43-50, Calaveras skull.)
32. Sinclair, W.J. Recent Investigations Bearing on the Question of the Occurrence of Neocene Man in the Auriferous Gravels of the Sierra Nevada. University of California Publications in American Archaeology and Ethnology, 7, No. 2 (pp. 107-131), 1908. Berkeley. (Pp. 123-129, Calaveras skull. This work, next to Holmes, 1901, is of basic importance

the subject. Sinclair says, p. 126, "The lack of agreement between the gravels of Bald Hill and the matrix of the skull effectually establishes the fact that the skull was not obtained in place, as claimed, in the gravels beneath the rhyolite, or from any other gravel of the rhyolite epoch.")

33. Southall, J.C. Recent Origin of Man. Philadelphia, 1875. (P. 558, recital of original testimony that Calaveras skull was planted in the Mattison shaft as a hoax.)
34. Southall, J.C. Pliocene Man in America. Victoria Institute, Transactions 15:191-220, 1882.
35. Whitney, J.D. Geological Survey of California. Vol. I, Report of Progress and Synopsis of the Field-Work from 1860 to 1864. Philadelphia, 1865. (P. 252, statement by Whitney that man, mastodon, and elephant were contemporaneous in California. This observation was published before the discovery of the Calaveras skull.)
36. Whitney, J.D. Notice of a Human Skull, Recently Taken from a Shaft near Angels, Calaveras County. Proceedings of the California Academy of Science 3:277-278, 1867. Reprinted in American Journal of Science 43:265-267, 1867. (This is the official announcement of the finding of the Calaveras skull by the man who was to become its valiant champion as a relic of Pliocene man.)
37. Whitney, J.D. On the Calaveras Skull and its Geological Position. American Naturalist 2:445-447, 1868.
38. Whitney, J.D. The Auriferous Gravels of the Sierra Nevada of California. Contributions to American Geology, Volume I. Harvard University, Museum of Comparative Zoology, Memoir 6. Cambridge, 1880. (Contained in this great work is the full presentation of the data and arguments for Calaveras skull as a Tertiary specimen.)
39. Wilder, H.H. Man's Prehistoric Past. New York, 1923. (Argues that Calaveras skull may be reinstated as an ancient specimen. Cf. arguments by May (item no. 10) and Gates (item no. 9).)
40. Wilson, T. La Haute Anciennete de l'Homme dans l'Amerique du Nord. L'Anthropologie 12:297-339, 1901. Appears also in C.R. Congr. Internat. Anthr. Arch. Preh., 12th Session, Paris, 1900:149-191, Paris, 1902. (Pp. 306-317, Calaveras skull.)
41. Wright, G.F. The Ice Age in North America. New York, 1890. (Pp. 561-567, Calaveras skull and other auriferous gravel finds.)
42. Wright, G.F. Prehistoric Man on the Pacific Coast. Atlantic Monthly, 67:501-513, 1891.
43. Wright, G.F. The Lava Beds of California and Idaho and Their Relation to the Antiquity of Man. British Assoc. for the Advancement of Science, Report, 61:651, 1892. (Argues for post-Tertiary, "Glacial" period deposition of lava, and for the genuineness of the Calaveras skull.)

44. Wright, G.F. The Latest Concerning Prehistoric Man in California. Records of the Past 7:183-187, 1908.
45. Yates, L.G. Prehistoric Man in California. Santa Barbara Museum of Natural History, Bulletin 1:23-30, 1887. (Yates was a member of the Whitney Survey and here notes the animus toward the Survey and its leader. The article is mainly a review of the Calaveras skull.)

II. TABLE MOUNTAIN FINDS

A number of stone objects fashioned by the hand of man, and a small number of skeletal remains were said to have been recovered from the gold-bearing gravels under the thick lava cap of Table Mountain, Tuolumne County, during the eighteen-fifties and 'sixties. Many of these were collected by C. D. Voy, P. Snell, and others, and have been adequately discussed and illustrated in the works cited below. Table Mountain is only one of the numerous localities where artifacts were recovered from the ancient gravels. Some of the specimens are preserved today in the U.S. National Museum and the University of California Museum of Anthropology.

46. Becker, G.F. Antiquities from under Tuolumne Table Mountain in California. Bulletin of the Geological Society of America 2:189-200, 1891. (Important as a careful and basic study by a man who knew the geology of the area and because this is the original source of information on the stone pestle collected by C. King which is now in the U.S. National Museum, Cat. No. 9237.)
47. Blake, W.P. The Pliocene Skull of California and Flint Implements of Table Mountain. Journal of Geology 7:631-637, 1899.
48. Hanks, H.G. The Deep Lying Auriferous Gravels and Table Mountains of California. San Francisco, 1901, 15 pp. (Pp. 10-15, Table Mountain finds. Thinks they are errors of observation by discoverers, or unadmitted jests committed by miners.)
49. Hay, O.P. The Geological Age of Tuolumne Table Mountain, California. Journal of the Washington Academy of Sciences 16:358-361, 1926. (P. 361, "The case of the Table Mountain finds becomes then one of perhaps fifty in our country in which relics of man are so closely associated with early Pleistocene vertebrates that the efforts of some of the ablest geologists have been taxed to cast doubt on the meaning of the association.")
50. Hay, O.P. The Pleistocene of the Western Region of North America and its Vertebrated Fossils. Carnegie Institution of Washington Publication 322 B, 1927. (Pp. 218-235, "Geology and Paleontology of the Gold Belt." Implies, p. 234, that some auriferous gravel artifact finds may date from the Pleistocene. Cf. items no. 9, 10, 39, 43, 49.)

51. Hewes, G.W. Reconnaissance of the Central San Joaquin Valley. American Antiquity 7:123-133, 1941. (P. 128, discussion of certain artifacts from San Joaquin Valley similar to ones recovered from the auriferous gravels).
52. Holmes, W.H. Preliminary Revision of the Evidence Relating to Auriferous Gravel Man in California. American Anthropologist n.s. 1:107-121, 614-645, 1899. (Pp. 615-623, Table Mountain finds.)
53. Holmes, W.H. Review of the Evidence Relating to Auriferous Gravel Man in California. Smithsonian Institution, Annual Report for 1899:419-472, 1901. (Pp. 448-454, Table Mountain finds.)
54. Holmes, W.H. Handbook of Aboriginal American Antiquities. Bureau of American Ethnology, Bulletin 60, 1919. (Pp. 61-68, Table Mountain auriferous gravel artifacts.)
55. Lindgren, W. Work cited supra in item no. 17. (P. 53, notes that many of the andesite implements from Sonora and Columbia which were reported to come from the auriferous gravels are made of rock composing the volcanic flows which cover the auriferous gravels.)
56. Merriam, J.C. The Fossil Human Remains of Table Mountain. Lenox Nutshell, 1898. Hopkinson, Iowa. Reprinted in Carnegie Institution of Washington, Publication 500, Vol. III:1556-1559, 1938. (Cites a jaw, skull and numerous artifacts.)
57. Merriam, J.C. Work cited supra in item no. 21. (P. 1315, suggests that many of the artifacts have been secondarily deposited by hydraulic mining operations.)
58. Schoolcraft, H.R. Indian Tribes of the United States. Philadelphia, 1851. (Vol. 1, p. 101 - mention of the discovery, in August, 1849, of a shaft 210 feet deep at whose bottom were found a human skeleton and "an altar for worship and other evidences of ancient labor." These data were cited by H. C. Lewis in Proceedings of the Academy of Natural Sciences, 30:292-293, 1882, Philadelphia who argued that the auriferous gravel finds of mortars were relics of ancient Indian gold mining, the mortars being employed to crush the "ore"!)
59. Wright, G.F. Discussion of G. F. Becker's paper cited in item no. 46. Bulletin of the Geological Society of America 2:199-200, 1891.
60. Yates, L. G. Charmstones. Smithsonian Institution, Annual Report for 1886:296-305, 1889. (P. 303, Pl. I, fig. 1, a perforated charmstone made of "translucent carbonate of lime" found "under some 200 feet of basalt with several other curious and unique implements" at Table Mountain, California.)

III. MISCELLANEOUS SIERRAN AURIFEROUS GRAVEL FINDS

As a result of the almost unbelievably extensive earth moving activities of the gold seekers from 1848 on, many discoveries of aboriginal artifacts and skeletons were made. Numerous finds came to light under conditions suggesting that the objects had been deposited at the same time as the gravels. The recorded instances of such finds contained in the publications listed below is undoubtedly only a small fraction of the total discoveries which were made, remarked on at the moment, and then forgotten. There appears to be no reason to accept any of these objects as of Tertiary or Pleistocene age. In addition to the works cited below, many of those contained in sections I and II (supra) discuss this subject.

61. Bancroft, H.H. The Native Races of the Pacific States of North America. Vol. IV, Antiquities. San Francisco, 1875. (Pp. 697-708, mention of a large number of finds of artifacts in auriferous gravels. Important in that he cites contemporary newspaper notices of such discoveries.)
62. Blake, W.P. Notice of a human skull found at depth of 250 feet below surface near Columbia, Tuolumne County. Proceedings, California Academy of Sciences 3:291, 1868.
63. Gates, R.R. Human Ancestry. Harvard University Press, Cambridge, 1948. (Pp. 297-298, auriferous gravel finds.)
64. Hittell, J.S. The Resources of California. San Francisco, 1863. (P. 70, various auriferous gravel finds of artifacts and skeletons in Nevada, El Dorado and Los Angeles Counties.)
65. Holmes, W.H. Work cited supra in item no. 13. (Pp. 419-447, discussion of a large number of auriferous gravel artifact finds.)
66. Holmes, W.H. Anthropological Studies in California. United States National Museum, Annual Report for 1900:155-187, 1902. (Pp. 166-172, observations on auriferous gravel artifact discoveries.)
67. Lindgren, W. Work cited supra in item no. 18. (Pp. 52-53, mention of artifacts found in pre-andesitic Tertiary gravels.)
68. McGee, W.J. Geology and Archaeology of the California Gold Belt. American Geologist 23:96-99, 1899.
69. Merriam, J.C. Antiquity of Man in California from the Point of View of the Paleontologist. Science, n.s., 42:543-544, 1915.
70. Sinclair, W.J. Work cited supra in item no. 32. (Pp. 108-123, auriferous gravel artifact finds. Part of the C. D. Voy collection of artifacts discussed and figured by Holmes, Whitney, Bancroft, Sinclair and others are now in the University of California Museum of Anthropology.)
71. Skertchley, S.B.J. On the Occurrence of Stone Mortars in the Ancient (Pliocene?) River Gravels of Butte County, California. Journal of the Royal Anthropological Institute 17:332-337, 1888. London.

72. Winslow, C.F. On Human Remains Along With Those of Mastodon in the Drift of California. Boston Soc. Nat. Hist., Proc. 6:278-279, 1857. See also American Journal of Science 96:407-408, 1868. (Details the finding, in 1855, of a fragmentary skull at a depth of 180 feet below Table Mountain.)

IV. POTTER CREEK CAVE

In 1902 and 1903 E. L. Furlong and W. J. Sinclair excavated the floor deposits of this limestone cave situated near Baird in Shasta County (Sec. 23, T. 34 N, R. 4 W, MDB & M). Large numbers of animal bones were recovered, and over 20 extinct species are identified. The fauna is said to be late Quaternary in age. Two smoothed bones were found among the fractured animal remains, and in the opinion of F. W. Putnam, J. W. Gidley, and W. D. Matthew, they are to be considered artifacts. This identification is doubtful, and unless more certain evidence of the handiwork of man is found, the presence of humans in the Pleistocene levels of Potter Creek Cave cannot be seriously insisted upon.

73. Cope, E.D. Pliocene Man. American Naturalist 12:125-126, 1878.
74. Merriam, J.C. Recent Cave Explorations in California. American Anthropologist 8:221-228, 1906. Appears also in Proceedings of the Internat. Congr. of Americanists, 15th Session, 1906, vol. 2:139-146, 1907. Quebec. (Pp. 223-225, Potter Creek Cave.)
75. Putnam, F.W. Evidence of the Work of Man on Objects from Quaternary Caves in California. American Anthropologist 8:229-235, 1906. (Pp. 230-234, Potter Creek Cave bone "tools".)
76. Sinclair, W.J. The Exploration of the Potter Creek Cave. University of California Publications in American Archaeology and Ethnology 2, No. 1 (pp. 1-27), 1904. Berkeley. (Pp. 12-16, "Relics of possible human origin.")

V. SAMWEL CAVE, STONE MAN CAVE

These two caves each produced evidence of man. From Samwel Cave in the Shasta region, excavated in 1903-1905 by E. Furlong, came a flake of obsidian and a basaltic lava scraper with a rounded, chipped cutting edge. Both pieces were recovered under conditions suggestive of contemporaneity with extinct animals, but not definitely so.

Stone Man Cave, about one mile north east of Baird in the Shasta region yielded a portion of a human skeleton imbedded in the stalagmite. Merriam thinks the "evidence favors a considerable antiquity", but since the rate of accumulation of the stalagmite is unknown, and there were no animal bones in association, this remains little more than a guess. The bulk of the skeleton was removed before Furlong and Merriam visited the cave in 1903.

77. Furlong, E.L. An Account of the Preliminary Excavations in a Recently Explored Quaternary Cave in Shasta County, California. *Science*, n.s., 20:53-55, 1904. (Samwel Cave.)
78. Furlong, E.L. The Exploration of Samwel Cave. *American Journal of Science*, Series 4, 22:235-247, 1906.
79. Merriam, J.C. Work cited supra in item no. 74. (Pp. 225-227, Samwel Cave.)
80. Merriam, J.C. The Cave of the Magic Pool. *Scribners Magazine* 82:264-272, 1927. Reprinted in The Living Past, New York, 1930, Chapter 1; and in Carnegie Institution of Washington, Publication No. 500, Vol. III, 1938. (Narrative account of the exploration of Samwel Cave, details the finding of the skeleton of an "Indian maiden," Wintun Indian legends of the cave and the skeleton.)
81. Merriam, J.C. Work cited supra in item no. 74. (P. 227, Stone Man Cave excavation. Describes occurrence of human skeleton imbedded in stalagmite.)
82. Putnam, F.W. Work cited supra in item no. 75. (P. 234, Samwel Cave.)

VI. MERCER'S CAVE, HAWVER CAVE

Mercer's Cave, near Murphys, Calaveras County, has produced bones of an extinct ground sloth (Megalony sierrensis) as well as those of man. Merriam inclines to the view that the remains of man are much more recent than those of the sloth. Mercer's cave was visited by W. H. Holmes before 1900, by Merriam and Putnam in 1901, and was excavated by W. Sinclair in 1902. It is possible that the skulls sent by J. S. Hitell to the Smithsonian Institution in 1857 came from this cave.

The limestone caverns of this section of the Sierra Nevada were utilized by the Indians as burial places, and the known list of these natural catacombs runs to nearly a score. J. D. Whitney reported on such a burial cave in the *Smithsonian Institution Annual Report for 1867:406-407*, 1868.

Hawver Cave, near Auburn in Eldorado County, yielded in 1908 at the entrance to the lower cave a human skeleton lying under 13 feet of earth and rock. Bones of extinct animals were found nearby, but not in direct association. No final decision on antiquity is possible in the case of the human remains which resemble in type that of the recent California Indian.

83. Furlong, E.L. Reconnaissance of a Recently Discovered Quaternary Cave near Auburn, California. *Science*, n.s., 25:392-394, 1907. (Hawver Cave.)
84. Holmes, W.H. Work cited supra in item no. 12. (Pp. 464-465, notes on Mercer Cave skeletal remains and comparison of a cave skull with Calaveras skull. See also Hrdlicka, work cited in item no. 15.)

85. Holmes, W.H. Work cited supra in item no. 67. (Pp. 186-187, Mercer's Cave.)
86. Merriam, C.H. Ethnological Evidence that the California Cave Skeletons are not Recent. Science 29:805-806, 1909. (Points out that the Miwok Indians who live in the Sierran limestone area cremate the dead and believe that a cannibal giant named Chehalumche lives in the caves. This, he argues, places the use of the caves as burial places in pre-Miwok times, "a period which in my judgment should be measured by thousands of years.")
87. Merriam, J.C. Work cited in supra item no. 74. (P. 223, Mercer's Cave.)
88. Merriam, J.C. Note on the Occurrence of Human Remains in Californian Caves. Science 30:531-532, 1909. (Pp. 531-532, Hawver Cave; p. 531, Mercer's Cave.)
89. Stock, C. The Pleistocene Fauna of Hawver Cave. University of California Publications in Geology 10:461-515, 1918. (Pp. 466-468, human remains from Hawver Cave.)

VII. FOLSOM CULTURE FINDS

Artifacts suggesting the presence in California of the ancient Folsom culture are rare, but have turned up occasionally. Most discoveries of this sort are isolated projectile points bearing the Folsom culture "trademark", a longitudinal channel flake struck off the flat faces of the implement.

Reference is made to the Borax Lake site (section VIII) in Lake County which, according to M. R. Harrington, was occupied by peoples of the Folsom culture.

90. Campbell, E.W.C. and W. H. A Folsom Complex in the Great Basin. Southwest Museum Masterkey 14:7-11, 1940. (Folsom type projectile points, graters, drills, knives, and scrapers found on margins of Pleistocene Lake whose location is not stated. The area may possibly be in the state of Nevada.)
91. Heizer, R.F. A Folsom-Type Point from Sacramento Valley. Southwest Museum Masterkey 12:180-182, 1938.
92. Rogers, M.J. Work cited infra in item no. 135. (P. 68, discussion and illustration of concave-base points with channel groove which are reminiscent of Folsom type. Decides they are of local development and stem from the Pinto culture, q.v.)
93. Scoggin, C. Folsom and Nepesta Points. American Antiquity 5:290-298, 1940. (Discusses typology of Folsom points and includes mention of California specimens. See further discussion in American Antiquity 6:78-80, 1940.)
94. Simpson, R.D. A Classic "Folsom" from Lake Mohave. Southwest Museum Masterkey 21:24, 1947. (The only true Folsom point recovered from Lake Mohave.)

VIII. BORAX LAKE SITE

This interesting and important occupation site was excavated by M. R. Harrington for the Southwest Museum between 1938-1946. Harrington concludes that the site dates from ca. 8000 B.C., and suggests that the Folsom points from the site "may mark one of the last recognizable manifestations of that culture." The collections are excellently reported on and are in the Southwest Museum.

95. Anonymous. Researches of M. R. Harrington. Carnegie Institution of Washington, Yearbook No. 37:345-347, 1938.
96. Harrington, M.R. Folsom Man in California. Southwest Museum Masterkey 12:133-137, 1938.
97. Harrington, M.R. Pre-Folsom Man in California. Southwest Museum Masterkey 12:173-175, 1938. (The idea of a pre-Folsom culture is not stressed in the final publication of 1948.)
98. Harrington, M.R. Early Man at Borax Lake. Carnegie Institution of Washington, News Service Bulletin 4, No. 31, pp. 259-261, 1938.
99. Harrington, M.R. The Age of the Borax Lake Finds. Southwest Museum Masterkey 13:208-209, 1939. (Compare with Roberts, work cited infra in item no. 105, pp. 106-107.)
100. Harrington, M.R. Return to Borax Lake. Southwest Museum Masterkey 16:214-215, 1942.
101. Harrington, M.R. Farewell to Borax Lake. Southwest Museum Masterkey 19:181-184, 1945.
102. Harrington, M.R. New Work at Borax Lake. Southwest Museum Masterkey 20:189-190, 1946.
103. Harrington, M.R. An Ancient Site at Borax Lake, California. Southwest Museum Papers No. 16.
104. Hodge, F.W. Work of Mr. Harrington (at Borax Lake). Southwest Museum Masterkey 13:61-62, 1939.
105. Roberts, F.H.H. Jr. Recent Developments in the Problem of the North American Paleo-Indian. In Essays in Historical Anthropology in North America. Smithsonian Institution Miscellaneous Collections 100:51-116, 1940. (Pp. 92-94, questions identification of the fluted points as typical of Folsom culture.)

IX. LOWER KLAMATH LAKE

In the now dry bed of this lake, just south of the Oregon boundary, have been recovered stone and bone artifacts and bones of extinct animals. Actual association of the two cannot now be proved, but appears probable. The suggested dating is from early Postpluvial (8000-5500 B.C.) to late Postpluvial (ca. 2000 B.C.).

106. Cressman, L.S. Early Man and Culture in South-central Oregon. American Philosophical Society Yearbook 1939:194-196, 1940.
107. Cressman, L.S. Archaeological Researches in the Northern Great Basin. Publication 538, Carnegie Institution of Washington. (Chaps. XV-XIX, Lower Klamath Lake finds, with articles by L. S. Cressman on artifacts, H. P. Hansen on pollen, P. S. Conger on diatoms, F. C. Baker on mollusca.)
108. Antevs, E. Age of Artifacts Below Peat Bed at Lower Klamath Lake, California. Carnegie Institution of Washington, Yearbook 39:307-309, 1940. (See also in same volume, pp. 300-306, article by L. S. Cressman on Lower Klamath Lake locality.)
109. DeMay, I. An Avifauna from Sub-recent Deposits at Lower Klamath Lake, California. The Condor 43:295-296, 1941.

X. TRANQUILLITY SITE

This site was discovered by G. W. Hewes in 1939, and from it he collected several burials the bones of which are very heavily mineralized, a number of artifacts, and a quantity of fossilized bones of living and extinct animals (camel, horse). Further excavation by L. Satterthwaite has been made, but the report has not been published. Present opinion is that the human burials and artifacts are probably not contemporaneous with the bones of the extinct animals. The site is in the San Joaquin Valley near the town of Tranquillity, Fresno County. Collections are at the University of California and University of Pennsylvania.

110. Hewes, G.W. Reconnaissance of the Central San Joaquin Valley. American Antiquity 7:123-133, 1941. (P. 132, Tranquillity.)
111. Hewes, G.W. Camel, Horse, and Bison Associated with Human Burials and Artifacts Near Fresno, California. Science 97:328-329, 1943.
112. Hewes, G.W. Early Man in California and the Tranquillity Site. American Antiquity 11:209-215, 1946.

XI. LAKE MOHAVE

An ancient lake about 150 miles northeast of Los Angeles has yielded artifacts of distinctive form on the old shore margins. W. H. and E. W. C. Campbell are responsible for most of the investigation, and geologists who studied the lake area differ somewhat on the age assigned to the lake and the artifacts. E. Antevs believes the lake is late Pluvial; F. Bode assigns it a late Pleistocene age; and M. Rogers places it well forward in the Recent period within the last 4000 years. No extinct animal remains are associated with the artifacts. The collections are well described, and are in the Twenty-Nine Palms Laboratory of the Southwest Museum.

113. Amsden, C.A. The Lake Mohave Artifacts. In Campbell, work cited infra in item no. 119, pp. 51-98, 1937.
114. Antevs, E. Climate and Early Man in North America. In Early Man. Ed. by G. G. MacCurdy, pp. 125-132, 1937. (Pp. 126-129, Lake Mohave culture dating.)
115. Antevs, E. Age of the Lake Mohave Culture. In Campbell, work cited in infra in item no. 119, pp. 45-50, 1937.
116. Barbieri, J.A. Technique of the Implements from Lake Mohave. In Campbell, work cited infra in item no. 119, pp. 99-108, 1937.
117. Bode, F.D. Geology of the Lake Mohave Outlet Channel. In Campbell, work cited infra in item no. 119, pp. 109-118, 1937.
118. Campbell, E.W.C. Archaeological Problems in the Southern California Deserts. American Antiquity 1:295-300, 1936. (P. 297, Lake Mohave culture.)
119. Campbell, E.W.C., et al. The Archaeology of Pleistocene Lake Mohave, a Symposium. Southwest Museum Papers No. 11, 1937. (Contains articles cited in items no. 114-117, 120.)
120. Campbell, E.W.C. and W. H. The Lake Mohave Site. Work cited supra in item no. 119, pp. 9-44, 1937.
121. Roberts, F.H.H. Jr. Work cited supra in item no. 105. (Pp. 86-91, "Cultural Complexes in the California Desert," agrees with Recent period dating of M. Rogers whose work is cited infra in item no. 135.)

XII. PINTO BASIN

This basin of an extinct lake in northern Riverside County contained water during some earlier and moister period, and has yielded quantities of artifacts along the old beach lines. No actual association of extinct animal remains and man-made artifacts are noted, though both occur. W. H. and E. W. C. Campbell discovered the sites and culture in 1935. The culture has not been "dated" except for the conclusion by geologists that it is post-Wisconsin, and therefore somewhat less than 15 to 20,000 years old. The collections are in the Twenty-Nine Palms Laboratory of the Southwest Museum.

122. Amsden, C.A. The Pinto Basin Artifacts. In Campbell, work cited infra in item no. 124, pp. 33-51, 1935.
123. Campbell, E.W.C. and C. Amsden. The Eagle Mountain Site, Southwest Museum Masterkey 8:170-173, 1934. (Pinto Basin site, preliminary account.)
124. Campbell, E.W.C. and W. H. The Pinto Basin Site. Southwest Museum Papers No. 9, 1935. (Contains articles cited in items no. 122, 125, 128.)

125. Campbell, E.W.C. and W. H. The Pinto Basin Site. In work cited supra in item no. 124, pp. 21-31, 1935.
126. Campbell, E.W.C. Work cited supra in item no. 118. (P. 296, remarks on Pinto Basin.)
127. Roberts, F.H.H. Jr. Work cited supra in item no. 105. (P. 87, remarks on Pinto Basin site and culture.)
128. Scharf, D. The Quaternary History of the Pinto Basin. In work cited supra in item no. 124, pp. 11-20, 1935.

XIII. STAHL SITE

Only the briefest reports have been issued concerning this site which lies on the banks of a long dry river in Inyo County near Little Lake. Antiquity is implied by the types of implements found which closely resemble those from Pinto Basin (see section XII). The site was discovered in 1948 and is being excavated under direction of M. R. Harrington of the Southwest Museum.

129. Harrington, M.R. A New Pinto Site. Southwest Museum Masterkey 22:116-118, 1948.
130. Harrington, M.R. America's Oldest Dwelling? Southwest Museum Masterkey 22:148-152, 1948.

XIV. OTHER SOUTHERN CALIFORNIA EARLY LITHIC COASTAL AND DESERT CULTURES

The area considered here consists of the desert and coastal regions of Southern California which have yielded evidences of man older than those of the recent Indians and their immediate ancestors. Specifically excepted from the publications cited below are those on the earliest culture at Santa Barbara (see section XVIII), and three separate human skeletal finds in the Los Angeles city area (see sections XV, XVI, XVII) which are considered by themselves since they represent single and specific discoveries.

The coastal cultures, characterized by heavy chipped stone scrapers and projectile points go under the name of San Dieguito, a term proposed first by M. Rogers. In the desert interior similar and coeval cultures called Malpais, Playa, Pinto-Gypsum, and Amargosa are identified, the Playa culture being the same as Lake Mohave (see section XI), and Pinto-Gypsum representing the Pinto Basin culture (see sections XII, XIII) with the addition of the Gypsum Cave element from further east in southern Nevada. Roberts' discussion is excellent for gaining perspective; the other papers cited document these cultures in different areas and their somewhat variable content. Collections are at the University of California, Southwest Museum, and San Diego Museum of Man.

131. Heizer, R.F. and E. M. Lemert. Observations on Archaeological Sites in Topanga Canyon, California. University of California Publications in American Archaeology and Ethnology 44:237-258, 1947.

132. Roberts, F.H.H. Jr. Work cited supra in item no. 105. (Pp. 86-91, evaluation of southern California desert cultures.)
133. Rogers, M.J. The Stone Art of the San Dieguito Plateau. American Anthropologist 31:454-467, 1929. (The term Scrapper-Maker has been changed to San Dieguito in later publications.)
134. Rogers, M.J. Archaeological and Geological Investigations of the Cultural Levels in an old Channel of San Dieguito Valley. Carnegie Institution of Washington, Yearbook No. 37:344-345, 1938.
135. Rogers, M.J. Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. San Diego Museum Papers No. 3, 1939.
136. Rogers, M.J. An Outline of Yuman Prehistory. Southwestern Journal of Anthropology, 1:167-198, 1945. (Pp. 170-171, notes on early lithic, pre-Yuman cultures.)
137. Smith, G.A. Traces of Ancient Man at Bloomington, California. Southwest Museum Masterkey 16:124-127, 1942. (Surface sites in San Bernardino County with artifacts exposed by wind erosion. Thinks Lake Mohave culture is evidenced as inferred from typological resemblances of tools.)
138. Treganza, A. An Archaeological Reconnaissance of Northeastern Baja California and Southeastern California. American Antiquity 8:152-163, 1942. (P. 161, San Dieguito culture.)
139. Treganza, A. Notes on the San Dieguito Lithic Industry of Southern California and Northern Baja California. In work cited supra in item no. 131, pp. 253-255, 1947.
140. Walker, E.F. Sequence of Prehistoric Material Culture at Malaga Cove, California. Southwest Museum Masterkey 11:210-214, 1937. (An overly brief report on an important site. The full report is awaiting publication).

XV. LOS ANGELES MAN

During the excavation of a large storm drain near Inglewood, north of the Baldwin Hills near Los Angeles early in 1936, human bones, probably of a complete skeleton, were discovered at a depth of 12 to 13 feet from the present ground surface. Study of the locality was made by I. Lopatin, A. Bowden, and T. Clements of the University of Southern California. Like most accidental discoveries, proper investigation is often difficult or impossible because of disturbance of the site by the construction equipment. There is no apparent inconsistency in the evidence presented, and the find may well represent one of the most ancient skeletal remains of man known from California. But, before the skeleton could be positively accepted as a late Pleistocene example, it would have to be determined unequivocally that the skeleton did not represent an intrusive burial into the Pleistocene stratum from a point higher, but still perhaps much below the present surface. There is little possibility, and no probability, that any prehistoric

California Indians dug graves 12 or 13 feet deep. 3 or 4 feet seems to be the maximum, and somewhat less than this the average. If we knew the age of the upper strata in detail, some fairly acceptable estimate might be hazarded as to the age of the human remains. The position in which the skeleton is lying, evidence of a grave pit as shown by cutting and disturbance of the stratified layers, funerary offerings, degree of completeness of the skeletal remains, and other points of this sort are absolutely essential as matters of record if any decision which is generally acceptable and based on evidence is to be reached. Such insistence on the necessity for proof, coupled with the circumstance that most such discoveries are made by accident during excavation by mechanical earth-moving equipment accounts for the sad fact that there are numerous possible Pleistocene remains of man himself, but not a single undoubted example for all of North America.

The conclusion of T. Clements is that the stratum from which the human remains (and the bones of the Imperial elephant) came is of late Pleistocene age. The skeletal remains are at the University of Southern California.

141. Bowden, O.A. and I. A. Lopatin. Pleistocene Man in Southern California. *Science* 84:507-508, 1936. Printed also in *El Palacio* 41:121-123, 1936. Santa Fe, New Mexico.
142. Clements, T. Age of the "Los Angeles Man" Deposits. *American Journal of Science* 36, Series 5, pp. 137-141, 1938. (Concludes the age is late Pleistocene.)
143. Hrdlicka, A. Early Man in America: What Have the Bones to Say? In *Early Man*. Edited by G. G. MacCurdy, 1936, pp. 93-104. (Pp. 99-100, discussion of Los Angeles Man remains.)
144. Lopatin, I.A. Fossil Man in the Vicinity of Los Angeles, California. *Proceedings of the Sixth Pacific Science Congress*, 4:177-181, 1940.

XVI. ANGELES MESA SKELETONS

Remains of six skeletons were recovered in the Los Angeles vicinity at depths of 19 to 23 feet in 1924. No fossil remains of vertebrate animals were found, and the dating of the human remains is uncertain, though they are almost certainly ancient. A full report on the stratification, skeletons, and few artifacts has not yet appeared. The remains are in the Los Angeles County Museum at Exposition Park.

145. Hay, O.P. Work cited supra in item no. 9. (P. 175, Angeles Mesa skeletons.)
146. Merriam, J.C. Present Status of Investigations Concerning Antiquity of Man in California. *Science* 60:1-2, 1924.
147. Stock, C.H. A Recent Discovery of Ancient Human Remains in Los Angeles, California. *Science* 60:2-5, 1924.

148. Taylor, G. Environment, Race, and Migration. Chicago, 1937. (P. 224, states that the Angeles Mesa finds "seem to date from Interglacial times.")

XVII. LA BREA SKELETAL REMAINS AND ARTIFACTS

In Pit 10 of the Rancho La Brea asphalt pits there was recovered in 1914 a human skeleton in association with large numbers of avian and mammalian bones of living and extinct forms, and a few artifacts of wood and stone. The consensus of opinion is that the fauna of Pit 10 falls within the Recent period, a conclusion which leaves open the possibility that the human skeleton may be as old as 8000 years. A few wood and stone artifacts from Pit 10 have been partially described by A. Woodward. The collections are at the Los Angeles County Museum.

149. Boule, M. Decouverte d'un Squelette Humain dans les Asphaltes de Rancho la Brea (Californie). L'Anthropologie 25:594-595. Paris.
150. Hay, O.P. Work cited supra in item no. 10. (Pp. 175-188, general discussion of the La Brea locality and remarks on the skeleton.)
151. Howard, H. and A. H. Miller. The Avifauna Associated with Human Remains at Rancho La Brea, California. Carnegie Institution of Washington, Publication 514, article III, pp. 39-48, 1939. (Conclusion that "pit 10, in which the Homo remains were found, should fall into the Recent [period].")
152. Hrdlicka, A. Recent Discoveries Attributed to Early Man in America. Bureau of American Ethnology, Bulletin 66, 1918. (Pp. 17-22, La Brea skeleton. Concurs with Kroeber's impression of the skeletal type as reported by Merriam in work cited infra in item no. 153.)
153. Merriam, J.C. Preliminary Report on the Discovery of Human Remains in an Asphalt Pit at Rancho La Brea. Science 40:198-203, 1914. (Mentions, p. 203, the finding of an arrowhead by the University of California in one of the La Brea pits in 1912. Search in the Anthropology and Paleontology Museums has failed to produce this piece which seems to be mentioned only once in the literature.)
154. Stock, C.H. Rancho La Brea: A Record of Pleistocene Life in California. Los Angeles Museum, Publication 1, Science Series 1, 1930. (P. 28, La Brea skeleton.) Revised edition issued in 1946 and renumbered as Science Series No. 11 contains section (pp. 24-26) entitled "Occurrence of Human Remains."
155. Stock, C. Prehistoric Archaeology. In, Geology:1888-1938. Fiftieth Anniversary Volume of the Geological Society of America, pp. 139-158, 1941. (P. 149, La Brea skeleton.)
156. Woodward, A. Atlatl Dart Foreshafts from the La Brea Pits. Bulletin of the Southern California Academy of Sciences 36:41-60, 1937. (Includes a discussion of the human remains, pp. 41-42.)

157. Wyman, L.E. Notes on the Pleistocene Fossils Obtained from Rancho La Brea Asphalt Pits. Los Angeles Museum of History, Science, and Art, Miscellaneous Publications No. 2, 1926. (P. 34, statement on discovery of human skeleton from Pit 10 and artifacts from Pits 61 and 67.)

XVIII. OAK GROVE CULTURE

In 1929 D. B. Rogers announced the Oak Grove culture which is characterized by extended burials lying in highly compacted ("hardpan") calcareous occupation deposits. Aside from basin metates and manos artifacts are scarce.

Rogers, while demonstrating some age for the Oak Grove culture, did not attempt to assign its antiquity in terms of years, and it is not possible to estimate this since his work alone is the source of information on this culture. There is no question of its being Pleistocene, and its age is probably to be measured in terms of a few thousand years included in the immediately Recent past.

On display in the Santa Barbara Museum of Natural History are culture classification charts which give the Oak Grove culture an estimated age of about 8000 years though no supporting data are furnished to indicate the basis for this estimate.

158. Heizer, R.F. Review of D. B. Rogers, "Prehistoric Man of the Santa Barbara Coast," 1929. *American Antiquity* 6:372-375, 1941.
159. Roberts, F.H.H. Jr. Work cited supra in item no. 105. (Pp. 91-92, Oak Grove is "unquestionably one of the earliest [cultures] in the now known California sequence."
160. Rogers, D.B. Prehistoric Man of the Santa Barbara Coast. Santa Barbara, 1929.
161. Sauer, C.O. Early Relations of Man to Plants. *Geographical Review* 37: 1-25, 1947. (P. 14, Oak Grove culture placed in general North American perspective as member of early food-grinding and gathering culture type.)

XIX. MISCELLANEOUS SINGLE FINDS

Cited here is a residue of notices which have appeared, and in which some claim of high antiquity is expressed or implied. L. L. Loud's mention of a slate artifact found with mastodon teeth may either be a newspaper yarn or a discovery reminiscent of some of the earlier Sierran auriferous gravel finds. Nothing further seems to have been done or heard about it.

The little known article by B. Willis reporting the circumstances of the discovery of a human skull buried under 20 feet of alluvium in the cutbank of San Francisquito Creek near Stanford University is interesting, but no further evidence which might permit some decision on its antiquity has come to light. The skull is in the Geology Department of Stanford University.

The amusing and instructive discovery by D. Crabtree is added here since such occurrences are commonly noted by the professional archaeologist, but are rarely presented for publication.

162. Crabtree, D.E. Mastodon Bone with Artifacts in California. American Antiquity 5:148-149, 1939.
163. Loud, L.L. Ethnogeography and Archaeology of the Wiyot Territory. University of California Publications in American Archaeology and Ethnology, 14, No. 3, 1918. (Pp. 372-373, discussion of slate "slavekiller" said to have been found on Klamath River near Walker, Siskiyou County, with teeth of mastodon. Cites San Francisco Chronicle, June 11, 1911.)
164. Willis, B. Out of the Long Past. The Stanford Cardinal, October 1922, pp. 8-11.

XX. SELECTED LIST OF ARTICLES ON PLEISTOCENE AND
POSTGLACIAL GEOLOGY AND DATING

The problem of dating the most ancient archaeological remains rests ultimately with the geologist, climatologist, glaciologist, and paleontologist who, in many cases, are able to assign age on the basis of the stratigraphy, nature of the deposit in which the artifacts occur, or from the invertebrate or vertebrate fossil remains found in association with the human remains or tools. The time scheme for the Pleistocene and Postglacial (Recent) periods has been worked out in some detail, and some idea of this chronology may be gained from the articles cited here. Further investigation can be made by utilizing the bibliographies contained in the works listed below.

165. Antevs, E. On the Pleistocene History of the Great Basin. In, Quaternary Climates. Carnegie Institution of Washington, Publication 352:51-114.
166. Antevs, E. Climaxes of the Last Glaciation in North America. American Journal of Science 28:304-311.
167. Antevs, E. Postpluvial Climatic Variations in the Southwest. Bulletin of the American Meteorological Society 19:190-193.
168. Antevs, E. Correlation of Wisconsin Glacial Maxima. American Journal of Science 243-A;1-39.
169. Antevs, E. The Great Basin: III, Climatic Changes and Pre-White Man. In A Symposium on the Great Basin. University of Utah Bulletin, Biological Series 38:168-191.
170. Blackwelder, E. Pleistocene Glaciation in the Sierra Nevada and Basin Ranges. Bulletin of the Geological Society of America 42:865-922.
171. Cooper, W.S. Contributions of Botanical Science to the Knowledge of Postglacial Climates. Journal of Geology 50:981-994.

172. Cressman, L.S., H. P. Hansen, I. S. Allison. Early Man in Oregon. Scientific Monthly 62:43-65.
173. Douglass, A.E. Survey of Sequoia Studies. Tree Ring Bulletin 11:26-32; 12:10-16.
174. Eaton, J.E. Divisions and Duration of the Pleistocene in Southern California. Bulletin of the American Assoc. of Petroleum Geologists 12:111-141, 1928.
175. Eaton, J.E. The Pleistocene in California. In, Geologic Formations and Economic Development of the Oil and Gas Fields of California. California State Division of Mines, Bulletin 188:203-206, 1948.
176. Flint, R.F. Glacial Geology and the Pleistocene Epoch. New York.
177. Hansen, H.P. Postglacial Forest Succession, Climate, and Chronology in the Pacific Northwest. Transactions of the American Philosophical Society 37:1-130.
178. Hubbs, C.L. and R. H. Miller. The Great Basin; II, Zoological Evidence. In, A Symposium on the Great Basin. Bulletin of the University of Utah, Biological Series 38:18-166. (P. 86, Lake Mohave; pp. 102-103, Pinto Basin.)
179. Huntington, E. Tree Growth and Climatic Interpretations. In, Quaternary Climates. Carnegie Institution of Washington, Publication 352:155-204.
180. Jenkins, O.P. Report Accompanying Geologic Map of Northern Sierra Nevada. Report 28 of the State Mineralogist:279-298.
181. Jenkins, O.P. Geologic History of the Sierran Gold Belt. In, Geologic Guidebook Along Highway 49--Sierran Gold Belt. California State Division of Mines, Bulletin 141:22-30.
182. Reed, R.D. The Geology of California. Tulsa, 1933.
183. Sauer, C.O. Environment and Culture During the Last Deglaciation. Proceedings of the American Philosophical Society 92:65-77.
184. Zeuner, F.E. The Pleistocene Period. London, The Ray Society. (See also review by Antevs in Journal of Geology 55:446-450, 1947.)
185. Zeuner, F.E. Dating the Past: An Introduction to Geochronology. London. (See also review by Antevs in Journal of Geology 55:527-530, 1947.)

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