

THE TRUE STORY OF THE CALAVERAS SKULL*

John C. Merriam

In the study of prehistoric America, one of the most important questions asked is: "When did the human race first colonize this continent?" There are some who maintain that man had occupied America before the beginning of the present geological period -- others believe him to be a comparatively recent arrival. The discussion of this question has been closely and carefully contested, and it has fallen to the lot of practically all human remains, reputed to represent American men of geologically ancient date, to become veritable bones of contention.

Of the various relics discovered up to the present time, probably none has become better known than the much-discussed Calaveras skull; certainly no other has been the occasion of such remarkably contradictory statements as have been recorded in reference to this specimen.

Attention was generally attracted to the Calaveras skull by a short notice of its discovery presented before a meeting of the California Academy of Sciences in San Francisco in July, 1866, by Professor J. D. Whitney, then State Geologist of California. According to the story as given by Whitney, the skull had been found by Mr. Mattison of Angels, up in the Bret Harte country of the Sierra, at a depth of one hundred and thirty feet, in a shaft on Bald Mountain near the town. The formations overlying the gravel layer in which the specimen was said to have been found, and which must therefore have been formed since the skull was supposed to have been buried, consist of alternations of gravel beds and volcanic rocks deposited in a geological age several periods earlier than the present. The time of accumulation of these beds antedates the principal elevation of the Sierra Nevada range, and represents a period in which the animal and plant life of the earth differed entirely from that of the present day.

Contrary to what might have been expected, the form of the skull after it had been cleaned and prepared for study was not found to differ materially from that of modern California Indians. Man was thus apparently shown to have survived several total changes that have occurred in the life of the earth since the time of accumulation of the gravels, yet without having undergone any modification of his own physical structure, in contrast to the rule that the most highly organized creatures tend to change more rapidly than the simpler ones.

Whitney's account of his remarkable discovery did not meet with a general acceptance either by the public or by scientists. Scientific men on the one hand, have felt that the occurrence of the skull in such ancient

*Sunset Magazine, Feb. 1910, pp. 153-158.

deposits indicated a mode of development of man on this continent entirely different from that known elsewhere; while the unscientific public hailed the story as a huge joke on the state geologist.

The scientists who have investigated the history of the human race have accumulated a great volume of evidence indicating the close relation of physical man to an ancient group of large-brained animals including the existing apes and monkeys, and have traced the evolution or geological history of the human type in the Old World step by step from ape-like forms up to the present man. All that is known of the history of human beings in the Old World indicates that their evolution is governed by the same general laws that have controlled the evolution of other kinds of creatures.

The sudden appearance of highly developed man in America at the time the auriferous gravels were being deposited would be entirely contrary to the laws of evolution with which our history is in accord elsewhere. It would indicate on the one hand, that man, the most progressive of all creatures, had remained in this region for several geological periods without having shown any physical advance or change, while the rest of the animal kingdom has steadily advanced in physical characters generally, and particularly in brain development. It would on the other hand be difficult to account for the presence of highly developed human beings in this region long before the appearance of the most primitive man-like forms elsewhere. In the epoch represented by the gravels in which the skull was supposed to be buried, this continent did not contain any ape-like or monkey-like creatures out of which man could have been formed by any known process of evolution. In the Old World the advancement of man has taken place in much the same way as the evolution of other animals, and we have every reason to suppose that creation has always been brought about by evolution, or by utilization of the most available materials in producing a new type.

Soon after Whitney's first publication relating to the discovery of the Calaveras skull, the public press seemed to discover that the finding of the skull deep in the shaft at Bald Hill had been carefully arranged by fun-loving residents of Angels, and that the eminent geologist had been sadly fooled. The religious papers particularly investigated the case and pronounced it a hoax originating with some mischievous miners who wished to play a joke on a man of an "anti-scriptural and geological turn of mind."

In championing the Calaveras man as geologically ancient, the severest blow to Whitney's cause came from a most unexpected source, in the form of Bret Harte's now well-known poem on "The Pliocene Skull," in which the skull finally speaks for itself and fixes the place of its origin:

Which my names is Bowers,
And I'd take it kindly
If you'd send the pieces home to old Missouri.

Whitney's final summing up of the evidence relating to the famous skull* did not appear until thirteen years after his first paper, and in this

*Whitney, J. D., Auriferous Gravels of the Sierra Nevada, 1879.

he presented what seemed to be a complete case in favor of the authenticity of Mattison's find in the shaft on Bald Hill.

With the final report on the skull there was also published a most interesting array of supporting evidence showing the presence of human remains and relics in auriferous gravels of approximately the same age as those from which the Calaveras skull was reported. The finds discussed by Whitney included stone mortars and pestles, obsidian axes and arrow-points, beads, and human bones, the occurrence of all of which was vouched for by the testimony of trustworthy and unprejudiced men. The mass of evidence advanced by Whitney seemed, taken at its face value, to leave no room for doubt that man had lived in this part of the world at a very early time.

Some years after the publication of Whitney's principal paper on the question of early man in America, the whole problem, including the cases investigated by Whitney, was carefully reviewed by Professor W. H. Holmes,* according to whose judgment the evidence indicating the existence of man in California during the deposition of the auriferous gravels seems insufficient.

The writer's attention was first attracted to the question of auriferous gravel man by coming into contact with several persons of high standing who knew definitely of stone implements being obtained from deep gravel mines since the completion of Whitney's studies. At that time a list was compiled which included about a dozen apparently well authenticated instances of occurrences of human remains in the auriferous gravels. The problem taken as a whole seemed to the writer to present as remarkable a case of absolutely contradictory evidence as ever appeared in science or in law. On one side men with high reputation for veracity gave affidavits to the effect that they had personally seen human bones and relics taken from undisturbed layers in supposedly ancient formations. On the other hand, scientists claimed that such occurrences were impossible. The positiveness of the statements suggested the possibility of there being some truth on each side, and in 1894 a campaign was entered upon to determine if it were not possible to arrive at a satisfactory understanding of the evidence.

While it has been clear from the beginning of this investigation that only the most conclusive proofs of the presence of human remains in the older formations could have any weight against the accumulated scientific evidence indicating its improbability, the writer has also been unwilling to suppose that the miners of California are more inclined to play practical jokes, or the scientists of the West more easily fooled than those in other portions of the world, or that the word of the average man with reference to scientific matters is less reliable here than elsewhere.

Without digressing too far from the question of the Calaveras skull, it may be said that the probabilities as to the history of man as indicated by scientific investigations elsewhere do not seem to be contradicted by any

*Auriferous Gravel Man in California, 1899.

evidence thus far obtained in California. It is probably that the remarkable occurrences of human remains which have been reported in this state owe their origin in a large measure to the exceptional conditions existing in California during the progress of placer-mining on a gigantic scale. In regions where implements and skeletal remains left by the aboriginal inhabitants were abundant, many relics were washed down or moved about so that they came to be found in most unexpected places.

In attempting to obtain evidence as to the origin of the Calaveras skull particularly, the question arose whether an examination of the matrix in which the skull was enclosed when it came into Whitney's hands might furnish conclusive evidence for or against the view that the skull came from the auriferous gravels. In 1892 the skull was examined to determine whether any clue as to the nature of the occurrence of the specimen could be obtained from an examination of the enclosing matrix. The gravel was found to consist almost entirely of angular fragments of rock, quite unlike the well-worn pebbles which make up the mass of the auriferous gravels in strata corresponding to the level at which the skull is supposed to have been obtained in Mattison's shaft. Contrary to Whitney's statement the matrix indicates quite conclusively that the skull could not have come from the auriferous gravels under Bald Hill.

Fortunately the investigation which furnished evidence regarding the nature of the matrix of the skull also gave some suggestion as to the probably place of origin. As had been shown by Whitney, the skull was found to be incrustated with a thin layer of calcareous material, which also partly filled the pores of the bone, and formed small veins or plates in the matrix. Such incrustation and infiltration with lime deposit as is seen here may occur in a variety of situations, but it is found most commonly on specimens entombed in deposits in caves or in rock fissures. In agreement with this is also the nature of the angular rock fragments in the matrix. Those in the cave deposits may be water-worn, but generally include a large percentage of angular, unworn pieces, only recently broken away from the surrounding rocks. Further suggestion regarding the cave origin of the skull is given by the presence in the matrix of a number of snail-shells, rodent bones, and a snake vertebra -- remains that have been very commonly found in the cave deposits of the California region in the course of recent investigations carried on in them.

In close conjunction with the writer's first examination of the Calaveras skull there came from different sources two instructing statements which were considered to have an indirect bearing on the problem of the skull. At one of the scientific meetings in Washington in the winter of 1902, Professor W. H. Holmes exhibited two peculiar skulls partly covered with a calcareous incrustation, and recorded as having come from a cave in Calaveras County, California, the exact locality not being given. On the same day that these specimens were exhibited a member of the Whitney Geological Survey of California told the writer that numerous skulls with calcareous incrustations were obtained from caves in Calaveras county by members of the survey, but he had no knowledge as to what had become of the specimens. Professor Holmes had previously, in 1901, suggested the possibility of cave origin of the skull which Whitney received.

A general statement of all the evidence bearing on the possible cave origin of the Calaveras skull, together with some suggestion as to how the

skull might have come into Whitney's hands, was read by the writer before the meeting of the American Anthropological Association in 1903. The suggestion as to cave origin as more recently been elaborated by several writers* and seems to be generally accepted, though it will probably never be possible to prove it absolutely.

If the Calaveras skull came from a cave, it still remains to show how it finally passed into Whitney's possession as a relic from the auriferous gravels. In this connection several interesting items of information have come to light. One of these seems to show that even if a joke had been played upon the miner, Mattison, this particular joke had failed to reach the geologist Whitney. Some years ago Professor F. W. Putnam exhibited a small photograph, showing the skull in nearly the condition in which it was first seen by Whitney, to residents of Angels Camp who claimed to have been concerned in putting the joker skull into Mattison's mine, and was informed that this was certainly not the skull which they had put in the shaft. In this connection Dr. Sinclair has recently shown that skulls from the locality at which the jokers were supposed to have obtained the specimen used to fool Mr. Mattison are buried in a matrix quite unlike that which covered Whitney's specimen. According to these statements, behind which it does not seem necessary to go, it may be supposed either that several skulls were placed in the shaft by independent parties, or that in the several changes of ownership between Mattison and Whitney, the original skull disappeared, and another specimen was unwittingly substituted.

After so long a lapse of years, it will probably never be possible to trace out the history of the Calaveras skull with certainty, but at least one circumstance suggests an unintentional substitution. According to Whitney's account the skull was in the possession of Dr. Jones of Murphy's not longer than a few months. Mr. J. L. Sperry who was living in Murphy's and resided just across the street from Dr. Jones at the time the skull was found, has on several occasions minutely described to the writer and to others his first view of the Calaveras skull. According to his description, Dr. Jones one day suddenly appeared in his doorway with the skull, which was covered with dust and cobwebs. He was very much disgusted over something connected with the specimen, that he seemed to think had been lying about somewhere for a long time. Jones pitched the skull out into the street, but afterward recovered it. The presumption is that this specimen had been stored away in Dr. Jones' office, or elsewhere, longer than the period which seems to be allowed for its possession by any one of the several parties through whose hands it is supposed to have passed in a comparatively short time. It may easily have been one of the numerous cave specimens, which had been obtained in this region. This specimen it was, which was sent to Whitney in practically the condition in which it is shown on page 153. It is improbable that we shall ever know with certainty the true origin of this specimen, but whatever be the actual place in which it was entombed, it is probable that, had there

*Hrdlicka, A.; Skeletal Remains Suggesting or Attributed to early man in North America, 1907.

Sinclair, W. J.; Neocene Man in the Auriferous Gravels of the Sierra Nevada, 1908.

been no suggestion of its having been derived from the auriferous gravels, anyone familiar with California cave specimens would, at the first glance, have considered it a cave relic of rather ancient though uncertain age.

Considered as a cave relic, the Calaveras skull may possibly represent a race inhabiting the Californian region at a really remote historical period. The cave investigations which have been carried on in this state during the past few years have shown that at several localities, ranging from northern California down through the foothill region of the Sierras, human remains are found embedded in cave deposits which have an appearance of antiquity, though they probably belong to the present or the recent geological period. In Shasta county human bones were found embedded in the stalagmite floor of a remote gallery in the Stone Man Cave. At Murphy's, Calaveras county, human bones covered with stalagmite were found in close proximity to those of extinct animals, though probably more recent than the extinct creatures. At Hawver Cave, in El Dorado county, Dr. Hawver has recently found human bones covered with stalagmite and embedded in hard, cemented cave deposits more than twenty feet below the surface. It may be repeated that these occurrences do not individually necessarily imply any considerable age geologically considered, but the impression given by the numerous cases observed is that the period which has elapsed since entombment may be comparatively long historically, or measured in years.

An interesting confirmation of this suggestion as to the age of some of the cave remains of this state has recently been obtained by Dr. C. Hart Merriam, Chief of the Bureau of Biological Survey, United States Department of Agriculture. Contrary to the view that the skeletons found in the limestone caverns represent cave burials by Indians now living in this region, Dr. Merriam finds in his study of the Mewuk Indians living on the western slope of the Sierra, that they look with horror on this method of burial, and have certainly not practiced it. They are, however, aware that skeletons exist in the caves, and believe the caverns to be inhabited by a stone giant called Chehalumche, who leaves the caves at night to search for food. Human beings are the prey which he likes best. The victims are carried to the giant's lair to be eaten, and it is the bones of these unfortunate persons that we now find in the caves.

The mythology of the Mewuk as obtained by Dr. C. H. Merriam indicates that these people have lived for a long time in the region where we now find them. Their myths describe the creation of the ancestor of the tribe in the region where they now live; and this, in connection with the fact that the Mewuk speak a language not known in any other part of the world, shows that these people have probably occupied their present home for a long time. As the cave burials must have occurred before the Mewuk came to occupy this country, they must date from a remote period, which in Dr. Merriam's opinion is to be measured in thousands of years.