Discovery of ancient skull 12 years ago changed local history

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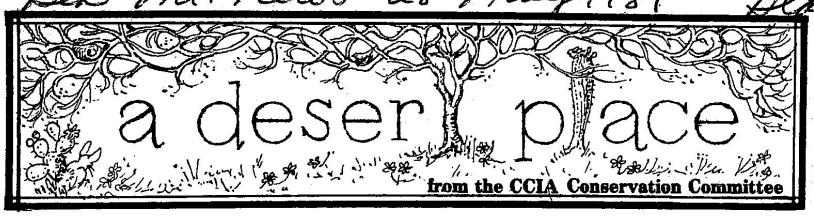

In November 1969, Ellis Jones found a fossil skull in the Cave Creek area. Ellis immediately notified Dr. Lundin of Arizona State University of his find. The skull, plus other bones found at the site, was removed from the rock by Dr. Lundin. At the time, a short notice of the discovery was published in the **Black Mountain News** , but little of the importance of this fossil was known. Several members of the faculties of Arizona State University and the University of Arizona were involved in the determination of the age and the type of rock in which the fossil was found, the age of the basalt which overlies the fossil deposit and the identification of the bones found at the site.

The skull, while not complete, has teeth on the left side of lower and upper jaws in occlusion and the first cervical vertebra is articulated with the skull. Parts of the forelimbs, fragments of several vertebrae and part of the sternum were also found. It was determined that these fossil bones belonged to an oreodont which lived during the Oligocene Epoch around 30 million years ago. Oreodonts were common during the Oligocene and Miocene Epochs but became extinct in the early Pliocene. This is the first oreodont found in Arizona and also the oldest mammal known from this state. This is more understandable if one examines a geological map of Arizona and realizes what a small portion of the surface is Oligocene or Miocene. The well-known Pliocene and Pleistocene deposits of Arizona are millions of years younger than the Oligocene.

Previous to the discovery and identification of the Cave Creek oreodont the volcanic sequence in this area was considered Pliocene and Pleistocene. Therefore the discovery of the Cave Creek Oligocene oreodont has brought about a reinterpreting of the geologic history of this area.

The rock in which the oreodont bones were found was formed from a mudflow from a volcano. The theory is that the oreodont was overtaken by the mudflow and rolled into a ball with the head and forelimbs partially protected from the heat of the mudflow. Such preservation is of rare occurence.

Because a certain section of the oreodont's skull was destroyed the exact determination of the genus and species could not be made, but the known characters place the Cave Creek oreodont in the subfamily Oreonetinae. The oreodonts in museums that have been restored somewhat resemble swine in body structure, but they are not related to modern swine. Paleontologists say oreodonts are intermediate between ruminants and pachyderms.

The material for this article is found in a paper written by Dr. Robert F. Lundin of Arizona State University and Dr. Everett H. Lindsey of the University of Arizona and published in the Journal of Paleontology, January 1972.

Fossils are rare in the Cave Creek area, therefore any fossil found near Cave Creek could be important. We hope anyone who finds a fossil nearby will follow Ellis' good example and refer their find to someone capable of interpreting the value of the find.