

Broom. I do not intend here to enter into a general discussion of the position of this interesting fossil, but wish merely to protest emphatically against its dismissal as "merely a chimpanzee." Certainly, of living anthropoid apes, the chimpanzee is the only one with which a comparison might possibly be made. Both Professor Dart and Dr. Broom, however, have pointed out many features in which this specimen differs from this living form. Direct comparison of the fossil with chimpanzee skulls of a similar degree of development renders it obvious that *Australopithecus* is specifically distinct, and generic distinction seems almost equally certain.

New light is now shed on the subject through the fact that Professor Dart has skilfully disarticulated the jaw, revealing the dentition in its entirety. A study of the teeth suffices to render the assignment of *Australopithecus* to the chimpanzees absolutely out of the question. The vertical position of the incisors as contrasted with the forward slope of those of the chimpanzee has been discussed by Dart and Broom. The canines are small as compared with the milk molars; these teeth are much larger than those of the chimpanzee and in their size, shape and structure appear to be outside the possible range of variation of that genus and, in fact, resemble more closely the human type.

Attempts to settle the phylogenetic position of *Australopithecus* might best be postponed until the publication of Professor Dart's monograph on the skull. But in the meantime it can not be too strongly emphasized that *Australopithecus* is not a chimpanzee, but a new and separate type of anthropoid ape, worthy of careful consideration in any discussion of higher primate phylogeny.

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STRIATED COBBLES FROM TEAY VALLEY, WEST VIRGINIA

THE occurrence of striated cobbles and boulders in regions south of the glaciated area has been discussed recently by Wentworth.¹ In examining gravels in Teay Valley, West Virginia, during the past summer the writer found striated cobbles in a new locality, and since their presence here sheds additional light on the origin of such cobbles and also on the problem of the diversion of the Kanawha River from its old course through Teay Valley, it is desired to put the facts on record.

Teay Valley has long been recognized as an

¹ C. K. Wentworth, "Striated Cobbles in Southern States," *Bull. Geol. Soc. Am.*, 39: 941-954, 1928.

abandoned river valley, having been first brought to attention by I. C. White in 1884 and described in some detail a few years later by G. F. Wright. In 1903 W. G. Tight discussed it in detail, showing its relation to other preglacial drainage lines. It is now generally accepted to be the abandoned channel of the Kanawha River, which deserted this northwesterly course for its present northward course.

Teay Valley is about a mile wide and thirty-five miles long, extending from St. Albans to Huntington. The Teay formation, which consists of gravel grading upward into finely laminated clay, was deposited in this valley. The striated quartzitic cobbles, ranging in diameter from two to ten inches, were found in exposures of the gravel in cuts made by the Chesapeake and Ohio Railroad about three miles east of Milton.

Three possible origins for striated cobbles south of the margin of continental glaciation have been suggested.² The lithology, location and association of the cobbles in the Teay formation make the hypothesis of intense valley ice action the most plausible explanation for their striation.

In order to explain the character and distribution of the clays of the Teay formation, Campbell³ has suggested that local ice dams existed for some time, causing the ponding necessary for the Teay River to seek the new course now occupied by the Kanawha, and also deposition of the laminated clays. Striated cobbles here lend support to the ice dam hypothesis in that it indicates ice action in Teay Valley at the time the Teay formation was deposited.

A more detailed description, with illustrations of the cobbles, will be published elsewhere.

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THE NATIVITY OF THE PUMPKINS

VARIOUS opinions have been expressed as to the nativity of *C. pepo* and *C. moschata*, our cultivated pumpkins. Some botanists regard them as of American origin and others as native to eastern Asia.

Since the plant has never been found in its natural habitat the subject has been one of speculation based upon certain terms of inexact meaning. Recently, however, there has come to light through the activities of the archeologists a rich store of material which throws important light on this subject. In the recoveries from the Cliff Dweller ruins fragments of the rind and peduncle in an excellent state of preservation have been secured and in the mortuary bowls seeds of cucurbits are found, the taxonomic characters of which are clearly defined. This material is

² *Op. cit.*, p. 948.

³ M. R. Campbell, *SCIENCE*, n.s., 12: 98-99, 1901.