freely collecting fossils in America or freely purchasing them by export through dealers.

These fossils from India and China are generally found in a most fractured and imperfect condition and only through comparison in our Museum with other fossil and living specimens and through access to the vast literature of palaeontology and geology is it possible to determine what they are. I personally have labored for months with the greatest difficulty on the fossils received from the Central Asiatic Expedition and it is only my fifty years of study which have enabled me to correctly interpret those found in the first year before the completion of the United States Geological Survey Monograph which I am now sending to the National Geological Survey of China.

It is very rare that fossils have an intrinsic financial value. Their value comes only from the study which is put upon them. In this respect they differ entirely from archaeological specimens which often have immediate and great intrinsic value.

I hope in this spirit of a new understanding that the National Geological Survey of China will cordially support the renewal of the Central Asiatic Expedition and will trust to our fairness in having due regard to the advance of science in China and our integrity in carrying out our agreements along the lines which prevail in all the countries with which we are in cooperation for the advancement of geology and palaeontology.

Sincerely yours,

HENRY FAIRFIELD OSBORN,
President

DR. W. H. WONG, DIRECTOR
THE NATIONAL GEOLOGICAL SURVEY OF CHINA

On March 18, President Osborn received a cable from Dr. Andrews reporting on the result of his negotiations with Professor Ma Heng, Chairman of the Commission for the Preservation of Ancient Objects, requesting that the following announcement be made in SCIENCE:

President Osborn is glad to announce that the difficulties regarding the work of the Central Asiatic Expedition have been satisfactorily adjusted. An understanding has been reached between both the Cultural Society and the Commission for the Preservation of Ancient Objects officially appointed by the Government of Nanking, with the American Museum of Natural History. Members of both the Cultural Society and the Commission for the Preservation of Ancient Objects are in sympathy with scientific men in other parts of the world and appreciate the importance for China and the world of science of mutual harmony, while maintaining for China a primary interest in its scientific treasures. The Central Asiatic Expedition and the Commission for the Preservation of Ancient Objects will cooperate in the coming expedition in results as well as in the scientific study of collections.

This message makes it clear that Dr. Andrews is now making ready to resume the work in Mongolia this season. Curator Walter Granger, chief palæontologist of the expedition, now in the American Museum working up the 1928 collections, accompanied by Mr. Albert Thomson, assistant in palæontology, and Mr. J. McKenzie Young, head of the motor transport, are preparing to sail for China as early as they receive positive word from Chief Andrews.

On March 24 Andrews cabled that the agreement with the Cultural Society and the Commission for the Preservation of Ancient Objects had been signed by both parties, and Messrs. Granger, Thomson and Young are to take the quickest route to Peiping. This means that the expedition will be equipped and ready to start north into the Gobi Desert about May 1. This harmonious outcome of negotiations which have been in progress since August, 1928, will be extremely gratifying to geologists and paleontologists all over the world and will renew the cooperative relations between the American Museum and the scientific institutions of China.

Postscript, April 29: Dr. Roy Chapman Andrews cables that the Chinese Government of Nanking approves the recommendation of the Cultural Society of Peiping for the renewal for the fifth season of exploration in the Desert of Gobi succeeding the active seasons of 1922, 1923, 1925, 1928. Messrs. Granger and Thomson are due to arrive in Peiping on May 9 and Dr. Andrews cables that all the arrangements have been made to reenter Mongolia immediately.

The American Museum of Natural History desires to express to the Cultural Society, the Commission for the Preservation of Ancient Objects and to the Government of Nanking its appreciation of their liberal action in this matter and its desire to cooperate in the advancement of paleontology and geology in China as well as throughout the world.

HENRY FAIRFIELD OSBORN,
President

AMERICAN MUSEUM OF NATURAL HISTORY,
MARCH 24, 1930

AUSTRALOPITHECUS NOT A CHIMPANZEE

Australopithecus, the fossil juvenile anthropoid ape from Taungs, South Africa, has been a center of controversy ever since the preliminary description of the skull by Professor Dart in 1925. Opinions as to its position have ranged from the belief that it is close to the line of human evolution to the view that it is merely a young chimpanzee. Unfortunately, few who have discussed it have seen the original, and have based their opinions on photographs or somewhat inadequate casts.

During a recent visit to Johannesburg I had the pleasure, through the kindness of Professor Dart, of studying the specimen under the guidance of Dr.

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 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, Campbell[3] 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

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

[2] *Op. cit.*, p. 948.

[3] M. R. Campbell, SCIENCE, n.s., 12: 98–99, 1901.