genus *Sinanthropus* (1927); carried on by Pei's further discoveries of teeth, jaw and skull fragments (1928), and culminating in the finding of the uncrushed skull on December 2, 1929; and the reconstruction of the second skull six months later.

(2) Unlike the scanty remains of *Pithecanthropus* and *Eoanthropus* the material available in the case of *Sinanthropus* represents parts of ten individuals. It is surprising that all the material recovered is from the head, no limb bones having been so far recognized.

The most perfect skull is complete down to the roof of the orbital cavities, and has unfused sutures, being of a young adult.

It may be added that no stone implements or other sign of culture have been found.

(3) The main fossiliferous deposit occupies one of a series of old caves following former underground solution-channels in tilted strata of Ordovician limestone. It consists of a series of roughly stratified reddish sands and gravels, locally cemented into a tough travertine, mixed and interlayered with gray limestone breccia, due to the progressive collapse of the roof as the floor was built up. Probably at no time was the open cavity as high as the present depth of the deposit. The latest finds owe their preservation to the protection of a choked lateral conduit branching from a low level in the main cavity.

(4) As a minor point may be mentioned the accessibility of the locality. Chou-kou-tien is a village on the edge of the Western Hills, 45 miles from Peiping, which, on account of its coal, limestone and granite, is served by a branch of the Peking-Hankow Railway. Though not of use for passenger service, this railway has allowed the removal of great quantities of unprepared fossil material which can be carried away in bulk, to be worked up in the laboratories in Peiping. During the seasons 1927–29 1,475 cases of fossils were taken out in this manner. In addition, the quarrymen of the place are available for the task of blasting out the limestone and travertine walls, and excavating the less consolidated parts of the deposit in which the fossils occur. Thus, during the same three seasons a total of 8,800 cubic meters was excavated, despite the fact that the countryside has undergone a period of severe military and political disturbance.

(5) Parts of *Sinanthropus* have been found at five distinct levels, separated by as much as 60 vertical feet of deposit. The same is true of much of the mammalian fossil material, thus showing that the entire deposit is essentially of one and the same geological age. There is thus no chance of error in dating any particular horizon within the body of the deposit.

(6) The faunal assemblage is very rich, well preserved, varied in character, and suited to exact dating in terms of Chinese geological chronology, as well as of value in determining the climatic and environmental habitat of the period. Over fifty mammalian types, besides frogs, snakes, turtles and birds, have been already distinguished, and when comparative studies have been made should permit of close correlation with fauna in other parts of the world. Most characteristic types are *Sinanthropus* ("Peking Man"), *Euryceros* (flat-antlered deer), *Rhinoceros,* cf. *sinensis, Hyaena sinensis.* Interesting types are the big beaver (*Trogontherium*), primitive buffalo (*Bubalus*). There are suggestions of a southern affinity. It is distinctly older than the Loess fauna (Middle Pleistocene), which includes *Rhinoceros tichorhinus, Hyaena crocuta, Cervus elaphus,* in place of those mentioned above. The general assemblage is Villafranchian in type and can be closely dated as very early Pleistocene in view of the absence of truly archaic types, and the presence of modern types, including *Equus;* but it is definitely distinct from and older than Middle Pleistocene. This age tallies with the physiographic and climatic stages as determined from entirely independent evidence in other localities in North China.

(All new data are issued from the Laboratory of Cenozoic Research under the control of the Geological Survey of China and the Peiping Union Medical College. A bibliography up to December, 1929, appears in a paper by Teilhard and Young in *Bull. Geol. Soc. China,* Vol. 8, No. 3, 1929. Further data appeared in Vol. 9, No. 1, 1930.)

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