



NOTHING ABNORMAL

Early Stone Age people would not have made a "murder mystery" of this skull with a round hole evidently pierced by some heavy, pointed instrument, found in the upper cave at Choukoutien, China. It was apparently "natural" to die violently, in those days.

ANTHROPOLOGY

Violent End Was 'Natural' To Earliest Human Beings

VIOLENT death, so shocking to modern sensibilities, was the "natural" mode of exit from earthly existence to people of the Old Stone Age. This was true over 500,000 years ago, in the days of Peking Man, earth's earliest known humans, and it was true less than 50,000 years ago, in the later part of Paleolithic time.

Studies of Peking Man remains reported by Dr. Franz Weidenreich of Peiping Union Medical College support earlier findings by the French scientist Henri Vallois and extend the date of "natural" violent deaths back to the half-million year mark and beyond.

Dr. Weidenreich based his study on the 38 known *Sinanthropus* skulls, and on seven skulls of later Old Stone Age date found in upper levels in the same series of caves at Choukoutien. In both groups of skulls, the majority of specimens carry evidences of violence: they are either caved in, as by a club, or pierced, as by a spear or stone knife.

Life was short as well as full of trouble, in the old Chinese caves. Fifteen of the

38 Peking Man skulls were of children under 14 years old, as shown by state of dental development. Not all the adult skulls could be assigned ages because the material was so fragmentary. However, of those that could be provisionally dated, three appeared to be less than 30 years old, three between 40 and 50, and one patriarch appears to have been over 50—maybe as much as 60 years old.

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OCEANOGRAPHY

Water Pressure Helps Get Sea Bottom Samples

A NEW device for getting core samples from the ocean bottom, using the ocean's own depth pressure to drive the sampling tube into the mud, has been invented by Drs. Hans Pettersson and Borje Kullenberg of the Goteborg Oceanographic Institute in Sweden.

The first successful ocean-bottom core sampler was invented in the United States by Dr. Charles S. Piggot of the Carnegie Institution of Washington. This device

employs a small charge of cannon powder to force a long tube into the bottom, cutting out a core or plug, exactly after the manner of a market-man's watermelon sampler.

Such cores, brought to the surface and taken to the laboratory, can be studied in great detail to learn the recent geological history of the ocean bottom.

The Pettersson-Kullenberg sampler uses a similar tube, but instead of loading gunpowder into the chamber at the top, merely exhausts the air from it. When the lower end of the tube touches bottom it automatically opens a valve which permits the great pressure of the water at depth to act against this vacuum, forcing the tube downward. The inventors hope to be able to obtain 30-foot cores by their new method.

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PHYSIOLOGY

Rumored "Pep Drug" Use By German Bombers Doubted

ARE GERMAN dive bombers drugged before the take-off, like horses before a race, to improve their performance?

Persistent though still unconfirmed reports state that they are and that the reports are the subject of scientific investigation in this country.

The "pep" medicines used for this drugging are said to be ephedrine, familiar to asthma sufferers, and benzedrine, known as "pep pills" to students who took them before examinations.

Scientific comment on the report is that even if true, it is doubtful if the "pep" chemicals would produce the desired results.

Both these chemicals raise the blood pressure. Many persons who have suffered from low blood pressure and been treated with ephedrine can testify to its "pepping up" effect. Benzedrine is useful in the sleep disorder, narcolepsy, because of its wake-up effect. This is what prompted college students to use it before examinations. Because benzedrine is a dangerous drug, medical authorities look upon its use in this way with disapproval.

At first glance it would seem that either or both of these might well improve the performance of dive bombers. To scientists, the catch is that there is little or no evidence to show that blood pressure is lowered during rapid descents from high altitudes. If the blood pressure is not significantly lowered, there would be no scientific reason for giving either ephedrine or benzedrine to raise it.

It might even be dangerous to give these medicines. They are extremely