

PALEONTOLOGY

Vanished Giants

Remains of a story-book ogre whose fossilized teeth are six times as big as modern man's and twice as big as gorilla's are reported.

► GIANTS that once lived in China would fit story-book descriptions of ogres, for their fossilized teeth are six times as big as modern man's and twice as big as a gorilla's. Far to the south, in Java, were other giants with jawbones much bigger than those of any known human being's, living or extinct.

All that is known of these huge but vanished men is summarized (*Science*, June 16) by Dr. Franz Weidenreich of the American Museum of Natural History. A more detailed report is now in the hands of the scientific publishing firm, Chronica Botanica, and will be in print soon. His information had to be gleaned from a few fragments—a couple of jaw-bones found in Java and three gigantic teeth dug out of a drawer in a Chinese apothecary's shop in Hong Kong. Tantalizingly, further search for more complete skeletal remains of these giants must await the expulsion of the Jap dwarfs from the lands they inhabited, far back in Ice Age days.

Hints of the former existence of outsize ancient men first began to turn up in Java, from the same series of fossil-bearing beds that more than half-a-century ago produced the then almost incredible bones of the famous *Pithecanthropus erectus*. In 1937 and 1938, two skulls of *Pithecanthropus* type were found there by Dr. R. von Koenigswald, of the Geological Survey of Netherlands Indies.

In 1939, Dr. von Koenigswald's native collector brought in a fossilized upper jaw from the same site. It is larger and more massive than any known fossil or recent human jaw; although it has an ape-like gap between canine and incisor teeth, the teeth themselves, and associated structures, are distinctly human and not ape-like. The brain-case, found some weeks later, is much bigger than the known *Pithecanthropus* skulls, principally because of the thickness of its bones, and the size of its great eyebrow ridges and a crest that runs over its top. A matching fragment of a lower jawbone was also found, a few months later in the same year.

Drs. Weidenreich and von Koenigs-

wald continued to regard these fossils as belonging to *Pithecanthropus*, despite their greater size. However, a lower jawbone found by Dr. von Koenigswald in 1941 made this conservative classification impossible; it was simply too big to fit in. So Dr. von Koenigswald gave it a new name: *Meganthropus paleojavanicus*, which means big man of ancient Java. It may be that the large skull found in 1939 will prove upon reexamination to belong to this new species also.

Discovery of evidence for the former existence of human giants in China was not made by digging in the field, but by digging in Chinese apothecaries' stocks-in-trade of fantastic *materia medica*. Dr. von Koenigswald knew that these Celestial medicine-vendors deal in fossil bones and teeth, which they pound up for their potions, so whenever he could he rumaged through their boxes and drawers.

Between 1934 and 1939 he found, in such apothecaries' shops in Hong Kong, three molar teeth, evidently either simian or human, but six times as big as any human teeth ever seen. He took them at first for apes' teeth and accordingly named the vanished species to which they had once belonged *Gigantopithecus blacki*, or Black's giant ape. (The specific name was given in honor of the late Dr. Davidson Black, original discoverer of Peking man.) Dr. Weidenreich's reexamination of the teeth, however, has convinced him that they are human despite their great size, so he suggests a renaming: *Gigantanthropus*, which means giant man.

Dr. Weidenreich concludes his discussion with the suggestion that the original human beings may have been big, massive-boned creatures: "The occurrence of large fossil human skulls with very thick individual bones in early or late stages, for instance in *Homo soloensis*, *Homo rhodesiensis* and in the Heidelberg jaw, seem to indicate that gigantism and massiveness may have been a general or at least a widespread character of early mankind."

The Javanese giants may have been, he estimates, of "the size, stoutness, and strength of a big male gorilla."

Dr. von Koenigswald was still on the island of Java when the Japanese invaded, and his present whereabouts is unknown. Since he could not communicate with him to obtain his consent to announcing details of his discoveries, Dr. Weidenreich obtained official permission from the Board for the Netherlands Indies, Surinam and Curacao.

Science News Letter, June 24, 1944

PHYSICS

Dr. Morton Mott-Smith, Physicist, Is Dead

► DR. MORTON C. MOTT-SMITH, Science Service staff writer in physics, died on Friday, June 9, after an illness of several months. He was 66 years old.

Although he joined the staff of Science Service less than three years ago, he completed since then two important fundamental texts in physics for use in high schools and by soldiers and adult civilians.

One of these, "Fundamentals of Electricity," has had total printings of over 650,000, including editions for the Army and a translation into Spanish.

Dr. Mott-Smith, as staff writer for Science Service, reported many of the recent important advances in physics.

Born in Hawaii on Nov. 26, 1877, Dr. Mott-Smith was graduated from the Massachusetts Institute of Technology in electrical engineering and got his Ph.D. in physics, philosophy and mathematics at the University of Halle, Germany. He was professor of physics at Colby College and George Washington University.

Other books by Dr. Mott-Smith include: "This Mechanical World," "Heat and Its Workings," and "The Story of Energy" in the Appleton New World of Science series. He was co-author of a Science Service-Infantry Journal book now in press: "Fundamentals of Mechanics."

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WYOMING

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