

## LETTERS TO THE EDITORS

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### Discovery of a New Skull of the South African Ape-man, *Plesianthropus*

BETWEEN 1924, when the Taungs ape-man was discovered, and 1941, when the jaws of the baby Kromdraai ape-man were found, remains of many individuals of this wonderful family, which some of us consider to be nearly related to man, were discovered; sufficient to show that in South Africa we may have the key which will solve the problem of the origin of man. But from 1941 until a few months ago, no further research was undertaken.

In 1946, a book was published on all we know of the South African ape-man; and the world awoke to the possibilities of the wonderful results that might be achieved by the further study of our caves. The United States has come to realize that South Africa is a more promising centre for the solution of the problem than even Java or China; and she seems determined to see that the problem must be solved, and solved soon.

At the beginning of this year, at the special request of General Smuts, I again started to hunt for more 'missing links'. My assistants and I commenced work at Kromdraai and continued there for three months. We found many interesting remains, including a very fine skull of a sabre-tooth tiger (*Megantberon*) and the skull of a large type of 'baboon', which belongs to a new genus; but only one bone that had possibly belonged to an ape-man.

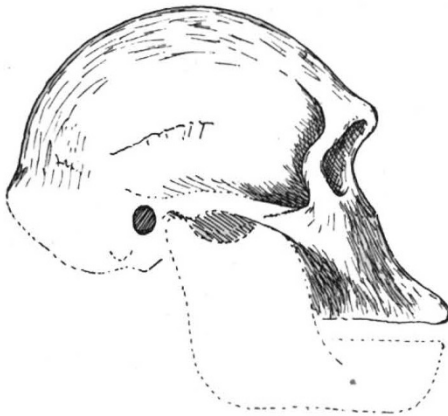


Fig. 1. SIDE VIEW OF SKULL OF OLD FEMALE STERKFRONTEIN APE-MAN *Plesianthropus transvaalensis* (BROOM).  $\frac{1}{3}$  NATURAL SIZE. THE LOWER PART OF THE OCCIPUT AND PART OF THE JUGAL ARCH ARE STILL EMBEDDED IN MATRIX, AND THE LOWER JAW IS NOT PRESENT

Then on April 1 we started work at Sterkfontein, and almost immediately our labours were rewarded by sensational discoveries. On April 8 we found an isolated crushed snout of an adolescent *Plesianthropus* with some beautiful teeth; and a fragment of a snout of a child of possibly three years. This showed the perfect upper milk molars, and a note on the discovery was sent to *Nature* [see issue of May 3, p. 602. Editors]. On April 11 two quite isolated teeth of Sterkfontein apes were found—one the beautiful upper canine of

a male of perhaps thirty years, and a lower molar probably of a female of forty years.

But on April 18 a small blast cracked open a block of breccia, and there in the middle lay a perfect skull without the mandible of an adult *Plesianthropus*, with the brain case broken across. In ten days we had found the remains of five—possibly six—individuals of the Sterkfontein ape-man, *Plesianthropus*, and one of them represented by a complete skull.



Fig. 2. FRONT VIEW OF SKULL OF OLD FEMALE STERKFRONTEIN APE-MAN, *Plesianthropus transvaalensis* (BROOM).  $\frac{1}{3}$  NATURAL SIZE

The bones are very friable and the matrix not only rather hard lime, but also breccia with many large broken pieces of chert; it will take many weeks before the skull can be completely developed from the matrix.

Enough, however, has now been done to reveal most of the more striking features of the skull. In the type skull the brain cavity was filled with matrix. In the newly discovered skull there is only a lining of lime crystals from about  $\frac{1}{8}$  in. to nearly  $\frac{1}{2}$  in. in thickness. When this layer is removed we will have every detail of the anatomy of the inner side of the base of the skull. The under surface of the base of the skull appears to be just as perfect; but it will take some further weeks of preparation to reveal it all.

So far, our labours have been concentrated on the details of the face, and in cleaning the cranial vault. The teeth are all lost, but many sockets remain, and we can say with much confidence that the skull is that of an elderly female.

The drawings I give will serve to show the general aspect of the face and the side view. I think there will be very general agreement that the being is not a chimpanzee or even closely allied to any of the living anthropoids, and that, though small, the skull has many resemblances to that of man.

The skull from glabella to opisthocranium is about 150 mm., and the greatest parietal width is about 100 mm. It is thus seen to have an index of about 66, and to be extremely dolichocephalic. As yet, we can only give a roughly approximate size for the brain cavity, but it seems probable that it will be about 500 c.c.

Of course, it will take many weeks before the skull is completely worked up and a full account can be published, but it seems well that the world should know that such a valuable skull has been discovered.

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April 2.