

February 1950

Transvaal Museum Memoirs - Introduction: Further evidence of the structure of the Sterkfontein ape-man Plesianthropus

Follow this and additional works at: https://digitalcommons.usf.edu/kip_articles

Recommended Citation

"Transvaal Museum Memoirs - Introduction: Further evidence of the structure of the Sterkfontein ape-man Plesianthropus" (1950). *KIP Articles*. 5366.
https://digitalcommons.usf.edu/kip_articles/5366

This Article is brought to you for free and open access by the KIP Research Publications at Digital Commons @ University of South Florida. It has been accepted for inclusion in KIP Articles by an authorized administrator of Digital Commons @ University of South Florida. For more information, please contact digitalcommons@usf.edu.

FURTHER EVIDENCE OF THE STRUCTURE OF THE STERKFORTEIN APE-MAN PLESIANTHROPUS

INTRODUCTION

IN 1924, THE FAMOUS TAUNGS SKULL was found by Mr. M. de Bruyn, and described by Prof. Raymond A. Dart in 1925, under the name *Australopithecus africanus*. But since then no further remains of this interesting higher Primate have been discovered.

The skull is that of a young being corresponding, in state of development, to that of a 5 or 6 year old human child, or a chimpanzee of perhaps 3 years. Dart's first description led to much controversy. He himself regarded *Australopithecus* as a primate somewhat intermediate between the higher anthropoids and man; and probably near to the ancestor of man. Others held that it was an anthropoid rather closely related to the chimpanzee and gorilla, and which, by a parallel development, had acquired a few human characters, but which was not on or near the human line. The dispute lasted for over 10 years; but as the skull was that of a child and no further remains had been discovered it seemed impossible to bring the scientific world to a definite conclusion; and the only thing to be done seemed to be to hunt for an adult skull.

In 1934, the senior author was appointed to a post in the Transvaal Museum; and in May, 1936, he started the search for an adult skull of *Australopithecus* in the cave deposits around Pretoria. It was manifest that, if he failed in the main quest, he was certain to find many interesting new Pleistocene mammals, as it was an almost virgin field. Within a few weeks he had discovered many new mammals, the most interesting of which was a giant baboon which he called *Dinopithecus ingens*. Then at the end of July he heard of the caves at Sterkfontein, and on 9th August visited them with two of Dart's students, Mr. G. W. H. Schepers and Mr. H. le Riche. On 17th August, an adult skull of a being allied to *Australopithecus* was discovered, which was later described as *Plesianthropus transvaalensis*.

During the latter part of 1936, and much of 1937 and 1938, numerous portions of skulls, teeth and bones of *Plesianthropus* were discovered; and in 1938 much of the skull of a different type was discovered at Kromdraai and named *Paranthropus robustus*.

In January, 1946, there was published a full account of all the discoveries of these South African "ape-men" that had been made in the previous ten years. General Smuts was much interested in the work and asked Broom to carry on the search, which had been largely stopped during the war.

In the first three months of 1947 work was carried on at Kromdraai. A very fine sabre-tooth tiger skull was found, and the skull of a new type of large baboon, but no further evidence of ape-men or anthropoids was found.

In April, 1947, we started operations at Sterkfontein near the spot where the type skull was found in 1936. As the lime here was of poor quality, no further commercial quarrying had been done, and it was hoped that we might find a mandible or some bones of the skeleton. Though we found no more of the type individual we soon discovered other remains quite as important.

On the 10th April, we found a very beautiful isolated upper canine of a male — considerably worn, and the isolated lower molar of probably a female.

But on 18th April, a blast broke open a large block of what had appeared to be rather barren bone breccia, and in this was found the perfect skull of a middle-aged or elderly female Plesianthropus, but without the mandible. The blast had broken the skull in two by a fracture right round about the widest part of the brain case. The skull was thus broken almost exactly as a human skull is when the top is sawn off to get out the brain. Each half was embedded in a fairly uniform lime deposit with masses of broken chert. The brain cavity was lined with a layer of crystalline lime deposit to a thickness of from 1/16 to about 3/8 of an inch. The whole of the base of the brain cavity appeared to be perfect.

We discovered, on June 24th, a nearly complete lower jaw of a large elderly male Plesianthropus with a few bones of the skeleton. This lower jaw has the left ramus perfect, except for displacement and damage of the condyle, and with the symphysis fairly well preserved. Much of the right ramus is also preserved, but it is badly crushed. All the teeth of the left side and the incisors in front are preserved.

On 1st August, we discovered a nearly perfect pelvis with much of a femur and a few vertebrae. And in the latter part of the year much of three more skulls. As the work is still being continued, and other remains may at any time be discovered, we might devote all our energies to collecting; but we think, owing to the great importance of the finds we have already made, that these should be described as soon as possible. No doubt if we wait for two or three years we shall have much more to report; but what we now have seems to be too important to be held up. The whole scientific world appears to be anxiously awaiting our new facts. We cannot afford to stop work at the Caves, and, if there are those who consider we ought to give more elaborate reports we hope they will be charitable in remembering that besides the explorations at the Caves the preparation of the specimens is a very delicate task, which takes up about three quarters of our time.

In the book which was published in 1946 by Broom and Schepers, descriptions were given of all finds that had been made up till 1942. But though this book runs to 272 pages with 18 plates and many text figures, some complaints have been made that it ought to have been larger. And though in the present work we give descriptions of the more important finds made in 1947 and 1948, we are fully conscious that the importance of the discoveries would justify the publication of a book at least twice as large as the previously published volume. But this would take two years to complete, and we consider that speedy publication is important.

Dr. Weidenreich, in 1937, published two large volumes on "The Dentition of *Sinanthropus pekinensis*"—180 pages of text with XXXVI plates and 49 diagrams. He describes 147 teeth of *Sinanthropus*. It is truly a colossal work of the utmost importance. And he has published other large works on the skulls, brains, and skeletal remains of Peking man. But this has been the work of years.

We in South Africa have collections which rival those of Chou-kou-tien. We have about 200 teeth of our Australopithecines, and they are quite as important as those from Peking, and worthy of as large a Monograph as that by Weidenreich. We have 5 good skulls, and 8 imperfect ones, and we have more important remains of the skeleton than have so far been found in China. It will take years before all the material we now have can be adequately described; and all the time we are adding more and more to our knowledge of the South African fossil forms. Our caves have so far only been scratched. Thousands of caves and cave deposits have never been examined. So our present paper, which deals almost entirely with less than two year's work in one cave, will give some idea of the wealth of our deposits. Our paper, though far from complete, will give a good idea of the general structure of Plesianthropus. We give the facts and leave the scientific world to decide whether it is a variety of Chimpanzee, or a being that may be rather closely related to man, and possibly allied to his ancestor. But while we give all the facts we must be allowed to give what are our own very definite opinions.