



...going one step further



VP754/1

Broken Hill or Kabwe

English

- **Homo erectus rhodesiensis**
- **Homo sapiens rhodesiensis (early- archaic Homo sapiens)¹**
- **Skull without lower jaw**
- **Homo Heidelbergensis**

The model was developed from a cast of the replica from the collection of the Johann Wolfgang Goethe University of Frankfurt am Main, Institute of Anthropology and Human Genetics for Biologists.

The skull of Broken Hill (today called Kabwe, Zambia) was discovered in north western Rhodesia in 1921. It lay on the floor of a cave which extended into the mound of an ore mine, at first over some 30 m with a slight incline, and then sloped down abruptly. The end of the cave was about 27 m below the entrance level. Besides the skull, other human and animal bones and primitive implements were found. These finds were largely covered with lead, zinc and vanadium ores and, thus, preserved in a natural way.

The generally well preserved skull shows an almost intact face. The teeth are also well preserved and display major pathological processes in the entire parodontium, such as tooth decay and abscesses.

The neurocranium lacks the right temporal bone and portions of the occipital bone. The left-hand side of the skull shows minor defects which are believed either to be dental impressions of a carnivore or injuries caused by stone tools. Inflammatory processes are another possible explanation.

The comparatively large and heavy-weight skull features a remarkable length of 206 mm. The width and height are only 145 mm and 130 mm respectively. The neurocranial volume of approximately 1,300 cm³ lies only a little bit below the average value of recent man.

The extremely pronounced toruses over the eye sockets were initially responsible for assigning the find to the Neanderthal form group where however, the lateral thickening of the torus is not so developed. But similar extreme developments can be found in the find of Saldanha, in the Indonesian Ngandong group and much stronger in Oldoway Bed II.

It is also the sagittal curve of the forehead section that varies from that of the Pre-Neanderthals and Neanderthals. Yet the affinity to the Ngandong finds is obvious. Still greater deviations from the Neanderthal skulls are evident when the skull outlines are compared in the rear view.

The pentagonal shape typical of many Homo erectus finds differentiates Broken Hill clearly from the so called "pancake" shape with the flowing and broadly rounded curve of the Neanderthals. However, the rear of the head shows strong similarities to the Homo sapiens as the pronounced break of the Homo erectus is lacking.

The visceral cranium exhibits a minor prognatism only. The very strong semi arches of the torus extend right down in the glabellar region and far to the outside in the temporal region, making the skull even broader than in the cheek bone region.

The sockets of the eyes are extremely large in size and the upper face with a total of 93 mm is very high. This is especially due to the high upper jaw bone that also points to a high mandibular body.

In summing up it can be said that the salient features of the skull of Broken Hill (Kabwe) reveal hardly any affinity to the group of Neanderthals but are more similar to the fossil Recent Man of which the cranial capacity is particularly worthy of mention.

Parts of the extremities were found together with the skull which do not show any of the characteristics known from European Neanderthals.

The additional animal bones that were discovered originate largely from types still alive today. This is why the age of the find was initially estimated to be between 40,000 and 60,000 years. However, this is contradicted by the correlation of the discovery layer and the date of the amino acid, according to which the age is more likely to be between 150,000 and 300,000 years.

¹Classification based on Henke and Rothe (1994)

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