



*...going one step further*



**VP751/1**

- **Full name:** La Chapelle-aux-Saints
- **Homo (sapiens) neanderthalensis (classic Neanderthal Man or later Neanderthal Man)**
- **Group classification:** Neanderthal Man

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 La Chapelle was found in Southern France in 1908, and is of a man of 50 to 55 years of age. As are most of the skulls of the European Neanderthal men of the last glacial period, it is large in the neurocranium as well as in the facial bones but the skull itself is not very high. In the adult Neanderthal man, the skull is remarkably long. It exceeds 190 mm and, in most cases, reaches 200 mm; in the case of La Chapelle it is 208 mm long. On average this is far beyond that of modern man. Cranial width is larger, particularly in the region of the forehead, with the girth of the skull being between 590 and 600 mm (which also applies to La Chapelle). Cranial capacity normally exceeds 1,500 cm<sup>3</sup>. In the model shown it is 1,620 cm<sup>3</sup>. Compared to modern man, the skull is low to medium high, but in relation to its considerable length, it is very low.

The ridges above the eyes (supraorbital tori) are prominent bone projections, bordered by the receding forehead. These bony ridges of the Neanderthal man have no phylogenetic relation to those of anthropoid apes, but should be understood as convergence resulting from the position of the frontal sinus. In apes, these are always behind the tori, whereas the sinus in Neanderthal man project into these ridges. Contrary to earlier opinions the frontal sinus is consequently of no phylogenetic significance.

Seen from the side, the back of the head looks flat and resembles a broadly rounded oval when seen from the rear. The mastoid process is small. Compared with those of modern man, the facial bones appear very large. Among other reasons, this is due to the considerable width of the zygomatic arch (153 mm). The eye sockets are wide and high, with the upper edge more rounded. The nasal cavity is broad and high, and the nasal bones protrude forwards. The depression in the upper jaw bone (canine fossa), which is typical in modern man and already evident in the Steinheim skull, is absent in all classic Neanderthal men. The lower jaw is long and strongly developed. It shows a receding chin. The articular processes are widely spaced, similar to the Peking man (*Homo Erectus*), with teeth generally bigger than those of modern man.

The age of the La Chapelle skull is estimated at 35,000 to 45,000 years, but has not yet been more accurately dated. Generally, most discoveries of the European Neanderthal man are considered to be between 60,000 and 35,000 years old (Oakley).

The question regarding the relationship between the Neanderthals and anatomically modern humans is still discussed controversially. The advocates of a strict "replacement model" assert an own species status (*Homo neanderthalensis*), whereas the supporters of the multiregional development of the *Homo sapiens* view it as fact that intermingling occurred and that the Neanderthal consequently holds a subspecies status within the biological species model (*Homo sapiens neanderthalensis*). Most recent genetic findings do seem to back the supporters of the replacement model, thus confirming an own species status, but, on the other hand, major doubts about the interpretation of the findings have been expressed. A solution to the "Neanderthal problem" does not yet seem to be within reach.

In the present model, those fossil bones that were not found with the original are shown in brown. The grey color indicates parts added to the original as well as the adhesive mass which join the various parts of the skull.

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