

## Summary: 02 Set in Stone

Although *Pitdown Man* proved a hoax, many fossils of early man have been found in Europe since the 19<sup>th</sup> Century. In 1856 Johann Fuhlrott discovered the remains of *Homo neanderthalensis* in the Neander Valley in Germany. From the moment of the discovery, Neanderthal Man had a bad press, being represented more as an ape than a human. Modern research and reconstructions show him to have been very similar to ourselves and was truly human. We will look more closely at Neanderthal Man later in the course.

There have evolutionarily been a long line of predecessors to what is called **Anatomically Modern Humans**. These are the hominids which evolved after our ancient ancestors diverged from those of the chimpanzee about 6 million years ago. The oldest known hominid or near-hominid species found to date was unearthed in Chad in 2002 and was officially named *Sahelanthropus tchadensis* but affectionately known as *Toumai* (“*Hope of Life*”). He had only a very small brain, around 350cc., and has been dated at between 6 and 7 million years old which takes him back to the Chimps/Hominid split and so many argue he was an ape, not a hominid.

The many hominid fossils found in Africa show a clear trend from early *australopithecines* to recent humans for increasing brain size and body size and increasing use of tools and sophistication in making them. There is also clear trend to decreasing tooth size and of skeletal robustness.

**We are all Homos....** Although we cannot be certain as yet, *Homo habilis* (or “handy man”) was possibly the earliest in the line called *Homo* and dates from about 2.5 MYA. His remains were found in the Olduvai Gorge, in Tanzania in the early 1960s. More recently, it has been said that he does not show the body size and shape and the small teeth expected of a species of *Homo*. The more likely candidate as our patriarch *Homo ergaster* who, at about 2 MYA, already showed all the signs scientists asked of a true *Homo*. This places *H. habilis* back among the extinct *Australopithecines*. *Ergaster* remains were found in Africa about 1.8 or 1.9 MYA, although the best-known, affectionately called “Nariokotome Boy”, dates from about 1.6 MYA. This adolescent boy died in Africa but his species spread out over the world — they were the first species of Man to whom the “Out of Africa” scenario applied.

What are called *H. ergaster* in Africa are generally called *H. erectus* elsewhere on the planet. The larger bodies and better stone tool-kits allowed *H. erectus* to survive in a wider range of habitats. Examples of *erectus* fossils include “Java Man”, “Peking Man” and the recently-discovered fossil at Dmanisi in Georgia. *Homo erectus* survived until about 27 KYA, which makes him contemporary with modern man, some of whom might well have met Java Man on their long trek to Australia. *Homo* fossils dating from 800–30 KYA (including the first modern humans) have been found in Africa, Asia, Australia and Europe, but not in the Americas.

**Archaic humans in Europe:** There have been a number of fossils of early *Homo* species found in Europe - eg, near Heidelberg in Germany and Boxgrove in England. These date to ~500 KYA. Another sub-species called *H. antecessor* was found at Atapuerca in Spain and was dated at ~780 KYA. Archeologically, they are associated with the Acheulean culture.

**Anatomically Modern Humans:** Since there is no “type specimen” such fossils are usually hard to define. Criteria include issues such as: How big and rounded is the skull? To what degree does the face slope backwards? Until recently, it has been agreed that modern humans evolved from predecessors in different regions of the world. Such a theory, of course, fitted in nicely with 19<sup>th</sup> and 20<sup>th</sup> Century beliefs in race. Genetics gainsays this view.