

Palaeolithic Archaeology Teaching Resource Box

Hominin Species: Basic

What are Hominins?

The term *hominins* refers to humans and all of our ancestors since the evolutionary split between the human (hominin) line and our close cousins the chimpanzees (this probably happened some time between 6–8 million years ago).

Which are the main Hominin Species during the British Palaeolithic?

There are three main hominin species that lived in Britain at various times during the Palaeolithic:

Homo heidelbergensis

The first hominin species in Britain was *Homo heidelbergensis*: although few fossil remains have been found (three skull fragments from the *Swanscombe* site in London and two teeth and a tibia (lower leg bone) from *Boxgrove* on the Sussex coast). Perhaps because so few fossils have been found (across Europe as well as from Britain), this species is quite difficult to define, but it was bipedal (like all of the British hominins) and had a brain size of c. 1250cc (approximately 92% of the modern human brain size). The species lived in Britain during the Lower Palaeolithic, although the oldest fossils, from Boxgrove, are c. 200,000 years younger than the earliest stone tools. It is also very likely that they were not present in Britain all of the time.

***Homo neanderthalensis* (the Neanderthals)**

The Neanderthals are one of the most famous of the hominin species, ever since the first Neanderthal remains were found in Germany (at Feldhofer Cave in the Neander valley) in 1856. The only Neanderthal remains from Britain were found at the Welsh cave site of *Pontnewydd*. The Neanderthals evolved in Europe from *Homo heidelbergensis* between roughly 400,000 and 200,000 years ago, and became extinct around 30,000 years ago. The Neanderthals have a very distinctive body shape, with relatively short limbs and a relatively large torso: studies of modern humans from warm (Africa) and cold (Arctic) regions suggest that this may be related to the cold climate of Middle Palaeolithic Europe. Cold climate conditions may also explain the Neanderthals' unique nose: both long and wide, and unique among the extinct hominins and modern humans (our noses are either long and narrow or short and wide). The Neanderthal brain is actually slightly larger than that of modern humans, although it is important to remember that brain size alone is not necessarily a good indicator of intelligence or abilities.

***Homo sapiens* (modern humans)**

Modern humans are thought to have evolved in Africa, sometime after 200,000 years ago. The earliest modern human fossils have been found recently at Herto in Ethiopia, and are approximately 160,000 years old. The fossil and archaeological records suggest that modern human anatomy evolved before modern human behaviour: in other words, the first *Homo sapiens* looked like us before they began to act like us. Following their evolution, modern humans moved out of Africa and into the rest of the world. They reached the south-eastern parts of Europe around 45,000 years ago, while some of the earliest British dates for a modern human fossil are from the site of *Kent's Cavern* in Devon (c. 35,000–37,000 years ago).

Terminology:

Boxgrove: a key British Lower Palaeolithic site (c. 500,000 years old), Boxgrove has yielded a *Homo heidelbergensis* tibia (lower leg bone) and two teeth, alongside extensive evidence

for tool-making (mainly handaxes), butchery of animals including rhinoceros and horse, and probable direct hunting.

Hominin: a member of the human evolutionary lineage, including extinct ancestors such as the Neanderthals and *Homo erectus*, but excluding our close primate cousins (the chimpanzees and the gorillas).

Kent's Cavern: a key cave site from the south-west of Britain (in Torquay, Devon), with evidence of occupation from the Lower, Middle and Upper Palaeolithic periods. The only fossils come from the Upper Palaeolithic deposits, although the jaw bone is too fragmented to be assigned to a specific hominin species.

Pontnewydd Cave: this important cave site is one of relatively few Palaeolithic sites in Wales (the small number of sites may well be due to the destructive effects of the Pleistocene glaciers which covered large parts of Wales during the glacial periods). It has produced a small number of Neanderthal teeth, as well as a series of stone tools (because these tools were made from stone that was difficult to work, their 'crude' appearance led to the site being originally thought of as much older than its actual age of roughly 230,000 years old).

Swanscombe: three fragments of a *Homo heidelbergensis* skull were found at Swanscombe (to the south of the River Thames in south-east London), another key Lower Palaeolithic site dating to c. 400,000 years ago. The site also produced a large collection of stone tools, and preserved animal footprints.

Quiz Questions:

1. What does bipedalism mean?
2. Why would relatively short limbs help you survive in a very cold climate?
3. What sorts of behaviours might be characteristics of a modern human?

Further Resources:

<http://matt.pope.users.btopenworld.com/boxgrove/sitehomo.htm> [Details of the *Homo heidelbergensis* finds from Boxgrove]

<http://www.walespast.com/article.shtml?id=22> [Details of the Neanderthal teeth finds from Pontnewydd Cave]

<http://www.sciencemuseum.org.uk/exhibitions/genes/22.asp> [A series of webpages discussing human origins, DNA, and the relationships between Neanderthals and modern humans]

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Front view of a *Homo heidelbergensis* skull (from the site of Steinheim, Germany)



Side view of a *Homo heidelbergensis* skull (from the site of Steinheim, Germany)