

Fundamentals fact sheet: hominin behaviours 1 (technologies & diet)

Tool Technology

- Most of the tools we find on archaeological sites from the Palaeolithic are made of stone.
- This is due to the poor survival (preservation) of bone and wooden tools – these tools were probably important throughout the Palaeolithic. There are examples of wooden spears from as early as the Lower Palaeolithic.
- Stone tools were used for different tasks: e.g. cutting, scraping, piercing and carving.
- In the Lower Palaeolithic (*H. erectus* and *H. heidelbergensis*) stone tools such as handaxes were probably multi-purpose tools.
- In the Middle Palaeolithic (Neanderthals) different tools were made for specific uses (e.g. scrapers may have been used to process animal skins).
- By the Upper Palaeolithic (*H. sapiens*) tools had become very specialised – a wide range of specific tools were made for particular tasks (e.g. spear-throwers and spear-points for hunting; burins for carving antler).

Diets

- The very earliest hominins such as *A. afarensis* probably had a similar diet to modern chimpanzees – i.e. lots of plant foods, with occasional meat (which was probably scavenged from dead animals rather than hunted).
- Animals were probably hunted by all of Europe’s Palaeolithic humans (i.e. *H. heidelbergensis*, Neanderthals and *H. sapiens*).
- As well as meat (and fat) for the diet, animals would also provide skins (for clothing and/or tents – see also **hominin behaviours 2**), bone (for tools) and other useful products (e.g. tendons can be used to make bindings).
- Hunting strategies became more specialised with the Neanderthals and, especially, *H. sapiens* (i.e. only hunting single species, such as reindeer).
- Weapons for hunting included spears. In the Upper Palaeolithic hunting weapons became more effective, with the introduction of spear-throwers (which improved the range and accuracy of the spears) and the bow and arrow.
- Plant foods are also important for the human diet. Traces on teeth indicates both early hominins and later ones ate nuts and seeds.
- We also have evidence for cannibalism (eating your own species) both in early hominins and *H. sapiens*.

How do we know what...they ate?

- Identifying which species the animal bones found on archaeological sites belong to.
- Examining the animal bones for tool marks (e.g. slice-marks) which can indicate whether and how an animal was eaten.
- The size and shape of the hominins’ teeth: as meat eating has become more important in the hominin diet the size of our teeth has reduced (meat is easier to process than plant foods).
- Microscopic traces on the hominins’ teeth sometimes preserve evidence of plant foods.
- Chemical traces in the Palaeolithic hominins’ bones – these can indicate how significant animal foods were in their diets.