Human Evolution: Homo Erectus's Characteristics

Homo erectus is the species that most closely resembles Homo sapiens, having appeared before we did. Erectus originated in Africa around 2 million years ago. More specifically near East Turkana. This is evident due to earlier species of the genus homo originating from Africa as well.

Homo erectus was a species that had quite a dramatic change from its ancestors of Homo habilis. They had bigger brain sizes and bigger body proportions. The most evident change was that of the body size. Erectus had an average height of five feet 6 inches, weighing more than 100 pounds once it reached adulthood. Their brain sizes usually ranged from 850 to 1,250 cc, with an average size of around 900cc. This species had a thicker cranial bone and larger brow ridges. A change in the brain not only resulted in a change of diet but also a change in the way this species communicated and lived. Scientists have concluded that Broca's area of the Erectus' brain was larger, giving them the ability to speak. However, some speculate if this species did at all.

The most complete skeleton of Homo erectus was discovered in 1984 by the Leakey's team near lake Turkana. They called this skeleton "Turkana boy". Turkana boy was an estimated five feet three inches. At first, scientists believed this specimen was around fourteen years old. But after studying the teeth, they discovered he was actually eight years old. This came as a surprise because of the Turkana boy's height. The scientist concluded that in order to have been that tall at an early age, Erectus must have developed in the same way that chimps did, instead of modern homo sapiens. Despite growth patterns resembling that of chimps, Erectus's brains were usually more than double the size of the brain of a chimp. Because of this, the Erectus species needed to have a change in diet that consisted of more protein in order to support this brain growth. The solution to this was to eat more meat, and that is exactly what Erectus did, usually consuming bone marrow, brain, and fat.

Having a meat-based diet was not so easy for homo Erectus because it was easy prey to animals who were more dangerous. Although they may not have been the fastest, they were pretty persistent, which was a new hunting tactic used mainly by this species. While most mammals are covered in hair, Erectus was overall hairless. This gave them the advantage of being able to sweat to cool down while doing their hunting. Most mammals would have to stop and pant, which would take a while. Being hairless gave Erectus the advantage of being persistent with their hunting. Once Erectus obtained its meat, they often used fire to cook it, knowing it made the meat softer and easier to consume. Over time, Erectus developed smaller teeth and intestines. The fire was a necessity for Erectus and it may have even helped to form social groups.

While the earliest Homo erectus is discovered in east Africa around 1.7 million years ago, it is thought that earlier hominins had done the initial migration out of Africa around 1.8 million years ago, resulting in a scatter of Erectus fossils throughout Asia, the Caucasus region, and even Europe. A well-preserved cranium of the Erectus can be found in Ceprano Italy that dating to around nine hundred thousand years ago. In Dmanisi around 1.80 million years ago, the oldest fossils of hominids that are not quite like homo Erectus, are found. These species are smaller

and have smaller brains, but their cranias are very similar to those of the Erectus.

Homo Erectus used stone tools to help in their everyday life. They did use Oldowan technology but eventually created their own tools, referred to as Acheulian. This toolkit includes many smaller tools that were used to dig, cut, scrape and pound. Evidence of these toolkits can be found in Asia that date back to one million years ago.

Homo erectus becomes extinct 28 thousand years ago.