2010

Anthropology Display Case

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Honors Project

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When my Anthropology 101 professor, Lenville Stelle, approached me with an opportunity for an honors project, I was obliged to accept. He called my attention to the rear of the classroom, in which stood a 6ft long by 3ft wide display case that had apparently sat empty for quite some time. The task was placed upon me to fill the already assembled display case with various visual representations of what now illustrates five species of our evolutionary history, as well as a timeline consisting of artifacts that have been recovered from our region of central Illinois. Under his guidance and through much correspondence, the display case is now not only aesthetically pleasing and intriguing to look at, but can also be utilized an educational tool for the Anthropology department.

The display case is now divided into two sections; there is a top shelf in which the 5 species of evolution are displayed and the bottom shelf in which the timeline of central Illinois is found. The five species included in the top shelf are *Ardipithecus, Australopithecus, Homo neandertalenses, Homo erectus,* and lastly *Homo sapiens sapiens.* From left to right, the shelf is divided into five separate sections devoted to each species in chronological order of their appearance in history. Each of the sections includes artifacts and skulls pertaining to the specific species, as well as a manuscript with written information about them. After researching each of the five species, the manuscripts were organized in such a way that includes not only physical characteristics of each, but also an overview of their unique cultural traditions. Also included in the manuscripts that I created are maps illustrating the areas in which they resided during their extent.

The bottom shelf is devoted to the timeline illustrating central Illinois past. Starting from 14,000 BP and running up until the present, a visual timeline was created that also includes distinct Ages of our past. These ages, in order from oldest to latest, include the Paleo Age, Archaic, Woodland, Mississippian, French-Native American, 19th Century, and the Modern Age. After creating the labels for

each of the sections, as well as the historic dates they pertain to, they were surrounded by the various artifacts that relate to that specific time in history.

The assembling of this display provided me with a unique opportunity for a more in-depth study of evolution and central Illinois history than I otherwise would have received. In preparation of the manuscripts, I had to research each of the different species in depth, as well as the cultural traditions they created. My research then had to be organized and prepared into written summaries of each of the species (copies of these manuscripts are included in the following documents). Although I learned a great deal through my own individual research, the many hours spent with Mr. Stelle included more information and discussion than I perhaps had bargained for. Not only was I able to gain a further understanding of the evolutionary species and history of central Illinois, but I also was able to learn about each of the individual artifacts (and believe me, there are many) that are incorporated into the display. This hands-on opportunity provided with perhaps the best method of in-depth studying, and stirred my interest in not only anthropology, but archaeology as well.

Ardipithecus

5.8 million BP to 3.5 million BP

Because *Ardipithecus* lived so very long ago, few fossils are likely to have survived and even fewer have been discovered. Their way of life is widely left to speculation. However, we can assume that although they were still very much ape-like in stature, they had certain physical characteristics that resemble the modern human. Useful markers include a decrease in size of the canine teeth and an increased cranial capacity (300cc to 400cc). Their remains have only been recovered from the now extinct savannas and forests of ancient Ethiopia.

Osteodontokeratic Culture:

While the culture of *Ardipithecus* remains unknown, it is likely to have reflected an ever deepening reliance upon tools (problem solving devices) for evolutionary success. Most physical anthropologists are looking for something more elaborate than the tool usage of the modern chimpanzee and yet pre-stone tool. In 1922 the great South African anthropologist Raymond Dart proposed a pre-lithic cultural horizon that he labeled Osteodontokeratic Culture. He suggested that it would be driven by a "find-use-discard" strategy incorporating organic devices of bone, tooth, and horn. Many bones, teeth, and horns can be used to solve problems. Unfortunately for archaeologists, this strategy leaves only the most vague of evidentiary trails. The ever deepening dependency upon tools as an extension of our biological adaptations would define the future course of human evolution. The osteodontokeratic phase of cultural evolution may have lasted for many millions of years and only ended when the australopithecines discovered how to break rocks in a controlled fashion so as to produce yet more effective problem solving devices.

Australopithecus

3.5 million BP to 1 million BP

Australopithecus is believed to have been very primitive, and still very much ape-like. Although they have little resemblance to modern humans, it is accepted that they were perhaps the first to have been fully bipedal. Still scavengers, they foraged for wild fruit, vegetables, and dead animals. Some named species of Australopithecus are A. afarensis, A. sediba, A. africanus, and A. robustus. These multiple species ranged throughout Eastern and Southern Africa.

Oldowan Tradition:

Australopithecus are recognized for the creation of the Oldowan Tradition. It employed the technique of hard-hammer, direct percussion. A hammer stone was used to strike a chunk of basalt or quartzite, thereby detaching a flake. The resulting diagnostic tool is formally labeled a core biface, and informally referred to as a chopper or a hand axe. The tool assemblage included such items as bifaces, hammerstones, unifaces, anvils, burins, perforators, and spheroids.

Homo sapiens neandertalensis

150,000 BP to 35,000 BP

Commonly referred to as Neandertal, *Homo sapiens neandertalensis* is our closest evolutionary relative. They ranged throughout Europe, Western Asia, and the northern part of the Middle East. The disappearance of Neandertal remains a mystery and an issue of considerable ongoing academic debate. While their average cranial capacity was 1400cc (slightly larger than ours), common conception is that they were very primitive, ugly, and "different" from us. However, this may not be the case. Moreover, *Neandertalensis* is believed to have innovated many of the more esoteric activities that we still employ today. For instance, they developed the custom of not only burying their dead but of doing so with ritual, grave goods, and fresh cut flowers (e.g. hollyhocks, bachelor buttons, and grape hyacinth). In other contexts, archaeologists have found ornamental objects (jewelry) and musical instruments (five hole, end-blown flute). From the recovered evidence, it has been concluded by many that Neandertal celebrated religious practices.

Mousterian Tradition:

Homo sapien neandertalensis is credited with developing the highly innovative flake tool tradition labeled Mousterian. Instead of discarding as garbage (debitage) the many flakes produced by flint knapping, they turned the whole process on its ear by using the flakes, themselves, as the tools. Doing so increased raw material economy by well over 100 percent. It also greatly reduced the amount of labor required. The Mousterian is also known for the first expression of specialized tool assemblages, or kits.

Home erectus

2 million BP to 250,000 BP

With a cranial capacity of approximately 1000 cc, *Homo erectus* had a brain size within the range of modern humanity. Evidence of *Homo erectus* has been found throughout Asia, Europe, and Eastern Africa. Not only did they reach a height of nearly 6 ft, but they were fully bipedal. *Homo erectus* evidenced community life. They are credited with the technological innovation of capturing and maintaining fire. For the first time in our evolutionary past, one could sleep safe and warm. Fire also enabled the vast expansion of their range into northern zones during the Ice Ages.

Acheulian Tradition:

Homo erectus refined the lithic tradition of the Australopithecines with the application of a soft hammer baton rather than a stone hammer. The baton consisted of bone, antler, or wood and afforded much greater operator control over the knapping of flint. The result was a far more aesthetically pleasing appearance for the core bifacial tools. With these tools, *Homo erectus* built effective housing that was capable of holding multiple families.

Homo sapiens sapiens

150,000 BP to Present

With a cranial capacity of 1350cc, *Homo sapiens sapiens* is the only surviving species and variety of the genus *Homo*. The oldest anatomically modern skeletal remains come from caves near where the Klasies River empties into the South Indian Ocean in the modern country of South Africa. In one common model of the peopling of the planet, the Africans spread out from the south to the north of Africa and then on to colonize the rest of the world. Australia was likely occupied by 50,000 BP and the Americas by 18,000 BP. Anatomically modern people did not complete the replacement of the Neandertals in Western Europe until 35,000 BP.

Blade Tool Tradition:

Homo sapiens sapiens practiced what is referred to as the blade tool tradition. The blade tool revolution represents a tremendous step forward in the economy and efficiency of stone tool production and in the elaboration of compound tool types. Building on the Neandertal innovation of prepared cores and flake tools, blades are a specialized type of flake.

At least in Europe, and from an archaeological point of view, it is the explosion in the technological sophistication and complexity of visual art that separates *H. s. sapiens* from those that went before. At sites like Chauvet Cave in the south of France we find incredible wall paintings, often in polychromes, at 35,000 BP. The oldest images of God reveal a female (see the reproduction of the limestone Venus of Willendorf which dates to 25,000 BP and was recovered in Lower Austria).


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Homo sapiens neanderthalensis


Paleo
Archaic
10,000 BP
3,000 BP