

PALEOLITHIC SPEARS

A SENSATIONAL DISCOVERY

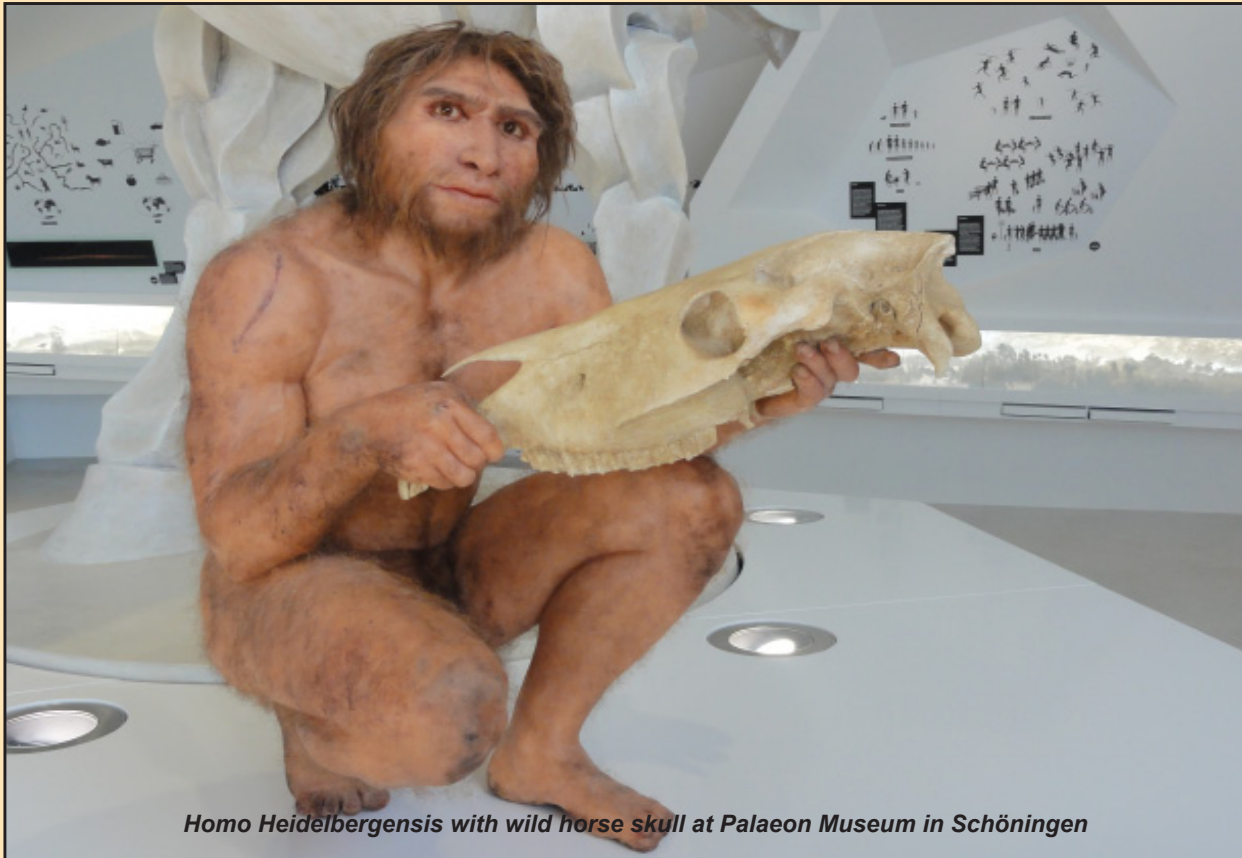
by Thomas Kummert
www.paleolithic-neolithic.com
www.ancient-cultures.info



Sensational Paleolithic Discovery

It was a world sensation, when these 300,000 year old wooden hunting spears were found in Germany in 1992. Before the earliest Paleolithic artefacts discovered were 45,000 years old. This point in human history was regarded until then, as the beginning of a more developed human existence. For over two million years, since *homo erectus* had left Africa, he used the same simple stone tools.

Most of the artefacts from 45,000 BP were found in various caves in southern Germany. These Paleolithic objects included the oldest known musical instruments and art objects. They include various beautiful flutes made from bones and ivory. With three to four holes eighteen tones could be played with these flutes. The art objects consist of a human figure with lion head and various female "venus" figurines. The latter suggest the existence of a developed fertility cult.



Homo Heidelbergensis with wild horse skull at Palaeon Museum in Schöningen

The new discoveries, because of their advanced age, are a world sensation and surprised all experts. It is a huge jump forward in illuminating our human history. It also shows us, that we had so far totally underestimated the practical skills and intellectual capabilities of our ancestors. Again these extraordinary spears were discovered in Germany and only closely escaped destruction. Their site of discovery is situated in an open pit coal mine. All work had to stop, when it became clear, that this was historically an extraordinary important find for human history.

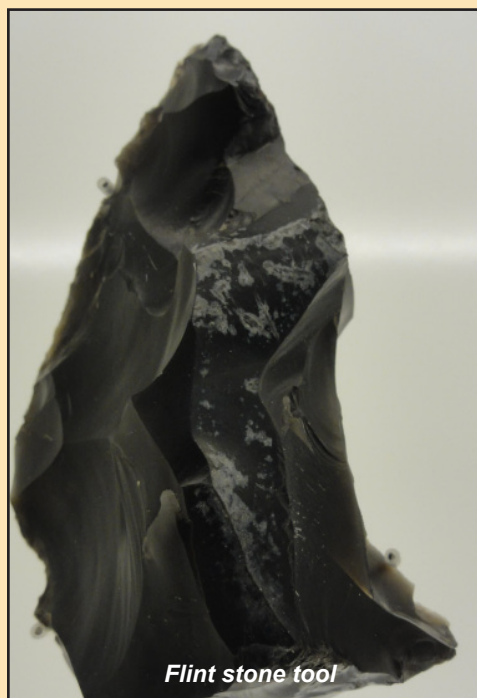
The Schöningen Mine is supplying a power station nearby and is close to Helmstedt on the highway between Hannover and Berlin. Archaeological excavations are still ongoing. Right next to the site a modern museum was built and opened in August 2012. A visit is definitely worthwhile and you can check, what to expect on www.palaeon.de

We have now proof, that ancient man was far more sophisticated than previously believed. He had a much higher developed

brainpower, used articulated speech and produced effective hunting weapons. Subsequently his social interaction and culture was more complex, than we ever have imagined so far. Our Paleolithic history now can and really has to be rewritten.

Local Time Line

To give you a better understanding of the environment in which this all happened, I have put together a time line of climatic conditions. Imagine the Schöningen Period 300,000 years ago was warmer than our climate today. But later it became cooler and drier again. The Paleolithic Period in Europe had a repeatedly changing climate from hot and cold. The Elster Ice Age took place around 400,000–320,000 years.



Flint stone tool

Thereafter followed a “short” warm period for 20,000 years the Holstein Warm Age. During that time our spears from Schöningen were produced by *homo heidelbergensis*, who is regarded as a Pre-Neanderthaler. Now

followed a “longer” cold period the Saale Ice Age, which covered the Schöningen area again with glaciers for 70,000 years. The Eem Warm Age lasted again for a “short” period of only 15,000 years. The next cold period the Weichsel Ice Age lasted for over 100,000 years and brings us now into the Neolithic Period starting about 10,000 BC.

The Schöningen Site

The coal mine at Schöningen is a 50-60 million year old brown coal deposit. Interestingly the previous East/West German border and demarcation line ran right through it. Back to history the Elster Ice Age was the third last Ice Age and covered North and Middle Europe with glaciers. When they melted down, a large lake was created at Schöningen with about one to three kilometers in length and 200-400 meters in width. This lake also had a river refilling it. This was an ideal hunting ground for ancient men. Humans in all history always met with animals close to water resources. From the excavations we know, that wild horses were their favorite target and food.

Archaeologists were excited to find thirteen different sub-sites with over thirty different archaeologically important time horizons. The brown coal deposit was a perfect condition to find well preserved organic material, such as these wooden hunting spears and bones. Ten to fifteen meters of sediment protected the spears. But it was huge luck, that during the Saale Ice Age the moving glaciers only scraped off ground to just one meter above the ancient spears.

With the first discovery in 1992 also 1,500 stone artefacts were unearthed. These included knife like scrapers plus many remains of flint objects. Also many animal bones were excavated, 95% of them from twenty ancient wild horses *equus mosbachiensis*. Many bones were crashed to get to the mark inside, which had a high nutritional value. The bones also show many markings from flint stone scrapers, produced when meat was removed.

But there were no findings of any human bones. Therefore it is assumed, that man lived not at the lake side, but on hill sides nearby. So far no traces of any human camps have been discovered in the area. From this period human bones in Germany were only recovered at Reilingen and Steinheim in Baden Württemberg and at Bilzingsleben in Sachsen-Anhalt.

Good Hunting Opportunities

During the cold periods in this area the following animals roamed: mammoth, wool rhino, moose, ox, elk, reindeer, saiga antelope and glutton or

Small stone tools



Flint stone scraper



Unfinished stone tool



Flint stone tool



wolverine. During the warm periods there were present: the Euro-Asiatic old elephant, hippo, step and forest rhino, wild donkey, red deer, boar, Auer ox and water buffalo. In the Interim Periods our ancestors could hunt at Schöningen: cave bear, cave lion, lynx, wolf, hyena, brown bear, step bison, huge deer, gazelle, red deer, wild horse, mountain stone ram, Iberia stone ram and gems.

Definitely there was no short supply of hunting targets. But men needed a good hunting strategy and superior weapons to kill most of these. Either these animals were fast escaping or dangerous aggressors.

In Schöningen the preferred hunting target seems to have been wild horses with a shoulder heights of 180 centimeters weighing up to 500 kilograms. But they have hunted also smaller animals, which were discovered in the same excavation horizon. These were: wolf, fox, ermine, weasel, plus even some larger species like: elephant, Auer ox, bison and red deer.

Famous Hunting Spears

We can be very happy, that the huge shovels of the mine excavators did not destroy these unique spears. So far eight spears and one throwing stick have been unearthed in the last ten years by archaeologists and the time consuming work is still going on. Seven of the wooden spears were made of pine wood, only spear number four was made from scotch fir wood.

The spears were naturally sharpened and have no flint stone head. One spear seems

to have broken in the middle and was repaired with a neat cut out "hand-in-hand" technique. All spears are dated between 320,000–300,000 BP during the Holstein Warm Age. Research has established, that all spears were made from small thin tree stems. Tests have shown, that these spears were made by our prehistoric hunters in only a few hours.

Interesting Ritual

This proves, that with their primitive flint stone tools, homo heidelbergensis was a skilled and rather effective artisan too.



A skilled artisan able to produce perfectly balanced spears

But why did he ritually buried his precious spears with the killed wild horse's skeleton? Experts are certain, that for this behavior he needed to have the necessary level of intellect. This will have enabled him to develop a social structure and religious beliefs leading to the rituals discovered.

The following is a theory worth considering when looking at the wider context. Let's assume ancient men did live in balance with nature. For him each being animal or men had a soul or similar living creature "value". So when killing an animal, it's

soul or the gods needed to be appeased. For this the killing spear was possibly buried with the animal's bones. It is a unique example of first cult practice in human history.

When looking at Neolithic rock art, we encounter a similar question. Why were animals engraved on rock surfaces? Was it really only for artistic expression? Or was it to pray for hunting success? Or was it simply a message to others passing by, these animals roam here.

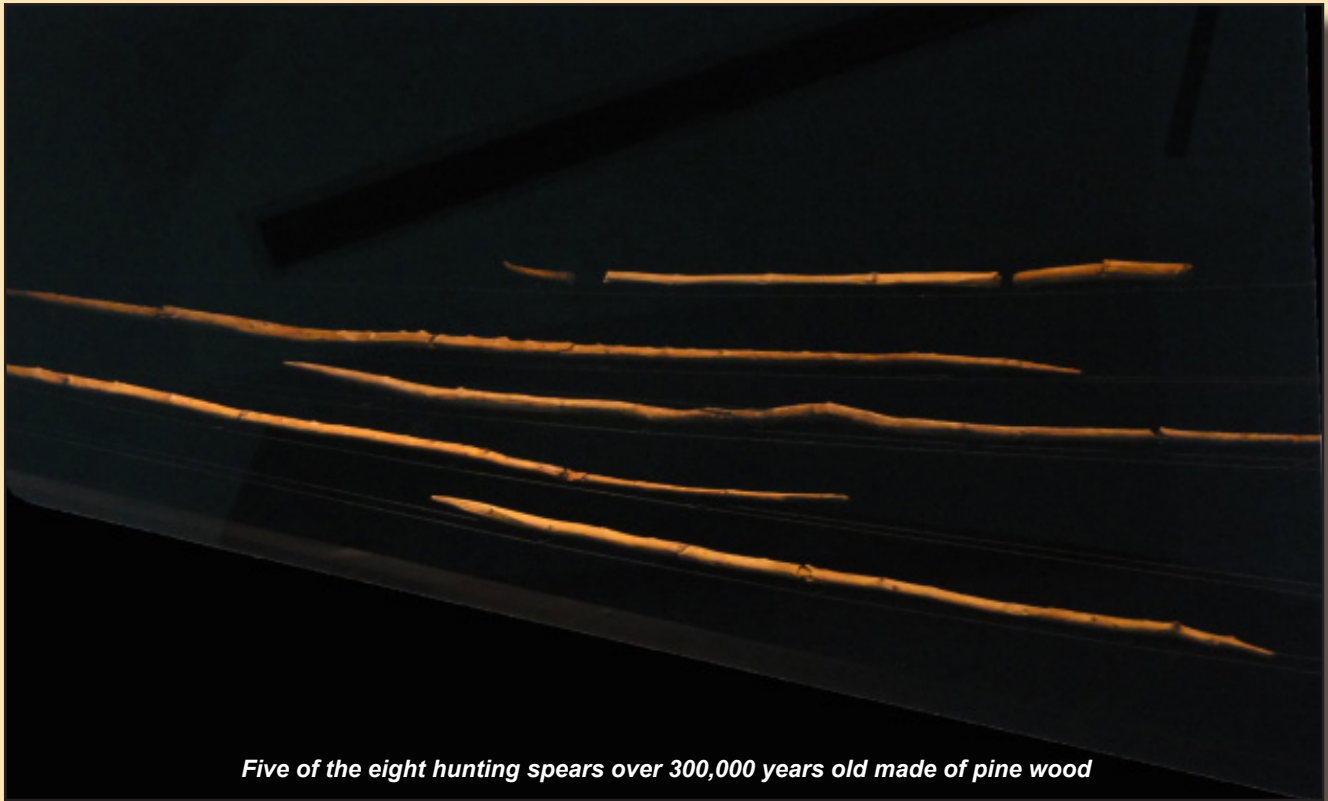
But why do we find so many animal depictions superimposed on top of each other? Interestingly the majority of animal rock art depictions are found close to water and often are linked to hunting. Now let's consider that these depictions were engraved to honor the killed animals and appease the gods. They should live on through their picture on the rock surface at the place, where they were killed. That could explain the numerous superimposed engravings.

But maybe it was also a bit of all the reasons discussed. Because prehistoric men had

a much more complex life style, than we still imagine. But what about the huge time difference of 300,000 years we compare here.

Well consider this, for two million years men used the same stone tools. They survived because knowledge was passed on from father to son. Most importantly they understood they lived in balance with nature, especially with animals.

So the 250,000 years between the Schöningen ritual to appease gods and the first rock art to appear is not a valid counter



Five of the eight hunting spears over 300,000 years old made of pine wood

argument to this interesting theory to explain the spear burial ritual.

Spear Details

These spears have more than one surprise for us. Let's look at their dimensions and weights. The eight Schöningen spears are between 180-250 centimeters long and weigh around 500 grams. Their center of gravity is situated in the front third. This gives them the best penetration power and aiming accuracy.

It is therefore no wonder, that maximum throwing distances of about 65 meters could be achieved. This proves that homo heidelbergensis was not only a master spear maker. By repeated trial and error he possibly had learnt, how the various parameters had to work together to produce a perfectly working hunting spear. But this needed complex and detailed thinking to come to these sophisticated conclusions.

Modern Olympic Comparison

It is absolutely astonishing, that

today's Olympic spears hardly differ in dimensions and weight from our Paleolithic spears. Were these spears really already



Knife with double sharp blade

perfected 300,000 years ago?

So here is a mind boggling comparison. Olympic men spears measure about 260 centimeters and weigh 800 grams. Women spears are shorter with around 220 centimeters and lighter with 600 grams. Again it is surprising, how close these ancient spears are to today's high tech Olympic spears.

Most of the eight ancient spears are still functional today. So a test with a rebuilt spear fully identical to the ancient spears was done. An Olympic spear athlete was filmed throwing his state-of-the-art carbon fiber spear and the Schöningen copy. The result was amazing. The flight path was nearly identical, as was the distance achieved.

But best aiming accuracy with the ancient spears was achieved between twenty to thirty meters. So our prehistoric hunters had a much higher hunting success rate, than we previously assumed. They did not need to get so close to the

shy animals.

But several interesting questions still remain. Did they killed the wild horses, buried with the eight spears excavated, at once? Where they already able to preserve meat? Did they share or trade the meat with other families? Archaeology is a most interesting subject and always leaves many questions unanswered and open for generations to come.

Throwing Sticks

Next to the spears also another interesting hunting weapon was discovered. Experts previously did not consider throwing sticks to have been used that early in history. The example from Schöningen is made from pine wood and measures 65 centimeters with a weight of 260 grams. It is sharpened at both ends and looks similar to throwing sticks found in Australia and California at a very much later stage.

Throwing sticks swirl in the air at a speed of 100 km/h and hit small animals and birds unconscious. Therefore they have become a simple and useful hunting weapon. Reports of throwing sticks were recorded in Egypt and rock engravings thereof were found in Sweden. Throwing sticks were commonly used during the Neolithic and Bronze Age.



Highly successful spear hunter

Stone Artefacts

The Schöningen men must have been fast moving hunters, who traveled "light". So their flint stone tools were "one way" tools and were left behind after the job was done. Heavy stone tools were not carried around, that would have needed a bag. And bag is a hindrance for skilled spear throwers.

Stone tools were used to make spears, as well as to cut meat and skins. These flint stone tools were skillfully produced on site with few well pointed hits. Nevertheless they were efficient and sharp stone tools, which in need were also sharpened again.

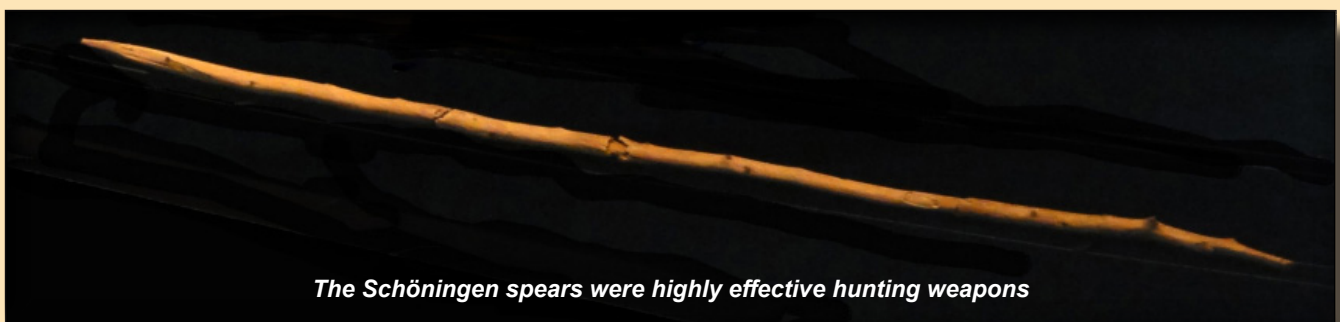
A few examples I have pictured in this articles.

Conclusion

The ancient hunter and gatherers living at the time, who produced and used these spears, had unexpected highly sophisticated skills. They carefully planned their day's activities and work. The communication and speaking skills of *homo heidelbergensis* were also highly developed. They were able to master various technical skills to produce perfect hunting weapons. For their tracking and pursuing they used coordinated and complex hunting strategies to ensure

maximum success. In addition experts found out, that our Schöningen hunters and gatherers lived already in a complex society structure in small family groups with ten to twenty members. A killed wild horse would have served them for a few days or a week.

The pictures of the reproduction of a prehistoric hunter from the Palaeon Museum show a rather thoughtful intelligent looking man, who barely differs from our facial expressions today. There is still a lot we will discover about the surprising advanced development stage of our ancestors.



The Schöningen spears were highly effective hunting weapons