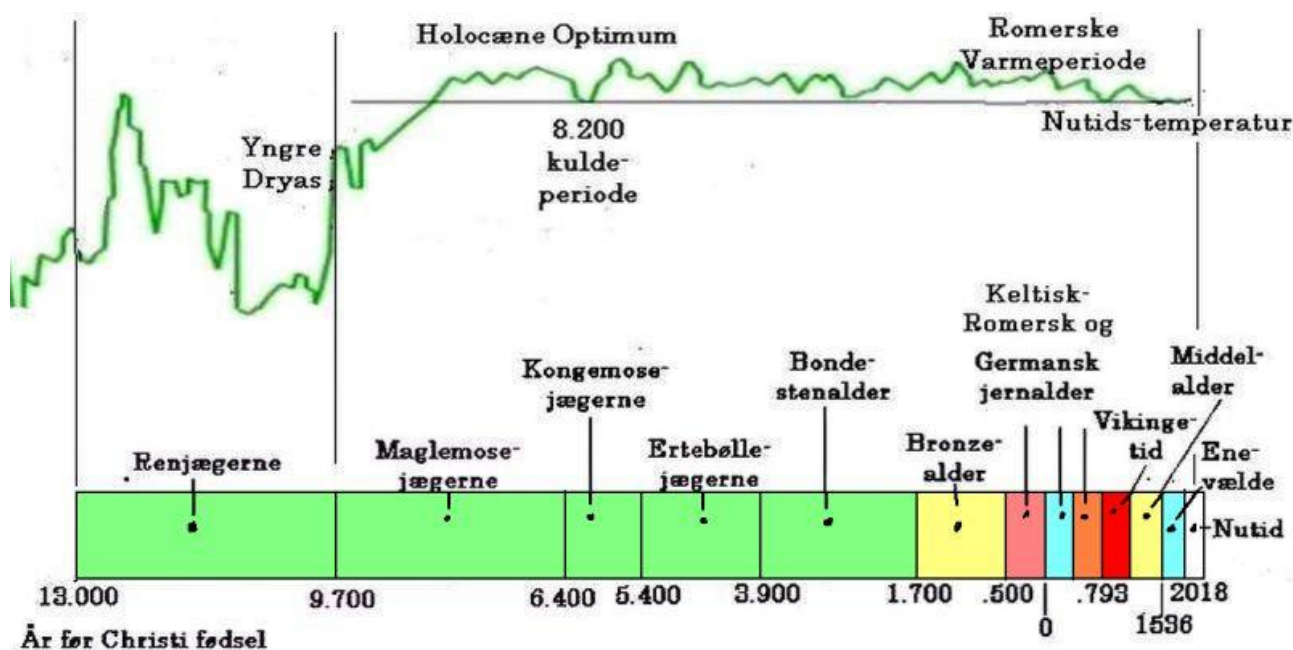


4. Denmark's History

4.0 Reindeer Hunter Cultures

About 16,000 years ago the glaciers gradually began to withdraw making the climate milder; however, there were still only 8-9 degrees in the summer. More than 15,000 years ago, Holstein became ice-free, and for 14,000 years ago, most of Denmark has been free of ice. About 9,000 years ago, the glacier edge stood at the big Swedish lakes and the Norwegian mountains.



About 15,000 years ago - 13,000 BC - the ice sheet, that covered almost all of Scandinavia, slowly began to melt away. The reindeer walked to the north followed by the reindeer hunters. It is decided that the Ice Age in Denmark finally ended about 9,700 years ago. The green line represents the temperature on the surface of the ice. Dryas is the Latin name for the Arctic plant mountain avens, which is very hardy and the first to grow up after the ice has melted. Note that the reindeer hunters have experienced very different temperatures.

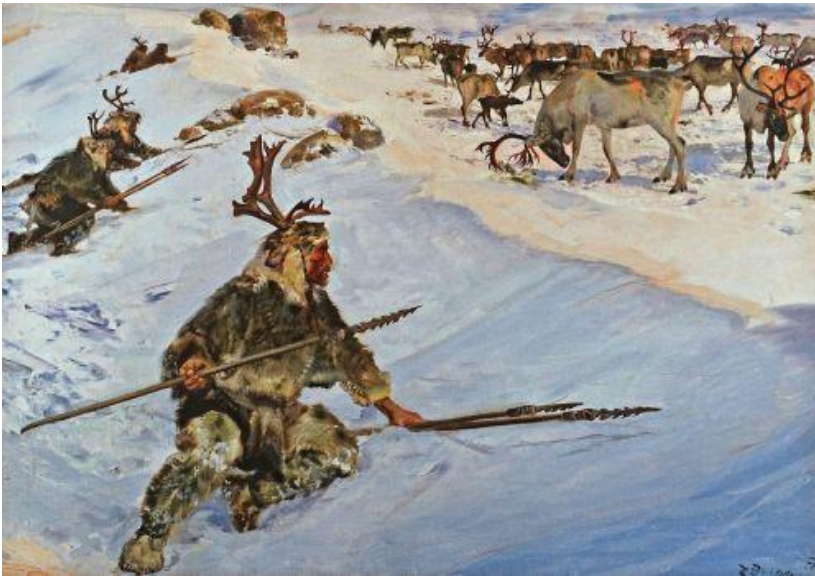
The Hamburg hunters lived during the Bølling warm period, the Federmesser hunters experienced the cold between the Bølling and Allerød periods, Bromme hunters could benefit from the relatively warm climate in the Allerød period while the Ahrensburg tribes had to endure the bitter cold during the Younger Dryas.

The temperature rose, and Denmark became completely covered by a primeval forest in which the Maglemose hunters hunted and fished. Only in the Peasant Stone Age the people began to keep animals and cultivate the soil. About 500 BC the Bronze Age was replaced by the Iron Age's three periods. The Viking Age began with the attack on the monastery St. Cuthbert on the island of Lindisfarne in England in 793 AD and ended with the killing of Canute the Holy in 1086 AD in Odense. The Middle Ages ended in 1536 with the Civil War, the Count's Feud and the Lutheran Reformation.

In 60% of Denmark's history, the main occupations have been hunting and fishing. In 75% of the time has been a kind of Stone Age.

Trees began to grow, plants and shrubs as well as mosses and lichens, heather, willow and birch spread feeding birds and animals, including billions of mosquitoes. As in all Arctic areas, reindeer will try to get away from the mosquito plague in summer by wandering closer to the edge of the glacier, and therefore they went north. Wolverine and wolf followed them and also the most dangerous predator of all: man. Reindeer hunters arrived in the area now known as Denmark, more than 15,000 years ago (which is about 13,000 BC)

4.1 The Hamburg Culture



Reindeer hunters – painting by Denis Dychakovsky on sn-gazeta.ru

The earliest reindeer hunters in Northern Europe belonged to the Hamburg culture, who have their name because many of their settlements are found in Holstein, near Hamburg. They are from about 15,300 to 14,000 years before present.

In Denmark, settlements from the Hamburg culture have been found at Jels Oversø and

Slotseng in Southern Jutland and at Sølbjerg on the island of Lolland.



Konstrueret kort over Nord Europa med Danmark, England og Nord Tyskland under Bølling og Allerød varmeperioder. Photo Maps of the Web.

It is believed by many that the Hamburg hunters were descendants of the ice age people called Cro Magnon, who created the amazing cave paintings. Their culture is also called the Madeleine culture.

The ice age hunters survived the Last Glacial Maximum in their caves in Spain and South of France. It has been demonstrated that they then wandered northward along the major rivers Oder, Elbe, Weser, Ems, Rhine and Meuse, probably in pursuit of their preferred prey, which was reindeer. At Schweskau in

Lower Saxony, a settlement has been found that contained elements from both the Madeleine and Hamburg cultures.



Flint arrow-head of classical Hamburg reindeer hunter type found at Bjerlev Hede. Photo Finn Årup Nielsen Wikipedia

Findings from the simultaneous and equivalent Creswell culture in England and Wales are also located near the river system, which then was shared by both the Rhine and the Thames, as the two rivers had common estuary

Therefore, one can assume that the Hamburg-hunters were descendants of Cro Magnon and that they followed the river valleys, as they spread northward at end of the Weichsel glaciation.

Reindeer are nomadic animals. They can move at speeds up to 70 km. per hour, and a reindeer herd can easily travel more than 25-30 km a day. In one year, they wander up to 2,400 km. They are good swimmers and can, therefore, pass rivers on their way. Rather than follow the reindeer on their migration the Hamburg culture hunters appear to have used a different approach, namely to place hunting settlements on locations, which the reindeer necessarily had to pass, for example at a narrow valley. Such settlements are among other places known from Ahrensburg in Holstein.

More than 90 percent of the bones found in the Holstein settlements are from reindeer.



Reindeer thoracic vertebra with fragment of flint weapon found in the dead ice hole at Slotseng. Photo: Jørgen Holm

More than fifty settlements from the Hamburg culture have been found. Most in Southern Holstein, among other places at Ahrensburg, Borneck, Hasewisch, Meien-dorf, Poggenwisch, Stellmoor and Telt-wisch.

Hamburg-hunter's preferred weapon was the javelin. They have probably increased the effectiveness of this weapons with a

throwing stick, as we know from the Australian Aborigines. Their characteristic flint spearheads have a slanted and narrow base end.

They seem to have had preferred locations, where they could lie in ambush, and thereby come closer to the animals. When the animals came close enough, they threw their spears against them. In experiments, it has been demonstrated that a throwing distance up to 15 m. will allow for an effective attack. If the spear has flint tip, it can penetrate 32 cm into the animal, without flint tip it will penetrate only 20 cm.



The so-called Colinda deer antler harpoon which was scraped up from the bottom of the North Sea by a Scottish trawler in 1931. Note the parallel vertical incised lines. Photo Letter from Doggerland

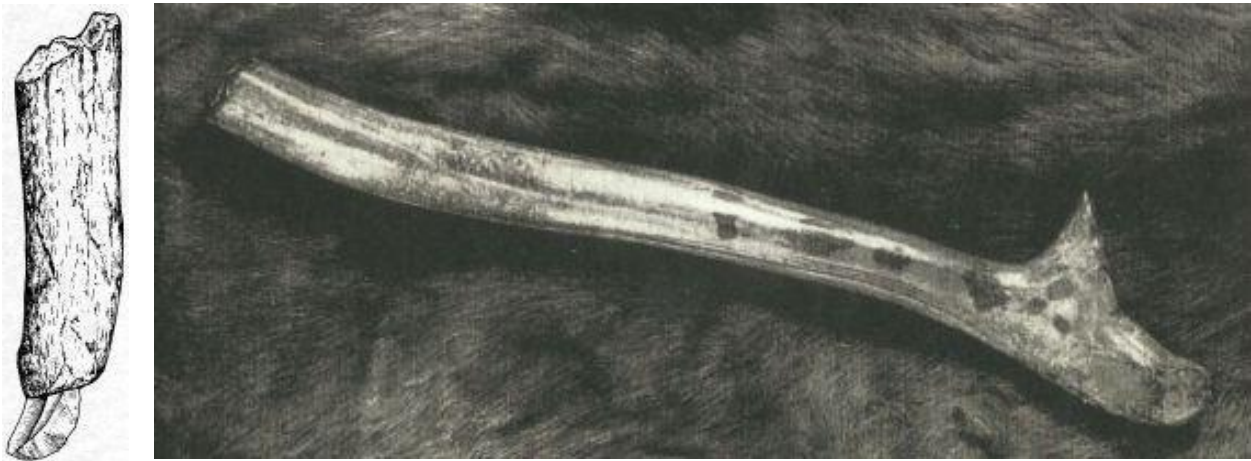
This hunting technique to attack the prey at strategic locations - where they crossed narrow valleys, or where they had to swim - was used already by the mammoth hunters during the ice age.



Spear points used by the reindeer hunters of the Hamburg culture. Photo Jørgen Holm

The reindeer hunter's variety of weapons and tools seems to have been rather limited. They lacked, for example, stone knives. However, the design of for example the arrowheads seem pretty well considered. They used scrapers made of flint for cleaning the skin and a few other stone tools.

In Denmark have been found several temporary settlements from the Hamburg culture. Two at Jels Oversø and two at Slotseng, both in South of Jutland, and one at Sølbjerg on the island of Lolland. Findings from the settlement at Slotseng indicate that it has been inhabited in the late autumn. The settlements were located at the edge of a glacial valley, which we can assume has been a critical passage for the reindeer on their migration. The places were located fairly high up with a good view so that the hunters were able to see the reindeer flock come and prepare for the hunt.



Left: Flint wedge mounted on reindeer antlers-ax.

Right: Reindeer hunters ax of reindeer antlers - found during the digging of Odense Channel.

4.2 The Federmesser Culture



Federmesser hunters' arrowheads from the book "Rentierjäger der Späteiszeit" by Gernot Tromnau.

The Hamburg culture was succeeded by the Federmesser culture. The Federmesser hunters were possibly descendants of the Hamburg hunters only having developed their weapons to new types. Federmesser is

German and means "pen-knife" and the culture is called so because their arrowheads had the shape of a pen-knife. The Federmesser hunters experienced the cold period "Older Dryas" between Bølling and Allerød warm periods, a cold spell that lasted a few hundred years. The Federmesser tundra hunters lived from about 14,000 to 13,500 years before present.

Some experts believe, however, that the Federmesser hunters originated from Cro Magnon's Madeleine culture and came from France, unlike the Hamburg hunters that they believe came from the east.



Reconstruction of round tent from the Federmesser culture. Unfortunately, unknown artist

In the period from 1985 to 2001 a team led by Jorgen Holm had unearthed a settlement from the Federmesser culture at Slotseng at Kolding in South of Jutland. They found 77 of the characteristic arrowheads, scrapers and other flint tools. On the site were found objects from both Hamburg and Federmesser cultures.

The fact that the two cultures used the same camp, indicates that they have something to do with another, and the difference between the two cultures is perhaps only a development of arrowhead design within the same culture group.

4.3 The Bromme Culture



A perforated piece of an aurochs femur scraped up from the Dogger Bank by the fishermen's trawl. Photo Letter from Doggerland

The Bromme hunters lived 13,500 to 12,500 before present. In 1944 the archaeologist Eric Westerby found one of their settlements at Bromme near Sorø. On the actual area of the settlement only flint tools were found, but in the nearby remains of a lake also bones from their meals were found. By mean of pollen analysis, the findings were dated to the Allerød warm period.



Typical tanged arrowhead from the Bromme culture found at Nørre Lyngby..

The Bromme culture settlements are often found where streams run into lakes - perhaps the hunters there found good fishing. The culture is recognized by the characteristic large flint arrowheads, called tanged arrowheads.

There have been made findings from the Bromme culture throughout Denmark, Scania, Rugen and Northern Germany. In Lithuania have been found more than 30 Bromme settlements.

The Bromme hunters lived in a time with a richer and more varied fauna than the former reindeer hunters did. In connection with the Bromme settlement, Westerby found bone fragments from both moose and reindeer as well as from smaller animals such as beaver, wolverine and swan; it is possible but not certain that some findings of bones of wild horse and red deer also can be assigned to the Bromme period. It is known from other finds that Irish giant deer, roe deer and wolf also were hunted.

The flint tools of the Bromme culture can be divided into three main types. Tanged arrowheads, which is a powerful type with symmetrical peak and significant tang rear, scrapers to clean the skin and a tool to prick holes, perhaps in skins for sewing.



Tanged arrowheads from the Bromme culture found on Ommels Hoved near Marstal on the island of Ærø. Photo Jørgen Holm.

It is assumed that the preferred way of hunting was with bow and arrow. The broad tang-arrowheads gave the prey a wide wound, making the animal die faster by bleeding. To make sure that

this hunting weapon was effective, the hunters had to get fairly close to the prey; A shooting distance of twenty meters or less must have been optimal. They may have been aiming at the heart and lung area in order to make the animal die by bleeding as fast as possible.

Already in the 1930's Jens Hansen found on the beach of Ommels Hoved near Marstal the first indisputable tanged arrowheads. Since then, between 88 and 111 arrowheads have been found on the site. After Westerby's excavation of the Bromme settlement at Sorø it became clear that the arrowheads were characteristic for the Bromme hunters from the Allerød period.

As mentioned above, the Bromme hunters had only three types of stone tools, namely scrapers, hole making tools and tanged arrowheads. There even seems to be a statistical relationship between the three tool types - for each arrowhead, you will find two scrapers and three hole-making tools, as it was the case in Bromme. But on Ommels Hoved have not been found any hole making tools, and the few scrapers, which have been found, may well have origin from the Neolithic. So, we are not talking about a real settlement.

It has been suggested that it has been a sort of arrow depot, which has not been picked up. Another suggestion is that the hunters have dismembered some big animals on the site and left the arrows.

But it's hard to get my mind away from that there may have been a battle between two groups of Bromme hunters, and because of the outcome of the struggle, they have not been able to collect the arrows.

4.4 The Ahrensburg Culture



In 1938, a complete reindeer skeleton from the time of the reindeer hunters was found at Villestofte on Funen - it can now be seen at the Zoological Museum in Copenhagen

Ahrensburg is located in a valley northeast of Hamburg in the southeastern part of Holstein. The Danish King Frederik 2. rewarded in 1567 his general Daniel Rantzau for his victory over the Swedes with the estate Ahrensburg. His brother and heir had Ahrensburg castle and the attached chapel built.

In this valley archaeologists have found many traces of the last reindeer hunter culture; it is therefore called the Ahrensburg culture. It has many similarities to the Bromme culture. The first on the site was the German archeologist

Alfred Rust, who was a pioneer in the exploration of reindeer hunter cultures in the 1930's.



Aurochs bone with an incised zig-zag pattern that has been scraped up from the Doggerbank with the fishermen's trawl. It is dated as 13,000 years old and is thus from the Ahrensburg period. It can be seen at the National Museum of Antiquities, Leiden, Netherlands Photo Letter from Doggerland.

The Ahrensburg hunters lived in the cold period of the Younger Dryas about 12,500

to 11,500 before present, which was the Weichsel Glaciation's last gasp. It was very cold, and the landscape must largely have been regular tundra.

Both in the settlements of Stellmoor and Meiendorf the finds from the Ahrensburg culture were found on top of finds from the Hamburg culture, and it gives a pretty clear suggestion that the Ahrensburg hunters were descendants of the Hamburg hunters.

At the Stellmoor settlement remains from 650 reindeer were unearthed. A whole line of intact reindeer skeletons was found with arrowheads in the chests, probably sacrificed to the higher powers. Preserved arrows of pine were found together with the characteristic tanged arrowheads,

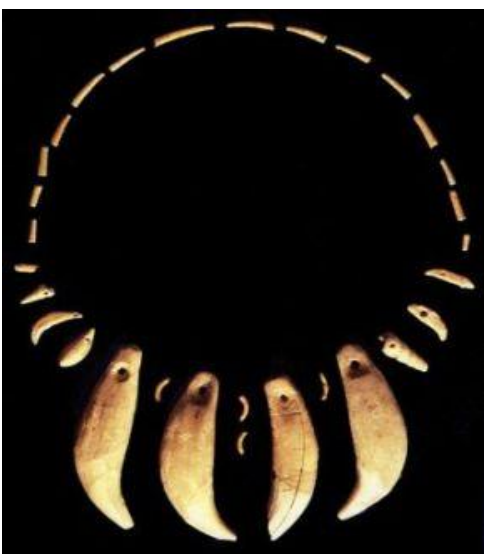


Reindeer hunter teeth pearls from the the cave Great Orme - Kendricks cave in Wales. They are decorated with parallel lines - Teeth Pearls have a long tradition in European history. Cro Magnon used them, the Maglemose culture, Kongemose culture and Ertebolle culture used them - Tooth is a very hard material, one wonder how they could drill such small holes without vice and drill. And how did they get the teeth out of the jaws of the deer without the use of good pliers?

which also are known from the Bromme culture.

There were found stone circles, which likely were used to keep round tents in place, perhaps similar to the modern prairie Indians teepees.

A necklace with teeth beads from the Madeleine culture around 10,000 BC found at Abri du Rocher de la Peine, near Les Eyzies. It contains teeth from cave bear, lion, fox and deer. It can be seen in Le Musee National de Prehistoire, Les Eyzies-de-Tayac-the.



There are different ideas about how many reindeer hunters, who roamed around on the area, which makes up Denmark.

J.Troels-Smith compared in 1955 the reindeer hunters' Denmark with the situation in present-day northern Canada. He

concluded: Canadian Eskimos have a population density of 0,003 people per km² - If we imagine that a similar number of people lived here in Denmark in the late Pleistocene and early Holocene, it would amount to around 120 persons spread over 25-30 families; in other words, there would have been about 30 active hunters in the area of Denmark. It is most likely underestimated.

4.5 Literature

[Hamburg Culture Wikipedia](#)

[Federmesser Culture Wikipedia](#)

[Brommekultur Wikipedia](#)

[Donsmaps Madeline kulturen](#)

[Letter from Doggerland](#)

Preceding section: [3. Denmark's History – 3.0 Pleistocene](#)

Subsequent section: [5. Denmark's History – 5.0 Maglemose Culture](#)

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