

Bornholm

Introduction

Why Bornholm?



Bornholm is NATURE. Walking in the Paradise hills.



Bornholm is HISTORY. The ruin of Hammershus castle, dating from before 1200 AD. Northern Europe's largest medieval castle ruin.



Bornholm is ARCHEOLOGY. Inga coming out of a neolithic passage grave, dating from 3300 BC.



Bornholm is ART. Bornholm's wonderful Museum of Art.



Bornholm is ARTISTIC HANDICRAFT. A pottery in Listed.



Bornholm is CHURCHES. One of Bornholm's round churches, dating from around 1200AD. Typical Templar design as at other places in Europe, e.g. the Temple in London.



Bornholm is SMOKEHOUSES with their typical pyramidal chimneys. Mainly fish is smoked, in particular herring.



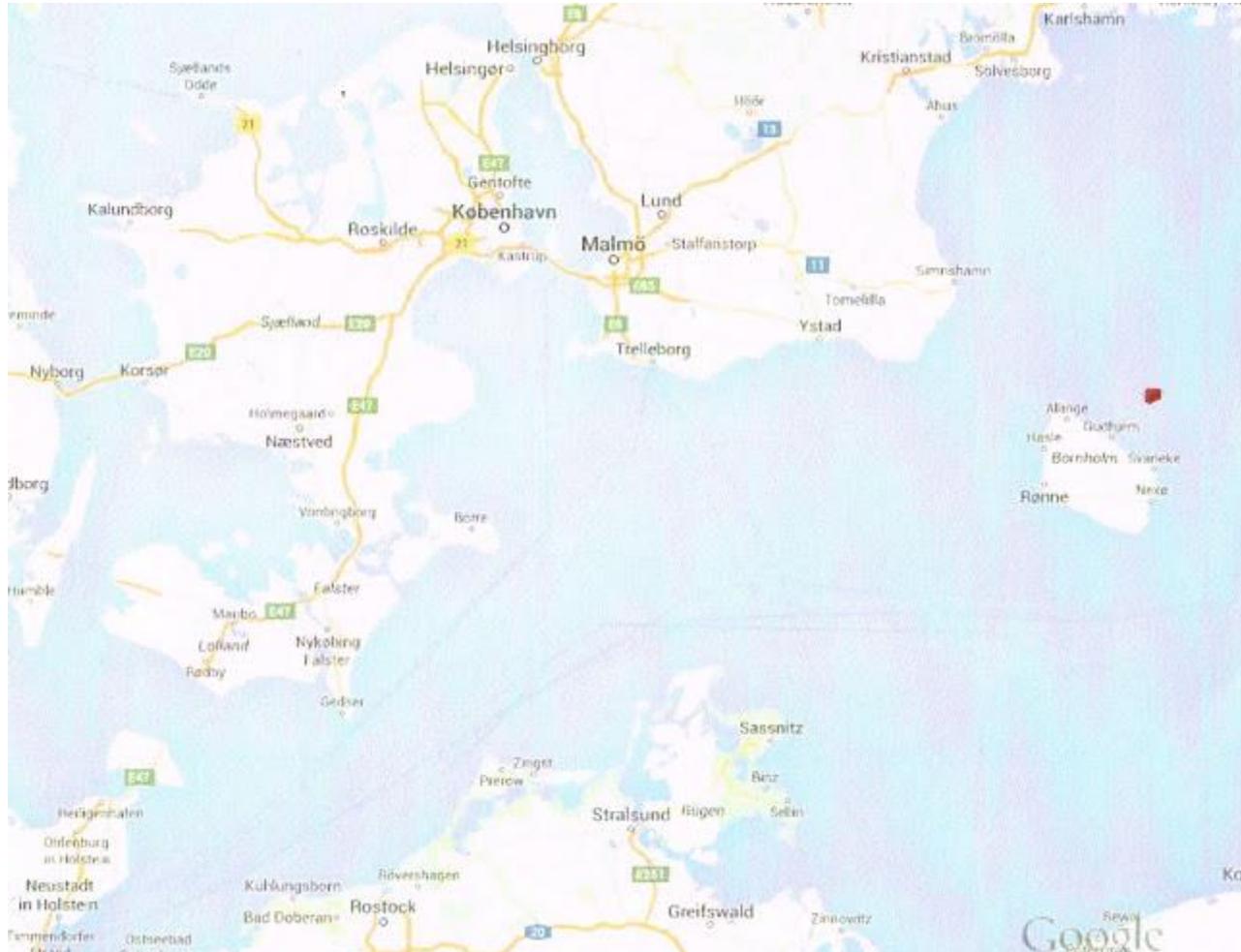
Bornholm is GASTRONOMY. Both in 2014 and in 2015 I celebrated my birthday at Mrs. Petersen's cafe in Østermarie.



Bornholm is BEACHES. Dueoddde with very fine, white sand.



Bornholm is for KIDS. e.g. at Joboland.



Bornholm is situated centrally in the Baltic Sea. For our last two visits we went by car from Copenhagen via the 19 km long combined tunnel and bridge to Malmö and from there through Sweden to Ystad, where we took the car ferry to Rønne. The crossing takes 80 minutes.

Bornholm has an area of about 600 sq.km and a population of 40.000. To the East of Bornholm there is a group of tiny islands (total area 0.4 sq.km) at the red dot on the map. Two of them are inhabited (Christansø and Frederiksø). A naval base was established there in 1684. Even if this base does not exist anymore, these islands are still under the administration of the Ministry of Defense.

I have been to Bornholm many times. My first visit was in 1949. I had to prepare myself for my M.Sc. thesis in chemical engineering : Design, operation and economy of a plant producing vitreous technical stoneware. A similar plant existed on Bornholm.



It was Hasle Klinker & Chamottefabrik Seen here. I volunteered and studied there for a month. This oldfashioned plant had to close down around 1990. 900 people lost their employment. I believe that the plant would still exist if they had followed the design of my thesis.



We went there to see how it looks to-day. A sad view. The only remaining building is used as stable for sheep.



In the late 1950s after marriage and getting the first two kids we went for two consecutive years to Salene north of Gudhjem. There was a lovely sand beach. With two steps we were in the water from our tent. Then the sand totally disappeared for unknown reasons. It became a stony, unappealing beach as seen on this resent picture. Later on we have camped twice at Dueodde seen earlier in this blog.



At that time the transport to Bornholm was different. We went to the car ferry in Copenhagen late in the evening. Got a nice cabin, where we slept. In the morning after breakfast on board we were in Rønne. This is not possible anymore. I miss this comfortable trip to Bornholm. However, we have been with this ferry recently. It has been sold to Malta, where we have used it for going to Gozo from Malta.

Bornholm Nature.



Bornholm and the nearby small islands are the only part of Denmark where archaic rock - mostly granite - crops out. Here on the granite hill - Hammeren - in the North of Bornholm.



A view from Hammeren over the Baltic.



Hammeren hill in the background. The lake in the front has established itself in one of the many granite quarries disused for nature protection.



Such lakes in disused quarries are common around Hammeren.



It's nice to have a swim in the clear and warm water of these lakes.



Another disused quarry.



There are many dramatic granite cliffs particularly along the Northern coast. Here the cliffs at Helligdommen -the Sanctuary.



Also at the cliffs of Helligdommen.



The Camel Heads - sometimes wrongly called the Lion heads.



Also in the center of the island granite crops out. Inga in the Paradise hills.



Inga is interested in some flowers here. She loves to botanize.



Here we are in Almindingen (the Commons), Bornholm's largest forest. In antiquity Bornholm was mostly wooded. When agriculture was introduced in Neolithicum the clearing of forest began. This continued with wood being used for timber and heating. Around 1800 AD there was hardly any forest left. As Denmark was in strong need for timber for shipbuilding, the king ordered the establishment of forests all over the country, thus also on Bornholm. To-day Almindingen is the third largest forest in Denmark. It covers a considerable part of the interior of the island. The forest is very varied with oak, beech and fir as the most common species. The Northern part is on granite ground, while the Southern part has sedimentary soil.



In 2012 European bison coming from Poland were introduced within a fenced area of Almindingen. They are endangered species. They transform the forest with their grassing, trampling and droppings. The forest becomes more open and allows many rare plants and smaller animals to be introduced.



EkkoDalen - the Echo valley - is a 12 km long rift valley in Almindingen. Rift valleys have been formed by rifts in the granite being filled with liquid magma. When the solidified magma erodes a rift valley remains. The creek running through the valley is Laesaa. This picture was taken in 2014, when there was plenty of water in the river.



This picture of Laesaa further downstream was taken in 2015, when the river was nearly dry. The river is known for its unique range of geological sites.

It runs through an area where layers from the early Palaeozoic era (about 500 million years before present) can be studied in the slopes. Here Inga looks for green slate in the dry bottom of the river.



One can also find fossils, here a trilobite. It is not permitted to pick them out of the cliff.



There is also an arboretum in Almindingen. It was established in 1930 and contains trees which have grown at 56 degree latitude (north and south). This is the latitude of Bornholm. Here an American redwood, which may or may not become as gigantic as some of the American ones.



There are many lakes and swamps in Almindingen. The fallen tree one sees here stems from a heavy storm in 1986. Only trees which disturbed traffic along the many footpaths were removed. Most of the forest is allowed to develop without human interference.



It is nice to have a little picnic after a long walk. The food is prepared from the breakfast buffet at our hotel.



We have now come to the southernmost part of the island. A completely different landscape. A kilometer wide range of dunes with very fine sand.

Bornholm Prehistory.



We will start with the geological history of Bornholm

This picture is taken in the Southwest of Bornholm in front of a hill called Klintebakken. It looks idyllic, but it has a most dramatic background. As you already must have noted from the earlier parts of these blogs, a considerable part of Bornholm's surface is granite. Granite is a magmatic rock made by solidification of molten magma. The granite of Bornholm is 1700 million years old. 300 million years ago the African tectonic plate pushed strongly into the European plate causing serious earthquakes and a deep rift, where the Southern part dipped hundreds of meters below the Northern. This fault zone is called the Fennoscandian border zone. (Fennoscandia = Norway, Sweden and Finland, which all have granite as bedrock). It starts in the North Sea and ends in the Black Sea. However, there is only one place where this fault zone can be seen on the surface. This is at Klintebakken on Bornholm, where erosion and buildup of sedimentary material on the southern part has caused the two sides of the rift to be at the same level. This picture seen towards southwest shows the granite in the front and the more recent layer (sandstone) in the background. There is a time difference between the two formations of about 1400 million years.



Between 7500 and 6000 BC what is now the Baltic Sea was a freshwater lake, called the Ancylus Lake. It empties into the ocean via Swedish rivers. There was a land bridge between the European continent and Bornholm. (Bornholm is within the land area connected to the continent). The Glacial Age is at its end. Reindeer hunters roam about Northern Central Europe in the tundra like landscape. Some of them cross the land bridge and become the first human settlers of Bornholm. At the end of this period the lake water breaks through the land bridge and Bornholm becomes the island it is to-day.



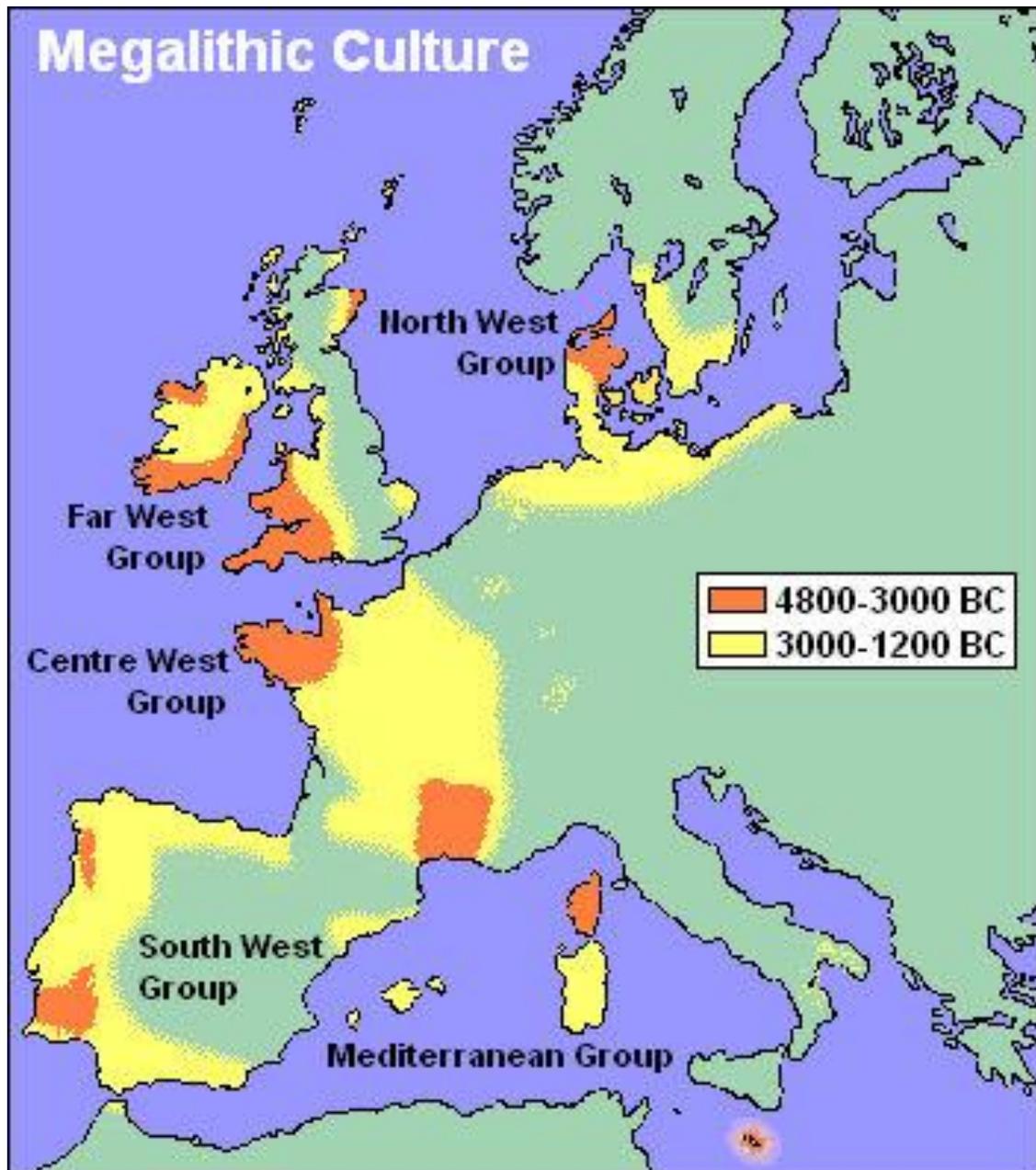
In a bog called Vallensmose (the lowland behind the trees, South of Ekkodalen) remains of the reindeer hunters have been found: harpoons made from elk antlers and flint arrowheads. The bog at that time was a lake. Sites near lakes were preferred by the first group of hunters after the Ice age.



A slightly later group of hunters and fishermen settled close to the coast. One group lived in this cave in Trollskoven (the Troll forest) near the East coast North of Gudhjem.



We are still in Troldskoven. We have stopped at a mount of stones, in Danish called stenrøse. Such mounts are found in forests all over Bornholm. The earliest have been dated to about 4000BC. At that time a new group of people have arrived by sea from Southern Sweden. They were the earliest farmers applying slash and burn (in Danish: svedjebrug) by burning down a plot of forest and growing their crop in the ashes which fertilize the soil. On Bornholm the soil is full of stones, carried there by glaciers during the Ice Age. The farmers cleared the field by collecting the stones in the mentioned mounts. After some years the soil loses its fertility and then a new plot is cleared and new mounts of stones are built up. This period is called the younger stone age or Neolithicum. Soon these mounts of stones became larger and more well organized. They are now on top of burials dug into the ground. They become cairns (in Danish gravrøse).



At the end of Neolithicum a cultural revolution occurred. Technically developed people built structures (burials, temples, astronomical structures and more in the areas indicated on the map. We call this the Megalithic Culture, because they were able to use large and very heavy stones for their constructions.

Bornholm seen as a small dot Southeast of Sweden did also take part in this revolution.

Archaeologists and anthropologists have been discussing for decades how this happened. There are two schools, the Diffusionists and the Evolutionists . The diffusionists claim that the culture was developed by people at one place, who then migrated to the other areas and introduced the culture there. The evolutionists believe that the culture was developed independently in the different geographical regions, because they believe that when the mind of a population has reached a certain level, they will naturally develop similar techniques, as for instance Egypt and the Mayas in America developed pyramide structures without knowing each other.

While the evolutionist idea until recently was the preferred idea, this has changed with the possibility to carry out DNA analysis on old skeletal material. By this method it was found that there were similarities between people of the different regions, which indicates that the megalithic culture developed in one area and diffused by migration to the other ones.

Now, where did the culture originate? There is a belief that this was in Ireland. Here one finds the oldest megalithic monuments. The Irish were seafarers who with their skin boats were able to traverse long distances of the sea. Their pattern of construction has been found at the other regions of this culture. Even if this sounds plausible, it is still only a theory. It must have taken their descendants more than a millenium to reach Bornholm. Some scientists believe that this culture comes from the Middle East.



We will now look at some of the megalithic monuments on Bornholm. At Vasegård, near Læså in the Southwest of Bornholm we came to this long barrow, which contains both a dolmen (dysse) and a passage grave (jættestue).



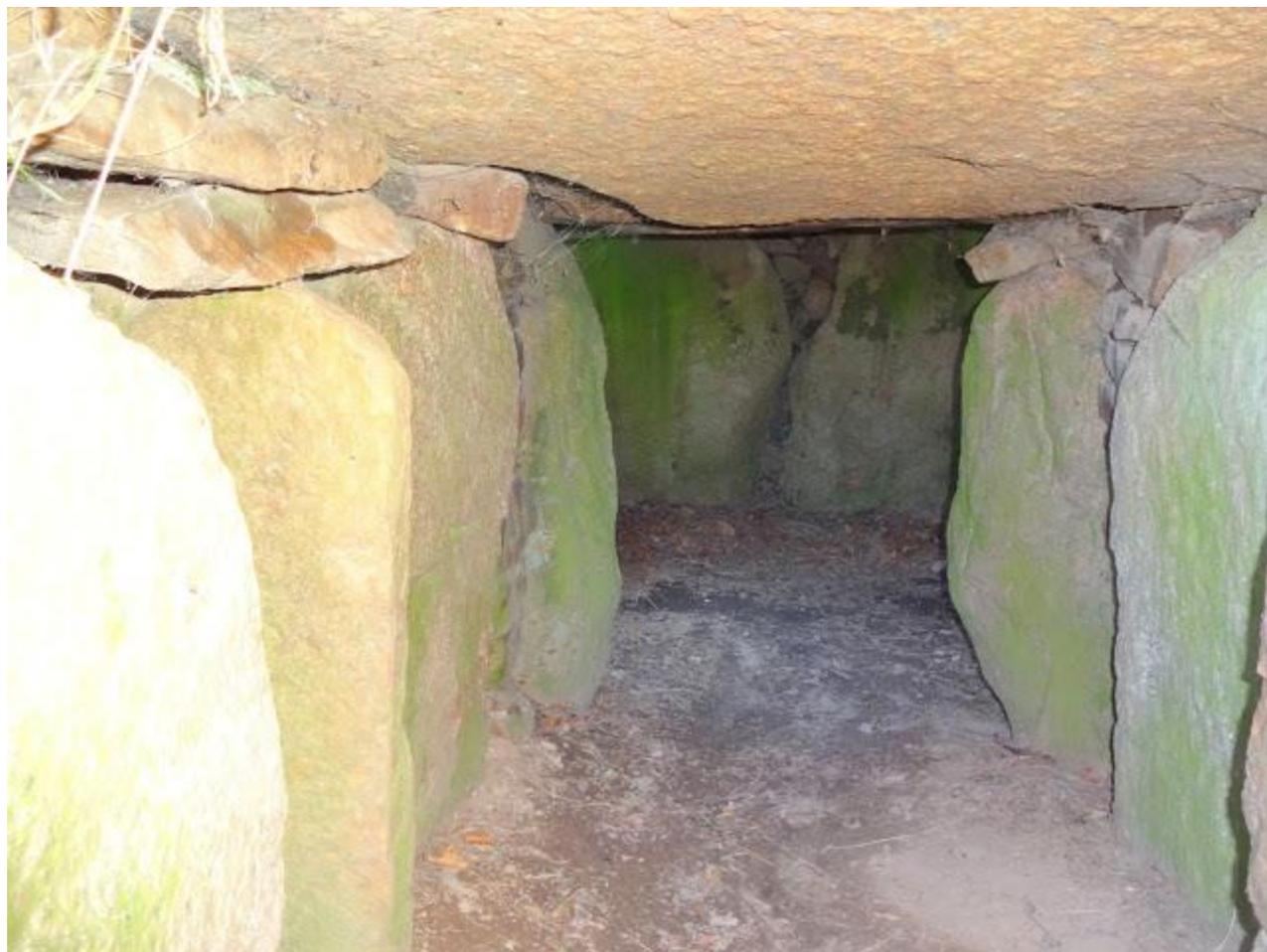
Here Inga looks into the dolmen, which is one of the earliest megalithic structures on the island, dating from about 3200BC.



The small inside of the dolmen



Inga comes out of the passage grave, which is about 100 years younger than the dolmen.



The inside of the passage grave. It is T-shaped. At the end it continues left and right. When it was excavated a bunch of amber pearls were found on the ground. It has also been in use later on. A bronze age body was found in the passage.

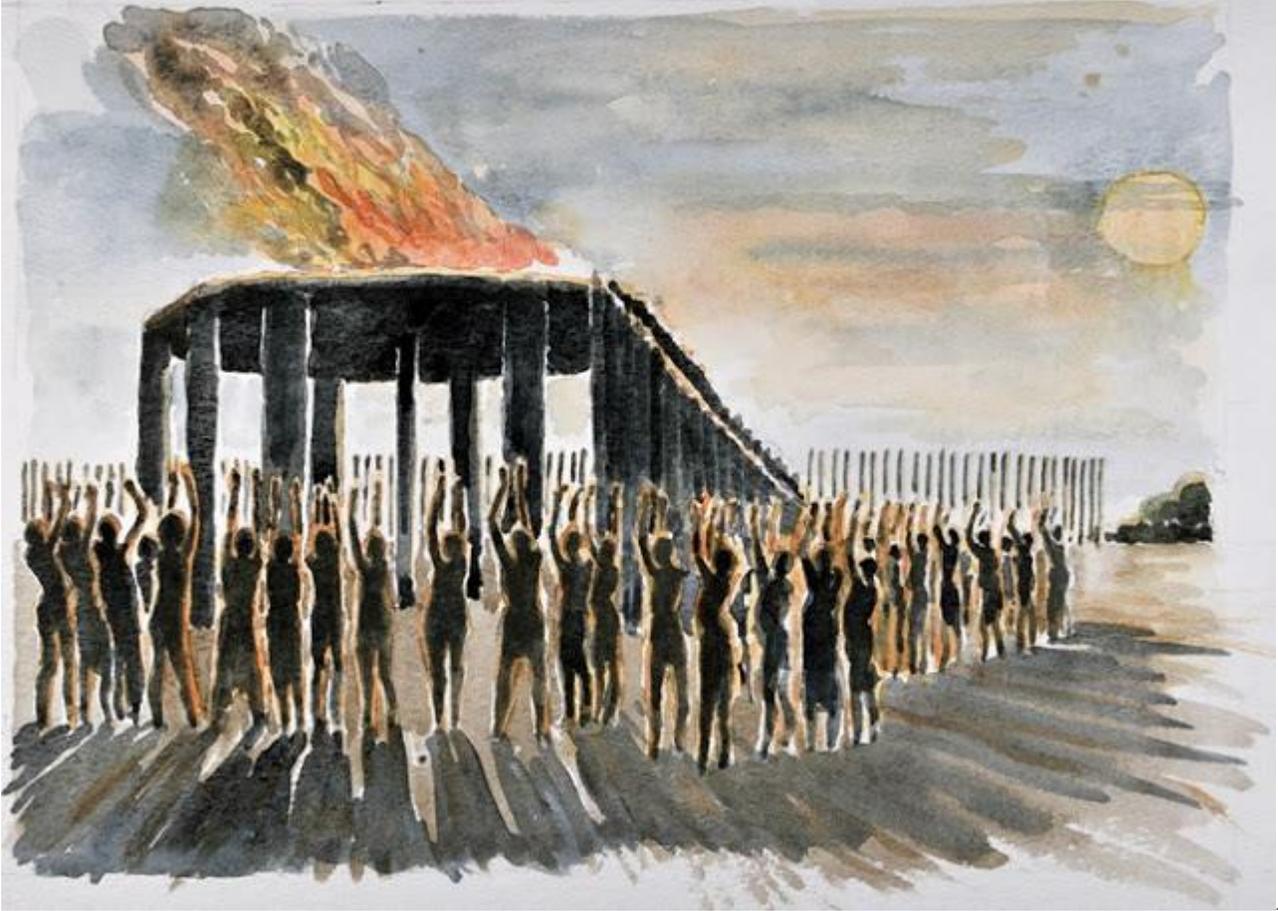


We are now on a hill called Rispebjerg with many different antiquities. It is in the South of Bornholm.
We walk through the earthwork ramparts....



and enter a field with a number of wooden circles, of which you see a few here. it is called a Woodhenge after an English site near Stonehenge. Traces of the original wooden poles have been found and recently marked out with stumps of wood. Within the circles were pieces of partly burnt clay, burnt flint and bones. From this it appears that the circles may have served as a sun temple. The poles apparently supported a clay-covered platform, accessed by a flight of steps, on which experts believe fires have been lit, possibly for sacrifices.

It appears that the wooden circles were constructed over three separate periods around 2800 BC.



An

An artist's impression of a Woodhenge ceremony.



As mentioned a lot of burned flint tools was found within the Woodhenge circles. This is explained as a special effect when a fire is lit, because flint cracks with a very loud sound when burned. This effect must have been important. Flint for larger tools had to be imported. It shows that there already in the stone age period has been a lively ship traffic across the Baltic, at least to Southern Sweden where larger flint pieces can be found



An observation tower provides information and views over the historic area. It has been created with poles in the original holes of the circle and the ramp of one of the Woodhenges (except the roof, for which there is no original evidence).



When we were at Vasagård to see the passage grave and dolmen, we noted that an excavation was going on nearby. We went there and talked to the archaeologist. He told us that they were excavating a sun temple. We took a picture. We were told that this sun temple had been in use but then had been destroyed. It was the end of the peaceful megalithic culture and a change to a more warlike period.



The megalithic period in Denmark is also called the Funnel Beaker period after the delicate pottery. These samples are from the sun temple.



This battle axe made from porphyre also found at Rispebjerg demonstrates the change to a new period, also called the Battle Axe Period.

This battle axe is actually a copy of a bronze battle axe and it indicates the change from Stone Age to Bronze Age and the high quality of the stone work.



The Bornholmers were sea farers. This can be seen on the numerous petroglyphs or rock engravings (in Danish: Helleristninger) found on Bornholm dating from the bronze age (1700 BC to 500 BC). Some of their ships seem to be of considerable size. The vertical lines seem to indicate frames (spanter). We do not know what the facing of the ships was, maybe skin as in Ireland (and in Greenland until recently). The circles with a cross are symbols of the sun. There are also engravings where the sun is connected with a horse. This is related to the belief of a diurnal movement of the sun. During the day a horse transports the sun across the sky. At sunset which on Bornholm always will be into the sea a ship takes the sun on board and carries it through the underworld to sunrise, where the horse takes over again. Most likely engraved rocks were places where religious ceremonies worshipping the sun were carried out. The engravings on this picture have been painted red to make them easier visible.



Here is a rock with unpainted ship engravings. You have to look very carefully to find the ships. There is one horizontally in the middle of the lower part of the rock and another one vertically on the left upper part of the rock. Actually, there are even more engravings on this rock, but they are invisible on this picture. This is, why the archaeologists have painted a number of the engravings with colour to make them easier visible for the public.



Another common reminder of the bronze age are the many menhirs (standing stones, in Danish: Bautasten) found all over the island. This picture was taken from a window in our apartment at Stammershalle on the East coast. You see three menhirs in the upper center of the picture. They were often, but not always, used to indicate a burial.



Sometimes the menhirs were arranged in a circle, probably as a place for religious ceremonies.



Here the stones have been set in the shape of a ship. The setting may also indicate the size of bronze age ships. There has been a burial in the center, maybe of the ship owner. In the older part of the bronze age dead people were laid to rest in shallow graves sometimes within a coffin made from a dugout log. Important people had a mound over the grave. In the later part of the bronze age cremations took place with the ashes buried in urns.

The bronze age was a rich period on Bornholm. The climate was warmer than to-day. Agriculture was developing. There are rock engravings showing plowing with oxen. The bronze ingredients copper and tin had to be imported from far away. Only more wealthy people could afford to use bronze for tools, weapon or ornaments. Flint tools were still in use.



The iron age (500 BC to 700 AC) was a turbulent period. The climate got worse. There were several invasions from pirates or larger groups of people from the North (present Sweden) or from the South (present Poland). Several large strongholds were built as refuge for the population during invasions. These strongholds prove that the island was well organized probably under the reign of a king. Here Inga is entering the stronghold of Gammelborg



The walls of Gammelborg seen from the outside. These strongholds were mainly built on hills with steep sides.

In the beginning of the iron age iron was rare. It had to be imported and the local smiths had to gain experience in treating this new metal. In the later part of the iron age gold became quite common. We do not know if it was bought in trade relations or if the Bornholmers themselves also were pirates.



At a place called Sorte Muld (black mull or top soil) a very rich iron age settlement has been found. The soil is black because it has been under cultivation for several thousand years. The first finds were made about 30 years ago by amateur archaeologists with metal detectors. Since then it has been and is still under excavation by professionals. It is the richest iron age village on Bornholm and may have been a royal seat between 400 and 700 AC.



The excavations are still ongoing. Besides a number of habitations a court hal and a temple have been found.



The most outstanding finds at Sorte Muld are the so called Guldgubber. A Swedish word meaning "old men of gold", because the first ones were found in Sweden. They are made of gold foil mostly stamped with a motive. So far 2500 guldgubber have been found at Sorte Muld of the 3000 totally found in Scandinavia. The picture shows them slightly in oversize. Let us look at one of them in more detail. It is the one in the third row left. There have been found many copies with slight differences of this motive.



It shows a man in an embroidered kaftan holding a staff in one hand and drinking from a so called Sturzbecher (a beaker which cannot stand). A pointed object emerges from the beaker. It is interpreted as a man leaving on a voyage drinking for his farewell. Some experts consider the object coming out of his beaker as a symbol of his ship.

Most of the guldgubber were found surrounding the post-holes in the temple. Most likely the guldgubber were fastened to the posts with resin to memorize an event, a dead person, a legal process or a deity.



Most of the guldgubber from Sorte Muld are exhibited at Bornholm's museum in Rønne.



There were also found other treasures here. In a buried hoard was this gold chain with bracteates (locally produced pendants looking as gold coins).



In the early part of the iron age ships looked very much like the bronze age ships we have seen on the rock carvings. This we know from a ship which has been found buried in a moor at Hjortespring in Southern Jutland. A modern copy has proved its seaworthiness. In the first century AD a fleet of such ships left Bornholm for the South coast of the Baltic.

The Roman historian Tacitus wrote in his book "Germania" about (100AD) that on an island North of Germania the inhabitants worship the fertility goddess Nerthus with complicated rituals. Nerthus is synonymous with the Old Norse Njord, even if Nerthus is female and Njord is male. It is my view that you worship fertility when fertility is poor, just as one worships a rain god if there is no rain.

At that time the climate was bad, the island overpopulated, the soil had lost its fertility after 3000 years of agriculture and just as the Teutonians from Thy, the Cimbrians from Himmerland and the Vandals from Vendsyssel (3 provinces in Northern Jutland) 100 years earlier had migrated South, so did a part of the Bornholmers now.

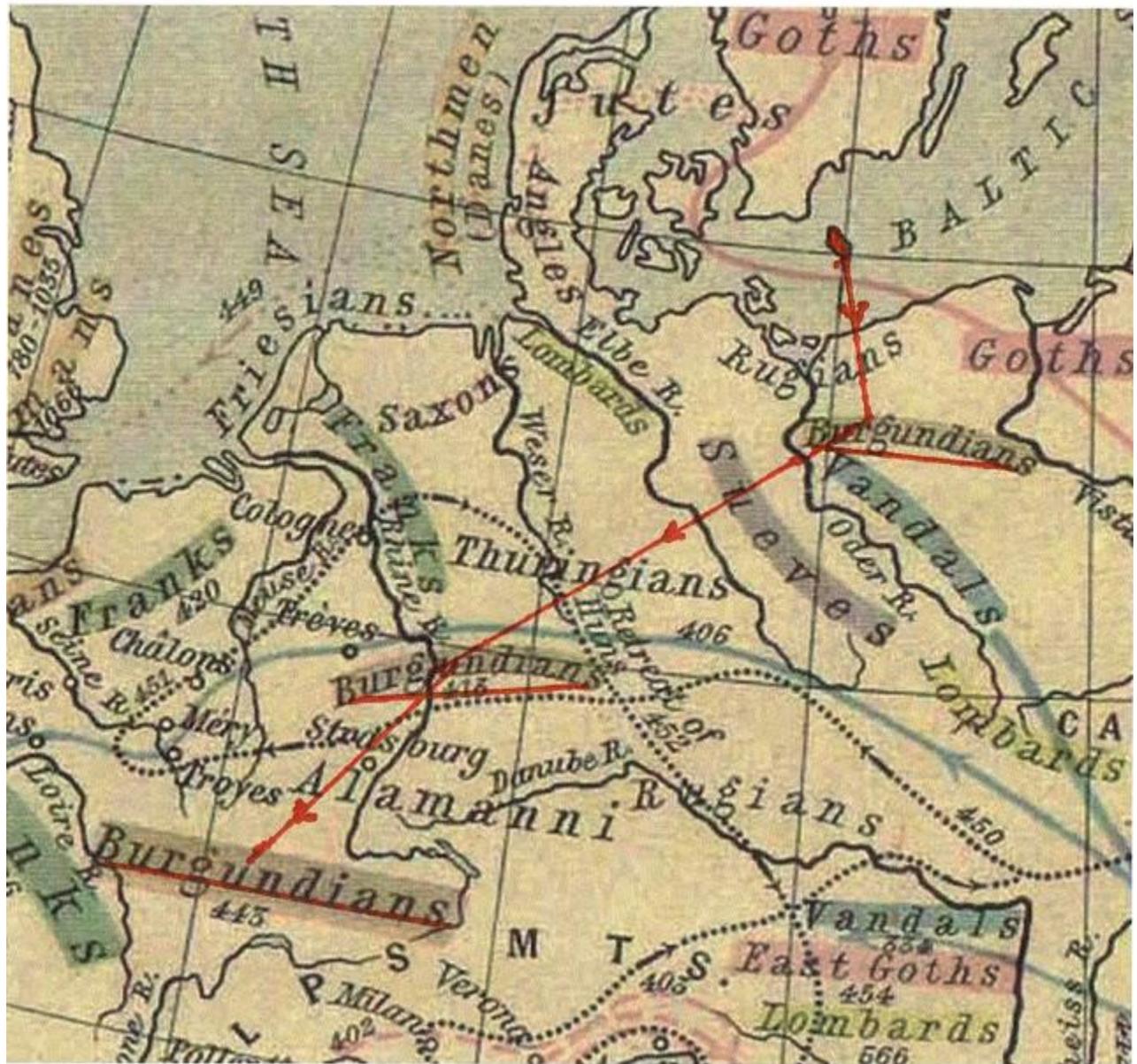
Who were the Bornholmers at that time?



Fig. 1 The Baltic region around the year 880. The English merchant Wulfstan sailed south of Bornholm at that time and wrote "Burgenda land was on our port side and they have their own king". After Bately, 2009, fig. 5.

We know that the old Norse name of Bornholm was Burgundarholm - the island of the Burgundians. This name is used in the Icelandic sagas. This was also known by the historians of the 4th century AD - Jordanes and Sokrates Scholasticus as well as of Wulfstan who on behalf of the English king Alfred the Great sailed around in the Baltic and called Bornholm Burgendaland.

The Burgundians sailed straight South and settled in the present Northern Poland between the rivers Oder and Vistula, both indicated on this map.



But the Burgundians did not stay on. About 380 AD tribes East of the Burgundians were forced to move westward due to the onslaught of the Huns. These Turkish-Mongolian horsemen lived West of China. The construction of the Great Chinese Wall kept them from attacking China and so they went westward into Siberia. The very cold climate in the first centuries AD forced them further South and Westward.

Their ability to shoot arrows with great precision while riding made them nearly invincible. The different tribes living in front of them were driven westward and caused a chain reaction, which eventually met the Burgundians. They moved towards river Rhine and settled again near the towns Worms and Mainz. The Burgundians were fierce warriors and caused much trouble to their neighbors. The Roman general Aetius united with the Huns to read the Burgundians a lecture. It came to a battle near Worms in 435 AD, where the Burgundians were defeated with heavy losses including their king Gunnar. The story about this battle became widespread. There are several Icelandic sagas dealing with it. Several hundred years later an Austrian monk wrote an epos based on this battle. He transferred the

story to have taken place at the Danube in stead of the Rhine and called it the Song of the Nibelungs. Amongst the heroes of the story was the Burgundian king Günther (in Old Norse Gunnar), his sister Kriemhild, her husband Sigfried (Sigurd), Günther's love Brünhild etc. Most of the persons are Burgundians and thus descendents of the good Bornholmers.

Next time you listen to Wagner's opera Götterdämmerung based on the Song of the Nibelungs, you should remember that many of the persons have their origin in Bornholm.

After the defeat Aetius permitted them to settle further Southwest between Geneva and Lyon. There they established their kingdom. The land was called after the name of the tribe Burgundy or Bourgogne. The map shows the movement of the Burgundians from Bornholm to Burgundy.



The Bornholmers love wine and even have wine yards where a quite good wine is prepared. Maybe this gen already existed when they moved to Burgundy.

At least one of the world's best wines come from this district. The relation between the Bornholmers and the people living in Burgundy has been established by DNA analysis, where close relationship has been found.

Bornholm

History



Bornholm got into written records for the first time at the court of king Alfred the Great (849-899), who successfully defended his kingdom of Wessex against Danish Viking invasions. He worked for the education of his people and important literature was translated into Old English from Latin at his court. Amongst them was "History against the Pagans" by the 5th century Spanish historian Orosius, the most important book on history and geography written between Antiquity and the Middle Ages. As Orosius centers about the Mediterranean Alfred found it necessary to add what was known then about Northern Europe. He did this in 3 additions.

Two of them are travel descriptions commissioned by him. One of them is an interview with a Norwegian about his travels along the Norwegian coast around North Cape and eastward beyond present day Murmansk and then South as far as the Viking town Hedeby (or aet haedum) near Schleswig at the Baltic Sea. (See map in former chapter).

The other one by Wulfstan has already been mentioned in the former chapter. He travels in seven days from Hedeby across the Baltic to the trading post Truso East of the mouth of river Vistula in present day Poland. On his way he passes Bornholm. In his own words: *We had Vendland (now Pommerania) on the starboard side and on the port side Langeland, Lolland, Falster and Scania. All these lands belong to Denmark. Then Burgenda Land (Bornholm) on the port side, and they have their own king. After Burgenda land we had Blekinge, Moere, Oeland and Gotland on our port side, and these countries belong to Sweden.* Note that Wulfstan identifies Bornholm as the land of the Burgundians. This is consistent with the older name of Bornholm: Borgundarholm (the island of the Burgundians). Wulfstan also tells (around 890AC), that Bornholm was a kingdom.

him þone ilcan ƿær earam þanon hæc oƿer ƿe 7 be eaftun
 him ƿurdon oƿer þalode 7 aƿede beƿurpan oƿer habbað
 beƿurpan him þone ilcan ƿær earam ƿinedaƿ 7 burgenda
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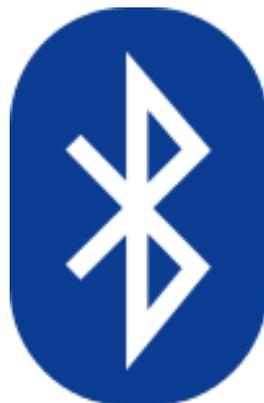
The 3rd addition to the translation of Orosius was a general description of Northern Europe. Here is a sample of the original text in Old English, where Bornholm is mentioned . Near the end of the 4th line you find the word "burgendan". The text in Old English from there says: Burgendan habbad thone saes earm be westan him & Swean be northan. In modern English: Bornholm has the same sea arm (Western Baltic) towards West and Sweden towards North.



This coin was minted by the Danish Viking king Harald Bluetooth, who reigned from 958 until his death in 987. The face on the coin side to the left is the only contemporary picture we have of this king. He was the first Danish king to be christianized. This appears from the symbols on the other side of the coin. During his reign Bornholm lost its independence and became a part of Denmark. He installed a governor on the island. His name was Hans Veset, Earl of Bornholm He is known from the Islandic sagas.

It is worth mentioning that the Viking king Harald Bluetooth was a very active and farsighted ruler. On a runestone, raised by him, is told: "Harald who united all Denmark and Norway".

The inventor of Bluetooth technology Jim Kardach, who was very interested in the Vikings named his technology "Bluetooth", because just as Harald his technology is able to unite different sites. The icon of Bluetooth technology is formed by the combined runes H and B (for Harald Bluetooth).



Bornholm is very rich in runic stones. Above 40 still exist. They are the earliest written records from the island itself. They are in many cases inscribed by somebody in memory of relatives or of someone who was killed in war.



This runic stone is close to the church of Vestermarie. The inscription reads: *Erected by Thorsten and Sven for their father Alvin and their brother Thorlak. God and God's mother help their souls.* Bornholm was christened later than other parts of Denmark (around 1050). This stone has been erected shortly after, just as most of the other runic stones in Bornholm. Most runic stones elsewhere are older than those in Bornholm.



This is the entrance to the stronghold Gamleborg (the old castle), which we already have heard about in part 3. It is the oldest stone-built construction in Bornholm, built of hewn stone and lime mortar. A lime kiln has been found on the site for production of the mortar. This construction is the result of an improvement of the older site. It is likely that the royal governor resided here until about 1150, when Gamleborg was abandoned and replaced by Lilleborg (the small castle).



Lilleborg is situated on a steep rock outcrop within Lake Borre, just as Gammelborg it is in the Almindingen forest (see part 2). It is much smaller than Gammelborg, but easier to defend. It was built under the reign of King Sven Grathe (1146-57).



This drawing shows how Lilleborg has looked around year 1200. The excavation of this site showed that it was very rich. There were found a large number of keys and coins. The finds make it evident that Lilleborg was the administrative center of Bornholm where also the governor lived. Collected taxes were in safe guard within the castle.

In 1149 King Sven Grathe gave most of the island to the church. The Archbishop of Lund (then in Denmark, now in Sweden) became the ruler of three quarters of the island. Lilleborg was only in use for about a century. In 1259 the castle was conquered by the martial archbishop Jacob Erlandsen with assistance of the Vends (a slavic people living in North Eastern Germany and Poland) under the leadership of Prince Jaromar of Rügen and burned down as the result of continuous battles between church and king. These battles lasted for about hundred years. Two kings (Knud Lavard and Knud the 5th) and one archbishop (Jakob Erlandsen) were assassinated in the course of this feud.



Here we stand in front of Hammershus, the largest castle ruin in Northern Europe. It stands on a steep promontory at the Northern tip of Bornholm. We are in front of the drawbridge over the now empty moat.



Its position can be better demonstrated by this painting by A.E. Kjeldrup found in Bornholm's Museum of Art.

The oldest part of this fortress was built in the early 12th century to consolidate control of the island by the Archbishop of Lund, which the archbishopric had acquired through the treaty with King Sven Grathe in 1149. It demonstrates the power of the church in Denmark at that time. For about 200 years the castle most of the time was owned by the Archbishopric of Lund, which had the highest rank of the church in all Scandinavia. It then belonged to various rulers until it was abandoned in 1743.



The medieval village churches in Bornholm differ from those in other parts of Denmark. They either have quite heavy towers with separate clock towers as this church in Rutsker. The towers are mainly three-storied with wide, bare rooms and narrow window slits.

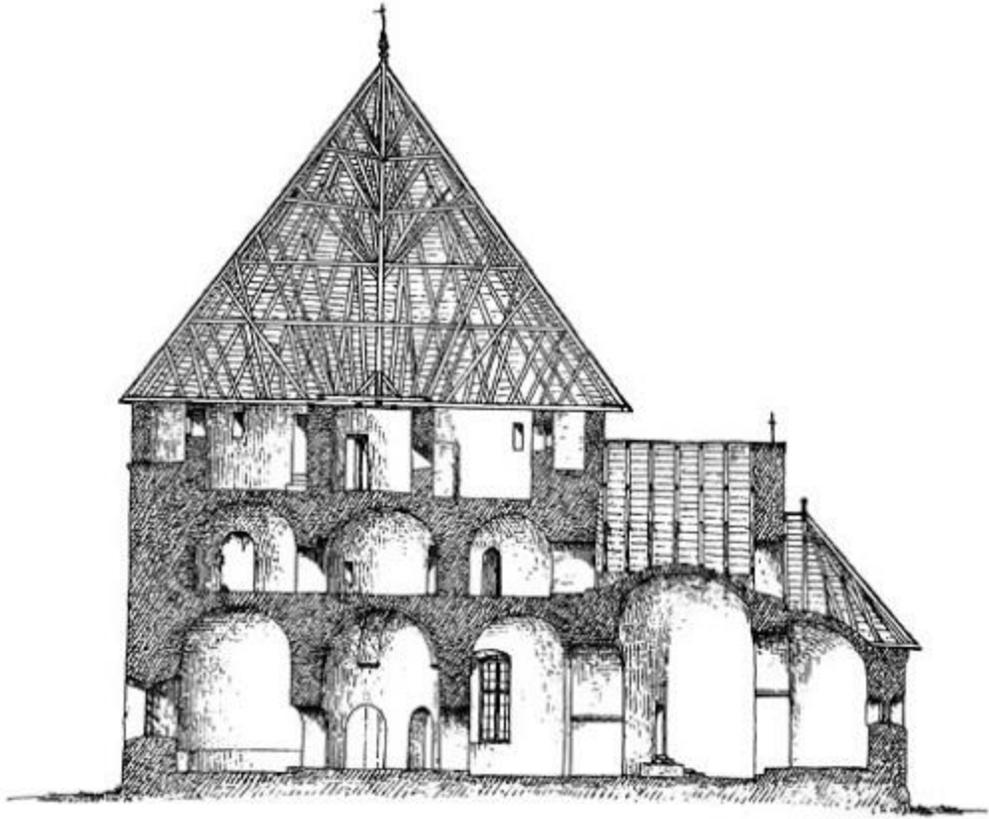


Or they are round churches as this one in Østerlars also with separate clock tower. The church is also three-storied. There has been and still is much discussion about the reason for these particular constructions. Earlier on it was mainly thought that the churches also served defense and refuge purposes protecting the villagers against attacks from pirates and invaders.

As it has been established that the upper floors of the churches lacked all facilities for human occupation, such as latrines, water supply, food preparation etc. and that the window slits only allowed shooting in narrow angles, this idea has been widely abandoned.

The main consideration now is that these rooms were storage facilities. But for what? There were guesses that they were used by farmers or traders. But would this be compatible with the religious use of the churches?

I prefer the main idea at present that the upper rooms in towers and round churches were used by the church for collection of church taxes. Finds of many coins in slits in the floor indicates this use.



This picture shows a cross section of the church with its three floors.



Why are there so many round churches in Bornholm? To understand this, we have to look closer at the archbishop, who reigned Bornholm at the time the churches were built. It was Eskil, who reigned from 1137 to 1177. He was from a very powerful Danish family, studied in Germany, visited Jerusalem and was quite often in Rome to see the pope.



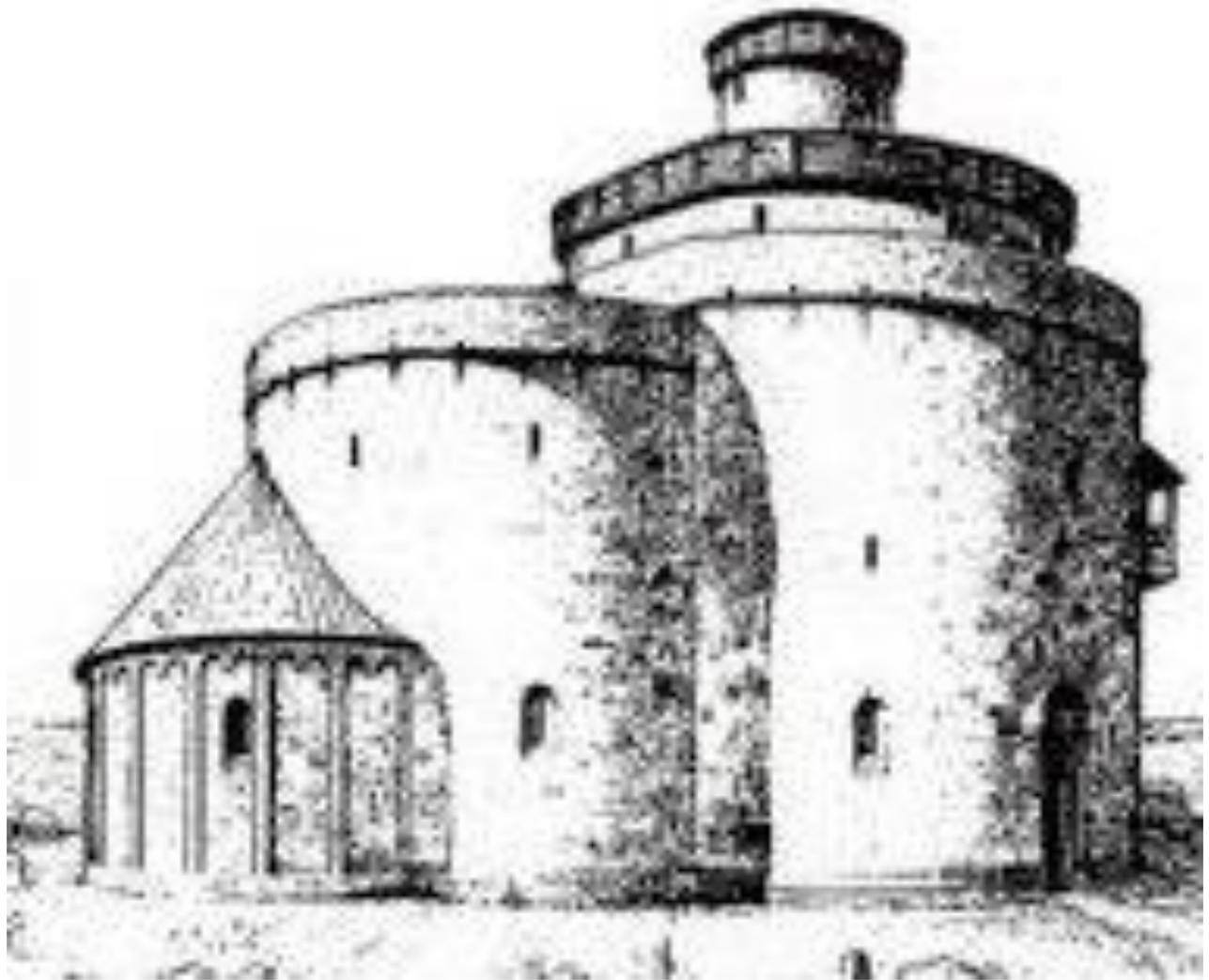
He was a close friend of abbot Bernard of Clairvaux, who can be considered as the founder of the Cistercian order and of the Knight Templars order. St. Bernard came from a Burgundian noble family just as several of the early Knight Templars. These noble families knew of their origin in Bornholm and thus made it easier for Eskil, who owned Bornholm, to make their friendship.



The Knight Templars were guardians of the Church of the Holy Sepulchre (Kristi gravkirke) in Jerusalem and built many of their churches in Europe as round churches just as this one. (e.g. the Temple church in London, the Templar church in Tomar, Portugal).



Here you see the round Templar church in Tomar



and here Østerlars church before it got its conical tower



The interior of the church in Tomar



and here the interior of the village church of Østerlars in Bornholm, which we have seen from the outside above. The village church is less rich than the Templar church in Tomar, but the similarities are evident.

I come to the conclusion that Archbishop Eskil, who was well acquainted with the Templars and responsible for church building in Bornholm, had several churches in Bornholm built according to the pattern of the Templar churches.



Around 1300 AD. herring became extremely abundant in the western Baltic due to climatic changes. Fishing villages became towns around the coast of Bornholm. Herring was salted in barrels and exported south to most of Europe, mainly to be eaten as lenten fare on Fridays. The barrels came back with salt from salt mines in Central Europe. Towns in Northern Europe, such as Lübeck, took care of this trade. These towns established the Hanseatic League, all based on the herring.



The late Middle Ages was a time of unrest in Denmark and also on Bornholm. Royal claimants fought about the crown, archbishops fought against the king and the people revolted against their rulers. Royalty at several occasions went bankrupt and the country went in pawn to foreign powers.

In 1525 King Frederik I unfortunately granted Bornholm as a fief to Lübeck (seen above at that time) for 50 years. because Lübeck had assisted him in his fights with king Christian II. Already in 1509 -11 Lübeck had raided Bornholm and in 1522 they occupied Hammershus castle and ruined it partly, even if they built a new wing there. During their occupation of Bornholm the population was overtaxed and in 1535 they revolted against Lübeck, but they were defeated with heavy losses. In 1576 Bornholm again got under Danish rule. Even if many resources were invested in the restoration of Hammershus it was not any more comfortable to live there and soon the Danish administrators left the castle and moved to different places on the island.

In 1536 the reformation was installed in Denmark. The archbishopric lost all power and property on Bornholm, but most of the catholic priests were allowed to continue.



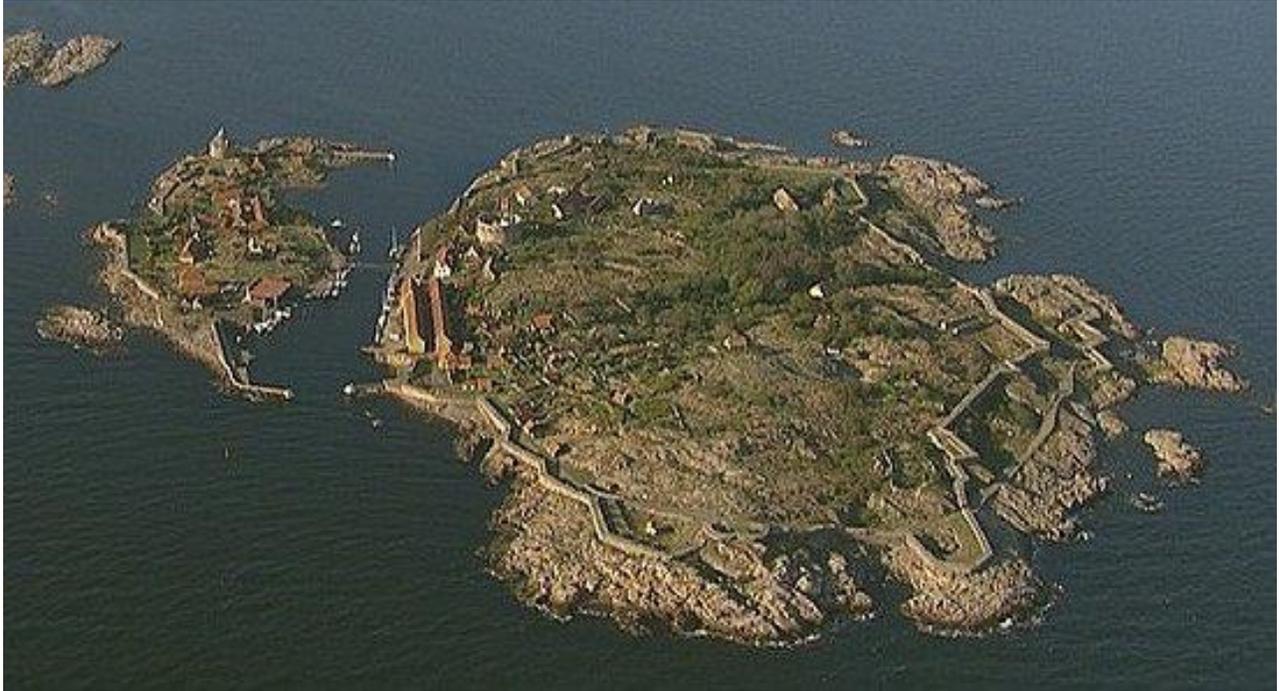
Christian IV ruled Denmark 1588-1648. He was a great builder, but lost most of his wars. Denmark's main enemy at that time was Sweden, becoming a growing sea power. The king visited Bornholm, staying at Hammershus and ordered the establishment of the Bornholm Militia, where every able man had to take part in the defense of the island.

This arrangement existed until 1867.

The militia was not successful when Sweden invaded Bornholm in 1645, ransacked Nexø, the island's second largest town, situated on the southeast coast. The Swedes took Hammershus castle and plundered the whole island for four months. Christian IV did not give up the island when peace was made later that year, but lost much of its possessions in Sweden. Peace did not last long. Denmark lost again. In the peace agreement of 1658 Denmark lost all the remaining land in Sweden and also Bornholm.



Bornholm was occupied by the Swedish colonel Johan Printzenskøld, who became an unpleasant governor, overtaxing the island. His rule did not last long. A resistance group was quickly established and less than a year after his arrival he was killed. The resistance took over Hammershus, where Sweden had its main force. A delegation went to Copenhagen and presented the island to King Frederik III as eternal property to him and his successors. The island was bought back from Sweden for a large amount of gold.



About 20 km northeast of Bornholm is a group of small islands called Ertholmene. They were without permanent inhabitation until 1684. This year King Christian V decided to build a naval base on two of the islands. They are seen on this picture. Christiansø to the right and Frederiksø to the left. One can see the walls and entrenchments around the islands. The harbour is situated between the two islands. Each island has a fortification tower. The cylindrical tower on Christiansø and the tower with conical roof on Frederiksø.

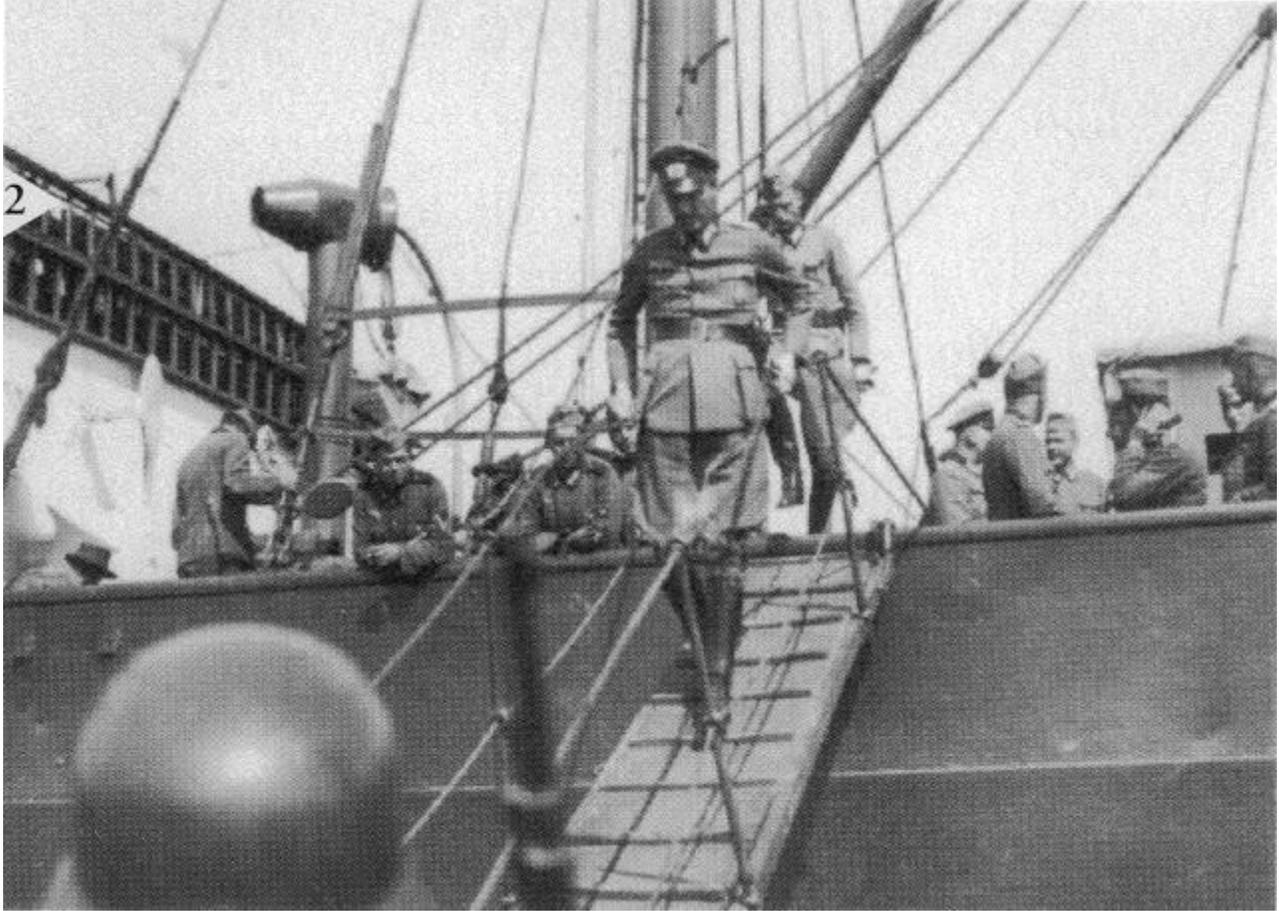
The reason for having this naval base was to protect Danish shipping from attacks from hostile ships in particular from Sweden.



Here is a closer look at Christiansø with former barracks and the fortification tower. During the war with England in the beginning of the 19th century, the islands were attacked by an English squadron. In spite of heavy bombardment the islands resisted and the English withdrew. In 1855 the naval base was abolished. However, the islands still belong to the State and are under the administration of the Ministry for Defense. There are now less than 100 inhabitants on the islands, but about 50.000 tourists come every year on one-day visits.



In the 19th century the production of grandfather clocks (Bornholmerure) became an important industry in Bornholm. The story actually began in 1744 when 5 slightly damaged English made grandfather clocks were saved from a wreck. At that time there were no clockmakers on the island. A wood turner who made spinning wheels got hold of them, repaired them and began to make copies of them. He was only used to work in wood, so the whole clockwork, including toothed wheels, was made in wood. These clocks worked and were quickly sold, but they did not last long due to wear. Others also began to produce these clocks. Soon the wooden gears were replaced by gear wheels made from brass plate. Later on a Swiss gear making machine was bought and some of the clocks were of reasonable quality. Around 1800 there were about 40 clock makers in Rønne and the annual production ran up in several thousands. Later on the production declined, partly because these clocks were not fashionable any more, partly due to more industrialized production in Germany and in the USA. Soon after 1900 the production stopped. To-day these clocks are sold at high prizes at auctions.



On April 9, 1941 Germany occupied Denmark with the exception of Bornholm, which was invaded one day later. Here the commander of the German troops, major Kaiser enters Bornholm on April 10. The Germans fortified the island. Until 1945 the conditions were relatively peaceful, but in 1945 millions of Germans fled westward in front of the Soviet army. Most of the evacuations took place by ship over the Baltic Sea. It was important for Germany to keep Bornholm as long as possible in order to protect the transport. When Denmark was freed from the German occupation on May 4 the German commander on Bornholm decided to hold on. Bornholm was at that time already far behind the Soviet front.



On May 7 Soviet planes bombarded the two largest towns Rønne and Nexø without notice. The bombardment continued the next day. 10 Bornholmers and many more Germans lost their life and 3000 lost their home. Then the Germans capitulated and Bornholm was occupied by Soviet. The picture shows German troops marching through the ruined town Rønne on their way to Soviet imprisonment. The Soviet soldiers did not behave as rude as in Germany. The Danish Government negotiated with Soviet about giving freedom to Bornholm. On April 5 1946 Soviet left the island on the condition that the Danish garrison on Bornholm should be below a certain figure and that other powers were not allowed to have any influence on the administration of the island.



Rønne and Nexø were in ruins. A gigantic reconstruction activity took place. A group of 40 architects was employed to ensure that the towns were rebuilt in a style corresponding to local traditions. Sweden gave a gift to Bornholm: 300 new wooden houses. Some of them are seen in this picture.

During the Cold War period there was fear that Soviet again would attack and occupy Bornholm.

Up to now there has been some decline in the population. Mainly young people go to mainland Denmark for higher studies or for better employment. Some earlier important industries have declined: quarry- and stone works, ceramic industry and fishery (mainly due to overfishing). The tourist industry is blooming and must to some extent employ foreign workers due to a lack of local workforce in this field.

Bornholm looks with confidence into its future.

THE END.