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Lejre beyond the legend – the archaeological evidence

Lejre jenseits der Legende – Der archäologische Befund

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With 21 Figures

Abstract: Lejre, approximately 10 km to the west of Roskilde on the island of Zealand, plays an important part in the cycle of legends about the first Danish royal residence, which, say Danish chronicles and Norse sagas, was located there. Most of these traditions have, rightly, been rejected by historians as legends. However, excavations show that Lejre was an important centre during the Danish Late Iron Age and Viking Period (AD 500-1000). Excavations have been carried out at two sites: Fredshøj (5th and 6th centuries) and Mysselhøjgård (7th to 10th centuries). Both places revealed large timber-built halls that, together with other structures and the find material, indicate the importance of the site.

Key words: Denmark, Zealand, Lejre, Fredshøj, Mysselhøjgård, Skjoldunger (Scyldings), Beowulf, Thietmar von Merseburg, Hall, *Hørg* (stone heap), Lejre hoard, Ship setting, Sacrifices.

Inhalt: Lejre, etwa 10 km westlich von Roskilde auf Seeland, spielt eine bedeutende Rolle im Reigen der Legenden über die erste königliche Residenz in Dänemark, die dort dänischen Chroniken und norwegischen Sagas zufolge gelegen hat. Die meisten dieser Überlieferungen sind von Historikern zu Recht als Legenden zurückgewiesen worden. Ausgrabungen zeigen jedoch, dass Lejre in der dänischern Späten Eisenzeit und Wikinger-Zeit (500-1000 n. Chr.) ein wichtiges Zentrum gewesen ist. Die Ausgrabungen fanden an zwei Stellen statt: in Fredshøj (5.-6. Jh.) und in Mysselhøjgård (7.-10. Jh.). Auf beiden Plätzen wurden große, aus Holz errichtete Hallen freigelegt, die zusammen mit anderen Baubefunden und dem Fundmaterial die Bedeutung der Fundstelle anzeigen.

Schlüsselwörter: Dänemark, Seeland, Lejre, Fredshøj, Mysselhøjgård, Skjoldunger, Beowulf, Thietmar von Merseburg, Halle, *Hørg* (Steinhügel), Lejre-Hort, Schiffssetzung, Opfer.

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1 Lejre: myths, legends and history

Lejre is a small village located to the south of the inland end of Roskilde Fjord, some 5 km up the Lejre Å where several large and small waterways meet (Fig. 1). The name derives from the Gothic or Old Danish *Hleiqrar* – "the place with the tents or the huts" (Jørgensen 1981, 73) – and has played a central part in Danish historio graphy for almost a millennium. Legend has it that this was the place where the first Danish dynasty, the Scyldings, had its royal seat. Until the 19th century, the discussion about the importance of Lejre in ancient times was based on the written sources. Thanks, especially, to the Old Norse sagas and the Danish medieval chronicles, the tradition of the greatness of Lejre has been passed down to the present day.

Best known among the many works is the *Gesta Danorum* (The Deeds of the Danes) by Saxo Grammaticus (Zeeberg 2000). The first part relates to the legendary era. To fill out this large span of years, Saxo constructed a long sequence of kings called the Scyldings, named after Skjold, the founder of the dynasty, the son of Woden (Odin) who was sent to rule the land from the royal residence of Lejre. The Scyldings appear in many other medieval chronicles and sagas, e.g. Svend Aggesen's "History of the Danes" (Olrik 1900-1901a), the lost "Saga of the Scyldings" (Friis-Jensen & Lund 1984), and "Rolf Krakes saga" (Lund 1983). Most of

these works were written around or shortly after 1200. However, one of the chronicles is somewhat older than the others and thus the oldest source of the history of



Fig. 1. Map showing the location of Lejre (Graphics: Roskilde Museum).

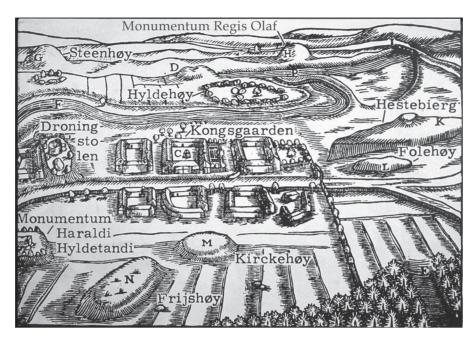


Fig. 2. Ole Worm's view of Lejre as seen from the west, from his *Danicorum Monumentorum libri sex* (Copenhagen 1643).

Excerpts from Ole Worm's text: C Kongsgården – D Grydehøj – F Lejre Å – O Hyldehøj: "A place surrounded by stones and used for the king of Lejre's crowning" (probably identical with the ship-shaped stone setting: see Fig. 4) – P Kornerup Å.

Lejre: the short "Lejre Chronicle" from the middle of the 12th century (OLRIK 1900-1901b). This chronicle, with no known original name, also includes a list of kings, in which many of the Scyldings seem to have had Lejre as their royal residence.

Few of the world's best old stories can stand the test of historical criticism. This also applies to the dramatic accounts contained in these sagas and chronicles (Skovgaard-Petersen 1977). The Old English poem *Beowulf* has played a central part in connection with early historiography. The principal motif, Beowulf's fights against monsters and dragons, is a collection of fables and tales without any historical basis. However, the action of the poem takes place in the land of the Danes, where Scyld Scefing (*Skjold*) and his familiy lived in the large hall called Heorot (*Hjort*) in Zealand (HAARDER 1984). Several of the well-known Scyldings, e.g. Roar, Halfdan, and Rolf, together with other related names, appear in the poem – but Lejre is not mentioned.

Parts of the poem, known from a 10th century Anglo-Saxon manuscript, are thought by some to date back to the 8th century. An analysis of the poem has shown that there is not much Danish history in its historical framework. The persons and events go back to the struggles between the Roman Empire and neighbouring peoples in the Balkans along the River Danube, which took place during the 4th and 5th centuries AD

(LUKMAN 1943). Moreover, the learned circles of medieval Europe, to which the writers of the Danish chronicles also belonged, "borrowed" to a large extent from classical historical literature, such as Jordanes' "History of the Goths", when writing their own national histories. Thus, the oldest Danish historiography is a mixture of foreign and local tradition. The rejection of these works as reliable sources meant that the Lejre kings and Lejre's position as an early royal residence were also questioned. However, Lejre is mentioned several times in more reliable written sources.

The German cleric, Thietmar von Merseburg, writes in his chronicles, around 1016, that Lejre (*Lederun*) in Zealand (*Selon*) was the "capital" of the kingdom (*caput regni*) and that human and animal sacrifices took place there every nine years (Trillmich 1970). Thietmar assigns the account of these events to the year 934, when Henry I lead a campaign against Denmark. The sentence about Lejre, in particular, is a later addition to the manuscript; but it is believed that the information can be trusted and that the tradition that Lejre was an important locality was still alive around the year AD 1000.

Several Old Norse sources mention Lejre in a poetic context. In "The Grotte Song", the famous poem in the Elder Edda (Larsen 1943), the two giantesses Menja and Fenja predict that King Frode will lose the Lejre throne (*Hleigrar stòll*). "The Grotte Song" was written

down during the later Middle Ages but the poem is thought to date back to the 10th century (Skovgaard-Petersen 1977, 36). The Danish and Norwegian fleets met in a great battle off the west coast of Sweden in 1062. In a contemporary scaldic poem describing the battle, the Danish King Svend Estridsen is called the "King of Lejre" (Jensen & Kyrre 1948) – it may have been an old custom to give the Danish kings this appellation.

Although Lejre and the Lejre kings have a mythical character in the surviving written sources, there are reliable sources, as shown above, that mention Lejre. Although it is impossible to describe the settlement from these alone, it is beyond doubt that Lejre was remembered as an important locality.

The stories about Lejre were revived in the Renaissance and kept alive during the following centuries: men of learning travelled to Leire to examine the ancient Danish royal residence. In 1643, the father of Danish archaeology, the learned Ole Worm, published his great work Danicorum Monumentorum. It contains the oldest picture of Leire – a view of the village with the ancient monuments that existed at the time (Fig. 2). The rise of modern science in the 19th century had the result that the royal residence of Lejre drifted into a storm of historical criticism. Historians rejected most of the traditions as pure legend without historical value, and archaeologists proved that several of the monuments traditionally connected with the Lejre kings were neolithic dolmens and passage graves (WORSAAE 1843, 91).

2 Discoveries and excavations at Lejre 1850-1968

Today, it is possible to present significant archaeological evidence in support of the legendary tradition. In 1850, an important find was made among the hills to the west of Lejre. The Lejre hoard includes at least four silver vessels, a whetstone, a weight, a necklace, and a disk-shaped silver ingot (Fig. 3). The largest of the silver vessels has been identified as 8th century Anglo-Irish work (Wilson 1960, 36-37), while a small solid-silver cup from the 10th century is of local origin. The finds, which seem to have been deposited simultaneously, have been interpreted as a treasure hoard. However, the composition is rather unusual and it cannot be excluded that the finds actually come from one or more burials.

Archaeological excavations were started as late as 1944 by the National Museum in Copenhagen. Two areas were selected for investigation, one in the village of Gammel Lejre (1945) and one on the foreland between the Lejre and Kornerup rivers to the east of the village (1944-1968). Here, the remains of a large ship-shaped stone setting have been scheduled as a monument. It is the only one left of a number of stone monuments that originally stood here.

As a result of the excavations, a stone ship about 86 m long could be reconstructed and a Viking Period cemetery was found. A total of 55 burials were excavated, most of them inhumation graves from the 10th century (Andersen 1995, 2-37). The majority of the skeletons were found in simple grave pits and the grave goods consisted only of iron knives, whetstones, and simple buckles. This picture corresponds with the generally simple burial practice of the Danish Viking Period.



Fig. 3. The Lejre hoard.

Found on the hillside to the west of Lejre in 1850 were four silver vessels, a string of beads, a weight, a whetstone, and a disk-shaped silver ingot (Photo: National Museum, Copenhagen).



Fig. 4. Aerial view of the remains of the large ship-shaped stone setting and Grydehøj after excavation and restoration, seen from the west (Photo: Fl. G. Rasmussen, Roskilde Museum).



Fig. 5. Aerial view showing the locations of the monuments and settlements in Lejre (Photo/Graphics: Roskilde Museum).

A small number of richly furnished burials were found, however, including a woman's grave with a complete set of jewellery: two oval brooches and a trefoil brooch. Another woman's grave contained the remains of a wooden casket that was partly decorated with enamelwork. A man's grave contained a beheaded person, interpreted as a sacrificed slave, in addition to the buried man.

There are no important differences between this cemetery and contemporaneous sites elsewhere in the country. The most distinguished burials of the Viking Period, so-called horsemen's graves, are also found in the Lejre area. A spur, inlaid with silver, probably from a scattered grave find, has come to the National Museum from a plundered burial mound to the east of Gammel Lejre.

Immediately to the north-east of the ship-shaped stone setting is a large burial mound: "Grydehøj" (Fig. 4). The excavation there in 1958 revealed a cremation grave. The remains of the burnt grave goods, iron fragments, fused bronze, and gold thread, indicate a chieftain's grave from the – according to Danish terminology – Germanic Iron Age, ¹⁴C-dated to the 7th century but of a type seldom seen in Denmark. A date around the mid 7th century seems reasonable in accordance with the age of the wood samples (Andersen 1995, 103-137).

The contemporaneous settlements, Mysselhøjgård and Fredshøj, lie on the opposite side of Lejre Å, near the village of Gammel Lejre – Mysselhøjgård to the west of the village and Fredshøj to the north – where excavations were carried out between 1986 and 2005 (Fig. 5).

3 Mysselhøjgård – excavations in the 1980s and 1990s

3.1 The research area

The settlement area at Mysselhøjgård has been divided into three different parts: the residential area, the workshop area, and what, so far, is called "the northern farm". The residential area is raised above the surrounding land on a 7-10 m high hill, while the workshop area with pit-houses and other minor buildings

is situated on a flat plateau towards Lejre Å. Today, most of the workshop area lies hidden under the present village (Christensen 1993). This article will deal with the residential area, where several buildings of similar shape succeeded one another on very nearly the same spot (Fig. 6). In five cases, the buildings were renewed or rebuilt in the same place three or more times. Two of the most important house groups will be described below.

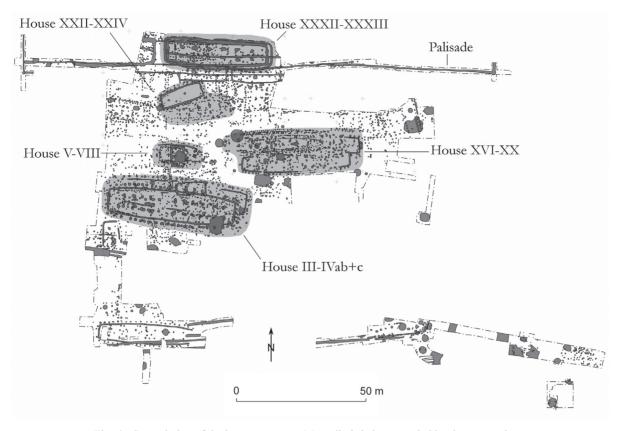


Fig. 6. Ground plan of the house groups at Mysselhøjgård as revealed by the excavations.

Houses III-IVab+c (the Lejre hall). – Houses XVI-XX on the east-central part of the hill. –

Houses XXII-XXIV on the northern slope, "turned" slightly from their east–west orientation. –

Houses XXXII-XXXIII were disturbed by a fence or palisade

(Graphics: Roskilde Museum).

3.2 "The Hall" – house III, house IVab and house IVc

The remains of a large building 48.5 m long (house IV), were found on a slope facing south (Fig. 7). It was clear from the beginning of the excavation that it was not just one building, but rather several buildings of the same shape that had been erected on almost the same spot. In addition, the location on the edge of a hill resulted in very varied "wear" of the area, so that the difference in height between the western part of the house, standing on high ground, and the lower southern part is more than 1 m. Considering the size of the houses that once stood here, this may well have been the location of the most important building, which went through successive phases of rebuilding over a long period of settlement. We therefore named it "The Hall".

In 2009, three more halls were found about 125 m to the north of the Lejre hall (Fig. 8). So far, there is no conclusive evidence of the two building complexes being in use at the same time, but the possibility cannot be excluded.



Fig. 7. Aerial view of house IVab during excavation, seen from the north-west.

The ground plan of the house is marked with white plates (Photo: Fl. G. Rasmussen, Roskilde Museum).



Fig. 8. New hall found in 2009.
The oldest of three new halls is marked in white.
The Lejre hall (house IVab) is seen as a low turf wall
(Photo: Roskilde Museum).

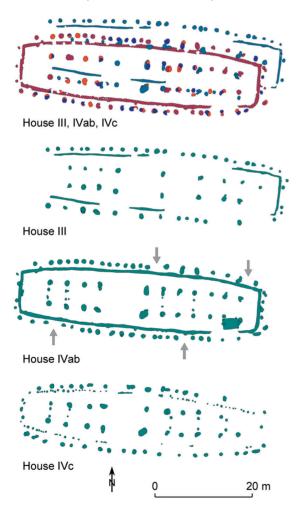


Fig. 9. Ground plan of houses III, IVab and IVc (Graphics: Roskilde Museum).

3.3 House III

In view of the chosen excavation strategy, it was decided not to investigate house III. Consequently, the description of this building can only be based on surface observations (Fig. 9). The building, with gables facing east and west, could be identified by a partly preserved wall trench and a line of external raking timber along the north wall. The remaining load-bearing construction, the internal roof-bearing posts and the external raking timber along the south wall, could not be distinguished directly, as the post-holes had been used again for the construction of house IV.

House III is located to the north-east of house IV, which is why it was possible to use the same post-holes for the construction of house IV. This seems to have been done as follows: the two rows of internal roof-bearing posts in house III are identical with the external raking timber along the north wall and the northern row of internal roof-bearing posts in house IV. The post-holes for the southern line of external raking timber of house III were used again for the construction of the southern row of internal roof-bearing posts in house IV. The way of re-using the post-holes suggested here would indicate that house IV was erected immediately after the demolition of house III, thus simplifying the task of reconstructing the huge building without changing its proportions.

3.4 House IVab and house IVc

In principle, these houses are identical with house III, but their state of preservation is far better. Consequently, and thanks to meticulous excavation, it is possible to give a more detailed description of the buildings, which are unique in Denmark. The house was reconstructed twice (Fig. 9). The first reconstruction, house IVb, made use of almost all the old post-holes; these two phases are therefore called house IVab. House IVc is the second reconstruction. The walls could be identified as rows of posts standing alone without a foundation trench. The north wall was located about 1 m to the south of the northern wall of house IVab, thus making it possible to place the external raking timber for this wall in the wall trenches of house IVab. The location of the south wall, apart from the south-west corner, is identical with the wall line of house IVab.

3.4. House IVab – construction principles

The external walls of the house can be identified by a trench, as much as 0.5 m wide, in which the foundations

of the walls were laid. The longitudinal walls are slightly curved, whereas the gables are straight. The building is 48.5 m long, 8 m wide at the gables, and 11.5 m wide at the centre of the longitudinal walls. The load-bearing structure consists of two rows of internal roof-bearing posts in combination with lines of external raking timber along the exterior of the building.

3.4.2 Interior construction

The two rows of internal roof-bearing posts form a three-aisled construction. There is every indication that these rows of posts curve slightly, so the distance from any internal roof-bearing post to the nearest wall is 3 m, although the uncertainty factor concerning the re-use of post-holes must be taken into account. The distance between the posts in each pair is usually 3.5 m but the pattern changes in a few places, probably due to the division of the house. The large number of pits makes it difficult to estimate the dimensions of the timber. The diameters of the pits vary from about 2 m down to 0.75 m, but most are around 1 m. The depth of the pits is usually between 0.50 and 0.75 m. A few of the most recent (IVc) imprints of posts or features in the soil have been preserved and thus reveal the dimensions of the timber they had held. In these cases, the width of the timber was between 0.15 and 0.30 m. The posts of the interior partitions are also part of the interior construction (Fig. 10). These were found in pairs, about 2 m apart, beween four of the sets of internal roof-bearing posts. Judging from these posts, the house was divided into perhaps six separate rooms.

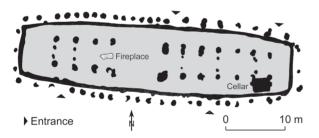


Fig. 10. The ground plan of house IV shows how the basic design of the building would have looked in its original form. Many of the post-holes were re-used when the structure was rebuilt and renewed.

Their shape and size therefore vary a great deal (Graphics: Roskilde Museum).

3.4.3 External raking posts

External raking timber could be identified as a regular row of post-holes placed at a distance of about 1.5 m from the walls, although the distance from the gable

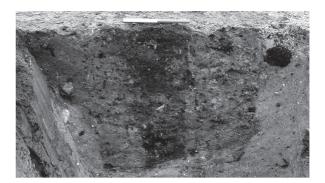


Fig. 11. Section of an external raking post of house IV (Photo: Roskilde Museum).

ends was only 1 m. There were 22 posts along each longitudinal wall, i.g. a raking post at each set of internal roof-bearing posts plus a raking post between each set. The distance between the raking posts is therefore 1.5 m, with the exception of the eastern part of the building where raking posts are only found with the internal roof-bearing posts. These post-holes had also been re-used and worn down. The "typical" post-hole is 0.75 m across and about 0.50 m deep (Fig. 11). It was possible on several occasions to observe imprints of post-holes in a good state of preservation, and thus to estimate the shape of the timber. The raking timber can therefore be described as planks, 0.50 m wide and 0.20 m thick, slanting with the broader side facing the wall. At each gable end there were three raking posts, placed at a distance of 1 m. It was not possible to find any imprints of these posts but, judging from the holes, they seem to have been smaller than the other raking posts.

3.4.4 The walls

In the south-western corner of house IV, in particular, it was quite easy to follow the line of the wall on the surface as an approximately 0.15 m wide stripe of dark humus in the light-grey soil of the foundation trench itself. During the excavation of the wall trench a feature was discovered, which to the knowledge of the author has not been described in previous publications. Beneath the 0.20-0.30 m deep wall trench, a row of pointed pegs was observed: these had been driven in up to 0.50 m below the bottom of the wall trench at regular intervals of 0.38-0.40 m (Fig. 12). There seems to be no doubt that the pegs were placed exactly along the wall line. It is more difficult to determine the function. From the excavation results alone it is not possible to say whether these pegs were a sort of wedge meant to secure the planks during the erection of the wall, or whether the wall planks themselves were pointed and had been driven into the subsoil.



Fig. 12. Section of part of the wall trench of house IVab with pointed pegs driven into the ground.

Grey: Stones (Drawing: C. Krause, Roskilde Museum).

3.4.5 The entrances

The wall trench was interrupted at four places by more deeply dug planks, which evidently indicated entrances (Fig. 10). The best preserved post-imprints show that the door frames were made of planks, 0.50 m wide and 0.20 m thick (Fig. 13). Three of the four doors (two on each side) were 1.5 m wide, whereas the fourth entrance, on the north-eastern side of the building, seems to have been a 2 m wide gate.

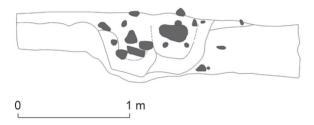


Fig. 13. Section of a door-post with two phases, house IVab. Grey: Stones (Drawing: C. Krause, Roskilde Museum).

3.4.6 Further structures connected with house IV

In the south-eastern corner of house IV, between two internal roof-bearing posts and the wall, is a sunken hut measuring 2.5×2 m and 0.5 m deep (Fig. 10). The structure has independent ridge posts at each gable end. This small building respects both the internal roof-bearing posts and the walls of house IV and must be part of it – possibly a cellar or storeroom.

In the western part of the house, between two sets of internal roof-bearing posts, an area could be identified that had clearly been affected by fire (Fig. 10). It may be the bottom part of a hearth, although this is impossible to prove. A flat circular pit (1.25 m across), full of stones made slightly brittle by fire, could be seen in the south-western corner of the house. Here, too, it is difficult to determine the connection with the building, but similar phenomena have been found in Viking Period houses at Trelleborg. In fact, this also applies to the storeroom.

3.4.7 Dating of houses III and IVab and IVc

Typologically, the great houses are almost a cross between the halls of the Viking Period with curved longitudinal walls and external raking timber, and the traditional three-aisled longhouses with two rows of internal roof-bearing posts.

Many of the post-holes contained animal bones. Pottery was also found in some of the holes, but only occasionally were there artefacts suitable for dating purposes. From the wall trench of house IVab came a comb of a Viking Age type and in one of the post-holes of the wall line of house IVc were some sherds of soapstone vessels. The general dating to the Viking Period is not contradicted by the more anonymous find material.

Ten ¹⁴C-dates were obtained from samples out of the post-holes of house III, house IVab, and house IVc. The dates can be divided into two groups – one around AD 660 and the other around AD 890 (Christensen 1993, 173 Fig. 13). Such remarkable concurrence, as is the case in both groups, may reflect massive building activity on the site, i.e. the periods of the construction of some of the huge buildings.

Most of the samples were taken from "re-used" post-holes, which of course creates the problem of which of the buildings is actually dated by each sample. One of the samples in the older group of dates was taken from a post-hole belonging to the northern row of raking timber of house III, and can therefore, without any doubt, be connected with this building. This is also the case for a sample in the younger group that was taken from one of the southern raking posts of house IV. The other samples came from post-holes that were used for both houses. It should be mentioned, however, that most of the samples in the older group originate from the stratigraphically oldest post-hole phases and, for that reason, are more likely to belong to house III.

The bones have earlier dates but, theoretically, may have come from an earlier settlement with the consequence that the huge buildings are wrongly dated. It should be noted, however, that the bones from house III and IV had sharp edges and were without any trace of disintegration or animal gnawing that might indicate that the bones had been lying on the surface for a long time. It is, therefore, reasonable to trust the older series of dates and place the erection of the oldest house (house III) in the late 7th century. The younger series of dates may indicate the time when one of the phases of house IV was erected. The conclusion must be that the huge hall stood in this part of the Lejre settlement from the end of the 7th century until sometime in the 10th century.

3.4.8 House IV – summary

This was an extremely large house covering an area of about 500 m² (Fig. 10). The heavy internal roof-bearing posts in combination with the almost equally heavy raking timbers give the impression that its construction was doubly secured. On the other hand, the preserved post-imprints show that the dimensions of the timber are not excessive, e.g. the raking posts are somewhat smaller than the large post-holes might indicate. This is also true of the internal roof-bearing posts. The whole building was actually far less massive than the huge post-holes in Fig. 9 would seem to indicate.

It is possible to calculate the degree of inclination of the raking posts from their imprints in the soil and thus calculate the height of the walls, if it is assumed that the raking posts supported the structure at the point where the roof and the wall met. While taking the uncertainty connected with such calculations into account, the height of the walls may be estimated to have been between 3.5 and 4 m. Naturally, the large number of load-bearing elements and the height of the walls raise the question of whether the building had a "second floor", or whether the purpose of the many posts was simply to support the huge roof construction. The location of the partition walls indicates that the house was divided into five or six sections. The four entrances are placed in accordance with the partition walls and each leads into one of the sections. A further division of the house seems likely, but cannot be traced directly.

Of course, the function of house IV must be seen in relation to the other buildings in the settlement area. If the house is viewed separately it becomes difficult to determine whether the building was meant for habitation only or whether it had additional, e.g. agricultural, functions. However, nothing points in the latter direction as no partitions indicating a cowshed or structures indicating other farming activities have been found. The sunken hut in the south-eastern corner must have been a storeroom.

The location of the entrances in the longitudinal walls differs somewhat from the usual "rules" for houses of the Trelleborg type, which usually have entrances in the gable ends as well as one entrance in each longitudinal wall. In such houses, the large central room (the hall) is usually regarded as the centre around which the building was erected. The largest of the rooms in house IV is at least 100 m², but may have been 200 m² if judged from the partitions. Comparing it with the Trelleborg house-type again, this room must have been the centre of the building with the entrance in the centre of the northern longitudinal wall. Each separate section of the building had an entrance of its own. This implies that the house served various purposes, such as habitation, storage, assembly hall, etc. Distinctions probably existed not only between the different functions of the building but also between its users, physically as well as socially – masters and servants, one might say.

3.5 Houses XVI-XX

The most remarkable of the other house groups was built on the central part of the hill, immediately next to its rather steep eastward slope (Christensen 2007, 109-114). These houses, like houses III/IV and houses V-VIII, occupied the same place over a long period of time, a fact that can make it difficult to distinguish between large-scale repairs and actual new buildings. At least four times, completely new houses were built that had almost identical dimensions, about 42 m long by 6-7 m wide (houses XVI-XX – Figs. 6 and 14). Where entrances could be observed, they were located opposite one another in the building's east or west gable end, and a third entrance was in one of the long sides. Raking timbers placed at an angle outside the exterior walls could clearly be detected in the two buildings of latest date. Also evident were pointed pegs, partially inserted into the subsoil as part of the wall structure.

Traces of three smaller buildings (houses XXII-XXIV – Fig. 6) were found on the gentle northerly slope of the hill, aligned in such a manner as to make it unlikely that they were there concurrently – another example of the tendency for new houses to be erected on the sites

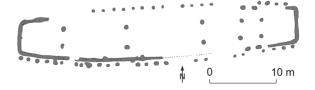


Fig. 14. Ground plan of house XVI, the youngest of the series of houses located on the central part of the hill, 10th century AD (Graphics: Roskilde Museum).

of their predecessors. The two buildings of earliest date were traditional longhouses with three aisles and post-built walls. The one of latest date was quite another type of structure. It had no roof-bearing posts, but the location of its walls was evident from a trench along which traces of raking timbers were found.

The excavations became quite complicated at the bottom of the flat depression between the southern hill with its already excavated houses and the northern hill where exploratory trenches had also revealed numerous traces of Lejre's past. It could be determined that houses had been built in this topographically odd place between the two hills. The dimensions of the houses were impressive (approximately 40 m long by 8 m wide). The practice of renewing houses on the same spot had been followed here, too, even to the point of re-using the same holes for the roof-bearing posts. Furthermore, the wall trenches of two or three houses followed more or less the same course.

Also significant was the discovery of two parallel trenches running east-west through the whole excavation area and, at one point, disturbing houses XXX, XXXII, and XXXIII (Fig. 6). One of the trenches was nearly 1 m deep and bore the imprint of stout planks. When its course was pursued in both easterly and westerly directions, it proved to be a fence or palisade 150 m in length. At each end, it terminated in a stout corner post before the trench turned north. There was thus evidence that an area had been fenced in - not the part of the settlement complex already excavated, but rather the built-up area revealed by the exploratory trenches on the northern hill. This northerly area will be discussed briefly below, but first let us turn back to the southern hill and the many house sites that were discovered there.

3.6 An unchanging pattern

Even though traces of more than twenty houses have been found here, scarcely more than seven or eight buildings would have been standing at any one time because, as already mentioned, the buildings on the central part of the hill were rebuilt several times on the same spot. It is quite striking to see that a strict construction pattern was maintained over such a long period of time (the 8th to 10th centuries). Although the buildings in the various groups of houses vary somewhat in their construction, there is nevertheless a certain similarity – among other things in the dimensions of the houses. The similarity is such as to lead to the assumption that the function or functions associated with the individual buildings were also precisely defined. Furthermore, some of the buildings deviate from the traditional east—west orientation.

This is true of the large halls (houses III/IV) and houses XXXII-XXXIV. This may be due to the topography of the terrain, which had made it necessary to "turn" the buildings a little in order to have as flat an area as possible on sloping ground.

In any event, the Leire settlement displays some peculiar features in this regard. Among the newly discovered buildings, houses XVI-XX attract particular attention. In view of the fact that buildings of impressive dimensions were placed at the most conspicuous spot in the settlement complex, consideration ought to be given to what functions might have been attached to this spot. It seems appropriate to call attention to Snorri's description of the royal manor at Nidaros, with several large buildings and a sizable household (JENSEN & KYRRE 1948). The houses at Lejre undoubtedly had room not only for warriors, housecarls and servants but also for guests from near and far. How this and other functions might be ascribed to the various buildings that have been excavated can perhaps be illuminated by further study of their construction and by the finds.

The fixed pattern perceivable in this part of the Lejre settlement over a long period of time leaves the impression of an almost palpable absence of change. Whatever may have happened in the way of ideological or social upheavals during the Viking Age, whatever family feuds and struggles for power there may have been, none of this history has left visible traces in Lejre. When change did come, however, it brought a thorough transformation. The buildings on the hill seem to have been completely dismantled. The only building that remained there was a single large pit-house.

Finds from that house – along with finds from the pits, plus a partially preserved cultural layer covering parts of the dismantled buildings – date this transformation. It took place around AD 1000. The religious changes brought about by the arrival of Christianity must have played an important role. The finds also show, however, that despite the founding of Roskilde as a center of royal and religious administration, Lejre in no way disappeared from the map.

Among the many finds were, quite surprisingly, some hard-fired glazed potsherds (Fig. 15). The technology required to produce this kind of tableware was not available in Denmark before the middle of the 13th century. At first, they were taken to be imported ware – something which, in itself, would have been quite unusual for that period. However, closer inspection revealed that they were made of local clay, though they were clearly modelled on an English type of ware. In the town of Lund – located in Skåne, then part of Denmark – similar finds have come to light. The dating of these



Fig. 15. Glazed ceramics in English technique but Danish raw material, from the 11th century AD (Photo: Fl. G. Rasmussen, Roskilde Museum).

ceramics to the first half of the 11th century documents connections between Denmark and England. The two countries were linked politically at that time by the conquests of the Danish king Swein Forkbeard and his son Cnut. These ceramics are therefore an early example of a technology transfer. This fact is, of course, interesting in and of itself, but these high-status finds also show that, in spite of profound social changes, Lejre maintained its position as an important settlement.

3.7 Vestiges of a large farm: the northern hill

The stout fencing that had left an imprint in the northern part of the area being excavated could also be traced in the exploratory trenches that had been dug in order to determine the full size of the whole settlement. It

is now possible to estimate the size of the settled area at approximately 150x200 m (i.e. about 30,000 m²), covering a large part of the northern hill. The exploratory trenches further revealed that buildings had been erected along the fence with the same basic layout as those on the southern hill.

In order to obtain a clearer picture of this complex – without digging – the area was scanned with magnetometers in 2004 and 2007, with the result that several interesting structures appeared on the screen (Fig. 16). The contours of large buildings became visible, with dimensions that did not seem to be any smaller than those of the halls on the southern hill. These buildings, too, appear to have been rebuilt on the same spot and were centrally placed high up on the hill. Other possible buildings were also identified, plus (to the east) a structure that was at least 80 m long. Its function is unknown, but it could be part of the fence or palisade running in an easterly direction.

This complex cannot be dated without being excavated. A conservative guess – based on stratigraphic observations in connection with the course of the fencing in the excavated areas as well as on the results obtained from the exploratory trenches – would be that the settled area on the northern hill was partially contemporaneous with the southerly settlement but continued in use into the 11th century, surrounded by a stout palisade. The late finds from the southern hill can therefore be linked with this northern complex. It should be noted that, in all

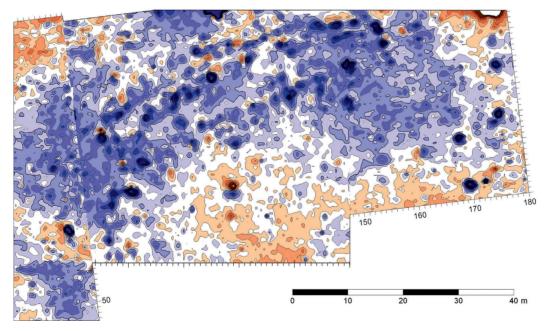


Fig. 16. Geophysical scanning within the large fenced-in area to the north of the Mysselhøj hall complex has revealed structures that can be interpreted as – among other things – large buildings (Data screen: T. Smekalova).

likelihood, the place-name "Kirkehøj" comes from this fenced-in area. Future excavations must answer these questions but, already, the continuity of the settlement

complex at Lejre into the 11th century – and thereby also beyond the conversion to Christianity and the formation of the Danish state – seems to be established.

4 Fredshøj: the Lejre of the 6th century

4.1 The site

In 2000, yet another site was located some 500 m to the north of the Mysselhøjgård settlement (Fig. 5). Between 2002 and 2005, excavations carried out here, at Fredshøj, revealed some interesting structures and finds, mainly from the 6th and 7th centuries (Fig. 17 – Chris-TENSEN 2007, 124 note 14). The topography is very reminiscent of that of the settlement area at Mysselhøjgård. At Fredshøj, too, a noticeable tongue of land stretches out into the Leire river valley, and steep slopes towards the east, south, and north place natural limits on the settlement area. Only towards the west does the terrain run on smoothly, but the extent of the settlement in that direction could be determined by exploratory trenches and excavation grids. The area that was investigated covered at least 18,000 m². Within this area there were many features and structures, though not as many as at Mysselhøjgård. Here, some of the most important features that helped to characterize this site will be presented, especially two unusual buildings, a large pile of cooking stones, and the cultural layer.

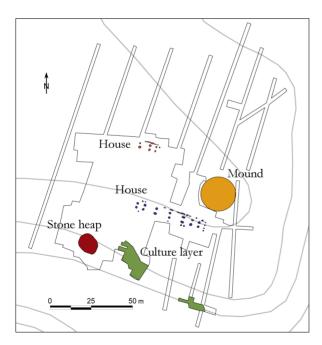


Fig. 17. Plan of the excavations at Fredshøj showing the most important structures (Graphics: Roskilde Museum).

4.2 The houses

Just about in the center of the top of the hill, the remains of a building were found that was small but quite strongly constructed (Fig. 18). Three pairs of roof-bearing posts were placed at irregular intervals, so that the distance between the western pair and the middlemost pair was 6.3 m, but that between the middlemost pair and the eastern pair was only 3.8 m. The post-holes had been dug up to 1.5 m below the surface of the excavation and were about 1 m in diameter. Most of the northern wall and a single post at the eastern gable end were preserved, enough to demonstrate that the building was 14.5 m long and 6 m wide, with long walls that were slightly curved.

In parallel alignment with that house and 30 m to the south, were the remains of a building of considerable

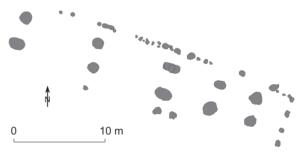


Fig. 19. Ground plan of the c. 47 m long house or hall at Fredshøj (Graphics: Roskilde Museum).

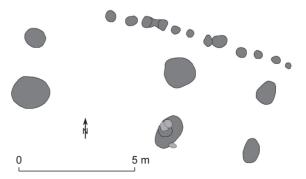


Fig. 18. At Fredshøj, only the northern wall of the small, solidly constructed, house has survived (Graphics: Roskilde Museum).

size: a house at least 45 m long and about 7 m wide, with roof-bearing posts of the same girth as those in the smaller building (Fig. 19). In this instance, too, the northern wall and the eastern gable end were the best-preserved parts of the wall construction. Stout corner posts could be discerned at the gable end, as well as door posts in three places. It is worth noting that this large building, which measured almost 320 m², was located on the edge of the steep southern slope and the even greater drop towards the east, and would thus have had a prominent position in this hilly landscape.

There is striking similarity between this hall at Fredshøj and buildings XVI-XX at Mysselhøjgård. When the site at Fredshøj was demolished and moved in the first half of the 7th century, an almost identical building was erected at Mysselhøjgård. Perhaps this, and not the great hall at Lejre, was the most important building as far as Mysselhøjgård was concerned.

4.3 The stone heap

A large heap of stones was found 30 m to the south of the larger of the two houses. In the centre of the heap, the stones were cracked by fire (Fig. 20). The whole heap measured about 16 m in diameter and was about 0.75 m high at the center. Excavation showed that it can hardly have been a casual dumping of trash: if it was not a specific structure, it was an intentional accumulation or collection of fire-cracked stones or cooking stones. The stones were not blackened by soot so they must have been heated either indirectly or at some other place. Similarly, this part of the pile did not

contain much charcoal and the underlying soil had not been affected by fire. The finds here were limited to some bones and a few ceramic sherds, a combination that appeared to be fortuitous

4.4 The pits

Around this heap of stones, a number of pits had been dug and a great number of animal bones were found in their infill. Moreover, a red discolouration of the natural subsoil indicated that the sides and bottoms of many of the pits had been exposed to fire. While it is not possible to demonstrate a direct connection between the heap of stones and the pits, it is worth observing that there was no structure embedded in the stone heap and no pits were found beneath it. Thus much speaks for the pits being concurrent with the heap, and for their having been dug there in conjunction with activities connected with the heap.

4.5 The cultural layer

On the same steeply sloping terrain, just to the east of the stone heap and the pits, there was a layer of soil containing material finds. It looked like a dark/black stripe about 20 cm deep embedded in a thick layer of brown earth. There is much evidence to suggest that this layer of earth had been leveled by plowing on the hilltop, perhaps as early as the Middle Ages. The cultural layer, which covered an area of about 600 m², proved to contain a surprisingly large and varied assortment of finds. In order to maximize the results of the



Fig. 20. The stone heap at Fredshøj during excavation (Photo: Roskilde Museum).

excavation, it was decided to dig in a systematic grid of 1 m² squares (in all, 109 m² were excavated) and to screen the cultural layer with water through a 2-3 mm sieve. This was a very meticulous and time-consuming process that quickly proved to be worth the effort.

There were thousands of animal bones and, thanks to the screening, this vast quantity of faunal material yielded a significant number of fish bones as well. There were also what can be described as common settlement finds, such as tools and sherds of clay vessels. What has attracted the greatest attention, however, are the objects – mostly broken – that can hardly be viewed as ordinary trash.

Particularly noticeable was a series of clay vessels with an apparently unique ornamentation. No parallels have yet been found for them, either in Denmark or in neighbouring countries. The vessels are unusually well fired and, in some cases, the decoration consists of a stamped impression on the surface. On others, the decoration is made up of incised designs. The question of whether these vessels were imported ought to be considered, of course, but there is nothing in the manner of their production to suggest this. On the other hand, a few potsherds are from vessels that were wheel-turned and hard-fired. These must have been manufactured outside the North Germanic region, most probably in workshops in the kingdom of the Franks.

The minute screening of the soil also resulted in the discovery of small fragments of red glass. These must either have come from precious objects that had been broken, or were cast aside during the manufacture of such objects. The same can be said of some pieces of gold thread and gold foil that likewise came to light during this systematic excavation. Finally, pieces of drinking glasses, glass beads, and gilded mounts were found, objects that point to the presence of people of high status.

4.6 The mound

Just a few meters to the north of the large house at Fredshøj is a mound popularly known as Møllebjerget (Mill Hill). Until about 1920, a windmill that dated from the 1880s had stood there. In the Lejre Archive of Local History is a written account that tells of the discovery of a bronze sword in the mound at the time when the mill was built. It then so happened that during a recent systematic examination of the collection of artefacts at Ledreborg Palace, the bronze sword was rediscovered. It must have come from a grave in the mound that had been erected about two thousand years before the great house of the Germanic Iron Age was built. The proximity of these two structures can scarcely be an accident: if, in the 6th century, that ancient barrow had not been wanted as a neighbour, it would have been demolished.

5 The hall and the hørg

5.1 Written accounts

With the discovery of the settlement complex at Fredshøj, the history of Lejre can be traced back to a time before written accounts form a literary tradition about Lejre – in other words, to that indefinable period known as the Age of Legend. The question arises again, with even greater insistence, as to whether these legends might actually have told the truth. It must still be maintained, nevertheless, that history is not written on the basis of legends. Weaknesses and gaps in the written sources are not corrected by the discovery of the settlement area at Fredshøj.

On the other hand, it is tempting to follow in Beowulf's footsteps. Doing so would probably mean getting lost, for where that hero moves is the limitless land of the fairy tale. Of course, most of the poem's action takes place in Denmark, reached by sailing from the land of the Geatas, but the poem is almost devoid of placenames and localities. In fact, Lejre is not even mentioned by name, so it is first and foremost the Scyldings – whom the Scandinavian sources place, with great

assurance, at Lejre – who allow us to connect Beowulf with this place. In any event, in the drama of Beowulf there are some set pieces: the hall and the $h \omega r g$. These can also be recognized from Eddic poetry, the sagas, and the chronicles. In all probability, they were part of the material world of the Germanic Iron Age and the Viking Age.

5.2 House or hall?

It came into his mind
That he would order his people to build
a great hall, a mead hall bigger
than the children of men had ever known.
(Beowulf 67b-70; after Christensen 2007, 121 ff.)

That was the great building that the Danish king Hrothgar built:

In due time – quickly, as it seemed to people – it was completely finished, the most magnificent of halls; he named it "Heorot".
(Beowulf 76b-78)

And then again:

The hall towered up high, broad-gabled ... (Beowulf 81b-82a)

The house on the hill at Fredshøj was at least 45 m long, more likely 47 m, and must therefore be classified among the very largest buildings known from the 6th century in Denmark. With its stout posts, as evidenced by the holes they left, and its position on the top of the hill with a panorama view over the surrounding countryside, this building was indeed large, high, and broad gabled.

The hall is a well-known concept in early Nordic literature, even though nothing in this literature yields concrete information that can be used in interpreting archaeological finds. Thus, "hall" can mean either an individual building or no more than a room in an ordinary farmhouse, one that is used on certain occasions as a hall. In the archaeological context, the discovery of a building in the large central area at Tissø, in West Zealand, is worth mentioning (Jørgensen 2003, 2005): in age and appearance this building provides an almost exact parallel to the house at Fredshøj.

5.3 The stone heap or *hørg*

The stone heap is a puzzle as far as both its structure and its purpose are concerned. Various attempts have been made at one time or another to interpret these piles of cooking stones, which are known in various forms and in several prehistoric periods, the later Bronze Age in particular. No firm explanation can be put forward here, but the excavations at Fredshøj seem to indicate a

synchronicity between the stone heap, the surrounding pits, and the nearby cultural layer, so it seems natural to let these elements form the basis of an overall interpretation.

At times they [the Danes] offered sacrifice At pagan altars ...
(Beowulf 175-176a)

The high places of the gods, at which the Danes are said to sacrifice in Beowulf, are called *hærgtrafu[m]*: translated directly this word means *hørg* or *tent*. How such a structure looked, no one knows, but the word *hørg* is particularly interesting in this connection. Like the hall, the *hørg* is a well-known term in the literary tradition. Briefly, it means "a visible heap of stones beneath the open sky", and it was at such "stone altars" that sacrifices were made to the gods.

In Hyndluljóð (The Lay of Hyndla) a *hørg* is described as follows:

He's made an altar for me, heaped up with stones; now that rubble has turned to glass; he's reddened it anew with the blood of kine. (after Christensen 2007, 123)

What the Danes sacrificed at the open-air stone altars is not known, but it seems natural to link the heated stones, the innumerable animal bones in the pits and the cultural layer, plus the peculiar material objects found in the same layer, and to interpret this part of the settlement area as the place where pagan acts of sacrifice took place.

6 Yule at Lejre?

From an archaeological perspective, the settlement at Fredshøj was short-lived. The material finds and house sites intimate that, by the first half of the 7th century, this previously inhabited area had been abandoned – or, perhaps, to be more correct, had been demolished and moved. Here, another look should be taken at the settlement area at Mysselhøjgård. Even though the two areas differ in many ways, it still seems that two prominent features at Fredshøj are found again in the later settlement at Mysselhøjgård: a hall complex and a stone heap, the structure of which is certainly quite different from the one at Fredshøj but otherwise seems to express the same function (Fig. 21). The topographical positioning of the two elements is nearly identical, with the heap situated at the bottom of the hill and the hall at the top.

Use of the stone heap at Mysselhøjgård seems to have ceased towards the end of the 10th century, probably when the settlement area was restructured. Moreover, if the heap is to be construed as a *hørg* where sacrifices were made, this could be the tradition to which Thietmar von Merseburg refers in his account of sacrificial rites at Lejre (TRILLMICH 1970).

However, the bones of humans, dogs, or horses are not dominant in the faunal material; in fact, no human bones at all have been found near the stone heaps at Lejre. On the other hand, overwhelming numbers of bones of ordinary domestic animals were found, with an additional yield from hunting and fishing. Thietmar sets the time of year for sacrificial acts in the period "when we celebrate the Lord's birth". A suspicion might arise that the



German bishop had heard of the Northmen's feast at the midwinter solstice, called "Yule". Indeed, as recently as a single generation ago, it was quite common for butchering to take place at Yule on Danish farms.

Left: Fig. 21. The stone heap at Mysselhøjgård (Photo: Roskilde Museum).

One of the most remarkable features in the Mysselhøjgård settlement, and maybe the real reason why the site was so easily recognizable on the surface, is a large heap of small stones, discoloured by fire and mixed with soot, ashes, and charcoal. It is 20 m wide, up to 1.5 m high, and at least 40 m long. This heap of stones was clearly stratified, thus indicating that it had accumulated over a long period of time. Thermoluminescense dates from the top and bottom of the heap support the theory of a long period of deposition as they include dates from the later Germanic Iron Age and the Viking Age. The heap is therefore contemporaneous with the other settlement finds in the area (Christensen 1991, 179 Fig. 20). This heap, too, should be interpreted as a hørg.

7 Lejre – the guardian of tradition

Investigation of the periphery of the Bronze Age mound has not revealed either structures or material finds that can be connected with activities at the 6th century settlement at Fredshøj. As already mentioned, however, it is hardly by accident that the large house found there directly abuts the Bronze Age mound. This can be taken as a visible expression of a desire on the part of the family (or person) who erected that large edifice to dramatize a connection with the ancestors, thereby legitimizing the claim to power by letting the barrow become a kind of extension of the monumental building. This is not an unimportant point, for neither the hall, nor the mound, nor the hørg (or stone heap) was an innovation in 6th century Denmark. The roots of these things must be sought in what was already the distant past by the time these settlements at Lejre were built. In the Bronze Age, many hundreds of years before, large halls were built and monumental barrows erected. Heaps of fire-cracked stones or mounds of cooking stones also appeared in that period. With the transition to the Pre-Roman Iron Age around 500 BC,

these types of structure disappeared, or their presence was greatly reduced.

With the discoveries in the Lejre river valley - with the hall and stone heap at Fredshøj on the western side of the stream and Grydehøj, which was more or less contemporaneous, on the eastern side – such features are quite effectively back on the map of archaeological finds. A conscious choice of primeval symbols must have been made when the person who built the earliest hall at Lejre positioned it next to a Bronze Age barrow. Much hints at there having been a sense of the importance of making a connection with the past. The idea might be entertained that the archaeological discoveries at Fredshøj do not pertain to the beginning of Lejre's Golden Age, but rather to the beginning of the end of it - that, in fact, the five hundred years of Germanic Iron Age and Viking Age prehistory that are the subject of this paper constitute the conclusion of a long tradition, the origin of which is still unknown.

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