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Helgö in the shadow of the dust veil 536-37

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ABSTRACT

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In this paper, the implications of the dust veil in 536-37 AD at the site Helgö in Lake Mälaren are investigated. One dramatic change at Helgö was the apparent abandonment around 530 of the Migration Period casting of bronze artefacts in Building group 3. A vast accumulation of casting moulds and crucibles was found here. The magnitude makes this context unique in northern Europe. Usually, the very fine-grained quartz sand used for the mould and crucibles was reused, and thus it would not accumulate. Another incident is that the open-air offering place, known to be in use already from the Later Roman Iron Age is abandoned. From this point, the cultic events are performed indoors in a large hall. Further, from this period onwards, the cemeteries on the site are commenced, indicating that the site now becomes permanently inhabited. Finally, although previously not known as a grave gift, bread is regularly found in graves.

KEYWORDS: Dust veil, 536/537, abandonment of casting place, leaving an open air offering place, cultic events indoors, permanent inhabitation, bread as grave gift

Helgö in the shadow of the dust veil 536-37

Inspired by an article by Bo Gräslund (Gräslund 2007, cf also Gräslund & Price 2012), Daniel Löwenborg (2012) has investigated how the dust veil in 536-37CE may have influenced the Mälär Valley in Sweden using the frequency of settlements and graves as evidence. In his comment to the paper, Näsman (2012) has referred to several reasons why one should be cautious using catastrophes as explanations for historical developments. Nevertheless, with Näsman's sceptical approach in mind, I think that it could be of certain interest to investigate the archaeological material from Helgö vis-à-vis the catastrophe hypothesis.

In comparison with many of the places that Löwenborg presents, Helgö is more completely excavated regarding both settlements and graves. Furthermore, as I have exemplified elsewhere (Arrhenius 2011), Helgö was probably a place where astronomical observations were used to situate the settlement, among other purposes. Thus, the settlement was located on a slope facing the north with a steep mountain ridge to the south. From the three building groups it is possible to follow the sun rising above the mountain ridge from the sunrise in the east to the sunset in the west and quite certainly, a darkening of the sun would have been observed and seen as extremely significant.

One dramatic change at Helgö is the apparent abandonment of the Migration Period casting of bronze artefacts in Building group 3. Located in the eastern part of the settlement, this building group showed a concentration of jewellery casting in workshops and a massive accumulation of casting moulds and crucibles in a more than one metre thick layer. The magnitude of these layers makes this context unique in northern Europe (K. Lamm 2008). On archaeological sites, only a few pieces of moulds and crucibles are normally found in settlements. To quote only a few examples, Migration Period

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settlements exist from the Mälaren area (Vårby, see Ferenius 1971, 110ff and Bäckby, see Magnus 2008)) as well as from northern Sweden (Trogsta, Högom and Gene, see Ramqvist 1983, 178 ff) and Öland (Bo and Ormöga, see Beskow-Sjöberg, 1977, 113, 119) with finds of pieces of moulds and crucibles, albeit only in limited numbers. This was also the case at Helgö in Building groups 1 and 2, which means that the accumulation in Building group 3 is outstanding. The material for the casting moulds and crucibles consists of clay with a high portion of extremely fine-grained quartz sand (Hulthén 2006). As pointed out by Hulthén (2006), who also recognizes chamotte in the mould material, this substance can easily be reused and therefore most probably would not be accumulated, given that this quality of sand is not easily obtained. An advantage to reuse this material is also that any kind of organic contaminations would have been burnt off. The attractiveness of the material also indicates that the abandonment of the casting place must have lasted for some years to allow the ground to be fully covered by turf, thus preventing the material to be reused later.

Most of the jewellery made in the casting moulds seem to have been bronze jewellery, ornamented in East Scandinavian style I. Svante Fischer and Helena Victor (2011, 89) have carried out a careful examination of the chronology of the jewellery cast in the moulds, concluding that the latest moulds are from around 530, which well corresponds with the date for the dust veil. This means that the production time was around 530, whereas the deposition in graves found in the Mälaren valley could have lasted until 570. This circumstance makes it noteworthy that no jewellery with East Scandinavian style I have been found in the cemeteries at Helgö. This may indicate that the cemeteries commenced only when this kind of castings had ceased to be produced at Helgö, cf below.

As I have pointed out, the building technique frequently used in the workshops in Building group 3 is small log-houses without roof-supporting posts (K. Lamm 1984, 84, see also Wigren 1984, 87, buildings A and D), a technique typical for the areas east of the Baltic. This would indicate that people working with the casting came from eastern Europe (Arrhenius 2011), in which case the dust veil may have caused them to quickly return home, leaving all raw materials behind.

In addition, a gold treasure found in the workshop area (K. Lamm 2008, 22) also indicates a quick abandonment. The extent of time during which the workshop was abandoned is not documented, but finds from the upper layers indicate that later, in the Vendel and Viking Periods, the place was used for advanced steel production. In another place within Building group 3, some few fragments of moulds with ornaments in Salin's style II were found, but these are clearly separated from the accumulated moulds and crucibles from the workshop producing East Scandinavian style I.

Another point used by Löwenborg to trace the catastrophe is the chronological frame and frequency of graves in the cemeteries. All the cemeteries on Helgö are very small with at most around 50 registered graves. Five of the cemeteries on Helgö are localized to the north of the settlements. Only one cemetery (150/119) is situated south of the settlement (fig 1).

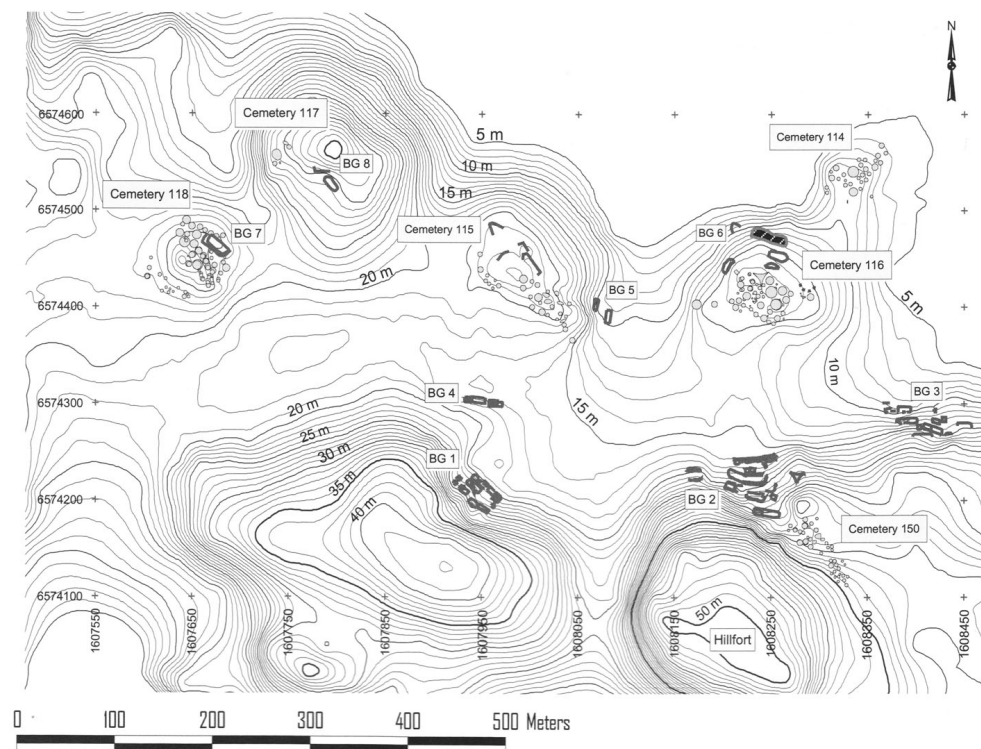


Fig. 1 Map of ancient monuments investigated during the excavation campaigns on Helgö. Drawing: L. Kitzler. After *Excavations at Helgö XVII*.
http://www.arkeologi.uu.se/digitalAssets/154/154643_fig-1-arhenius.jpg

The frequency and chronology of the graves is by no means a mirror of the settlement. Thus, the earliest building consisting of a longhouse placed on a terrace situated furthest up on the slope, facing north, is dated to the Late Roman Iron Age, whereas the earliest graves are all from the later part of the Migration Period. In addition, the large place for offerings has dates from the Roman Iron Age.

In addition to the four main cemeteries on the northern side of the bay, where the harbour was localized opposite the excavated Helgö settlements, there is a small graveyard no 117 (around 10 stone settings built from large boulders), which gives the impression of being from an earlier date, possibly Pre-Roman (Reisborg 1982). This could be the original permanent settlement of the island, facing south. The four main cemeteries, 114, 115, 116 and 118 contain altogether less than 150 graves, consisting of small mounds or stone settings, all with datings belonging to the time covered by the later part of the excavated site.

On the site itself, there is one cemetery (Raä 150/119), also consisting of small mounds and stone settings, altogether 41 graves placed south of Building group 2 along a road leading to the building group. This grave field is completely excavated (Lamm 1970). Of the four cemeteries to the north, 114, 115, 116 and 118, one (no. 116 with 44 graves, Sander 1997) is more or less completely excavated, whereas on cemetery 115, only one grave (from the

Vendel Period, Melin 2001) is excavated. On cemetery 118, 35 of 52 graves are investigated (Melin 2001). The graves in this cemetery all belonged to the later Vendel Period and the Viking Age. The remaining un-excavated graves gave no indication of being earlier than this.

Cemetery 114 is situated between the shorelines 5-10 m above sea level on a little headland in Norrsund and is therefore most probably from the Late Iron Age.

As mentioned above, it is most noteworthy that there is no evidence in the cemeteries of graves earlier than the Late Migration Period. Many of the Migration Period graves on cemetery 116 were found below later graves, obviously owing to lack of space. The cemetery on the site, no. 150/119 did not have this density, and here one could see the development of the cemetery from the earliest grave in the northwest to the latest in the southeast.

The possibility that the missing graves from the Roman Iron Age and Early Migration Period could be placed on a hitherto unknown cemetery is very small, as the area has been extensively exploited in modern time with extensive building activities, and together with several archaeological registrations, this makes such a possibility very unlikely. There could of course be some still unknown chamber graves, but if they exist, they would not fill the existing gap, judging by other places where as a rule, such graves only exist in a very small number.

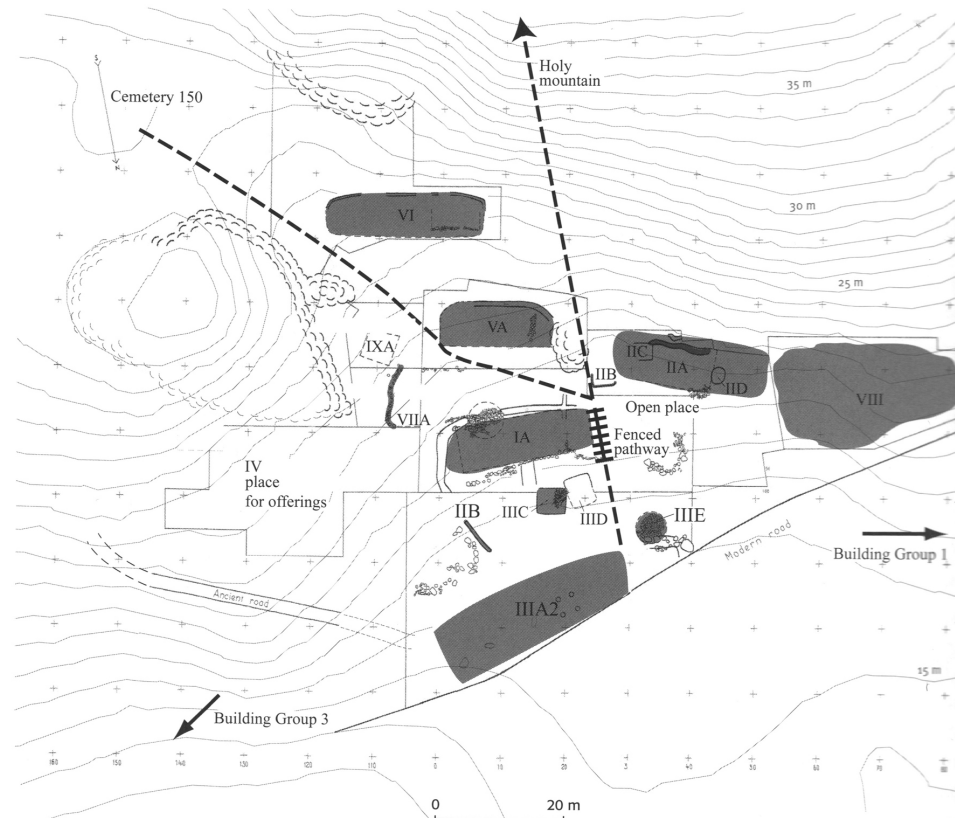


Fig. 2 Building group 2 AD 500-800. Drawing: Arkeobild. After *Excavations at Helgö XVIII*
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Thus, in my opinion, the most trustworthy explanation for the missing graves is that before the Late Migration Period, the place was only visited on special occasions at sacral events and therefore, the visitors were buried at their homesteads.

Before the discussion of why the function of Helgö changed in the Late Migration Period, I will also mention some other changes. Thus, it seems that the construction of the two large Halls, Foundation IA and IIIA2 also occurred in the Migration Period (fig 2).

For Foundation I A, the date for its construction seems to be in the Late Migration Period, whereas Foundation IIIA2 is somewhat earlier. The many finds of saddle querns (10 in total) placed in the postholes in Foundation IIIA2 indicate that the building was constructed when the use of saddle querns had been replaced by rotary querns. Six of the 10 fragments of rotary querns are found on the offering site at Foundation IV, where bread was obviously an important sacrifice. The find of a fibula with the shape of a bird's head with a curved beak from the fifth century, fig 3 provides the earliest dating of the building. However, since both hall buildings are aligned and resembling each other very closely, the time gap between when the buildings were erected seems not to have been very extensive. There is no direct entrance between the two halls, e.g. the entrance to the southwest of the Hall IIIA2 was connected to a fenced pathway leading to the mountain ridge passing the western entrances of Hall I A.

Before the construction of Hall IA, it seems likely that there was an open place below Foundation IV, where people could gather and take part in the rituals on the large offering site on Foundation IV (fig 4).

The large offering site on Foundation IV, placed on the easternmost part of Building group 2, below the mountain ridge on a stony ledge, had been abandoned. A final date for this abandonment is the building of a triangular stone setting on the heavy cultural deposit at the beginning of the Viking Age. However, the offerings probably ceased much earlier according to the datings obtained by the organic sacrifices. The sacrifices consisting of birch-boxes, resins and bones from meat deposits are dated in 21 cases, providing datings from the Late Roman Iron Age to the Migration Period, three cases of which are earlier than the sixth century. One dating from the lowest level has a centre value of 800+-. As all other datings from this level are from the Roman and Early Migration Periods, this dating is probably from a dug down deposit. Two bone deposits from the upper level have a centre value of 500-600 AD.

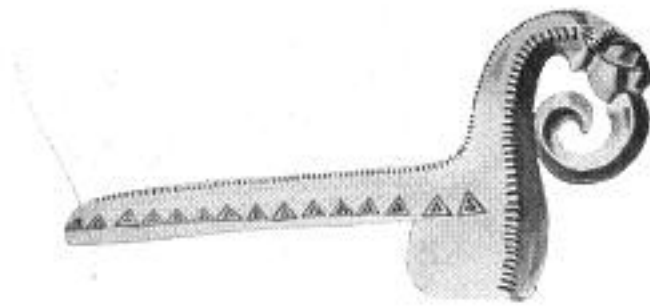


Fig. 3 Gilded brooch found in building IIIA2. 2:1 Drawing: B. Händel. After *Excavations at Helgö III*
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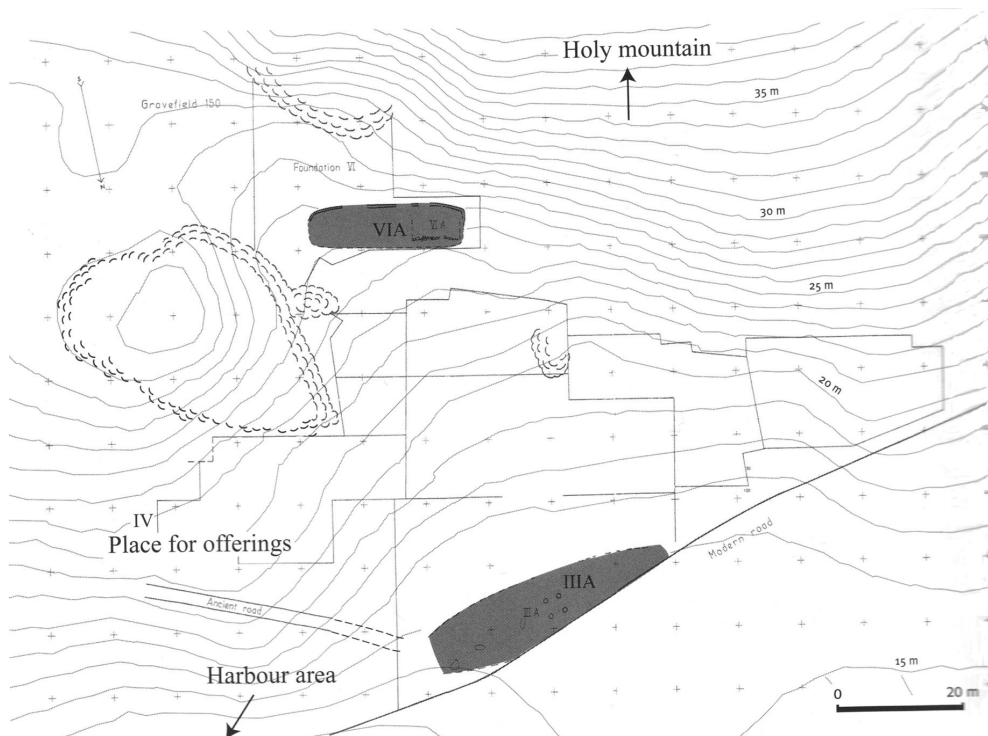


Fig. 4 Building group 2 in the Late Roman Iron Age. Drawing: Arkeobild. After *Excavations at Helgö XVIII*
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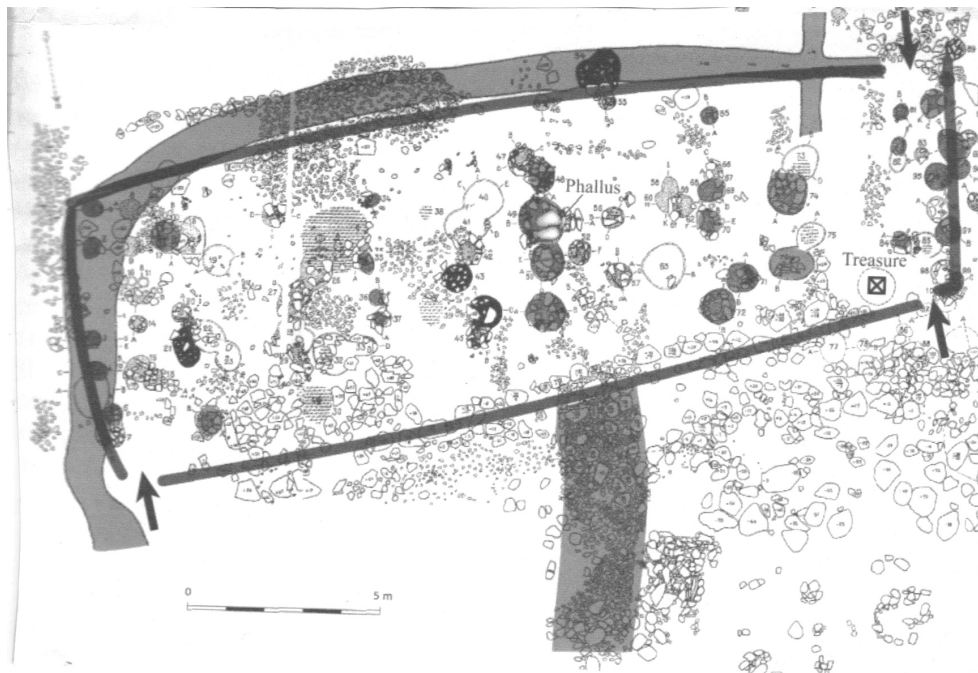


Fig. 5 Plan of Hall IA. Drawing: Arkeobild. After *Excavations at Helgö XVIII*.
http://www.arkeologi.uu.se/digitalAssets/154/154645_fig-5-arrhenius.jpg

Together, this indicates that the outdoor sacrifices ended in the later Migration Period, i.e. the period that also saw the building of Hall IA (fig 5).

The building is 20-21 m long and c. 8 m wide. Drainage ditches follow the walls to the south, east and west, whereas the northern wall rests upon a row of stones. In 1995, 1997, Herschend published an interpretation of Building I A with the central part of the building as a feasting hall, an interpretation based on the distribution of glass fragments and gold foils. An important criterion of the building is the construction of roof-supporting trestles. The roof-supporting rows are mostly used to divide the building into separate rooms, (4-5), but in the central part, where the postholes for the legs of the trestles are larger, the posts were most likely not dividing the room, but had a function as columns in a larger room in the centre of the building. This room was used for feasts with cultic character. Around the post to the south, an extensive collection of figural gold foils was found, some of which were inside the posthole. Perhaps the column was originally decorated with gold foils similar to what was found in Uppåkra (Larsson 2006). By the next column, two large saddle querns were placed at the edge of the posthole. The saddle querns were turned upside down, i.e. with the depressed grinding surface facing downwards and the vaulted underside facing upwards (fig 6). The querns were far too large to be placed in the posthole, which is the common use of old saddle querns. In front of the saddle querns was a paving consisting of small stones. I have interpreted the saddle querns as symbolizing two testes that together with the column formed a phallus, similar to the ones seen on Roman phallus amulets (fig 7-8).



Fig. 6 Two saddle querns *in situ*. The querns are placed upside down, e.g. with the vaulted underside facing upwards. Photo: The Antiquarian Topographical Archives at the Swedish National Heritage Board.

http://www.arkeologi.uu.se/digitalAssets/154/154651_fig-6-arrhenius.jpg

The two columns to the north had no criteria still visible, but they may also have had some kind of symbolic decorations. Outside the stone edging of the northern wall, an outdoor ramp neatly paved with small stones led from the room with the four columns. The ramp crosses the terrace slope in the direction of Foundation III but stops at the small space between the two foundations. As there is no entrance facing that direction in Hall III A2, it seems that the ramp was built for use in Hall A1. One hypothesis might be that the ramp was used for some kind of 'enactment', for example to display an animal about to be sacrificed.

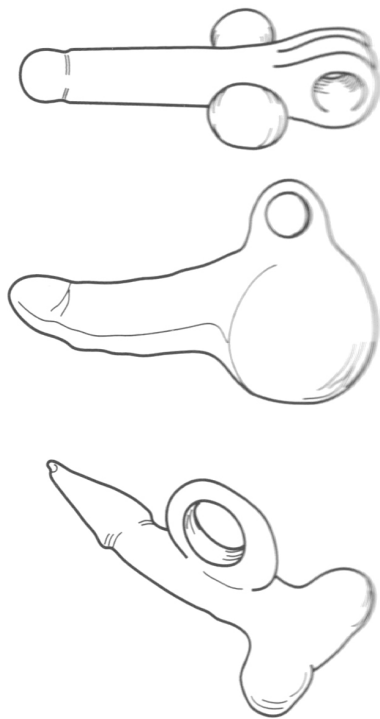


Fig. 7 Roman phallus amulets. Drawing: Arkeobild. After *Excavations at Helgö XVIII*.
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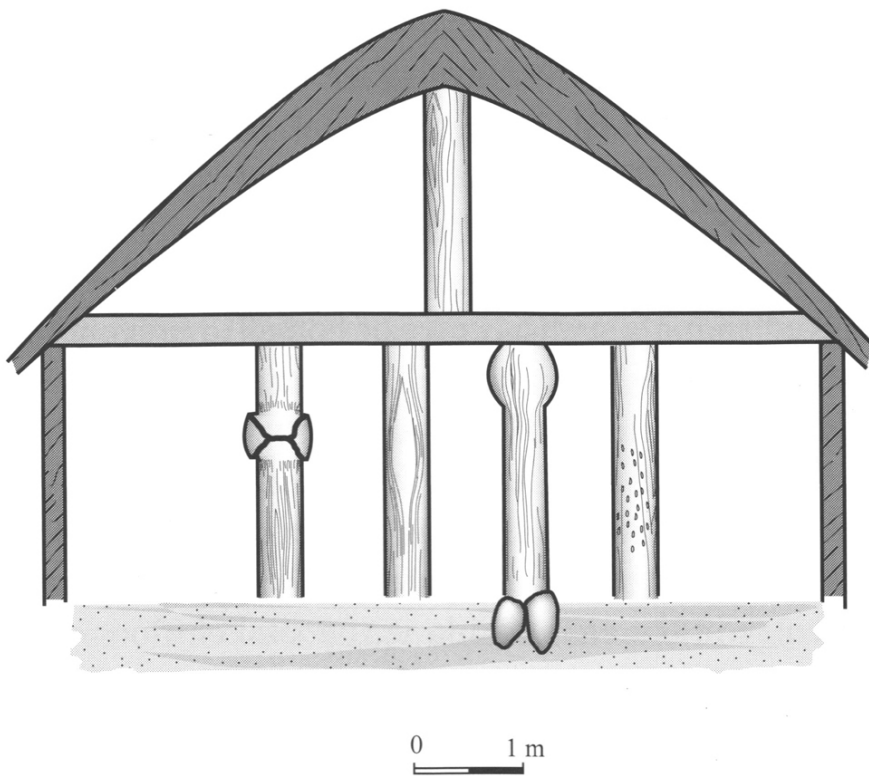


Fig. 8 Tentative reconstruction of the columns in Hall A1. Drawing: Arkeobild. After *Excavations at Helgö XVIII*.
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In the central room, a large amount of broken glass beakers was found (Lund – Hansen 2011), remnants from the feasting. That the feasting was repeated several times can be seen from the wasted glass fragments swept and carried through several rooms to the northwestern entrance, where the fragments were deposited in a successive layering outside the entrance (Lund-Hansen 2011, 111) from the Migration Period into the Viking Age.

In this connection, it should also be mentioned that the deposit causing the excavations of the Helgö site was found by the owner of the land close to the northwestern entrance in this entrance room. The depot consists of a ladle of bronze of Coptic origin, a silver bowl (paten) with cruciformed, stamped decoration and a bronze bowl of Merovingian origin (Holmqvist 1961, 125ff, nos 1410, 1411 and 1415). The corrosion of these three items has destroyed the bottom of the bronze bowl, part of the bottom of the bronze ladle and made the silver paten very brittle. The pattern of the corrosion indicates that originally the items were piled up in the bronze bowl with the silver paten in the middle and the ladle on the top; this mixture of metal alloys has caused the heavy corrosion. The reported finds of small pieces of glass, pottery, bone etc. (Holmqvist & Granath 1969, 8) come from the floor layer above the depot. I consider this depot to be an assemblage that probably emanates from western Europe in the late sixth century, deposited as a building sacrifice in connection with the erection of the building.

As can be seen from the above, many incidents occur in the Migration Period at Helgö, although the settlement continuity was never broken. During this period, people began to be buried at the site, while the place for open-air offerings is abandoned in favour of indoor rituals in Hall IA. The large workshop in Building group 3 is obviously abandoned very quickly. It is possible that the two large gold treasures found on the island, probably in a now dried out Lake Vattersjö, were deposited during this period (cf Kyhlberg 1986 and Arrhenius 2011, 12).

Does the dust veil explain all these incidents?

The settling of people directly on the cult place itself as indicated by the initiation of the cemeteries in the Later Migration Period is in my opinion strong evidence that something extraordinary has taken place. We know many so-called sacred groves, described by Tacitus, as well as offering sites, but no sanctuaries with permanent inhabitants. In my opinion, the grave gifts provided by the new settlers do not indicate a chieftain and his family; instead, the grave goods are quite simple without the gold and the glass beakers so frequently found on the settlement, especially in the building on Foundation IA in Building group 2.

The bad weather caused by the dust veil is in itself not visible at Helgö. However, one little detail indicates that bread became precious during this

time; the crops were diminished owing to the bad weather. Bread was commonly found as sacrifices at the outdoor sacrificial place at Helgö, adhering to a ritual that is well known in the classical world (Hansson 2011). In this period, bread also began to be used as a burial gift. It seems that the custom began at Helgö, then slowly spread, first within the Mälars area, and later further away (Bergström 2007, 51ff).

One could also speculate whether the change from outdoor sacrifices to rituals performed indoors was an act caused by the dusty weather. However, here it should be noted that the small temple at Uppåkra in Scania already existed in the Pre-Roman Period (Larsson 2006, 149), and for a long time was contemporary with an existing outdoor place for sacrifices.

The deposit in Building IA with vessels coming from far away indicates that the recovery of the place after the dust veil had been rather rapid and the subsequent centuries would prove to be the most flourishing ones at Helgö until the decline in the later Viking Age.

My conclusion is that the impact of the dust veil, the Fimbul winter according to Gräslund, may have been strong both in the Mälars Valley as Löwenborg suggests, and in Denmark, where Axboe (Axboe 2007, 117) saw the dust veil as an explanation for the rich depositions of bracteates as well as other golden items.

The example from Helgö teaches us that here, the impact of the dust veil only lasts for a short period, although it may have caused a memorable disaster for the people living in the actual period and forced many changes in the society. However, these alternations would perhaps have developed anyhow, albeit in a slower way. Future archaeological investigations concentrating on this problem may bring more evidence.

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