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Gamla Uppsala – the emergence of a centre and a magnate complex

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ABSTRACT

John Ljungkvist & Per Frölund 2015. Gamla Uppsala – the emergence of a centre and a magnate complex.

The emergence of Gamla Uppsala as a centre has been discussed for centuries. During the past years, old excavations have been incorporated into the frame-work of the archaeological research project *Gamla Uppsala - the emergence of a mythical centre* (GUAM), with GIS and excavations in combination with survey results and reinterpretations, as old excavations are placed in relation to new investigations.

This article is based on the results from excavations in 2011 and 2015 and studies of previous investigations in the light of new results. We have chosen to present a *stand der forschung* of what we currently know about the 6th to 8th century estate in the centre of Gamla Uppsala, how it emerges as part of an unparalleled monumentalization of the area, what we know of a Migration Period prelude and its transformation during the 8th/9th century. Today we can discuss the relationship between a multitude of elements in the complex, such as individual mounds, the great hall, workshops, economy buildings, fences, paved courtyards, post-row monuments and not least landscape development and resource exploitation on a broad scale. In our strategic work, previously isolated monuments are tied together in a project that will continue in the years ahead.

KEYWORDS: Vendel Period, Viking Age, Gamla Uppsala, Monumentalization, Halls, Early Medieval, Royal, Manor.

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Introduction

(Gamla) Uppsala, placed in the northern part of the Lake Mälaren water system, has a special position among Early Medieval centres in Scandinavia (fig. 1). It was already in the Viking Age considered an ancient place where mythical kings kept court and were buried (Sundqvist 2002). In the 10th century, it was seen as a residence for the ancestors of the Vestfold kings of Norway. It has also been suggested to be a model for Skiringssal with its adjacent trading site Kaupang (Skre 2007: 427). Around 1075 it is described as a major cult centre by Adam of Bremen (Sundqvist 2002: 56). Uppsala became a diocese in 1123 and in 1164, the archiepiscopal seat of medieval Sweden (Lovén 2010: 14). As an early medieval centre, it has an almost unparalleled continuity. It was subject to intense research and a hot scholarly debate already in the 17th c. and it is still is a key location in research on early kingdoms, state formation and pre-Christian cult activities (Alkarp 2009). The place name Uppsala, have repeatedly been discussed among particularly place-name historians but also in the archaeology community (Vikstrand 2013). Its etymology is uncertain as it could mean a simple hay-barn as well as an elevated great hall. Vikstrand, who recently has discussed the toponymy in detail, does not present any final conclusions. The question rises whenever the great hall on the site is dealt with (see below).

The purpose of this article is to present reinterpretations and new results forthcoming on the monumentalization of this centre. Particular emphasis is placed on the results from the 2011 excavations in the framework of the archaeological research Gamla Uppsala - the emergence of a mythical center (GUAM), complemented with preliminary results from excavations in 2015. Several aspects cannot be discussed in detail here and some results from the ongoing project are still preliminary. Although the general outline of many interpretations stand firm, others will change in the future, as the investigations in Gamla Uppsala are ongoing. This is a place where new investigations continuously generate new insights and alter previous interpretations. We would like to acknowledge the vital efforts from especially Hans Göthberg, Joakim Kjellberg, Daniel Löwenborg and Emma Sjöling and since 2014, Jonna Sarén Lundahl, who all have acted as specialists in the project. Of major importance is also the kind support from Gunnar Hedlund, who excavated

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the Southern terrace together with the late Else Nordahl and who set the documentation from the excavations in the 1990s at our disposal.

Until about 25 years ago, the main empirical base for interpreting Gamla Uppsala was the excavations of the so-called royal mounds (fig. 2), various small trenches around the church and the literary sources. However, the situation has gradually changed during the last decades, primarily via a series of settlement excavations and the possibility to combine and compare a multitude of sources and scientific methods in a common GIS platform.

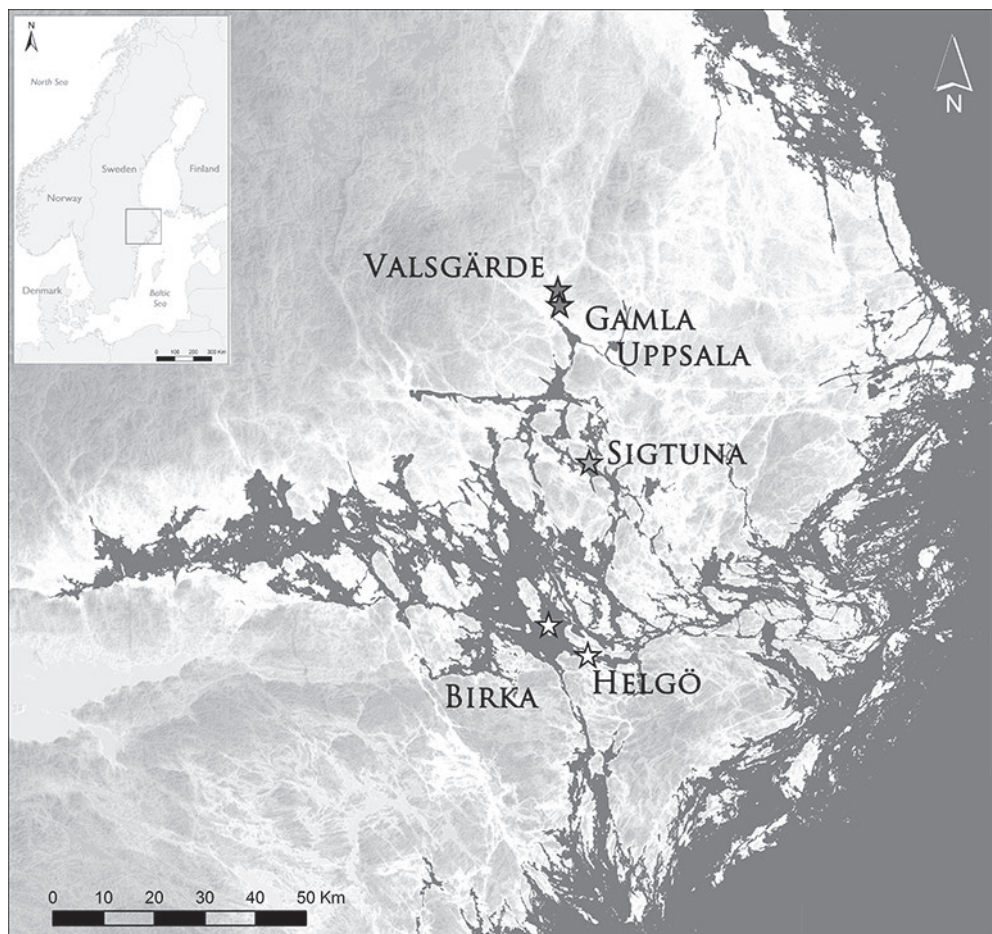


Fig. 1. The location of Gamla Uppsala and a selection of other Vendel/Viking period sites in the lake Mälaren region (water levels 5 metres above sea level).
http://files.webb.uu.se/uploader/92/JAAH16_Fig1.jpg



Fig. 2. The so-called royal mounds of Gamla Uppsala. From left to right: Västhögen, Melanhögen, Östhögen, with adjacent smaller mounds to the left of Västhögen. Visible to the right is the 12th century church and Tingshögen (Thing mound) with the large flat top. Detail from a print produced around 1850. On the eastern side of Östhögen is the entrance to the mining/excavation tunnel from 1846/47 visible. Detail of map from c. 1850 (Museum Gustavianum collections).
http://files.webb.uu.se/uploader/92/JAAH16_Fig2.jpg

A major step in our knowledge about the settlement development took place between 2002 and 2008, when a number of Iron Age settlements, dated between c 500 BCE-600 CE, were excavated in the surrounding river-valleys. In the past few years, a combination of the results from our research project and the ongoing railway contract archaeology project (OKB-project) in the medieval village area has generated large amounts of data primarily from the period 500-1200. A major recent tool is a large GIS-project produced within the frame of the research project. We have digitized the plans of most excavations since 1846 and combined them with LiDAR-data and a variety of maps from 1640 onwards. Of importance are also the results from a geophysical prospection project (Trinks & Biwall 2011), and not least the forthcoming results from the OKB-project. We still lack many aspects to fully understand the site, but the interpretation possibilities are better than ever.

Until a few years ago, Gamla Uppsala was seen as a centre that emerged in the Migration Period (400-550). The most prominent architect behind this picture was Professor Sune Lindqvist at Uppsala University, who in a series of articles and books stressed an early 6th and even 5th century date of the three great mounds. He linked the three royal mounds to the saga kings Aun, Adils and Egil, all mentioned in Ynglingatal and Snorri's Ynglingasaga (Lindqvist 1936; 1945).

In the beginning, his interpretations were not undisputed. The mounds of Gamla Uppsala became tools in a long chronology debate between Lindqvist and Professor Nils Åberg at Stockholm University. Lindqvist stressed his Migration Period datings while Åberg leant towards the early 7th

century (Lindqvist 1935; 1949; Åberg 1947; 1953). In the end, Lindqvist's interpretations were widely accepted in Sweden. He incorporated the mounds into a broader framework of the Migration Period as a 'golden age'. His datings of the Uppsala mounds were accepted for more than 60 years and his interpretations were frequently reproduced. However, examinations of the grave material, based on modern chronologies and analogies from the Continent revealed the needs for a reinterpretation not only of Gamla Uppsala but also of the late 6th and 7th century societies of Central Sweden.

The two excavated royal mounds, the East and West mound, both belong to the late 6th and early 7th centuries, in relative terms the early Vendel Period. Some finds, such as combs and gaming pieces fit well into regional chronologies, while more luxurious objects have parallels in for example the Sutton Hoo mound 1 (Ljungkvist 2008a). A closer examination of another large mound called Gullhögen (the Gold mound), reveals yet another Vendel Period grave with quite unusual imports objects (Goldina 2003; Kazanski 2007; Ljungkvist 2013). However, its exact location is not certain, and the documentation from its excavation in 1847 is quite fragmentary. Gullhögen was previously dated to the Migration Period (Arrhenius 1982). Finally, another great mound, tentatively dated to the 7th century, was found in 2013 and confirmed in 2015 (see below).

The evidence of an early 6th century centre in Gamla Uppsala is thus hard to discuss on basis of the hitherto excavated graves. Rescue excavations of nearly 100 graves in 2012, found less than 300 m from the manor area, have revealed a rich material, with some elite graves and numerous ritual depositions dated between the early 6th to 11th centuries (Lucas & Lucas 2013). Preliminary analyses reveal that there are also some Migration Period graves among them, but their contents are modest. The general grave pattern of Gamla Uppsala points towards an exceptional event at the site in the late 6th century. The amount of graves seems to increase at the same time as the monumentalization begins. Most likely, this does not reflect changes in population size but rather partial relocations of burial grounds and changing burial patterns owing to an overall changing social order.

Migration Period Settlement

Excavations carried out during the last two decades have shown that already in the Roman Iron Age, [Gamla] Uppsala was situated on the border between fertile river-valleys and densely populated areas (Frölund 2008; Frölund & Göthberg 2013; Göthberg, Frölund & Fagerlund 2014). Until around 600, numerous groups of farms were distributed on the floor of the river-valleys (fig. 3). There are clear indications of a hierarchic society in this period. Some farms are larger than others, and there are clear tendencies of a diversified economy. On nearby sites such as Valsgårde and Fullerö, chamber burials from the 3/4th to 6th centuries have been found. They represent a new way of displaying individual status in society, not seen before c. 200 CE. However, there are no burials or monuments equivalent in size or content

with contemporary large mounds such as Högom in Northern Sweden or the later Uppsala mounds (Arwidsson 1948; Ramqvist 1992; Ljungkvist 2008b). In comparison with other parts of Sweden, such as Öland, Gotland, and Västergötland, the evidence of central places and material wealth around Uppsala is sparse and recent metal detector surveys have generated very few metal objects from settlements related to either the Migration Period or the Roman Iron Age. Some excavations of Migration Period cemeteries have been made in this region but almost all the large inhumation burials are completely plundered; nor do the cremation burials reveal any kind of extraordinary status indications. In the Migration Period, the Uppsala region was a fertile and densely populated area. However, so far there is only vague evidence of extraordinary displays of power and wealth similar to that found in numerous places in the later Vendel Period (Bratt 2008). Currently, there is no evidence of a major production site or particularly wealthy settlement such as Helgö, neither Gamla Uppsala nor in its neighbourhood during the period in question.

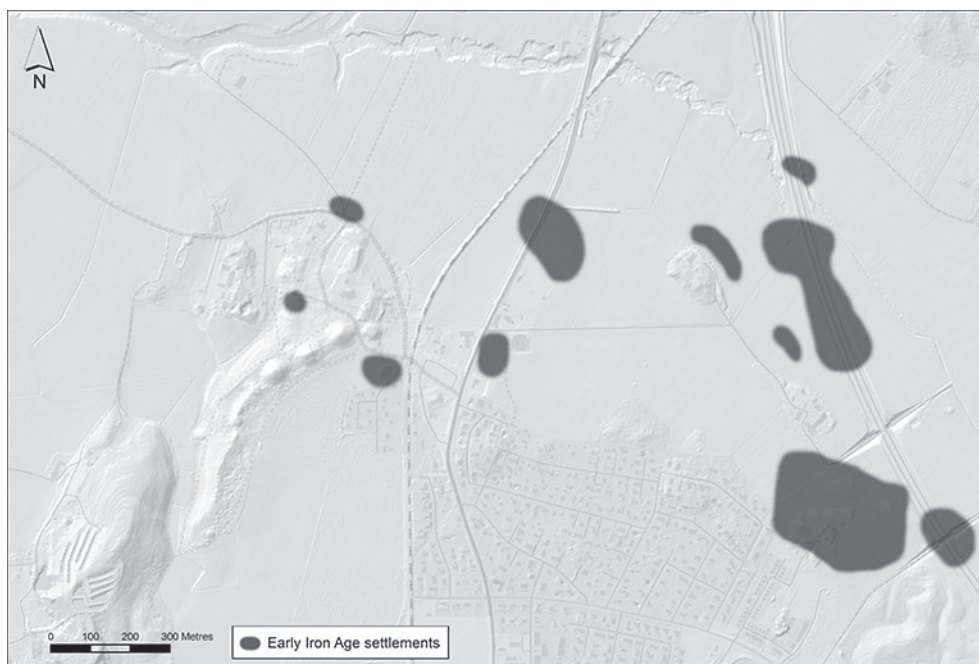


Fig. 3. The distribution of known Early Iron Age settlements dated to c. 500 BCE-600 CE.
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Between the 4th and the 7th centuries, the Early Iron Age settlement structure is transformed in Gamla Uppsala. The most distinct change is the gradual abandonment of the settlement areas (Ljungkvist *et al.* 2011). The settlements near the later medieval village area significantly expand more or less simultaneously (fig. 4). The reasons behind these changes are still not fully understood, but are probably related to changes in the agrarian economy as well as to transformations of the social structures. There seems to be a relocation process where numerous farm units are gathered around the Uppsala

esker, where the royal manor area and eventually the 12th century cathedral are placed on the highest ground (see below). Around the different groups of agglomerated settlement units, at least eight cemeteries have been recognized (fig. 4). They are intimately connected with the settlement areas with graves sometimes placed only a few metres from the houses and the activity areas. These cemeteries seem to fill an important role. Most are placed on a higher ground than the settlement areas and along the roads leading into the centre. Finally, they constitute the visual inner borders and gateways into the nearly 60 hectares large grave and settlement areas. Beyond the grave and settlement areas, recently found rows of large stone-filled post fundaments represent an outer border and/or alley roads with large posts or raised stones leading into the centre (Beronius *et al.* 2013).

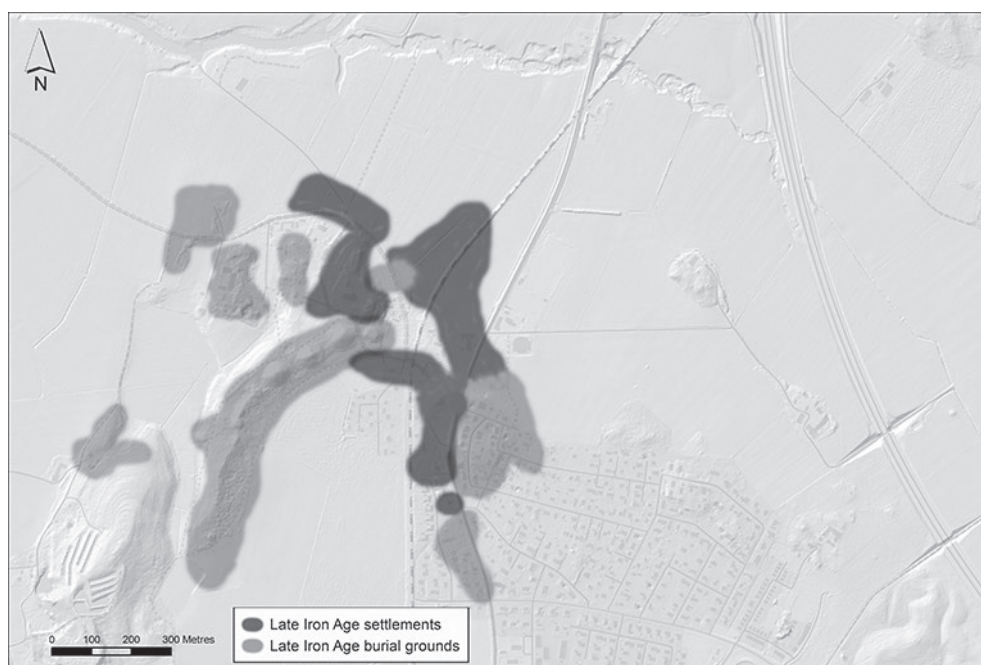


Fig. 4. Known settlement areas dated from c 500 CE onwards, surrounded by known cemeteries. http://files.webb.uu.se/uploader/92/JAAH16_Fig4.jpg

The excavation efforts of the research project have been concentrated around a 5-6 hectares large settlement area surrounding the medieval cathedral. We call this the royal manor area/complex. There are still no large excavated sites where we can distinguish complete houses or activity areas from the Migration Period. However, beneath the multiple constructions from the 6-7th centuries and onwards, layers and features from around 5th century turn up on every occasion. A settlement in both the royal manor area and many other parts of the centre thus seems to be profoundly established in the Migration Period. A major question is whether there is evidence after all of a central place or an elite milieu before the mid 6th century. There is some evidence of specialized crafts, or material wealth with analogies to other Scandinavian central places in Scandinavia, such as Helgö, Uppåkra, Gudme or Sorte Muld

(Frölund, Göthberg & Ljungkvist 2011). Nevertheless, it should be remembered that excavations of Migration Period layers and features have been far more limited compared to that of later periods. A few mould fragments have been found in large pits dated to the early 6th century (see below).

Several aspects point towards a special character of the settlement around the church during the Migration Period. The settlement is placed in a pronounced crest position (Frölund 2007: 388). There are also very large postholes – reminiscent of those related to the “Uppsal” on the Southern terrace (see below). They have, however, been found within and adjacent to the highly disturbed church area and so far, clear house constructions cannot be verified. Further evidence comes from large pits related to food production and hearths with remains possibly from sacrificial meals with a very high level of pig bones (Frölund 2007: 388; Göthberg 2008: 106; Zachrisson 2011: 157). A high consumption of pork indicates a high rank settlement in Scandinavia as well as in North-West Europe at the time (Vretemark 1991: 80; Pedersen & Widgren 1998: 367; Hamerow 2004: 131). Another aspect is the evidence of buildings on artificial terraces on elevated positions. One (fig. 5, D), dated to the early 6th century is placed on the top of the church terrace (Frölund *et al.* 2010). This foundation can be interpreted as a prelude to the far more eye-catching monuments that emerge some decades later.

Gamla Uppsala in the 5th and early 6th centuries is thus a problematic but interesting phase. In some ways, it is a period of transformations, owing to the above-mentioned shift in the settlement structure and in the fact that the elite in the region, for example in Valsgärde, express their status far more than during the 1st to 3rd centuries (Ljungkvist 2011). Considering the finds of other chamber burials made in the area, it is highly plausible that some kind of elite group inhabited the royal manor area in the Migration Period. Since only fractions of the Högåsen cemetery, containing the great mounds, have been excavated, it may still contain chamber burials equivalent to those found in Valsgärde (Ljungkvist 2008b).

THE BIRTH OF A MONUMENTALIZED LANDSCAPE

As stated above, we can see that the settlement of Uppsala has become far more concentrated during the late 6th century. At the same time, major transformations occur in the manor area. The most dominant features in this area are at least three, perhaps even more, artificial terraces that each have served as monumental house foundations (figs 5, 9). So far, the Northern,

Southern and Eastern terraces have been identified and partly excavated. A fourth potential Migration Period terraced building has also been identified (Frölund *et al.* 2010). Based on the present evidence, it seems that the major parts of these terraces are constructed in the decades around 600 CE. Recent excavations have also dated a number of other major structures to the same phase.

The first recognized feature was a major wall and/or road construction with attached terraces found in the early 1990s (Alström & Duczko 1993; Alström & Duczko 1996). It was situated on top of a probably burnt-down Migration Period settlement immediately north of the Northern terrace. In 2011, the above-mentioned rows of stone-filled foundations revealed a pattern that partly surrounded centre (Beronius *et al.* 2011). The late 6th century seems to mark the beginning of a very dynamic period in the history of Uppsala. A few generations of chieftains or kings seems to have invested heavily in monuments during a limited period. Different types of data suggest that Uppsala is a great central location between the sixth and thirteenth centuries, albeit with a changing content. However, all hitherto excavated large monuments from the 1st millennia CE are dated to c. 560/70-650, with some bearing evidence of repair and rebuilding into the 8th century. The monuments are not built simultaneously, but we see a clear tendency towards a strategic intention to make the complex increasingly monumental. The largest mounds are placed next to each other and in some of them, at least Västhögen and Mellanhögen, the stratigraphy indicates that each grave was enlarged at least once after the primary grave monument was built (Ljungkvist 2013). However, it is not yet clear when the enlargement of these mounds took place.

There are also clear tendencies of a gradual enlargement of the royal terraces for new generations of houses. The final house on the Southern terrace was built in the last decades of the 6th century or the first decades of the 7th century CE (see below). At the bottom of the terrace in one of the deeper trenches (I), a thin cultural layer was identified directly on the original ground level. On this layer, a stone packing for a posthole was found. The posthole would have been included in a larger construction (Hedlund 1993: 66). A carbon sample from the bottom of the posthole has been dated to 254-534 (calAD, 1 sigma). The extent of this construction is still uncertain.

The bottom layer on the Northern terrace is dated from the 4th century onwards on the basis of one ¹⁴C-date. The two hitherto identified later houses are both dated to the 7th century, and were situated on top of the clay layers of the terrace. The stratigraphic sequence on this terrace is still vague. There are probably even older buildings represented on it, but they and the related layers cannot be placed in distinctive structures.

THE MAGNATE COMPLEX

For long, the Southern and Northern terraces have been important components of the centre. These are dealt with below, as they contain some significant remains. Owing to the complex stratigraphy and size of this area, it is almost impossible to excavate significant parts without a very large budget. Nevertheless, during the past three years, the method of combining old excavation results, prospecting efforts and surveys, LiDAR-data and excavations of key areas have proved to be quite successful (fig. 5). We can begin to interpret the manor area as a whole and follow changes through more than 2000 years.

The size of the manor area in the 6-8th centuries is not the only impressive feature. The manor is intentionally placed on the highest ground in the area (fig. 6).

In the south, we find the large burial mounds, while the area is delimited in the west by a low ridge, upon which the present vicarage is situated. Little is known about this ridge except that it was used as a cemetery, established c. 600 CE. It was probably damaged already in the Middle Ages. No monumental graves are known, but some Vendel Period finds are of high quality and during the Viking Age, high-status boat graves were located here (Nordahl & Malmius 2001).

The eastern side of the manor area is delimited by the Tingshögen mound (the Thing mound), almost 50 m in diameter, and a recently found great mound reveals that the graveyard extends further north (fig. 6, G). In the same way, maybe the west side is also delimited by a crest with severely damaged graves, some of which date from the late 6th and 7th centuries. In the north, we find the edge of the complex marked by a major wall and/or road construction (Alström & Duczko 1993; 1996). Behind this feature, placed on the higher ground, we find the Southern and Northern house terraces. The Southern terrace holds the great hall or –sal. The Northern terrace on the other hand, placed deliberately at a lower level than the great hall to the south, is monumental in itself, but the houses on this foundation, although probable large, are clearly workshop buildings, probably surrounded by further workshop areas. An additional large terrace, found in 2015 (see below) and termed the Western terrace, holds a second workshop.



Fig. 5. Excavated areas north of the church from excavations primarily 1957-58, 1988-1992 and 2009-2011. A. Northern terrace (workshop houses). B. Southern terrace (the –sal/great hall). C. Southern slope (known house remains, walls/foundations, roads and activity areas). D. Cemetery, church, known house terrace and a multitude of settlement remains. Contour lines set at 1 m intervals.

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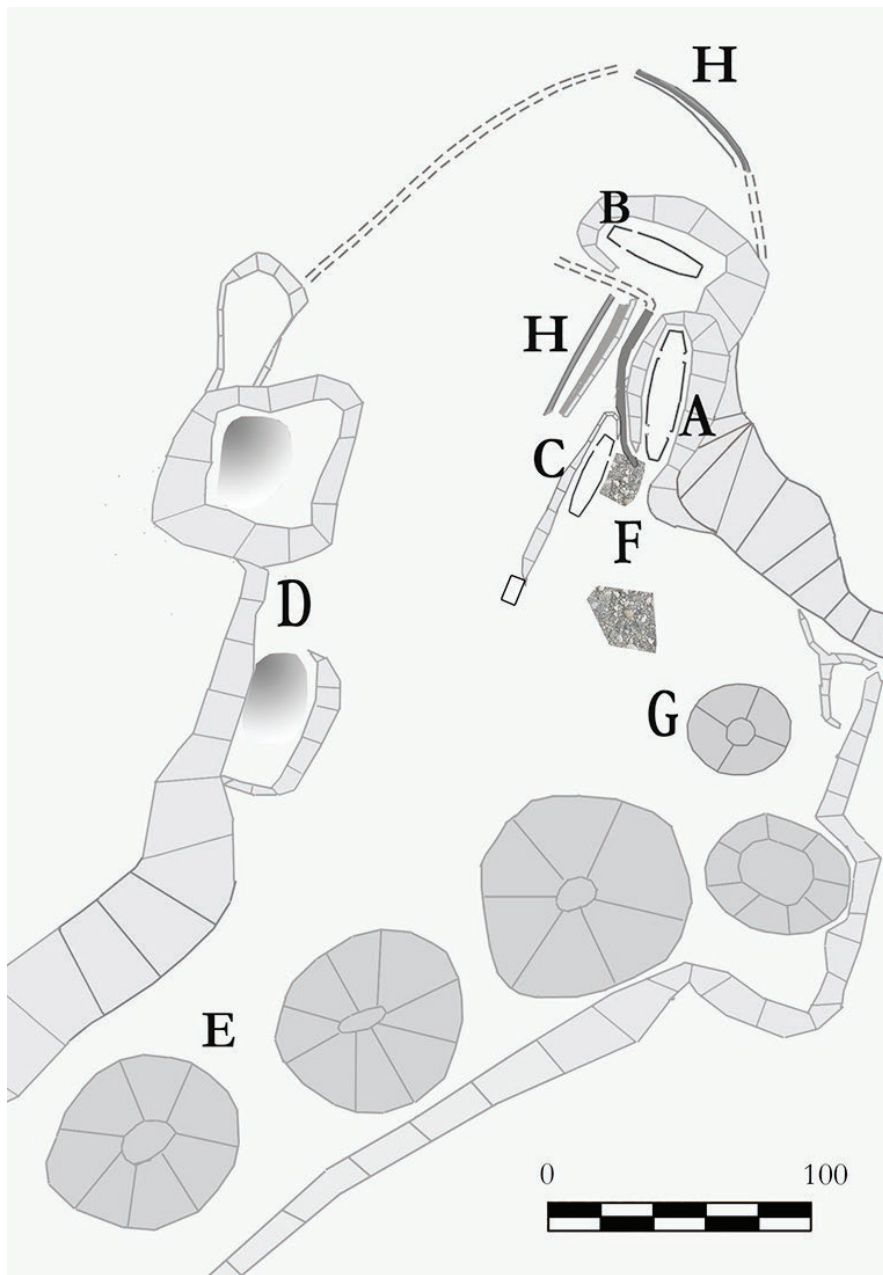


Fig. 6. Simplified map and interpretation of the 7th c. magnate complex. It is based on the present knowledge about the area. Only larger constructions are shown. Scattered features dated to this period have been found in a number of trenches within the area, representing fragmentary houses and various activities.

- A. Southern terrace, the -sal or great hall.
- B. Northern terrace with large workshop building (extension unknown), workshop A.
- C. Western terrace, workshop B, so far unidentified buildings.
- D. Two known concentrations of graves at the present vicarages plot.
- E. Högåsen cemetery with the three so-called royal mounds and the Thing mound.
- F. Two known areas of stone pavements from excavations in 2015 and from excavations beneath the church, probably related to both roads and courtyard areas.
- G. The damaged North mound is encapsulated within the 12th century Eastern terrace. Its original size is yet unknown, but was considerably larger.
- H. Identified walls and/or road constructions, including their hypothetical extensions. Only the northernmost construction is closely dated.

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The two excavated terraces are artificial features, where thousands of cubic metres of clay, esker material or mixed types of soil constitute the fundamentals for the houses. These houses and their foundations are not only clearly elevated. In combination with the mounds, they fill an essential part in making the manor area visible in all directions and thus forming a monumental entity.

UPSALR ON THE SOUTHERN TERRACE

As mentioned above, the monumental Southern terrace is one of the manifest remnants of the settlement area (figs 5, 7). It measures c. 60 x 17 m – and is made of several layers with deposited clay and cultural layers. In the northern end, the layers can reach a thickness of at least four metres. The artificial character of the terrace has been known since the 1920s, when a series of drillings were performed (Lindquist 1936). Trial excavations in the late 1980s clarified that the terrace was intended for buildings (Hedlund 1993; Nordahl 1993), with activities from at least c 300 CE onwards, according to the above-mentioned ¹⁴C dating at the lowest level (Hedlund 1993, 66). The successive use of the terrace means that its shape and size has probably been altered during the period in use (Ljungkvist *et al.* 2011). However, a renewed examination of the stratigraphy, in combination with existing data and results from 2011, strongly indicated that there were two terrace phases.

Excavations in 1990-1992 (Hedlund 1993; Nordahl 1993) and 2011 have revealed the general layout of a very large building (figs 7, 8). An R_combine analysis (fig. 9a, right) of splint wood from the excavation in 2011 generated the interval 563-609 (calAD, 1 sigma). These samples fit very well with the ¹⁴C-datings from the earlier excavations, although they have far larger standard deviations (Hedlund 1993. These samples are not analysed according to wood species). An R_Combine analysis (Fig. 9a, left) made on building material generated an interval of 600-636 and 575-645 respectively (calAD, 1 and 2 sigma). That should sufficiently confirm the time when the house was built.

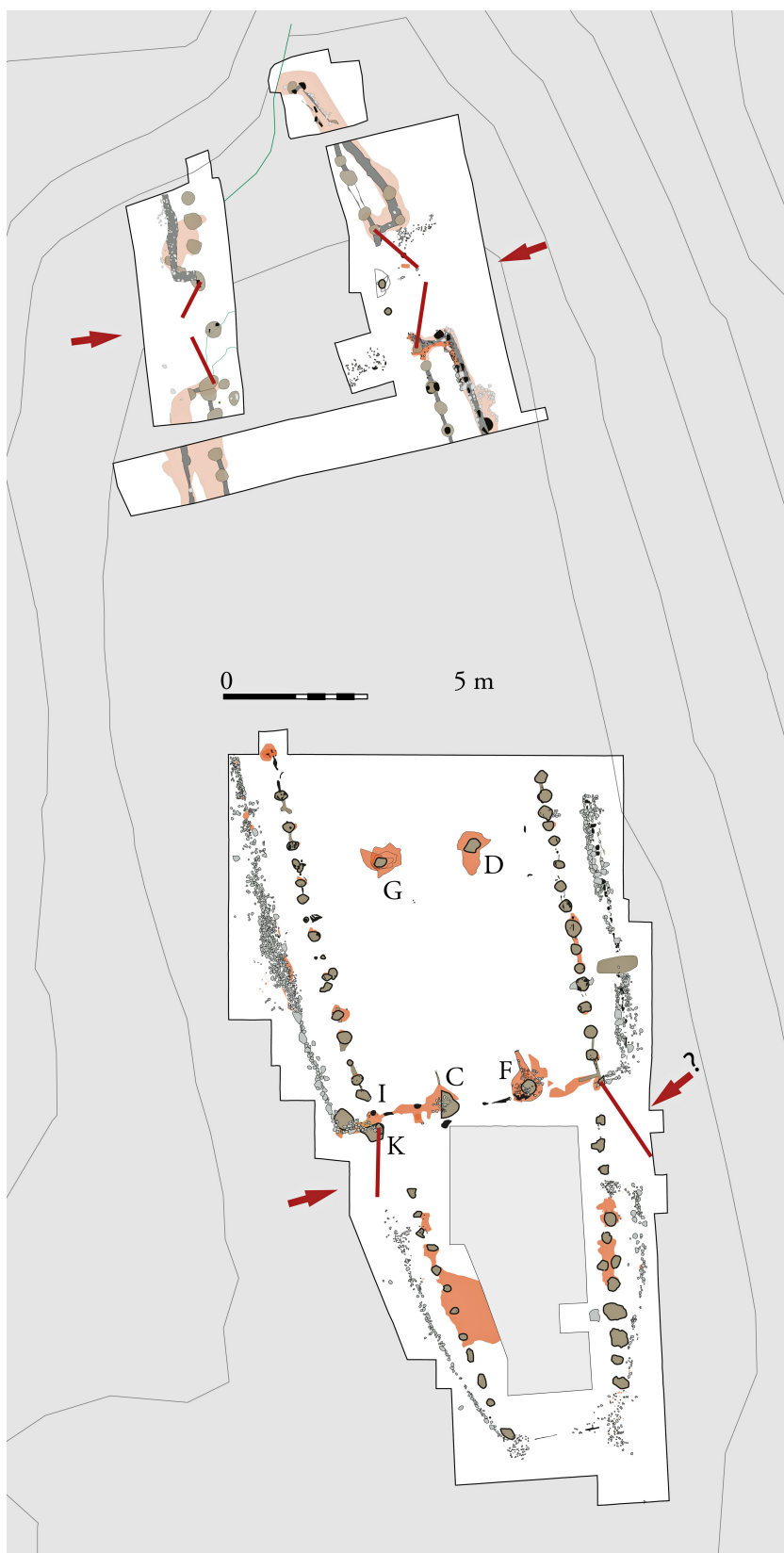


Fig. 7. Excavated parts of the -sal/great hall building. This is a simplified plan showing the main features of the building.
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Fig. 8. Gate door mount in the shape of a spear blade. Found in the very bottom of a 1.3 m deep gate post-hole in the NW-entrance. Photograph: Olle Norling, The Uppland museum. http://files.webb.uu.se/uploader/92/JAAH16_Fig8.jpg

Almost half the house was excavated in the early 1990s. During the 2011 excavation, a trench was dug in the terrace's northern part in order to try to confirm the theory that we were looking at more than merely a house, and to sort out a number of question marks remaining around the building since the earlier excavations. What follows here is a short preliminary description based on work with the old documentation and the new results. More than a third of the –salr is still not excavated.

This house has proven to be 50 m long and between 4 and 12 m wide with strongly curved walls and narrow gables. For Swedish conditions, the walls are of a hitherto unknown construction. However, related double-wall constructions exist (Olausson 2014). The house consists of two differently constructed walls, one external and one internal with a 1 – 1.2 m space in between, merging together at the doorways and at the gables. The external wall consists of posts, planks and chipped stems (Fig. 9b), who had been set in a foundation trench filled with stone. The internal wall consisted of

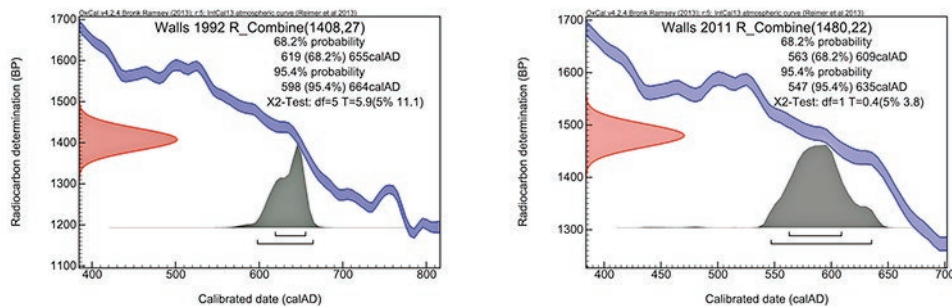


Fig. 9a. Left: OxCal analysis of six radiocarbon samples from the 1992 excavation. The samples consist of carbonized timber from the external and the internal wall, but the wood has not been analyzed. Right: OxCal analysis of two radiocarbon samples from the 2011 excavation. The samples consist of carbonized timber (Pine, wood analysis by Thomas Bartholin) from the external and the internal wall. This analysis is performed using the OxCal R_Combine function which allows dates to be combined; a Chi Square (χ^2) test is also performed. OxCal v4.2.4 Bronk Ramsey (2013); r: 5; IntCal13 atmospheric curve (Reimer *et al.*, 2013). http://files.webb.uu.se/uploader/92/JAAH16_Fig9a.jpg

postholes set at intervals of 0.6 – 0.8 m with a narrow foundation trench for a wattle-and-daub wall in between. In the area of the internal walls, large amounts of heavy burned pieces of wattle-and-daub were found. A large number of the well-preserved pieces had imprints of wickerwork, planks and posts. These pieces also revealed that the interior of the –salr had been plastered with lime mortar and perhaps painted in white. Whether the external wall was clay lined and painted is still under discussion. The construction of a double wall may seem strange, but if one considers the delicate surface of the internal wall with chalk and paint, the external wall may be functionally explained as a protection against rain and snow. In addition, similar wall structures are known from medieval wooden churches (Olsen 1966: 214ff; Andersson and Ullén 1983: 232f; Hansson 2001: 104; Runer 2006: 48, 268ff, 340).

In addition to the internal wall, the roof-bearing construction consisted of sets of heavy posts, but their total number is not known, as parts of the house remain to be excavated. There were most probably at least four pairs of large roof-supporting posts. Four juxtaposed entrances have been found, in the south and in the north. The SE doorway was probably blocked sometime during the period in which the house was used. Each doorway was a gate with two door blades. In the northern part, they measure nearly 3.5 m in width. The doors were situated opposite each other, dividing the house into at least three large rooms; one 9 x 5 m large entrance room in the north, and one 11 x 6 m large entrance room in the south. Between them, we find the 26 x 8 m large hall room. Roof-supporting posts between 0.3 and 0.4 m in diameter (fig. 10), as well as doorposts were inserted between 0.6-1.7 m below the

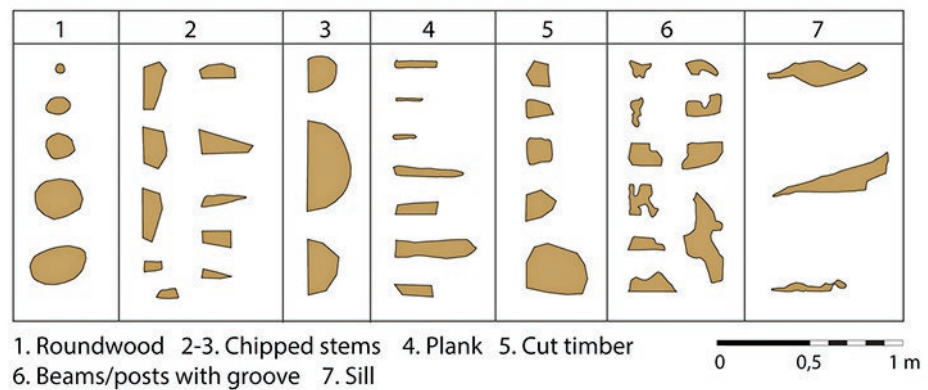


Fig 9b. Drawing of burned pieces of construction timber found in the external wall of the hall. The pieces are most probably from posts, planks and chipped stems. The ruler is 1 m.

surface. A doorpost excavated in 2011 revealed an impression of a rectangular beam of pine, measuring 0.32 x 0.16 m. The two excavated doorposts indicate that the size of the postholes was very limited compared to the size of the posts. That suggests that the posts or beams have not been dug down in the clay. Instead, they were raised up, and metre-thick clay-layers were piled around them.

The size of the roof-supporting posts, the doorposts and the construction of the walls indicate that this was a building of impressive height. Different elements such as the roof-bearing construction, room-division and doorways correspond very well to each other. It is a remarkably well-planned and symmetrical house, whose outline is recognizable from e.g. Bulbrogård at Tissø, Denmark (Bican 2010).

The last phase of the Uppsalr can perhaps be seen as a marker to an end of an era. The site of the house had been cleared of debris and waste after the likely intentional burning. Iron items such as hinges, nails and rivets had obviously been pressed down in the filling of the postholes and on top of the foundation trenches (figs 8, 11). In several places, deposits of unburnt animal bones were placed between layers relating to the burnt-down house and an up to c. 0.30 m thick sealing layer of clay, probably placed on top of the house after its “cremation”.

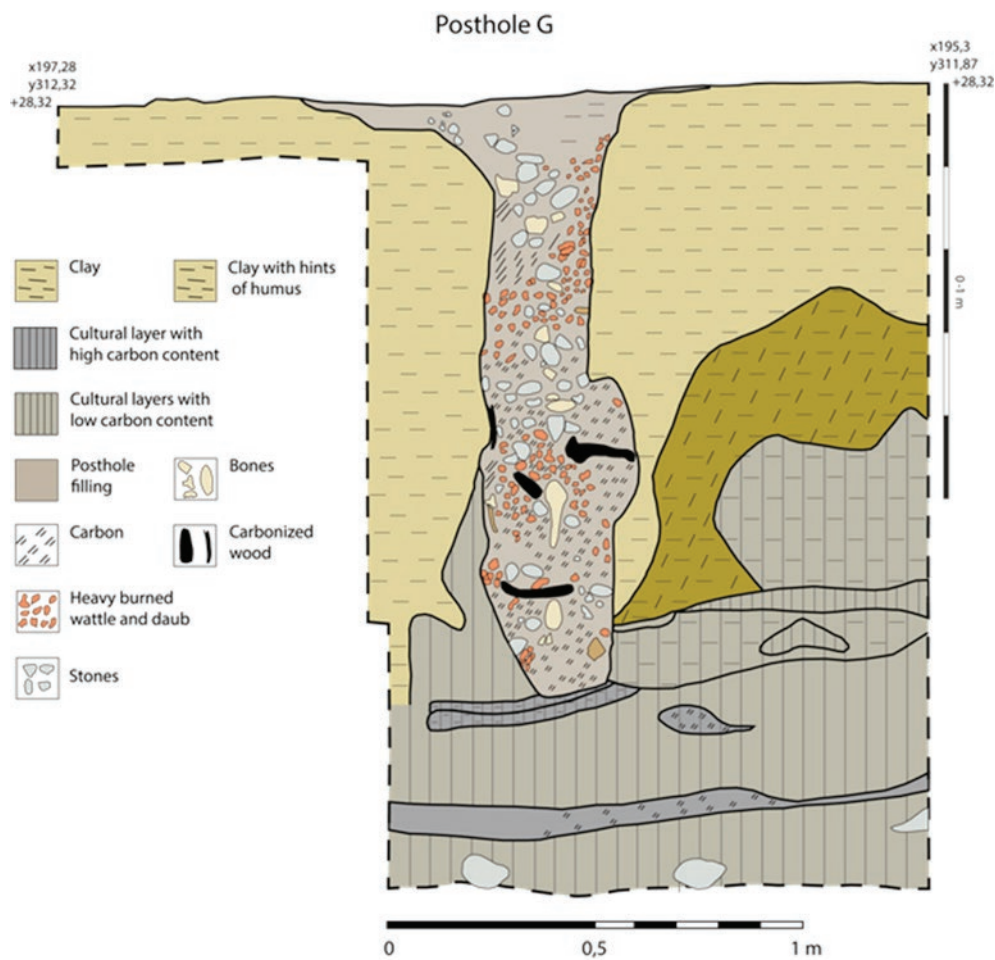


Fig 10. Section of roof post G.
http://files.webb.uu.se/uploader/92/JAAH16_Fig10.jpg

The abandonment of the house contains a number of recognizable events of a ritual character. It resembles burials with preparations, cremation, post cremation handling, depositions and finally, a closure with a clay layer on top of the cremation layer. Substantial amounts of these bones are either teeth or mandibles of cattle and horses. ¹⁴C-analyses date two of the deposits of unburned animal bones to 772-876 and 1022-1150 respectively (calAD, 1 sigma). With certainty, the later deposit has been placed on the location of the wall line after the house was abandoned. There is no evidence of features from this period on the site of the house from this phase, as all other later features

seem to be related to a high/late medieval building. This indicates that someone has returned to the house in order to place a deposit here.

During the excavation and post-excavation work, we have repeatedly been struck by the sheer size and monumentality of this building. Its symmetry, decoration elements, and many preserved details make it very special. It is not surprising that a house with a very individual character and specific role on the site was also given a kind of burial. There is no clear evidence of buildings placed on the terrace during the centuries after the great hall burned, which was likely the decades before or around 800 CE. The only certain pre-modern construction is traces of a late medieval building, scattered pits, and a large pit that might represent medieval or early modern cellars.



Fig. 11. Volute-shaped double spiral decoration from the house. It is probably intentionally/ ritually deposited after the burning of the house, with an unburnt horse tooth molar situated on top of the spiral. Photograph: Else Nordahl (1991).
http://files.webb.uu.se/uploader/92/JAAH16_Fig11.jpg

THE NORTHERN TERRACE – THE MAJOR WORKSHOP

Before the excavations in 2010 and 2011, the 70 x 37 m large Northern terrace, with a 46 x 21 m upper surface, was an almost completely uncharted area. For long, it was presumed to be a terrace for another hall building, but the evidence supporting this assumption was vague. Old 17th and 19th century records mentioned ancient stonewalls, and drillings had revealed undated, thick man-made layers with finds of bones.

Excavations began with two trial trenches in 2010 and a larger 90 m² trench in 2011. They revealed numerous well-preserved layers from different periods beneath a 17th century farm building, torn down as late as 1963. Most surprising was a large cellar and house foundations with rich finds from quite a large 14th century building. This is probably the hitherto unknown location of the medieval royal estate inhabited by a promus and later the bailiff of Uppsala, Ragnvald Tyrbjörnsson, mentioned in late 14th century documents (DMS 1:2; 202f.). These results also revealed that to some degree, the building was enlarged or modified in this period.

Beneath the medieval layers we found two generations of burnt-down houses dated to the 6-7th centuries. The Northern terrace has an over 900 m² surface, and only the top of the 6-7th century layers have been exposed beneath the medieval horizon. These houses seem to share some constructional elements with the great hall. Their walls consisted of foundation trenches in which raised planks and beams were placed, and many of them were preserved in carbonized form. We do not know the full extent of the houses but based on their construction and on the outline of the terrace, they might be around 40 m long.

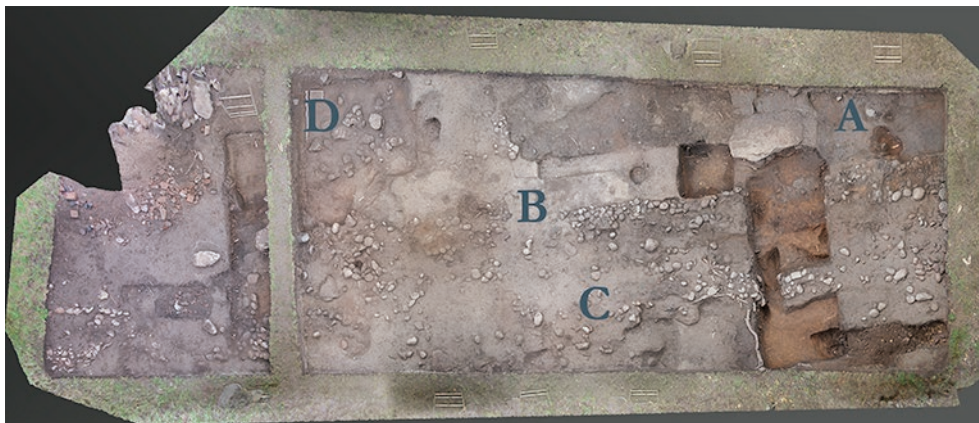


Fig. 12. Photogrammetry overview of the Northern terrace excavation trench in 2011. Post-medieval building and earlier thin culture layers removed, exposing layers related to primarily two Vendel Period buildings. Photograph: John Ljungkvist

- A. The area where the majority of garnets were made, in floor layers related to an earlier Vendel period building.
- B. Stone-lined wall ditch belonging to a later Vendel Period building.
- C. Vague traces of wall line belonging to an earlier Vendel Period building.
- D. 14th century manor cellar pit.

http://files.webb.uu.se/uploader/92/JAAH16_Fig12.jpg

The most intriguing result from a 5 m² test trench through the house floor layers was the evidence of crafts, primarily related to the older 6-7th century building. Most impressive were the more than 600 garnets in the form of production waste and discarded pieces. About 10 m away from this find spot, the same floor layer was observed when the fill of the 14th century cellar pit was removed, and some additional garnets were found here. All pieces, most of which were found by water sieving, represent remains of the refining of raw garnets embedded in the mineral biotite (Lundahl 2011). As probably less than 1 percent of the workshop layers have been excavated, only a fraction of the garnets has been found. This means that the test trench through the floor layers struck a large workshop. Remains of smithing slag, worked antler and a probable bead production were also found. Previously, evidence of the later crafts as well as bronze casting have been found in the field directly north of this terrace

(Alström & Duczko 1996).

The workshop on this terrace is far from the only place with evidence of specialized crafts within the royal manor complex. In 2015, a second workshop appeared a few metres south of the great hall on what we now call the western terrace

(fig. 6, C; fig. 13). This also seems to be a late 6th or 7th century workshop with partly the same kind of workshop material. However, the garnets are few and instead the amounts of moulds and crucibles are significant. New categories of craft material include amber and gold, as well as silver debris in the shape of small cloisonné cell work. Again, only a very small amount of the workshop material has been investigated on a less than 10 m² large area. In short, we have identified the character of additional parts of the manor area that extends into the current churchyard. Significant features beyond the Western terrace are stone-paved areas that seem related to both roads and courtyards. A spectacular gold pendant, probably from the late 6th century, was found between the stones of the pavement (fig. 16).

The workshop houses are probably of a hitherto unseen size and character. It is hard to define them as something other than two generations of a major royal workshop. However, it should be emphasized that the vast majority of workshop debris is related to the older house. At present time, the later building cannot be related to handicrafts.



Fig. 13. Trial trench revealing the Western terrace.. Photograph: Wilhelm Jansson.

- A. Iron age culture layer stretching beneath the terrace layers.
- B. Nearly 2.0 m thick terrace layers made of esker material.
- C. Workshop culture layers.

http://files.webb.uu.se/uploader/92/JAAH16_Fig13.jpg

THE EASTERN TERRACE – FROM TERRACE TO GREAT MOUND

In 2013, the initial investigations of a third major terrace started. In length and volume, this is probably the largest terrace in the area with a registered mound on its top. The results of this trial investigation were inconclusive and to some level contradictive. We had thought that it was a house terrace from the 7th century, but some of the construction elements were significantly later.

Excavations in 2015 revealed that it definitely was a terrace, albeit of a 12th century origin. The source material for the terrace seems to originate from a very large mound. Its mound fill has largely been removed in order to create the terrace and probably to make room for the new cathedral. The mound's inner core, which largely constitutes the central cairn of the mound, had been encapsulated by the later terrace. The 12th century architects left an elevated part of the mound on the terrace, which is somewhat bewildering. However, the terrace was built in order to be a foundation for a palisade, which is represented by a stone-filled foundation ditch with standing posts. Therefore, the remaining elevated part of the mound was probably saved as a lookout place behind the palisade.

14C-analysis of bones from dark layer (L865) that cover the central cairn was dated to 620-685 and 644-670 respectively (calAD, 1 sigma). If these bones represent the construction phase, they indicate that the mound was built a few decades after the other terraces and the great mounds. However, it is important to state that the probable burial itself is still not dated. 14C-analyses of bones from the primary layer of the foundation trench and from a secondary layer in a posthole belonging to the same foundation were dated to 1186-1250 and 1258-1284 respectively (calAD, 1 sigma). The palisade is thus probably contemporary with the cathedral and could be a boundary for the yard of the cathedral. The cairn and the thin remains of the mound fill have currently been identified in three trenches. The cairn is at this time estimated to be c. 31 m in diameter and at least 1.6-1.8 m high, while the mound, whose fill is only substantially preserved in the elevated part, was at least 33 m in diameter and 3.6 m high. Its original size is hard to estimate but it has most certainly been substantially larger. The cairn seems to be at least 10 m larger in diameter than any other known mound cairn from the late 1st millennia in Central Sweden (Bratt 2008). This has been a very large mound, once probably comparable with at least the Thing mound. From now on, it is called the North mound.



Fig. 14. Trial trench into the North mound 2105. Cairn stones in the bottom with the layer sequence of mound fill on top of the stone layers. Photograph: John Ljungkvist, Uppsala University. http://files.webb.uu.se/uploader/92/JAAH16_Fig14.jpg

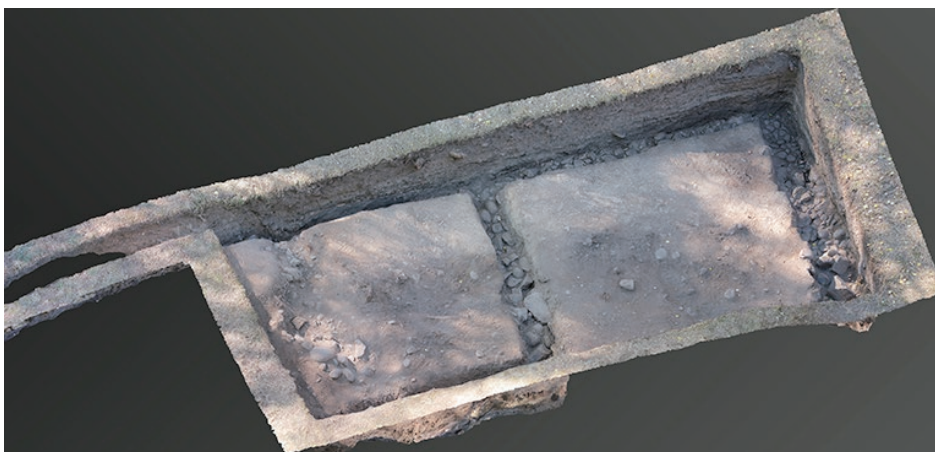


Fig. 15. Photogrammetry view of the Eastern terrace and North mound excavation in 2013. Right side of trench is almost directly in contact with left side trench on fig 14. In the 12th c. the mound fill layers were removed almost all the way down to the cairn, which is exposed in the narrow trenches. Photograph: John Ljungkvist. http://files.webb.uu.se/uploader/92/JAAH16_Fig15.jpg

THE MONUMENTALIZED CENTRE AND A CHANGING SOCIETY

From a number of perspectives, Gamla Uppsala may be defined as a unique place in Central Sweden, considering its sheer size, continuity and the amount of monumental features. One of its main scientific values lies in that we can study its changes in a long-term perspective. There are now plenty of archaeological and paleo-ecological data to use for studies on what happened long before and after the centre was established.

The monuments and the transformations of Gamla Uppsala are probably not unique for this site. Large mounds are increasingly becoming characteristic for the late 6th and 7th centuries in the Mälaren region (Bratt 2008). Their increasing appearances seem to coincide with the earliest boat graves found in Valsgärde and Vendel. Significant for this period are also major shifts in the burial rites, as cremation layers and smaller mounds become more frequent, and deposited animals, as well as the variation of grave objects that become far more common throughout the social scale (Petré 1984). Of major importance are also the new expressions in art and symbology represented by animal Style II. Finally, the international perspective takes a different form as the North Sea connection seems to become increasingly important. Imported goods generally increase in the shape of both finished products and raw materials (Ljungkvist 2008c).

These broad socio-economic changes seem to go hand in hand with chieftains, princes and kings begin to manifest their position and the places they control in a much more visual manner than before. It is probably also a reflection partly of simultaneous changes in NW Europe. The huge mounds of Gamla Uppsala are more or less contemporary with not only the earliest Vendel period boat graves in Vendel and Valsgärde but also the Anglo-Saxon Sutton Hoo and Snape boat burials, as well as large cremation burials such as Asthall Barrow (Dickinson and Speake 1992). The great hall or -sal of Gamla Uppsala is in some ways unparalleled, owing to the preservation conditions and placement on a huge terrace, but it also carries some traits that are common with the halls in Bulbrogård at Tissø and Järrestad in south Scandinavia, and Husby in Glanshammar, placed in the Mälaren region (Ekman 2000; Söderberg 2002; Bican 2010). From the various old written sources mentioned in the beginning of this paper, we know that Gamla Uppsala became a legendary site in Scandinavia early on. Today, it seems that the construction of spectacular buildings, graves, and other monuments were a good investment. The master builders of Gamla Uppsala truly succeeded in making history and creating memories of themselves and the site.



Fig. 16. Gold and garnet pendant found in 2015 on a stone pavement near the Western terrace. Photograph: Unknown.

http://files.webb.uu.se/uploader/92/JAAH16_Fig16.JPG

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