

Facts and Thoughts on the Original Formation of the Ridge, Older Human Activities, and a Settlement at Uppsala Cathedral in Sweden*

Gunilla Malm

Introduction

Uppsala is located some hundred kilometers north-west of Stockholm, the capital of Sweden, and some five kilometers to the south of Gamla Uppsala (Old Uppsala), the location of the old archdiocese cathedral (Fig. 1). When this location and its cathedral were no longer considered suitable, in 1258 the pope gave his permission to look for a new place. Most probably on royal initiative, the choice fell to Östra Aros, which was later named Uppsala.¹

The river Fyris flows through Uppsala. As the location for the new cathedral, the ridge to the west of, close to, and above a strong fall of the river was chosen. Most likely it was royal land that was donated for the building of the cathedral. To the east of the river Fyris there were older human activities and a settlement by then.² To the west of the river, on the ridge that was chosen for the cathedral, there were also older human activities and a settlement divided into blocks (Figs. 2, 3).³ According to written documents, the building of Uppsala Cathedral had started and was going on at the ridge around 1275.⁴ Building the cathedral required planing

* Hans Jansson has inspired me to write. Dag Toijer has visualized one phase of the old settlement on the top of the ridge to the west side of the river Fyris in Uppsala. Dr Jesse Keskiäho, Sonja Hukantaival and their staff have been appreciative and patient editors. Jean Price has proofread my English text. Camilla Lundberg has given advice and instructions. If readers still find mistakes or errors in the text, I am the one to blame. This text will be published in Swedish in a publication of the University of Lund.

¹ Olle Ferm, 'Från Östra Aros till Uppsala. Uppsala under tidig medeltid', in Torgny Néveus ed., *Från Östra Aros till Uppsala. En samling uppsatser kring det medeltida Uppsala* (Uppsala stads historia, 7), Almqvist & Wiksell: Uppsala 1986, 42–77, at 44–46.

² Lars Ersgård, 'Expansion och förändring i Uppsala medeltida bebyggelse', in Torgny Néveus ed., *Från Östra Aros till Uppsala. En samling uppsatser kring det medeltida Uppsala* (Uppsala stads historia, 7). Almqvist & Wiksell: Uppsala 1986, 78–100, at 88–89, and the literature there cited; Ferm 1986, 44–46; Torun Zachrisson, 'Gamla Uppsala – på nytt', in Olof Sundqvist, Per Vikstrand & John Ljungkvist (eds), *Gamla Uppsala i ny belysning* (Religionsvetenskapliga studier från Gävle, 9), Swedish Science Press: Uppsala 2013, 161–205, at 186–190 and the literature cited there, Fig. 6.

³ Johan Anund, *Domkyrkoplan i Uppsala. Arkeologisk schaktövervakning 1992*, (Rapport UV 1992: 7), Riksantikvarieämbetet och Statens historiska museer: Uppsala 1992, 5–50 and the literature cited there, Fig. 35.

⁴ Göran Dahlbäck, *Uppsala domkyrkas godsinnhav med särskild hänsyn till perioden 1344–1527* (Studier till den medeltida Sverige, 2), Kungliga Vitterhets Historie och Antikvitets Akademien: Stockholm 1977, 35, 133–134, 358–360; Göran Dahlbäck, Olle Ferm & Sigurd Rahmqvist, *Det medeltida*

the ridge (making the ridge surface flat) and demolishing older settlements. The original shape of the ridge and the existence of the older settlement were forgotten. The knowledge of these has not been fully recovered today. This article attempts to elucidate these issues.

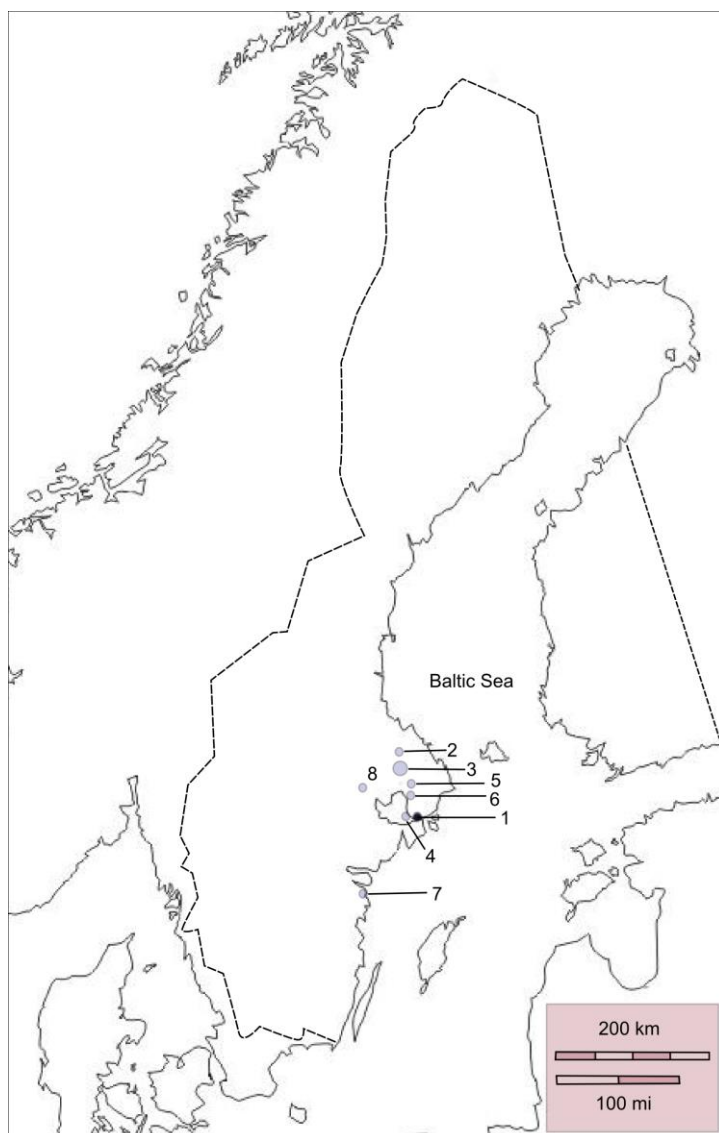


Fig. 1. Map of medieval Sweden. The dotted lines indicate the approximate borders. 1) Stockholm, capital of Sweden, 2) Gamla Uppsala (Old Uppsala), 3) Uppsala / Östra Aros, 4) Birka, 5) Sigtuna, medieval brick church, 6) Sko, medieval brick church, 7) Stegeborg, medieval squared brick tower, 8) Västerås, medieval castle built of stone and brick. Drawing by the author from Redin 1976.

Uppsala Cathedral was meant to be, and became, one of the most magnificent and largest brick churches of northern Europe – a grand basilica almost 120 meters long. According to written sources the cathedral was consecrated in 1435; something that has been

interpreted as meaning that the building-process was finished. But there are traces indicating that some kind of building-work was still on-going after 1435.⁵ There are 160 years between 1275 and 1435. To us today, this is quite a long period for a building-process. But maybe church building meant something different to people living in this period. In European cities, many cathedrals were built, rebuilt, and renovated. It was a cathedral-building period, bringing economic profit to builders who were already wealthy, as

Sverige 1:2. Tiundaland: Ulleråker, Vaksala, Uppsala stad, Riksantikvarieämbetet: Stockholm 1984, 284–285.

⁵ Gerda Boëthius & Axel L. Romdahl, *Uppsala domkyrka 1258–1435*, Almqvist & Wiksell: Uppsala 1935, 165, 195; Dahlbäck et al. 1984, 285.

well as work and income to brick layers, craftsmen and journeymen. The technical skills in building must have been widespread. In Sweden brick came into use as building material in the early thirteenth century. The builders came from the royal world or the elite of the church world. From those times we have cathedrals, churches and palaces. Two hundred years later, during the building period of Uppsala Cathedral, such monuments were still being built but a socio-economic change was obvious. By then brick also was chosen by another social class – the merchants – and for other functions. In Swedish towns stores or cellars to keep valuable goods were built of brick. I argue that this change reflects that the building material brick had become cheaper or easier to obtain.⁶ Contrary to this, in older research it is argued that brick was a modern and expensive building material throughout the Middle Ages.⁷

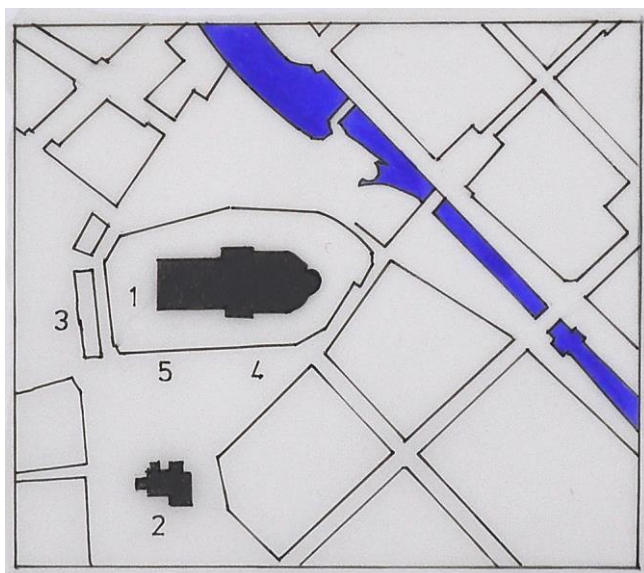


Fig. 2. Map of Uppsala today to the west of the river Fyris. Blue marking by the author. 1) Cathedral, 2) Holy Trinity church, 3) a part of the medieval archbishop's manor, 4) location of St Erik's chapel, demolished after a fire 1702, 5) location of a medieval brick kiln, most probably demolished during the Middle Ages. Drawing by the author from Redin 1976.

It is likely that before 1435 a church town was established on the ridge in Uppsala. The building material was brick. A mighty wall surrounded the cathedral and buildings connected to the church. There are still some remains of those constructions today. To the west of the cathedral the archbishop's manor was built, first mentioned in 1298.⁸ On an old map of Uppsala, printed by Olof Rudbäck in 1679, there is a small rectangular figure close to an open area to the west of the river Fyris. Most probably this figure is a stone building, reused as a part of the archbishop's manor (Figs. 2, 3). It should be noted that the cathedral is not on the map, which might

⁶ Gunilla Malm, 'Facts and thoughts on medieval brick building in the northern periphery of Europe' in Tanja Ratilainen, Rivo Bernotas & Christofer Herrmann (eds), *Fresh Approaches to Brick Production and Use in the Middle Ages* (BAR International Series, 2611), Archaeopress: Oxford 2014, 71–80, and the literature cited there.

⁷ Ann Catherine Bonnier, *Kyrkorna berättar. Upplands kyrkor 1250–1450* (Upplands fornminnesförenings tidskrift 51), Upplands fornminnesförening och Hembygdsförbund: Uppsala 1987.

⁸ Dahlbäck et al. 1984, 289.

mean that the map predates its planning and building. Approximately hundred meters to the south of the cathedral is Holy Trinity Church, built of stone and brick. Below, I argue that an older Holy Trinity, built of wood, once was standing where the stone and brick Holy Trinity stands today.⁹ This wooden Holy Trinity is visible on the old map (Figs. 2, 3).

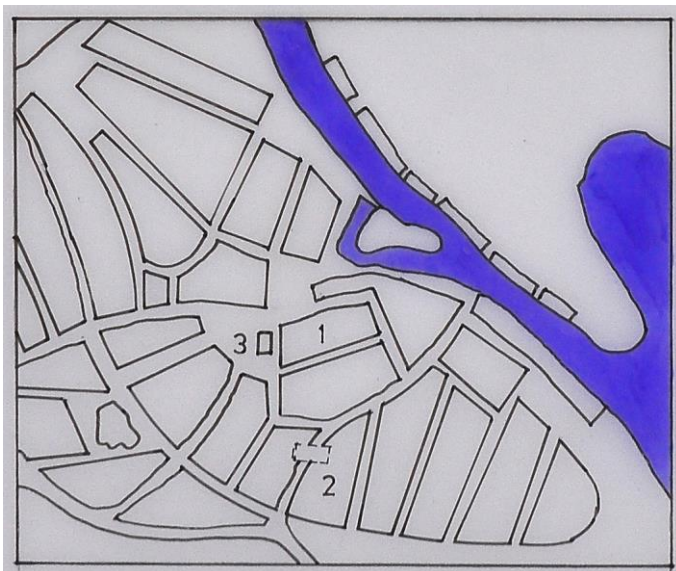


Fig. 3. Old map of Uppsala to the west of the river Fyris. Blue marking by the author. 1) Location of the cathedral, 2) Holy Trinity wooden church, 3) probably a stone building, now a part of a cellar in the medieval archbishop's manor to the west of the cathedral. Drawing by the author from Sundquist 1953; Anund 1992.

In a depression of the ridge between the cathedral and Holy Trinity Church was the location of a medieval St Erik's Chapel (Fig. 2). The chapel was demolished after a fire in 1702.¹⁰ A medieval brick kiln was once located in the depression, but further to the west (Fig. 2). Archaeological strata suggest that the kiln was no longer in use when the southern part of the cathedral's surrounding wall was built.¹¹ The remains of a stone wall with brick buttresses have been found on the ridge below the current ground level, very close to and at the northern side of the cathedral (Fig. 4).¹² However, the age of the wall is unknown. Below, I argue that it is older than the cathedral.

⁹ Dahlbäck et al. 1984, 285, note 1; Gunilla Malm, 'Helga Trefaldighets kyrka i Uppsala', *Årsbok för medlemmarna i Upplands Fornminnesförening och Hembygdsförbund 1985–86* (1987a), 7–24.

¹⁰ Dahlbäck et al. 1984, 292–293; Ronnie Carlsson, in Ronnie Carlsson, Hans Göthberg, Göran Dahlbäck, Christian Lovén & Herman Bengtsson, *Uppsala domkyrka II. Domkyrkan i Gamla Uppsala. Nuvarande domkyrkans omgivning* (Sveriges Kyrkor [SvK.], 228), Kungliga Vitterhets Historie och Antikvitets Akademien och Riksantikvarieämbetet: Uppsala 2010, 379–397 and the literature cited there.

¹¹ Nils Sundquist, *Uppsala stads historia I. Östra Aros: Stadens uppkomst och dess utveckling intill år 1300*. Historiekomm.: Uppsala 1953, 365–368, fig. 119; drawings at the Uppland Museum; Gunilla Malm, 'Recent excavations at Uppsala Cathedral, Sweden', *World Archaeology* 18 (1987b), 382–397, and esp. fig. 7; Gunilla Malm, 'Questions Concerning the Medieval Archbishop's and King's Manors in Uppsala', in Knut Drake ed., *Castella Maris Baltici I* (Archaeologia Medii Aevi Finlandiae 1), Sällskapet för medeltidsarkeologi i Finland: Åbo 1993, 123–127, and esp. fig. 3.

¹² Drawings at the Uppland Museum; Sundquist 1953 fig. 114; Stockholm, Riksantikvariet (henceforth RaÄ), Antikvarisk Topografiska Arkivet (henceforth ATA), dnr 425/92, Gunilla Malm, *Rapport över arkeologiska och byggnadsarkeologiska undersökningar i Uppsala domkyrka* 1998, drawings 1–19, at 19 b and Carlsson et al. 2010, figs. 306 B, 357 A, 363 P. NB. drawings in Malm 1998 are also published in Carlsson et al. 2010. Both are referred to in this text. In Carlsson et al. 2010, 415–422 'disturbed ridge gravel' is unfortunately changed to 'brought in ridge gravel'; Anund 1992 passim.

Either St Erik's Chapel, the kiln or the wall is on the old map. On the ridge, below the current ground level and cathedral floor, there are also other remains of human activities and a medieval settlement older than the cathedral.¹³ Here it should also be noted that a well of an unknown age and importance was built in the north wall of the north tower.

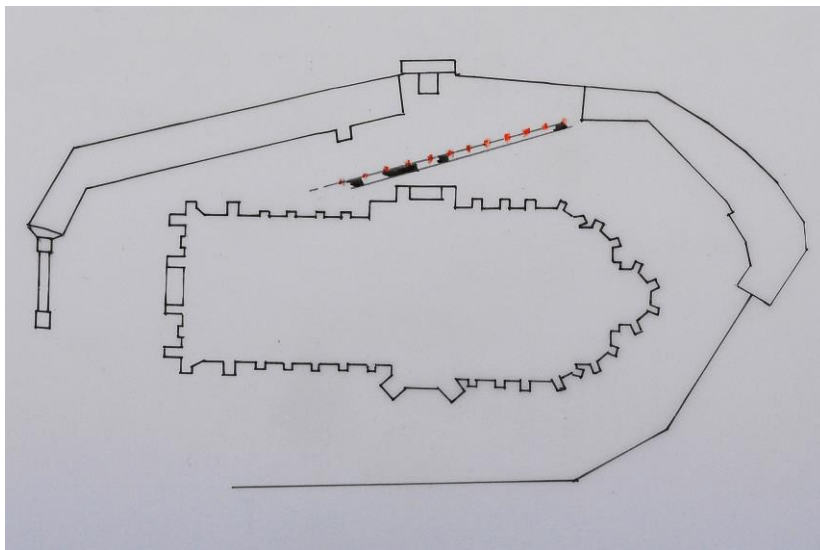


Fig. 4. The cathedral and a reconstruction of the remains of the stone wall with brick buttresses, found below ground level to the north of the cathedral. Drawing by the author from Sundquist 1953, Fig. 44; Anund 1992, Fig. 32.

The purpose of this paper is to attempt to reconstruct the original formation of the ridge, as well as bring new light to the human activities and medieval settlement preceding the cathedral. The basis of my reconstruction is the result of many years of archaeological and building archaeological investigations at the cathedral and buildings close to the cathedral. I mainly refer to a report (drawings) and published archaeological and building archaeological investigations and interpretations done in connection to restorations of the cathedral in 1971–76 and 1991–92.¹⁴ I also refer to new interpretations published in 2010.¹⁵ Written material and the above mentioned old map printed by Olof Rudbäck (Fig. 3) are also used. The study begins with a presentation of the traces of the original topography and continues with discussing what is left of old human activities and the settlement. This is followed by an introduction of the old map (Fig. 3), and of old buildings, or remains of buildings of importance in the context.

¹³ Malm 1998, 4 a, 5, 15 a–b, 16–17; Carlsson et al. 2010 figs. 306 A, B, 308 A, B, 363 B, F, G, I, K; Anund 1992, *passim*.

¹⁴ Anund 1992 *passim*; Malm 1998, drawings 1–19.

¹⁵ Carlsson et al. 2010; Christian Lovén, Herman Bengtsson & Markus Dahlberg, *Uppsala domkyrka III. Byggnadsbeskrivning. Byggnadshistoria. Domkyrkans konsthistoriska ställning* (Sveriges Kyrkor, 229), Kungliga Vitterhets Historie och Antikvitets akademien och Riksantikvarieämbetet: Uppsala 2010.

The Original Topography of the Site

The ridge to the west of and high above the river Fyris in Uppsala is a flat plateau today; a formation far from the original. As a result of ground planing in connection to building the cathedral and restorations later on, the original form of the ridge is hardly observable. Still, it is a well-known archaeological fact that geological strata or remains of older human activities do not always totally disappear when the ground is levelled. And that is the matter here. The cathedral was the subject of a grand restoration in 1971–76. At this time it was discovered that the ridge gravel was quite loose. In some cases it includes clay.¹⁶ The results of archaeological excavations at the cathedral in 1971–76 and later also tell that the area chosen for the cathedral was levelled as a first step of the building process. Furthermore some geological strata and former constructional details still exist *in situ* both inside and outside the cathedral.¹⁷

A reconstruction of the original ground level was published in 1976. The basis of the reconstruction is formed by archaeological and other observations. The reconstruction and the discussion of it are still valid – with one exception. To the north and northwest of the cathedral, the ridge had a quite deep depression which was not known when the reconstruction was made. The depression is filled with ridge gravel mixed with brick crush.¹⁸ It is not known where the brick crush came from or when the depression was filled. Building and demolishing brick walls in the area occurred for centuries after the cathedral was built. The depression was visible for quite a long time before it was filled, and the question is why. It has been suggested that the reason was an important road leading up to the top of the ridge.¹⁹

According to archaeological excavations, the original top of the ridge seems to have been quite narrow and steep. The present highest level of the ridge is under the choir of the cathedral, but so far we do not know if this is the original highest level of the ridge. Ground levelling when building the cathedral, or on earlier occasions, has of course changed the ridge.²⁰ There are some indications that the original ridge top may have been located further to the east than where the cathedral choir is located today. The ground planing for building the cathedral lowered the top, and ridge gravel might have been brought in to the area planned for the choir of the

¹⁶ O. Skoglund ed., *Uppsala domkyrkas restaurering 1971–76*, Uppsala domkyrkas restaureringskommitté: Uppsala 1977, 42–43.

¹⁷ Malm 1998 passim, Anund 1992 passim.

¹⁸ Lars Redin, *Medeltidsstaden 3. Uppsala*. Riksantikvarieämbetet och Statens historiska museer: Göteborg 1976, 52–54; Malm 1998, 19 j, n–p; Carlsson et al. 2010, fig. 306 B, 357 A, 364 H, M–P; Anund 1992, passim.

¹⁹ Anund 1992, 46–47.

²⁰ Redin 1976, 52–54; Malm 1998, 11; Carlsson et al. 2010, figs. 306 B, 326, 330.

cathedral. Thus, there might be remains of an older settlement beneath the brought-in ridge gravel under the cathedral choir.

From the top level of the ridge there was a long slope to the south, a somewhat shorter slope to the west, and a steep slope towards the river Fyris to the north and northeast. The ridge seems to have had smaller depressions. They seem to have been filled with pure sand, most probably when levelling the ground. In the middle of the nave there is a smaller area with pure sand beneath thin and hard brick-dust and clay or mortar layers interpreted as building layers from the building-work of the cathedral. There are other examples of this kind of probable brought-in sand as well, for instance close to the north tower.²¹

On top of the ridge close to the north side of the cathedral, there was once a stone wall with buttresses of brick built towards the ridge's steep slope (Fig. 4). Strata tell that before the building of the cathedral the wall was demolished to a level beneath the ground. Outside the wall (i.e. towards its north side facing the river Fyris) there was a large layer of pure sand found during archaeological excavation. The bottom of this sand layer was not reached. In the sand there are thin layers of brick splinter showing that the sand was brought in.²² Most probably this sand is a deposit. During the ground levelling for building the cathedral (or in former building occasions), sand was probably taken from this deposit to fill depressions in the ridge.

In 2010, the art historical inventory organization *Sveriges Kyrkor* ('Swedish Churches', abbreviated SvK.) published six volumes on Uppsala Cathedral. The publication was made possible through financial help from Huzelius' fund, a fund administered by the Swedish Royal Academy of Letters, History and Antiquities (*Kungliga Vitterhetsakademien*). The Academy chose the authors for the publications. The authors call themselves the *Huzelius Group*, thus this name is used here as well.

The *Huzelius Group* initiated a ground penetrating radar investigation inside and outside the cathedral. The ground radar registered some graves and structures on a very low level in the choir. These results, plus former archaeological observations, reconstructions and the topological appearance of the ridge today gave the *Huzelius Group* the basis for their interpretation concerning the original topography. According to the *Group*, the area of the cathedral, from the river Fyris in the northeast to the Holy Trinity Church in the southwest (Fig. 2), has been covered with some ten thousand cubic meters of gravel, imported from ridges located nearby.²³

²¹ Redin 1976, 52–54; Malm 1998, 4 e, 8, 15 a–b, 19 b; Carlsson et al. 2010, figs. 305 A, 306 A–B, 321 A–B, 357 A, 363 B, F, G, P.

²² Sundquist 1953, fig. 114; Anund 1992, passim; Malm 1998, 19 b; Carlsson et al. 2010, figs. 306 B, 357 A, 363 P.

²³ Carlsson et al. 2010, 67–70, 404, figs. 43–44 and the literature there cited; Lovén et al. 2010, 288–289.

Additionally, according to the *Huzelius Group*, the highest level of the original ridge has been made considerably higher in order to give the cathedral a more dominating position. The *Group* dates the first phase of this work to around 1270, saying that the stone wall with brick buttresses was built phase by phase as a support against the brought-in ridge masses.²⁴ The *Huzelius Group* also argues that the brought-in ridge material is very hard to separate from natural ridge material *in situ*. Thus the *Group* argues, for instance, that the results or interpretations of the archaeological investigations in 1971–76 and 1991–92 are wrong.²⁵

I think that the *Huzelius Group's* interpretation is doubtful. Ridge gravel might have been brought into the area of the planned cathedral choir in some cases, as mentioned above, but concrete proof that ridge gravel has been imported in such huge amounts as the *Group* argues is lacking. Geological or macrofossil analyses from different levels of the ridge showing that the material is or is not from the same milieu have not been made. Additionally, there are layers of human activity older than the cathedral under the nave floor arguing against the interpretation of the *Group*.²⁶ Furthermore, I find it doubtful that the stone wall with brick buttresses is from the 1270s. I have previously dated the wall to the 1270s but it is probably older,²⁷ as I argue below. Finally, the wall with brick buttresses has not been observable in its entirety. However, in the parts that have been seen there are no joints or signs in the ground strata proving that it has been built phase by phase, as the *Huzelius Group* argues. On the contrary, the whole wall seems to have been planned and built in one and the same phase.²⁸

Prehistoric Remains at the Site

Prehistoric Graves

Prehistoric graves and grave-fields are not observable close to Uppsala Cathedral today. Still it is known that Uppsala is located in an area with prehistoric remains. Many of the remains are lost because of cultivation, excavations for building-works, or some other reason. But it should be noted that skeletons have been found some two hundred meters to the south-east of the cathedral. Through C-14 analysis, they have been dated to the Viking Era (800–1050 AD). Close to the cathedral, there are also traces of cult-activity and rituals during prehistoric times: some twenty weapons have

²⁴ Lovén et al. 2010, 288–289.

²⁵ Carlsson et al. 2010, 67–70; Lovén et al. 2010, 288–289.

²⁶ Malm 1998, 4 a, 5; Carlsson et al. 2010, figs. 306 A, B, 308 A–B.

²⁷ Malm 1987b, 395; Malm 2014, 71–80; Anund 1992, 45–48.

²⁸ Anund 1992, *passim*.

been found in the river Fyris. The weapons were miniature swords and miniature axes from the Viking Era. The finds might be the remains of ritual deposition in water.²⁹

In older Swedish literature, we can read about prehistoric graves of smaller size as well as large graves close to the cathedral on both sides of the river Fyris. According to the literature, there were two large graves to the west of the river and one to the east. All of them have now disappeared.³⁰ The large grave to the east of the river is mentioned by Peringskiöld in 1719.³¹ Written material from the fifteenth century mentions a manor by a large grave named the King-mound (*Kungshögen*). The name might allude to the large grave mentioned by Peringskiöld. Close to the manor, a grave orb was found in 1940, which could be attributed to the large grave.³²

The Grave Orb and Result of Studies

The Swedish scholar Tove Zachrisson has studied Swedish grave orbs and their milieus. They belong to the Swedish late Iron Age (550–800 AD) and are to be found in milieus or sites with large graves. They allude to rituals unknown to us.³³

The grave orb of Uppsala is decorated with horses carved or cut in the stone. Only one other such grave orb has been found, a fragmented one from the Swedish urban-like place of Birka (see Fig. 1). This grave orb is also decorated with horses and an eagle with wide-spread tail-feathers, in a similar manner to eagles on shields from the Swedish late Iron Age. The heraldic figure-composition of the grave orb from Birka has been looked upon as a symbol of a royal dynasty (the so called Ynglingarna). It has also been argued that the harbor-milieu of Birka during the Viking Era was under the protection of the Uppsala-king.³⁴ Horses allude to the traditions

²⁹ Mårten Stenberger, *Det forntida Sverige*, Almqvist & Wiksell: Stockholm 1964, 739; John Ljungkvist, *En hiar atti rikr. Om elit, struktur och ekonomi kring Uppsala och Mälaren under yngre järnålder* (Aun, 34), Uppsala universitet: Uppsala 2006, 173–178; Carlsson et al. 2010, 70–71 and the literature cited there.

³⁰ Johan Peringskiöld, *Monumenta Ullerakerensia cum Upsalia nova illustrata*, Stockholm 1719; Reinhold Odencrans, 'Ett gravfält vid Slottsbacken i Uppsala', *Upplands fornminnesförenings tidskrift* 43 (1929–33), 120–123; Carlsson et al. 2010, 70–71 and the literature there cited.

³¹ Peringskiöld 1719; Carlsson et al. 2010, 71–72 and the literature there cited.

³² Sundquist 1953, 116–119; Stenberger 1964, 523; Lars Gezelius, 'Franciskanerklostret och S:t Per, två utgrävda medeltidskyrkor', in T. Nevéus, H. Lundh, & N. Cnattingius (eds), *Från Östra Aros till Uppsala. En samling uppsatser kring det medeltida Uppsala* (Uppsala stads historia, 7), Riksantikvarieämbetet och Uppsala kommun: Uppsala 1986, 191–220, at 210 note 43; the Uppland Museum 30174; Carlsson et al. 2010, 71 and the literature there cited; Zachrisson 2013, 188–191, figs. 6, 9 and the literature there cited.

³³ Stenberger 1964, 523; Zachrisson 2013, 188–191, fig. 9 and the literature there cited.

³⁴ Stenberger 1964, 523; Gezelius 1986, 210 not 43; the Uppland Museum 30174; Björn Ambrosiani, *Birka vikingastaden, vol. 5. Sveriges radio*: Stockholm 1996, 51–56, 56; Carlsson et al. 2010, 71–72, and the literature there cited; Zachrisson 2013, 188–191, fig 9 and the literature there cited.

particularly of King Adils, who is connected to the grand king halls of Gamla Uppsala (Old Uppsala).³⁵ In the sixth century the historian Jordanes tells us that the *Svears* (the Swedish people) were well known for their horses.³⁶ Finally, it has been argued that some rune stones in the area of Gamla Uppsala (Old Uppsala) and Uppsala (Östra Aros) indicate that these settlements are parts of one and the same entity that cannot be understood without each other.³⁷

Rune Stones and Thing

Rune stones are identified with the elite, the people who are in the position of inheriting goods and land. Uppsala is one of the most rune-stone-dense places in Sweden which indicates the importance of the place.³⁸ It is also known that a *thing* assembly place was located somewhere in the area where the cathedral and the Holy Trinity church were later on built (Figs. 2, 3). According to written documents, this *thing* was still in use after these two churches were built. *Things* dealt with administrative and judicial matters;³⁹ thus items like grave orbs and rune stones, which are connected to the elite, are natural in this setting.

It has been argued that rune stones were placed where a *thing* was organized (among other locations) and that some of the rune stones later used as building-stones in Uppsala Cathedral might have been taken from the *thing*-place in the neighborhood.⁴⁰ (It is well known that rune stones were also standing solitarily.) The rune stones and the *thing* are the oldest remains of royal dominance or activity in the area that later on was chosen for the cathedral.

To sum up – there are no prehistoric graves or cemeteries or traces of such remains left on the ridge where Uppsala Cathedral was built. On the

³⁵ Zachrisson 2013, 190 and the literature there cited.

³⁶ Josef Svennung, 'De nordiska folknamnen hos Jordanes', *Fornvännen* 59 (1964), 65–102, at 101; Zachrisson 2013, 190 and the literature there cited.

³⁷ Zachrisson 2013, 190 and the literature there cited.

³⁸ Birgit Sawyer, *Property and inheritance in Viking Scandinavia. The runic evidence* (Occasional papers on medieval topics, 2) Viktoria bokförlag: Alingsås 1988, passim; Birgit Sawyer, 'Som skall taka arv efter far sin...', in E. Mundal & I. Öje (eds), *Norm og praksis i middelaldersamfunnet*. Senter for Europeiske Kulturstudier: Bergen 2000, 56–79; Birgit Sawyer, 'Runstenar och förmedeltida arvsförhållanden', in J. Gertz & O. Varenius (eds), *Om runstenar i Jönköpings läns museum. Småländska kulturbilder*. Jönköpings läns museum: Jönköping 2002, 55–78; Helmer Gustavson, 'Runstenarnas Uppsala. Runstenar i Uppsala, deras inskrifter och placeringar', in T. Nevéus, H. Lundh, & N. Cnattingius (eds), *Från Östra Aros till Uppsala. En samling uppsatser kring det medeltida Uppsala* (Uppsala stads historia, 7), Riksantikvarieämbetet och Uppsala kommun: Uppsala 1986, 10–34; Malm 1998, 19; Carlsson et al. 2010, 72–75, figs. 45, 306 B, 357 A, 364 A–C and the literature there cited.

³⁹ Ferm 1986, 61–62; Carlsson et al. 2010, 75–76. and the literature there cited.

⁴⁰ L. Wilson, *Runstenar och kyrkor. En studie med utgångspunkt från runstenar som påträffas i kyrkomiljö i Uppland och Södermanland* (OPIA, 8), Uppsala universitet: Uppsala 1994, 130–131; Zachrisson 2013, 190 and the literature there cited.

east side of the river Fyris, there are traces indicating that the area had royal status in the Swedish late Iron Age (AD 550–800). On both sides of Fyris, traces indicate royal status in the Viking Era (800–1050) and the Swedish early Middle Ages when royal land was donated for building a cathedral (1050–1275). On the east side the grave orb was discovered, on both sides of Fyris we have rune stones and on the west side a *thing*-location.

A Well and an Old Map

Uppsala Cathedral has two mighty towers in the western part, one north tower and one south tower. In the north wall of the north tower, there is a built-in well. Despite of archaeological examinations we do not know its original depth. The distance from the tower floor to the bottom of the well is approximately eleven meters. The age of the well is also unknown,⁴¹ but it seems to be an original construction, meaning that it is as old as the tower. Furthermore, we do not know the importance or function of the well, and we do not know if it is an original spring with fresh water.

An old map of uncertain age was presented by Olof Rudbäck in 1679 (Fig 3). The map shows a settlement with blocks where the cathedral was built to the west of the river Fyris, but it does not show any cathedral. Some scholars argue that it dates to before 1287; others assume that it is based on an earlier medieval original. It is possible that the map was made when the archbishop's diocese received royal land and property to build a cathedral on the west side of the river Fyris.⁴² The reliability of the map has earlier been questioned. But since the 2000s it has been used as an important source of the development of Uppsala, since it appears that some structures on the map fit together with the results of archaeological investigations.⁴³ This means that interpretations preceding the 2000s have partly changed.

As stated, the cathedral is not marked on the map. The well (or spring) is not marked either. The older Holy Trinity (the wooden church) is marked, as well as blocks, streets or roads and a rectangular building, probably made of stone – most likely a building that was later used as a part of the archbishop's manor.

⁴¹ Carlsson et al. 2010, 447–451, and the reports there cited.

⁴² Olof Rudbeck den äldre, *Atland eller Manheim (Atlantica sive Manheim) och Atlas*, 1670–, 1863, 1937; Olof Rudbeck, *Atlantica vol. 1–3 och Atlasbandet*, Axel Nelson ed., Lychnos-bibliotek: Stockholm 1937–50; Anund 1992, 40–44 and the literature there cited.

⁴³ Anund 1992, 40–44 and the literature there cited.

Archaeological Evidence of a Medieval Settlement Preceding the Cathedral

During archaeological excavations just outside the north portal of the cathedral, some 2.5 meters below the modern ground level, a cultural layer and a path, a street or a road have been found. Through C-14 analysis and finds of ceramics, the remains have been dated to 1031–1232. It is likely that the features date to the late 1100s or around 1200. In other words, the remains are older than the cathedral.⁴⁴

The artifacts of the cultural layer are mostly of the usual kind that is found when excavating early medieval towns in Sweden. The layer shows a total absence of brick in any form, though small pieces of mortar were found. So, this settlement seems to have included buildings of stone and mortar but not of brick. Macrofossil analysis tells of dwelling-houses and outhouses but not of stables or cow-houses. In the early 1200s the street or road was a simple path. After 1232, it was paved with stone. It seems as if there was a need to level the ground. The length and function of the street or road is unknown, but it appears that it corresponds to a passage marked on the old map. Macrofossil analysis indicates that the vegetation by the path/street/road was of the kind normally observed by such sites.⁴⁵ The people living in this old settlement must have had fresh water. Maybe they got it from a spring nearby – the well now in the north-west tower of the cathedral?

The remains of a cobblestone construction some 1.5 meters below ground level is found to the north of the cathedral. C-14 analysis dates the construction to the twelfth century.⁴⁶ The range and function of the construction is unknown but it is obviously of the same age as the above mentioned remains. The connection between them is unknown, however. The remains of a construction made of stone, clay, and brick crush has been found between the cathedral's north side and the stone wall with buttresses of brick. The construction was built directly on the ridge. Only one layer of stones remains. The date, function, and connection to the wall of this feature are unknown. In the area between the construction and the cathedral pure sand seems to have been brought in. It seems as if the top level of the construction is the same height as the stone wall with brick buttresses. Both

⁴⁴ Anund 1992, 23–29.

⁴⁵ Anund 1992, 23–50, figs. 21, 22, 35, 36; Ingemar Pålsson, 'Makrofossilanalys', in Johan Anund ed., *Domkyrkoplan i Uppsala. Arkeologisk schaktövervakning 1992* (Rapport-UV, 1992:7), Riksantikvarieämbetet och Statens Historiska Museer, Byrån för arkeologiska undersökningar: Uppsala 1992, 56–57, at 57.

⁴⁶ Carlsson et al. 2010, 79; Lovén et al. 2010, 288.

remains have been demolished, most probably during the ground planing for the building of the cathedral.⁴⁷

Some faint remains of cultural layers, probably preceding the cathedral, have been found on the ridge. Approximately fifteen meters to the south of the cathedral, a small shaft was dug 3.8 meters below the current ground level where the ridge's top level was reached. On top of it there was a 0.4 meter thick black cultural layer. The age or extent of the layer is unknown. No artifacts were found but strata and the black cultural layer was the same as medieval black cultural layers in medieval towns.⁴⁸ Another small shaft was dug outside the north wall of the north tower of the cathedral. The shaft was dug to the top of sterile ridge gravel, 3.9 m below modern ground level. Within the top of the ridge gravel, there was a fragmented bone (the species remains unrecognized) and some pieces of charcoal. Above these finds there was an approximately one meter thick brought-in layer of sand. The finds and the sand indicate some kind of activity. We do not know the age of this activity or what kind of activity it was. For instance, we do not know if it concerned building the tower or the well in the tower wall. The strata are difficult to interpret.⁴⁹

Inside the cathedral, archaeological excavations took place during the restoration in 1971–76. In general, the strata in the nave from the modern floor to the untouched ridge appear as follows:⁵⁰

- Modern day floor.
- A quite thick layer of recent material.
- A thin, hard layer of clay or mortar.
- A thin, hard layer of brick-dust.
- The flat ridge surface after planing the ridge.
- A quite significant destroyed and disturbed layer from older activities or a settlement. The layers have been destroyed and mixed when planing for and building the cathedral. Small brick pieces, burnt clay, charcoal, soot, small pieces of bone, uncertain post holes or graves. The brick pieces date the layer to the Middle Ages.
- A hard layer on the top level of the ridge.
- Sand. Brought in? Graves.
- Untouched ridge gravel or clay. Disturbed by a grave beneath the foundation of the fourth north-west pillar (pillar B4 on Fig. 5).

⁴⁷ Malm 1998, 19 b; Carlsson et al. 2010, figs. 306 B, 357 A, 363 P.

⁴⁸ Malm 1998, 17; Carlsson et al. 2010 figs. 306 B, 363 I, K.

⁴⁹ Malm 1998, 15 a, b; Carlsson et al. 2010, figs. 306 B, 363 B, F, G.

⁵⁰ Malm 1998, 4 a, 5; Carlsson et al. 2010, figs. 306 A–B, 307 A–B, 308 A–B. On the *Huzelius Group's* change of layer- and strata interpretation see note 12.

The strata tell that the thin, hard layers of clay or mortar and particularly the brick-dust layer have been deposited when building the brick walls of the nave. The brick-dust layer seems to cover the whole nave. The layer mirrors the flat ridge surface after the planing of the ridge top. From this layer the shafts for the arcade pillar foundations were dug, while the foundation of the chapels, according to strata, seems to have been standing when the layer was deposited.⁵¹

Just beneath the brick-dust layers, close to the third south west pillar of the nave, there is a quite significant destroyed and disturbed layer from activities or a settlement older than the cathedral. We do not know what kind of activities formed this layer, and the age of it is also unknown. Brick pieces indicate, however, that the layer is from the medieval period.⁵²

From the modern floor to the untouched ridge the strata appear as follows in the choir:⁵³

- Modern floor.
- A significant layer of recent material, sometimes with graves.
- Sand and ridge gravel with brick pieces and small pieces of wood splinters.
- A hard layer of mortar, alternating with hard ridge gravel on the planed flat ridge top.
- Ridge and graves.
- Untouched ridge.

The layer of sand and ridge gravel includes a lot of small pieces of wood splinters – finds hard to date and interpret. Are the wood splinters an indication of the making or demolishing scaffolds or are they traces of the building or demolishing of an older wooden secular building or church? As noted below a wooden church (*ecclesia lignea*) existed in 1290 in an uncertain location.⁵⁴ Are the pieces of wood splinters traces of that church? We do not know, but analysis of the wood splinters might show what kind of wood it is and if it originates from construction or demolition activities⁵⁵ – most likely an expensive analysis but the answer would be of great interest.

Thus, in the choir the strata are dissimilar to the nave. Among other things, it should be noted that so far, unlike in the nave, brick dust has not been found in the choir – an interesting matter that has not yet received a logical explanation or interpretation. Brick dust layers have not been found

⁵¹ Malm 1998, 5, 7, 8; SvK 228 2010, figs. 306 B, 307 B, 308 B, 314 B, 316–318 B, 319 B, 321 B, 323 B.

⁵² SvK 228, 2010, fig. 307 A

⁵³ Malm 1998, 11, 12; Carlsson et al. 2010, figs. 326, 328, 329, 330, 331.

⁵⁴ Dahlbeck et al. 1984, 284.

⁵⁵ Personal communication from carpenter Karl-Magnus Melin, Hantverkslaboratoriet, Sweden.

outside the cathedral either, but we know of land use that has lowered the ground here.

A Brick Kiln

During archaeological excavation in 1943 a brick kiln was found below current ground level in the street going in an east-west direction approximately thirty meters to the south of the cathedral (Fig. 2). The exact age of the kiln is unknown, but strata indicate that it is older than the south part of the medieval surrounding wall of the cathedral.⁵⁶ The bricks from the kiln are of an average size;⁵⁷ however it is impossible to tell if they were made for the cathedral or for another medieval brick building. One thing that is certain is that the bricks were not made for the oldest sacristy of the cathedral (one of the oldest building phases of the cathedral), since the brick size of the sacristy is much smaller.

Evidence of Ecclesiastical Buildings and Graves preceding the Cathedral

The Holy Trinity Church

Approximately hundred meters to the south of the cathedral is the Holy Trinity Church in Uppsala (Figs. 2, 3). The oldest part of the church, the sacristy, is built of brick. However, its age is unknown. The nave of the church was built of natural stone and brick at the end of the thirteenth century or at the beginning of the fourteenth century. During the fifteenth century, a brick tower, a brick transept, and a brick porch were built.⁵⁸ Still, according to Erik Cinthio's studies, the building of the Holy Trinity churches in Sweden belongs to the eleventh and twelfth centuries with a king as the builder.⁵⁹ Furthermore, the Erik Legend (*Erikslegenden*), recorded in the fourteenth century, tells about a Holy Trinity Church in Uppsala in 1160. This year the Swedish King Erik Jedvardsson visited the mass. After he left the church he was abruptly killed – this means that in 1160 there was a Holy Trinity church in Uppsala; an older one than the standing church from the thirteenth to fifteenth centuries. In the Legend, however, the older church is

⁵⁶ Sundquist 1953, 365–364, fig. 19; Malm 1987b, esp. fig. 7; Malm 1993, esp. fig. 3; Malm 1998, 16, 17; Carlsson et al. 2010, figs. 306 B, 363 I, K.

⁵⁷ Sundquist 1953, 365.

⁵⁸ Redin 1976, 47.

⁵⁹ Erik Cinthio, 'Kirche und Gesellschaft im Ostseeraum und im Norden vor der Mitte des 13. Jahrhunderts', in Sven Ekdahl ed., *Visby-symposiet för historiska vetenskaper 1967* (Acta Visbyensia, 3), Museum Gotlands Fornsal: Visby 1967, 161–169, esp. 163–169.

said to be located 'where the cathedral now stands'.⁶⁰ These statements have enticed a lot of questions.

In 1906, an archaeological excavation of the stone and brick Holy Trinity in Uppsala did not reveal any traces of an older church. Later, in 1979, an archaeological and building archaeological investigation was made of the standing church. At this time older graves and signs of an older church were found in the stone and brick walls. The signs tell that the older church most probably was a wooden one. I argue that this wooden church was the Holy Trinity Church the Swedish King Erik Jedvardsson visited in 1160, mentioned in the Erik Legend. Soon after the incident, he became the Swedish national saint, mentioned in written sources in 1198.⁶¹

Thus, according to the archaeological and building archaeological data in 1979, an older (wooden) Holy Trinity was indeed standing where the stone and brick Holy Trinity was built around 1300. The older wooden church is likely to have been dismantled to give place to the newer stone and brick church. Its brick sacristy was the first part built. Judging by the strata of the walls it was built towards the wooden church walls while that church was still standing.⁶² I do not have a proper answer to the conflicting location of the Holy Trinity in the Legend. The reason for the location might be a matter of time-divergence. The Legend was transcribed some 200 years after the incident described in the Legend (the murder of King Erik in 1160).⁶³ Facts, circumstances and memories might have been forgotten during these centuries, or maybe been (consciously) changed for reasons unknown to us. Finally, it is an interesting and important matter that the older (wooden) Holy Trinity and the medieval settlement on the ridge to the west of the river Fyris, coexisted. The *Huzelius Group* has a different interpretation of the older Holy Trinity church (see below).⁶⁴

Christian Graves Preceding the Cathedral

In the 1960s, fragmented graves were found under the foundation of the cathedral on the north side. These graves are older than the cathedral and were disturbed when building the foundation.⁶⁵ In 2005, the *Huzelius Group* conducted a ground penetrating radar investigation inside and outside the

⁶⁰ Göran Dahlbäck, *Uppsala domkyrka I. Skriftliga källor. Arkivbildning* (Sveriges Kyrkor, 227), Kungliga Vitterhets Historie och Antikvitets Akademien och Riksantikvarieämbetet: Uppsala 2010, 533–536. esp. 536 and the literature there cited.

⁶¹ Ferm 1986, 75; Malm 1987a, passim.

⁶² Drawings Uppland Museum; Malm 1987a, passim and the literature there cited; Malm 1987b, 391–392.

⁶³ Malm 1987a, passim and the literature there cited; Malm 1987b, 391–392.

⁶⁴ Carlsson et al. 2010, 347–350; Lovén et al. 2010, 287–288

⁶⁵ Folke Nordström, *Studier i Uppsala domkyrkas äldsta byggnadshistoria*, Almqvist & Wiksell: Stockholm 1952, 142.

cathedral. Inside the choir, the radar registered anomalies at 2.8 meters below the modern floor. The anomalies are in the shape of coffins and are interpreted as graves older than the cathedral.⁶⁶ The anomalies have not been seen, they have not been archaeologically investigated, and they have not been related to other strata or the foundations of the choir. Still, the depth and shape of the anomalies indicates graves that are most likely older than the cathedral.

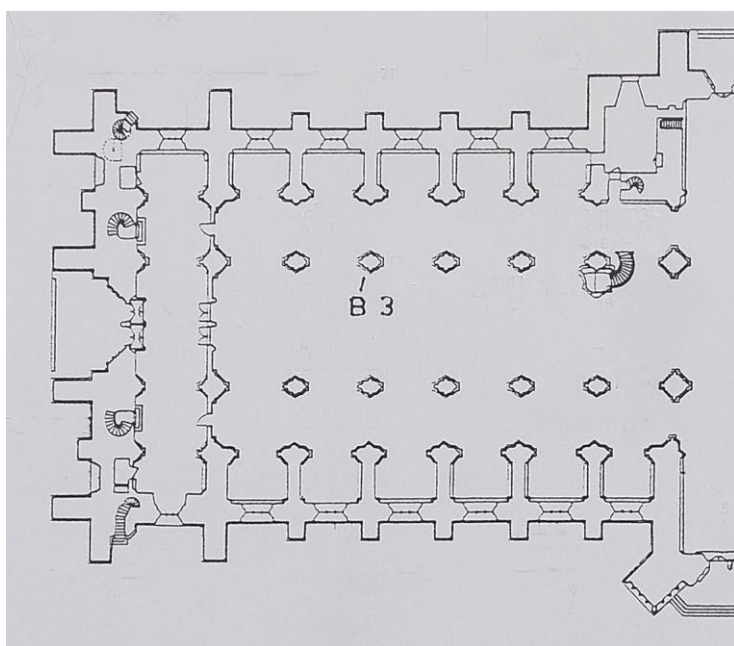


Fig. 5 The cathedral nave with pillar B4, erroneously marked B3. Drawing by the author from Carlsson et al. 2010, fig 306 A.

One grave preceding the cathedral has been discovered in the nave beneath the foundation of the fourth north-west pillar, ca 2 meters beneath the modern floor (pillar B4, Figs. 5-6).⁶⁷ The strata in the shaft where the

grave was found are as follows:

- Modern floor.
- A substantial recent layer with brick crush, clay, sand, pieces of bone, graves.
- A thin, hard layer of brick dust, most likely the building layer of the cathedral. From this layer the shaft for the pillar foundation is dug.
- A quite substantial layer of demolished material from an activity or settlement older than the cathedral. Brick crush, burnt clay, charcoal, soot. The brick crush indicates that the layer is from the medieval period.
- The hard surface of the original ridge.
- Original ridge or clay. The mentioned grave. Note that the layer beneath the pillar foundation is disturbed because of the grave.⁶⁸

⁶⁶ Carlsson et al. 2010, 456–461 and the literature there cited.

⁶⁷ Malm 1998, 4 a, 5; Carlsson et al. 2010 figs. 306 A, B, 308 A, B.

⁶⁸ The layer is *not* brought in as is argued by the *Huzelius Group* in Carlsson et al. 2010, 415–422; see also note 12.

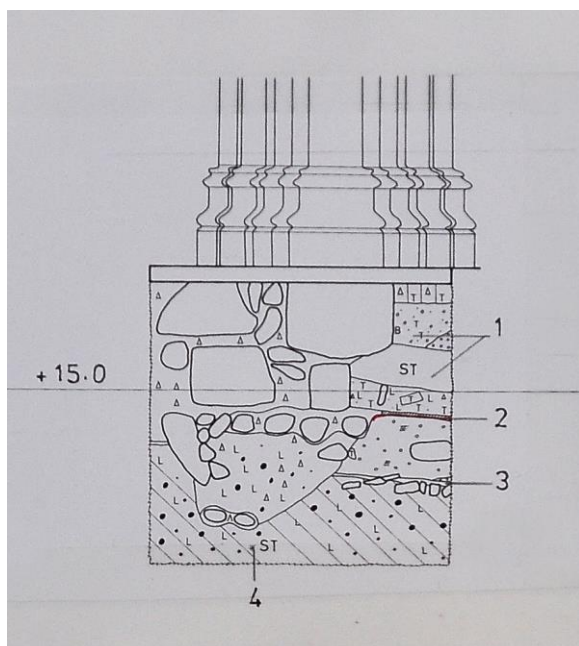


Fig. 6: Shaft close to pillar B4. ST means skeleton probably in a wooden coffin (in Swedish *tråkista*). Profile. Drawing by the author from Carlsson et al. 2010, fig. 308 B. For the legend to the layout and section drawings see *idem*, fig. 306B.

An analysis of the geometrical system of the cathedral was made in 1949–69. At this time, it became clear that the cathedral is a strictly regular creation. It was planned with a regular design and the building-process was finished without changes in this regularity.

Some doubt, however, concerns the western part with the cathedral's two towers.⁶⁹ The strict geometric system of the cathedral suggests that no burials from the cathedral building time exist where pillar foundations were planned. Consequently, the grave beneath pillar B4 is older than the cathedral. More graves are found in the nave, but they are hard to date with archaeological methods, partly because they are found in sand with uncertain provenance, as stated above.

Finally, in the 1980s, a shaft was dug close to the pillar of the north tower. Between 2.7–2.8 meters below the current floor there was a fragmented grave (a human skull) in the ridge material. It is probable that this grave was disturbed when the shaft for the pillar foundation was dug. The grave most probably belongs to a churchyard older than the cathedral.⁷⁰ The difference in depth between this grave, the grave in the choir and the grave in the nave, mentioned above, is 0.8 m, quite a significant difference that partly might depend on the original topography, but might partly be a real difference.

Moreover, Nils Sundquist found some graves outside the cathedral south portal in the middle of the twentieth century. Because of their depth beneath the modern ground he argued that they belonged to a churchyard older than the cathedral⁷¹ – an interpretation he has been criticized for. Since the graves are not related to the cathedral foundation it is not known if they

⁶⁹ Ragnar Hjort, *Uppsala domkyrkas geometriska system*, Kungliga Vitterhets Historie och Antikvitets Akademien: Stockholm 1970, passim and the literature there cited, esp. 23–24

⁷⁰ Drawings and information from Lars Gezelius, Upplands Museum; Carlsson et al. 2010, 404–412, figs. 302, 303, 304.

⁷¹ Sundquist 1953, 315–317.

are older or younger than the foundation. In light of the discussion above, maybe the criticism should be re-evaluated.

To sum up, beneath the foundation and the modern floor in Uppsala cathedral there are graves from a churchyard preceding the cathedral. The churchyard most likely coexisted with or is of a younger age than the medieval settlement that is older than the cathedral. The question is: to what church does the churchyard belong?

St Erik's Church and Chapel

In 1278, St Erik's church in Uppsala (Östra Aros) is mentioned for the first and only time.⁷² But the age and location of the church is unknown and we do not know if it was built of wood or stone and mortar. Olle Ferm gives an interesting discussion concerning the builder of the church. The Swedish king, Knut Eriksson (1167–1195/6), son of the murdered King Erik Jedvardsson, was an instigator of the development of Uppsala and of making his father, Erik, a saint. As mentioned above, Erik was murdered in 1160. According to a written source, he was mentioned as a saint in 1198. Ferm argues that King Knut's efforts speak in favor of the idea, that he is the builder of St Erik's church and that the church is older than 1278.⁷³ I agree with this interpretation.

St Erik's chapel was located in a depression in the ridge between the cathedral and the Holy Trinity Church (Fig. 2.). It was a gothic brick building, most probably built in the early fourteenth century. It was demolished after a fire in 1702. Some human bones have been found in archaeological excavations there, but no churchyard.⁷⁴ In written sources St Erik's chapel is mentioned quite often during the fourteenth century, and by then in relation to the cathedral or to its level, such as:

In 1301 St Erik's chapel is located by the school (that is outside and below the cathedral).

In 1305 St Erik's is located separate from the cathedral .

In 1314 the outer chapel of St Erik is located by the foot of the mountain.

In 1335 the outer chapel of St Erik is mentioned.

In 1344 St Erik's chapel and the locale of St Erik's martyrdom are mentioned.

⁷² '1278 Ecclesie sanctj ericj in Arusia', cited in Dahlbäck et al. 1984, 292.

⁷³ Ferm 1986, 75–76.

⁷⁴ Lars Gezelius, 'S:t Eriks kyrka på Riddartorget i Uppsala', *Meddelanden från Upplands fornminnesförening och hembygdsförbund* 1983:2 (1983), 5–8; Dahlbäck et al. 1984, 292; Carlsson et al. 2010, passim.

In 1344 the building of St Erik's in brick is mentioned.

In 1360 St Erik's wooden chapel at a lower level is mentioned.⁷⁵

According to the information from the written records there is an outer chapel of St Erik, separated from and on a lower level of the ridge than the cathedral, meaning that there must have been an inner St Erik's chapel (a St Erik's inside the cathedral) on a higher level.

I argue that the inner St Erik's on a higher level most likely was the one mentioned as St Erik's church in 1278. That church had a churchyard. The church had to be dismantled, since its location was chosen for the cathedral. The inner St Erik's church was relocated to a lower level outside the cathedral and was thereafter called St Erik's chapel. The churchyard of St Erik's church was left on top of the ridge. The St Erik's chapel on a lower level did not have a churchyard.⁷⁶

Today nothing remains of either St Erik's church or chapel above the cathedral floor or ground level. But there is something left to remind us of St Erik's church – the patron. Uppsala Cathedral has more than one patron. One is St Lawrence (St Lars), who is also the patron of the cathedral of Old Uppsala. Another is St Erik,⁷⁷ according to my interpretation above, the patron of the first church on the ridge to the west of the river Fyris, where the cathedral later on was built. Does this suggest that not only the church but this very locale was consecrated to Erik, who consequently became the patron of the new church – the cathedral? Again, the *Huzelius Group* has a somewhat different interpretation of St Erik's church and the chapel.⁷⁸

Ecclesia lignea infra muros ecclesie noue

In 1344 a written record linked to Uppsala Cathedral tells about a wooden church in 1290: 'ecclesia lignea infra muros ecclesie noue'.⁷⁹ The *ecclesia noua* is most likely the cathedral about to be built in 1290. The meaning of *infra* is unclear since the location and function of the wooden church is unknown.

⁷⁵ '1301 capelle beati Eriki ... iuxta scolas site. 1305 ad capellam beati Eriki, ab ecclesia maiori separatam. 1314 ad exliorem capellam beati Eriki in pede montis. 1335 capelle beati Eriki exterior. 1344 capellam beati erici inferius circa locum passionis. 1360 capelle beati Eriki lignee inferius', cited in Dahlbäck et al. 1984, 292.

⁷⁶ Dahlbäck et al. 1984, 292 and the literature there cited. The thesis that there were two outer St Erik's chapels has been argued, but this is doubtful. Furthermore, it is not my opinion that the designations church and chapel mean occurrence or lack of a churchyard, something that was discussed at the conference in Turku on *Church Archaeology in the Baltic Sea Region* in 2013. The question has been the subject of studies but so far without a satisfactory answer.

⁷⁷ Ferm 1986, 46, 61, 74 and the literature there cited.

⁷⁸ Carlsson et al. 2010 passim; Lovén et al. 2010, 255.

⁷⁹ Dahlbäck et al. 1984, 284;

Different interpretations have been presented, recently by the *Huzelius Group*.⁸⁰

The *Huzelius Group* argues that this wooden church was an interim church built in the cathedral nave 1290 and dismantled around 1380. The *Group* claims that by then the choir and transept were built, the choir could be used for masses and other liturgical activities and the building-work of the nave was started. The interim church was not needed any more.⁸¹ In the archaeological excavations inside the cathedral in 1971–76 graves were found in the nave. According to the *Group* six of these graves belong to the wooden church.⁸² However, I find this interpretation doubtful.

One of the six graves is the one beneath pillar B4 mentioned above. Judged by stratigraphy this grave belongs to an older churchyard. Furthermore, if the building-work of the brick walls of the cathedral choir and transept was going on from 1290 to 1380, as the *Huzelius Group* claims, a lot of brick dust should have been deposited on the assumed wooden church roof nearby – not on the ground only. Thus, if the *Huzelius Group* interpretation is correct there should be irregularities in the brick dust layer in the nave, but this is not the case. I argue that the unbroken brick dust layer in the nave contradicts the *Huzelius Group's* interpretation. The wooden church, *ecclesia lignea*, was not located in the nave. But where, then, was that church located? Does the absence of a brick dust layer in the choir indicate that this was the location of the wooden church? Future investigations might give the answer. And in my opinion these investigations should include analysis of the wood splinters, mentioned above.

The Stone Wall with Brick Buttresses

A mighty stone wall with brick buttresses 0.8–1.8 meters below the current ground level has occasionally been uncovered just to the north of Uppsala Cathedral (Fig 4).⁸³ Strata indicate that the brick buttresses and the stones of the wall belong to one and the same building phase. The width of the wall is measured to 1.5–1.8 meters. It is preserved to a height of ca 2.4 meters below ground level. We do not know its original height or length.⁸⁴ Furthermore, there are different ideas of the age of the wall, who the builder was and why it was built.

⁸⁰ SvK 228, 2010, 157–163 SvK 229, 2010, 303–325 and the literature there cited.

⁸¹ SvK 228, 2010, 157–163 SvK 229, 2010, 303–304 325 and the scholars there named.

⁸² SvK 228, 2010 157–163; SvK 229, 2010, 288–289, 303.

⁸³ Sundquist 1953, fig. 114; Anund 1992, *passim*; Malm 1998, 19 b; Carlsson et al. 2010 figs. 306 B, 357 A, 363 P.

⁸⁴ Anund 1992, *passim*; Malm 1998, 19 b; Carlsson et al. 2010, figs. 306 B, 357 A, 363 P.

The wall is built on top of the older settlement and is overlaid by the foundation of the cathedral's north portal.⁸⁵ As stated, the older settlement is dated to the period 1031–1232. The foundation of the cathedral's north portal is dated to ca 1350.⁸⁶ These strata give a date for the wall standing between 1031/1232 and 1350. The strata also tell that the building of the wall took place in the end of the twelfth or the beginning of the thirteenth century.⁸⁷ The fact that brick has been used as building material is important for dating the wall. The brick churches in Sigtuna and Sko and the squared tower of Stegeborg are known as the oldest examples of brick architecture in Sweden (Fig. 1). The two churches were most probably built in the middle of the thirteenth century. Building the tower probably was finished by 1250.⁸⁸ It is likely that the stone wall with brick buttresses in Uppsala belongs to this group of early Swedish brick architecture.⁸⁹ Maybe this is the earliest evidence of brick building in Sweden, predating the churches of Skokloster and Sigtuna, and the tower at Stegeborg.

The fact that the Uppsala wall was built towards the ridge slope makes it easy to look upon it as a terrace or supporting wall.⁹⁰ Such walls used to have buttresses – but buttresses of stone. I think the Uppsala wall, built of stone with buttresses of brick, is without an equivalent in northern Europe. It seems hard to believe that brick buttresses give firmness in the same way as stone buttresses do. To me the buttresses of the Uppsala wall seem to be some kind of a decoration – or the builder's wish to demonstrate ability to use this new building material, recently popular among the nobility in the north of Europe.

The only ones with ability to initiate the production of brick in Sweden, or to be the first ones to import this building material, were the king or the elite of the church. I argue that someone from this group was the builder of the Uppsala wall. Being the first to use this new building material must have imparted some kind of prestige even to a nobleman. And prestige the builder got; the bricks were visible to everyone. The stone wall turned its brick buttresses towards the river Fyris, the center of trade and commerce in Uppsala. Here we must imagine a lively stir of people. They saw what was happening on the ridge. Brick, the new building material, was in use, and probably drew a lot of attention. Johan Anund too had similar thoughts when writing: 'the north façade of the wall has been visible, something that

⁸⁵ Anund 1992, *passim*.

⁸⁶ Boëthius & Romdahl 1935, 203; Anund 1992, *passim*.

⁸⁷ Anund 1992, 45.

⁸⁸ Erik Bertil Lundberg, *Stegeborgs slott* (Kungliga Vitterhets historie och Antikvitets Akademiens handlingar, Antikvariska serien, 12), Almqvist & Wiksell: Stockholm 1964, 115; Bonnier 1987, 26.

⁸⁹ Anund 1992, 45; Malm 1914 *passim*.

⁹⁰ Malm 1987b, 395–396; Malm 1998, 19 b; Carlsson et al. 2010, figs. 306 B, 357 A, 363 P; Anund 1992, 46.

explains the use of brick in the buttresses'.⁹¹ I guess that a similar thought was also in Christian Lovén's mind when writing about the early medieval brick wall in the castle of Västerås. He wrote that it faced the direction where it could be seen by many people.⁹²

Above I wrote that the fact that the Uppsala wall was built towards the ridge slope makes it easy to look upon it as a terrace or supporting wall.⁹³ Here I argue that the wall also might have had other functions. Above, I referred to the idea of King Knut Eriksson being the initiator of St Erik's church as an attempt to make his father, the murdered King Erik Jedvardsson, a saint. It is likely that the wall with brick buttresses should be connected with that church. We do not know the locale of the church. As stated above, it might have been located at the ridge where we know of an older settlement – a locale that was later on chosen for the cathedral.

Besides being a terrace or supporting wall, the wall might have had the function of a border between the sacral and profane world. By sacral I mean the locale of St Erik's church, its churchyard, and the Holy Trinity. The old urban-like settlement and human activities nearby had a meaning and a role in people's lives, unknown to us today. By profane I mean the life of trade and commerce by the river Fyris, on the other side of the wall.

The builder of the wall might have been the archbishop, King Knut, or someone from the elite soon after his reign, i.e. a builder that fit well with the age of the wall stated above, namely the end of the twelfth century or the beginning of the thirteenth century. The wall is large, but we know of mighty stone walls surrounding cathedrals and important churches in this period. Approximately seventy years after building the Uppsala wall it was demolished. St Erik's church was torn down and relocated outside the cathedral to a lower level where it was named St Erik's chapel. The churchyard was left on top of the ridge. The royal area was donated for the building of the cathedral.

Finally, different interpretations have been put forward as to the builder, function, and age of the Uppsala wall.⁹⁴ Nils Sundquist is mentioned in this text and I have referred to the *Huzelius Group*. I myself present the wall as the introduction of brick building in Sweden. To give an end to further interpretations based on vague proof I suggest a 14-C AMS analysis

⁹¹ Anund 1992, 46;

⁹² Christian Lovén, *Borgar och befästningar i det medeltida Sverige*, Kungliga Vitterhets Historie och Antikvitets Akademien: Stockholm 1999, 175–176.

⁹³ Malm 1987b, 395–396; Malm 1998, 19 b; Carlsson et al. 2010, figs. 306 B, 357 A, 363 P; Anund 1992, 46.

⁹⁴ Nils Sundquist's interpretation, presented in 1953, is now nothing but a memory and shall not be repeated here. But I still remember his enthusiasm and interest in Uppsala history. He was one of the few who took the time to visit the cathedral in 1971–76, when the restoration was going on, just to see the progress of the archaeological and building archaeological investigations.

or luminiscense analysis of the wall. It is true that these methods in general are expensive, but surely they are worthwhile if they could finally settle a final interpretation.

An Anomaly

In 2005, a ground penetrating radar investigation registered an anomaly close to and on the east side of the south-east pillar of the choir. According to the *Huzelius Group* the anomaly has the shape of, and is the remains of, a stone apse of the older Holy Trinity Church, mentioned in the Erik Legend.⁹⁵ As noted above, in the Erik Legend this church is said to be located 'where the cathedral now stands'. So, contrary to my argument, the *Huzelius Group* suggests that what is said in the legend should be interpreted literally. I argue that the anomaly is not the older Holy Trinity Church. Signs of that church were found some 35 years ago in the walls of the stone and brick Holy Trinity standing some hundred meters to the south of the cathedral.⁹⁶ As stated above, I cannot give a proper answer to the location of the Holy Trinity in the Erik Legend. The reason for the location might be facts and circumstances unknown to us.

The main basis for my thoughts on the anomaly is that no one has yet seen it with their own eyes. It has not been possible to examine it through archaeological methods.⁹⁷ Such circumstances make the anomaly hard to interpret. It might be the remains of St Erik's church if it was built of stone and mortar. This is possible if the small pieces of wood splinters in the layers below the modern choir floor, mentioned above, are not the remains of a St Erik's built of wood. But the anomaly might also be the remains of an older secular building, raised with stone and mortar. As stated above, we have archaeological proof for an older settlement with buildings of stone and mortar. There is also the old map (Fig 3) showing the area with streets and blocks. The anomaly might be the remains of a construction built of stone and mortar hidden in a block on the map. Or maybe the anomaly is a part of the cathedral choir pillar foundation that, for some reason, has got extra solid dimensions. We do not know, but future generations of Uppsala Cathedral researchers hopefully will solve this question.

⁹⁵ Carlsson et al. 2010, 80, 187–189, 347–350, 456–461, 575–576, figs. 135, 341, 343–356; Lovén et al. 2010, 287–288.

⁹⁶ Malm 1987a, *passim*.

⁹⁷ Carlsson et al. 2010, 451–456.

Conclusion

Uppsala Cathedral is built on the ridge to the west of the river Fyris. The building-process of the cathedral was likely occurring from 1275 to 1435. Before raising the walls, the ridge had to be levelled and that meant its original formation was changed and older constructions of wood, stone and mortar were demolished. From archaeological excavations and other observations we know that the original ridge was quite narrow with smooth slopes to the south and west and a severe slope to the river Fyris in the north and north-east. There was a deep depression in the ridge to the north.

The oldest traces of human activities on the ridge where the cathedral was build are from the Viking Era (800–1050 AD). The traces are rune stones and a *thing*, indicating a royal presence or dominance. On the east side of the river Fyris nearby, the royal presence or dominance goes back to the Swedish late Iron Age (550–800 AD). It has been argued that some rune stones in the area of Gamla Uppsala (Old Uppsala) and Uppsala (Östra Aros) indicate that these settlements are parts of one and the same entity that cannot be understood without each other.

From 1031 to 1232, there was a settlement on the ridge with artifacts and cultural layers of the kind we find when excavating early medieval towns in Sweden. The settlement seems to have included buildings of stone and mortar, but not of brick. There was at least one path that after 1232 was paved with stone. By then it seems as if there was a desire to level the ground. The inhabitants of the settlement might have got their fresh water from a spring nearby, a spring that later on was built in as a well in the north wall of the north tower of the cathedral.

In the eleventh or twelfth century the king was the builder of a wooden Holy Trinity Church approximately hundred meters to the south-west of the settlement. In 1160, King Erik Jedvardsson visited the church. After he left the church, he was abruptly killed. His son King Knut Eriksson (1167–1195/6), an instigator of Uppsala who made his father, the martyr, a saint, was most likely the builder of St Erik's Church. Most likely this church was built on the ridge. We do not know if it was a wooden or stone church. In the end of the twelfth century or the beginning of the thirteenth century, the archbishop, King Knut or a regent soon after his reign, probably was the builder of a mighty stone wall with brick buttresses on the ridge. I argue that it was most likely located close to St Erik's church. The wall was built against the steep ridge slope, most likely as a terrace or supporting wall. But the wall might also have had the function of a border between the sacral and profane world. Inside the wall (on its south side) there was St Erik's church, its churchyard, the old urban-like settlement and the Holy

Trinity nearby. Outside the wall, on its north side towards the river Fyris, there was the center of trade and commerce of Uppsala.

The settlement on the ridge, with buildings of stone and mortar, wooden buildings, paths, streets and roads, St Erik's church, its churchyard, the mighty wall with brick buttresses, and the wooden Holy Trinity nearby must have coexisted for a long time (Fig. 7). The king was the owner of that area from at least the Viking Era onwards. In the last quarter of the thirteenth century, the ridge top was levelled. It is likely that the settlement was moved by force. The king had donated the area (his area) to build a cathedral, one of the largest brick cathedrals in northern Europe – Uppsala Cathedral.

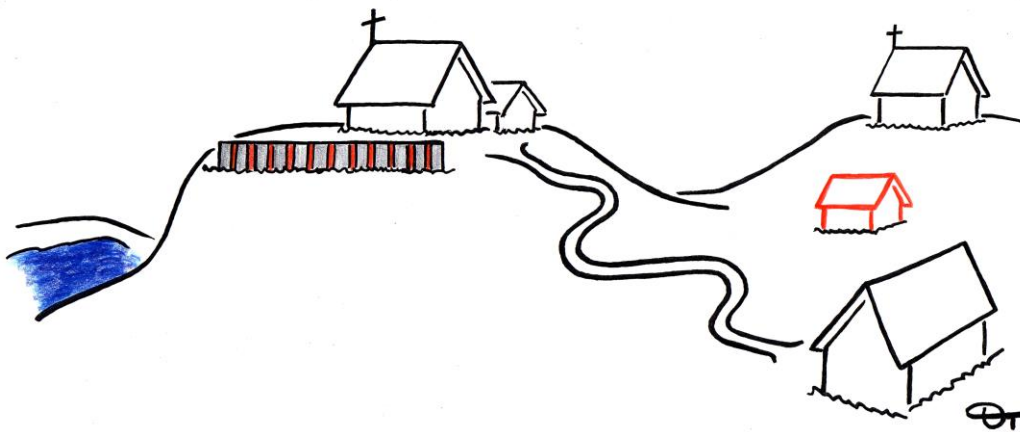


Fig. 7. Uppsala. Reconstruction of buildings older than the cathedral on The ridge to the west of the river Fyris. St Erik's church to the left on top of the ridge, Holy Trinity to the right, the stone wall with brick buttresses, a brick kiln and a building probably built of stone and used as the first building phase in the archbishop's manor. It is seen on the old map presented by Olof Rudbäck in 1679. Drawing by Dag Toijer according to directions by the author.

Finally, this is my conclusion of facts and thoughts on what preceded the building of the cathedral on the ridge to the west of the river Fyris in the Swedish medieval town of Uppsala. But different interpretations have been expressed, widely apart from each other, and the discussion has been going on for decades concerning for instance the original ridge formation, the builder, function and age of the Uppsala wall, St Erik's church and chapel, and the wooden church in 1290 mentioned in a record from 1344 called *ecclesia ligna infra muros*. To avoid further endless, and sometimes worthless, discussions or interpretations based on vague evidence I suggest 14-C AMS analysis or luminescence analysis of the Uppsala wall, geological or macrofossil analysis of different levels of the ridge gravel and analysis of

wood splinters in one of the layers below modern floor in the choir. It is true that these methods in general are expensive, but surely they are worthwhile if they could finally settle the issue.

Gunilla Malm, BA, retired
University of Lund
471117[at]hotmail.se