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This article is continued from Viking Heritage news 4 -1998.

Embla – a Viking ship has been reconstructed!

Glimpses from the construction

The first logs for the construction were felled in May and June 1996. We received help with the felling and transport of most of them from Jälla Agricultural school, mostly from Leif Aronsson, but also from local people like Jan Forsman.

Felling with an axe Viking-style was a part of the LAN-course. After a theoretic introduction, all the course participants got a chance at felling an oak, 1 metre in diameter, using the kind of axe which was always used in this kind of work prior to the advent of the bow saw and chain saw: the cutting-axe. It is heavier than the hand-axe and has a short, almost straight edge. Our cutting-axe is a copy of the Viking Age cutting-axe from Mästermyr on Gotland. The cutting-axe was furnished with a long straight handle, as was the habit towards the end of the Viking Age, shown for instance on the Bayeux tapestry. This axe was complemented by 19th century cutting-axes, some of them borrowed from the Skeppsholmen Boatbuilding School. The oak grew in Fjällnora and was a present from the Uppsala municipality. After 4 hours of hard work the big oak fell and from this oak we obtained the widest, finest planks for the planking.

To be continued on page 3.
It is very inspiring to work in a place that enjoys a flow of interesting information. Viking Heritage is such a place. After considerable hard work with our database and newsletter it seems like we have attained one of our main goals to be a resource and an intermediary of knowledge pertaining to Viking Age issues. Visits at our Internet site and the number of enquiries are increasing slowly but surely.

The culture of the Vikings and the Viking Age fascinate people all over the world. The best evidence of that is perhaps not all the intensive research conducted in the universities, but the innumerable re-enactment societies, ship re-constructions, Viking villages etc. that have been initiated during later years. Our ambition is to present all these projects, in the newsletter and the database, in order to provide as concise a picture of the activities as possible. We hope that you will use us as a resource from which to collect facts and knowledge but also as a forum for discussion. We have said it before but it might as well be said again: we are dependent on your opinions, points of view and knowledge about what's happening in the Viking field, to be as good as possible. If you have articles or news items that concern Vikings, please send them to us and we will present them in the database or the newsletter.

Viking Heritage has received two distinctions recently. In September, the Swedish magazine Internetworld wrote: “Viking Heritage is the foremost forum for interchange of knowledge of the Viking Age...”. In November we received a Links2Go Key Resource Award under the topic of Viking. These distinctions encourage us to continue our efforts and development.

This year’s last issue is well-filled with articles and news. One article presents the results and interpretations of the investigation at Gross Strömkeendorf in Germany. The settlement at Gross Strömkeendorf belongs to an early phase of urbanisation and it is a part of a general development in Northern Europe during the Early Middle Ages. The author asks himself if the settlement at Gross Strömkeendorf can be the ancient Reric mentioned in contemporary sources?

In spite of the geographical nearness to the rest of the Scandinavian countries Finland’s Viking Age history has not been observed to the same extent. Finnish material shows similarities with the material from rest of Scandinavia and North Europe during the Viking Age, but there are also local types and forms. Bearing in mind that we haven’t published any article from Finland before, it is especially gratifying to present an article about the male dress in Finland during the Viking Age. We also promise you interesting reading about Birka’s defence, boat-building, Australian re-enactors and rolled silver.

We hope that you have been pleased with the newsletters of 1998 and that we will meet your expectations next year. We wish you all a Merry Christmas, a Happy New Year and welcome to Viking Heritage Newsletter in 1999.

Olle Hoffman
Editor
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Continued from front page.

The oak logs were radially split using clubs and wedges. The Fjällnora oak could be split into 16-32 parts. With other logs we had to be satisfied with only 4 or 8 parts. The planks were roughly cut with a broad-axe before being placed in water, where they were stored while awaiting a suitable keel. Since the first projected keel-oak was cut too short and the other was too twisted, the planking timber was prepared so as to be nearly ready for mounting whenever the keel and the stems were in place.

It was a great day when the keel was finally laid in August. First the stems and then the planking were put in place. During this phase our skills were severely tested, when, on one hand, wrongly twisted or straight planks had to be twisted about 90 degrees without breaking them and, on the other, the rabbet at the stem had to be angled correctly where the plank end was to be attached. The Vikings had, of course, much more material to choose from, since a considerably milder climate permitted the growth of oak forests in mid-Sweden which were as fine as those found in Southern Poland today. They could always find logs with the right twist in the grain, saving them the strains in the wood that we had to expose our planks to by forcibly twisting them in the wrong direction. The planks were certainly soft and pliable after soaking, but they dried more quickly than we could get them into place. Heating over open fire made them soft again, but they cooled too quickly and became brittle, stiff and fragile. However after a number of attempts the garboard strakes, with the greatest twist, were in place.

The hull of fresh oak needed to be protected against both rot and drying out. Herring brine was used for this purpose. The salt in the herring brine is hygroscopic, i.e. it preserves the moisture in the wood, herring oil has preserving qualities and retains the salt. Tar was used as early as the Iron Age, but at that time it was charcoal tar. In order to obtain a tar with similar qualities a tar pile was built in Finsta, under the guidance of Ingvar Karlsson, from the Finsta Agricultural School. As inexperienced tar-boilers we got only 5 litres. The traditional way to finish wood in
the Roslagen archipelago and Gotland next to tarring has always been seal oil, which was of great importance during the Late Iron Age and the Middle Ages. Seal oil has most certainly been the foremost product from the several hundreds of Iron Age sealing places known to exist on the outer islands along the east coast, just as it was important as an export product from Stockholm during the Middle Ages. According to analyses made by the Royal Institute of Technology, seal oil has the same characteristics and contains the same polyunsaturated fat as linseed oil, implying that it can be seen as the precursor of linseed oil. Our only problem was that of obtaining a seal, and also suffering the unpleasant smells from the process of slowly melting the seal lard over an open fire, until it attained its fluid state which it then retained. When it was finally applied to the hull it gave the oak wood a golden glintening, beautiful surface, which was not prone to drying out.

Gunwales, frames, cleats and knees were made from waste building material. These parts were nailed fast with trunnels which were hammered in from the outside and wedged from the inside to ensure they were water-tight and secure.

All this work was finished just in time for Embla’s first launching December 11, 1996. Some of us had eager expectations, some were filled with worry and doubt and others could hardly wait to finally go to sea in our maritime archaeological miracle, when the Embla majestically slid down the launchway and broke the water surface for the first time on the Fyris River in Ensta. One of the course participants later rowed all other participants and others up and down the river with one pair of oars(!) between Ensta and Valsgärde.

The LAN-course ended on December 13, but even after the momentous ceremony, the delivery, official launching and christening of the Embla. At a ceremony at the construction site, professor Bo Gräslund, at the Institution of Archaeology, Uppsala University and the chairman of the Gamla Uppsala Folk Heritage Society, Ragnar Nilsson, addressed a gathering of about 150 guests. After that it was time for the boat to be committed to its proper element and named by the society’s secretary Christina Aronsson, together with Eva Vårdsäter and Gunilla Larsson. Afterwards a christening feast was held on the grass and those gathered were given the opportunity of taking an inaugural voyage with the Embla along the Fyris river.

Some results...

A boat built with the Viking Age radially splitting technique results in:
- A boat 7,2 metres long with a weight of only 250 kilos. This makes the boat easy to row, fast and easily attempts have always dealt with high sails of the Nordlans boat type, suited for the North Sea. The only experiments with low, wide sails have been on the boats Krampmacken and Imme Sleipner (Nylén 1987 s. 78). The cordage consisted of hemp ropes, as in preserved Viking Age finds.

On one of the most beautiful early summer days it was finally time for the momentous ceremony, the delivery, official launching and christening of the Embla. At a ceremony at the construction site, professor Bo Gräslund, at the Institution of Archaeology, Uppsala University and the chairman of the Gamla Uppsala Folk Heritage society, Ragnar Nilsson, addressed a gathering of about 150 guests. After that it was time for the boat to be committed to its proper element and named by the society’s secretary Christina Aronsson, together with Eva Vårdsäter and Gunilla Larsson. Afterwards a christening feast was held on the grass and those gathered were given the opportunity of taking an inaugural voyage with the Embla along the Fyris river.

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Some results...

A boat built with the Viking Age radially splitting technique results in:
- A boat 7,2 metres long with a weight of only 250 kilos. This makes the boat easy to row, fast and easily
portaged past rapids, on the Russian
rivers as well as between the lake sys-
tems in Sweden.
• A boat whose planking, in spite of its
thickness of only 10-12 mm, may be
bent and loaded without breaking. This
makes the hull soft and elastic in the water and durable when
beached, as during the Vikings
frequent coast raids.
• A boat which loaded with 4 persons
still only has a draught of only 0.35
metres. A boat built in this manner
could sail up on any shallow shore or
bank and also up shallow rivers.
• A boat which does not show any sun
shakes in the planking after one sum-
mer on land, owing to the fact that
the wood shrinkage is only half as
much radial as tangential.
• The slender, long and narrow shape
and the light design makes it possible
for one man to row the Embla with a
full crew up the Fyris river.

The Embla on the trail of the
Vikings:
Since its consecration the Embla has
been touring on Lake Ekoln, to one
square sailing meeting and has also
been filmed by TV at the Foteviken
Maritime Centre in Skåne where she
sailed initially. Perhaps it will be poss-
able to test the Embla’s qualities along
a section of the Viking’s Eastern route,
where many influences on cultural life
in the Old Uppsala region originated at
the end of the Iron Age. The section of
the route which passes through the
archipelago of Stockholm and Roslagen
seems to be made for a boat like the
Embla.

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Östra Aros. TOR.
Most of the excavations at Birka have been of the graves and the actual town area called the Black Earth. Less attention has been paid to constructions which have been parts of Birka’s defence such as the city ramparts, the hillfort, the pole barricades outside the harbour and the so-called Garrison. Research during recent years has revealed that armed conflicts were a constantly recurring daily element during the Iron Age. Threats, ransoms and sieges were the order of the day. For the second consecutive year archaeologists from the Archaeological Research Laboratory at Stockholm University have excavated the Garrison where Birka’s soldiers once resided. The excavations are part of the Birka defence project, which aims at bridging the research gap which exists concerning Birka’s military and political history.

Earlier excavations carried out by the author, inside and around the town rampart (1987-89) and the wall of the hillfort (1996-97) show that Birka had a strong and well-planned fortification. Next to the rampart are 15 clearly visible stone-set terraces on which houses have been located. During the excavation of one of the terraces three settlement phases could be established, all with different characteristics and economic aims. The oldest phase (400-700 AD) consisted of remains in the form of post holes and hearths together with remains of a cremation grave. The grave has been dated to Roman Iron Age and contained among other things exclusive imported Roman glass. It is one of the oldest graves on Birka.

On the terrace which was investigated in 1988 and 1989 a long-house, about 5-6 m wide and about 20 meters long had been situated (750-800 AD). It is the only long-house excavated in Birka and it differs clearly from the small square wooden houses in Birka’s harbour that were examined in 1990-95. Finds in the floor layer, its size and high location all indicate that the long-house had been one of high status. When the long-house was abandoned the terrace assumed another character becoming a centre for crafts production with workshops such as a forge and a bronze foundry. It is first during this last phase - the 9th century - that activities begin to merge with the craft district in the Black Earth. The different phases of the rampart’s superstructure correlate with the different phases of settlement with extensions being made as activities on the terrace change.

One of the questions discussed by the Birka researchers is what the rampart’s extension and connection with the hillfort looked like. Today it seems as though the rampart ends abruptly in the south. In connection with a research paper during spring 1998 electromagnetic and phosphate surveys were carried out, where the latter, in particular, clearly showed the limits of the Black Earth and a boundary line where the ramparts were located.

The hillfort

The north part of the rampart was revealed to be of strategic importance for Birka’s emergence. Another apparently important detail on Björkö is Birka’s castle. It is one of the few known monumental structures from the Viking Age in Sweden. It was built during a time of peace as an distinct symbol of power. It is also mentioned in written sources. In the story of Ansgar, written by archbishop Rimbert, we are told that king Anund together with the Danes came to Birka with 32 ships. Fearing an attack, the people took shelter in the castle. When king Anund was beseeched upon for friendship and union he demanded 100 pounds of silver in ransom for the city. Since the Danes were not happy about this agreement they contemplated burning and ravaging the castle. However, after consulting the will of the gods by drawing lots, they decided not to burn the castle.

Birka’s hillfort (Sw. fornborg) is one of about 500 in the Mälar valley. These date from the Bronze Age to the Viking Age. None of those excavated earlier have been dated to Viking Age except Birka. What distinguishes the Birka hillfort from others is the immediate proximity to the Black Earth and other settlement. It is said that the fort either stood on the place where Birka was founded, or it could also have been built in the end of the 10th century. The excavations showed that neither of these statements were correct. The fort was built in connection with the founding of the town and was used throughout the entire Birka period. A trench excavated through the hillfort rampart revealed a strong cavity-wall construction, a technique with a filling of soil and stones upon which a wooden construction, parapet and battlements stood. Post holes, charcoal, a levelled plank and a couple of hundred iron rivets provide evidence of this construction. We find the same kind of iron rivets here as at the town rampart’s extension, indicating that the whole defence works had similar wooden construction. The fort’s rampart proved to have
two main building phases. According to thermoluminescence (TL) and Carbon-14 datings, the oldest rampart was burned down in the beginning of the 9th century. The younger rampart shows evidence of repeated fires in the end of the 10th century and beginning of the 11th century. Perhaps the hillfort was used even after Birka’s abandonment.

The oldest rampart contained a large grave mound. On the grave a big, erected stone was integrated with the wooden construction. Under the mound a chamber was found dug into the hard moraine. The grave contained a middle-aged man who had been buried together with a horse - an obvious sign of high rank. The finds are being processed at present. Mention can be made, for instance, of textile remnants which have been rusted onto metal objects in the grave. Carbon-14, stratigraphy and the finds date the grave to the first half of the 8th century. The grave must have been visible from quite a distance from below the town and had therefore symbolic importance when Birka was founded. It is possible that the grave is a monument to a person belonging to one of the founding families of Birka who might have lived in the high-status long-houses on the terraces close to the rampart.

The Garrison

The place called the Garrison was also a part of Birka’s defence. It is situated on a slope north-west from the hillfort and has been the object of scientists’ attention three times previously. At the end of the 1870’s Hjalmar Stolpe investigated the area. From the carbon and ash layers he encountered he concluded that it was a cremation place for the dead. He seemed not to have reflected upon the weapons and parts of weapons he found on the site.

Almost half a century later - 1925 - Gustaf Hallström examined the site and established the fact that there must have been some kind of defence structures on the site’s terraces. When Holger Arbman carried out excavations in 1934 at which was called ”the cremation area” numerous weapons were again found; arrowheads, spearheads, parts of shields etc. These finds from the Garrison are important to research and are currently about to be published under the auspices of the present project on Birka’s fortification.

During 1997 and 1998 two terraces have been excavated in the area. As previously, the excavations have been small, problem-related and have yielded good results. The aim has been to find whether there were several phases in the area, the general construction of a probable houses on the terraces and which function they might have had. It became clear that has been a succession of phases in the Garrison area, as is the case with the city and fort ramparts. The early phases are connected to craft activities which required fire.

Numerous hearths have been found, of which one was surrounded by a cobble-stone floor which served as a work surface. What we see here is likely the phase that Stolpe believed was a cremation place. When terraces were to be built in the Garrison later, the loose sea sand was shovelled away in order to reach firm ground before the new terrace was built. The upper stone layer contained stones of up to half a metre in size, covering the surface inside the palisade. This layer had good drainage but was difficult to walk on. Probably there was some sort of wooden duck-board laid on it. All of the constructions - terraces, palisade and houses - were sturdy and carefully built so as to be used over a long period of time. In the last stage of the Garrison the palisade burned down. This together with all arrowheads that have been found concentrated near the palisade indicate that the Garrison had been attacked. No new cultural layers have been deposited after the burning of the palisade, so perhaps the fire coincided with the abandonment of Birka.

The house on the upper terrace

The house which was situated on the upper terrace proved to be 8 metres wide. It has not been possible to confirm its length, but the terrace limits it to about 15 metres. The walls were wattle and daub with a sort of drain-pipe on the outside to collect the drip off the roof. The post holes show that it was a three-aisled long-house.

In the southern part of the house large amounts of animal bones were found together with numerous knives, this was perhaps the eating space. In the northern part the finds indicate a different function. Along the northern long side of the house several parts of shields were found, which could have originally been hanging or standing leaned against the wall. Most interesting are also pieces of armour, such as chain mail and lamellar armour with cuirasses of iron with origins in Near Asia. The last-mentioned constitute the only known find from the Viking Age. They next appear in archaeological finds from Korsbetningen in Visby, but these are from the 14th century. In one of the pits into which the roof support
poles were dug down, various items had been deposited intentionally, amongst others, two spearheads, one ferrule of bronze belonging to a sword-case, a Thor’s hammer of antler and some ten comb cases. The spear deposit supports the theory that the place was founded as a military site. It also shows that people were careful about ensuring their protection from superior forces. The deposited comb cases are particularly interesting, partly because it has been shown that combs with cases are not found in female graves on Birka, partly because most of the comb cases have been found at the Garrison. It is also very interesting to note that it is the comb cases that have been deposited not the combs themselves. We don’t know what that means. What we do know on the other hand is that the comb case may have something to do with the soldier’s dress. We also see signs of a similar sort of dress - some sort of uniform.

The picture of activities in the Garrison presented by finds includes the horse as an important element. To what extent a cavalry existed is, however, still unclear. Perhaps we are observing traces from the order of command on the site, where we can assume that high-ranking officers were mounted. We also see soldiers in the graves. Out of the some 1100 excavated graves at Birka about 100 are estimated to be soldiers’ graves. If we use that as a basis for calculation then about 10% of the population would have been soldiers. They were part of the pick of society and among them the warrior ideal was predominant.

The results of the investigations can be judged supportive of Arbman’s interpretation of the place as a military camp during its last phase. The Garrison differs from a more ordinary settlement by, for instance, the total absence of pottery. The bone material found, however, infers that the place has been used permanently, since it is obvious that animals have been slaughtered and eaten all year around.

**Further excavations**

The archaeological excavations at the Garrison will continue in 1999. It is important to clarify the function of the entire place, and also to excavate inside the Fort. Not until then can we get a clearer picture of Birka’s defence, and the ideas which lay behind the monument building and, in some aspects, the ritual acts that we see traces of today.
The reunification of the two former parts of Germany in 1990 has already revitalised archaeology in the Baltic countries. Researchers have been given new opportunities to communicate and exchange experiences and material. Young archaeologists, also Scandinavians, have been given the chance to improve their skills and get paid for it especially in the eastern part of Germany. Enormous pressure from developers makes it urgent to rescue excavations when modern infrastructure replaces old-fashioned DDR standards. At present, the polluting coal mining continues which results in large-scale investigations in the southern part of the former East. The high rate of unemployment, around 20 percent, makes a lot of manpower involved in different programs available to the researchers.

In the northernmost province of Mecklenburg-Vorpommern work has concentrated on the centres of the medieval towns. Swift progress in reconstruction of the former mismanaged towns gives medieval archaeologists unique opportunities to increase their knowledge about the development of typical medieval urbanisation. However, research into the early urban period also has projects in progress at several sites. This is one of the classical fields of German archaeology and history in 19th and early 20th centuries. Much effort was spent identifying places mentioned in medieval sources, for instance the mysterious sunken town Vineta/Jumne earlier located to either Wolin, or Usedom. This debate still continues, and the Berlin historian Günter Wermusch has recently suggested a new location for the sunken town near the present country town of Barth (Fig 1). Early medieval research was in no way neglected in the DDR. The situation was rather the reverse. By analogy under the political direction of the DDR, the role of the Slavic tribes was a subject of particular interest which risked over-emphasising their period as well as their role as single actors. For example, many Slavic hillforts were objects of investigations during the socialistic era.

Besides Gross Strömkendorf, the topic of this article, the recent investigations in Arkona and Menzlin should also be mentioned. Situated at the edge of the northernmost rock of the Rügen island, Arkona is one of the most impressive monuments in northern Germany and attracts thousands of visitors every year. The natural erosion which undermines and causes collapses in the cliff edge makes the job particularly dangerous for archaeologists. In fact, time is running out for the researchers and the results so far are fewer than expected. No traces of the famous sanctuary of Svantevit, mentioned by the medieval Danish historian Saxo, have been found.

At Menzlin, Ulrich Möller’s team has recently taken up the excavations again at the Viking Age settlement. One of the most interesting features in the recent investigations is a section of stone road in the swamp between the settlement and the river Peene. The structure of settlement at Menzlin is still unclear, but despite ploughing it was possible to discern some distinct house constructions in the cultural layer. The houses were interpreted as various workshops but there is no evidence of sunken huts, the common Slavic dwelling. According to U. Schoknecht’s report from the seventies, the lack of sunken huts, the finds, and the grave-field which consists of ship-settings, give the site a predominately Scandinavian character.

The settlement Gross Strömkendorf is situated by the eastern shore of Wismar bay, seven kilometres north of the modern city of Wismar. Due to an average erosion of 0.5 cm per year this site is also threatened by natural destruction. Nevertheless, the estimated original settlement size is at least 17 hectares (Fig 2). Investigations go back to the early nineties and are directed by Dr. Hauke Jöns, PhD, and his team from the Christian-Albrecht University of Kiel.

The cemetery is located north-east of the settlement and consists of numerous graves of varying types. Inhumation and cremation graves exist side by side. Skeletons in the hocker position exist as well as a couple of outstretched east-west orientated skeletons, interpreted as
Christian burials. The most surprising burials are the three boat graves. Careful excavation uncovered three totally decayed boats shown by rows of rivets. Unfortunately the total length of the best preserved one is unknown due to modern ditches which cut through the stem and stern of the boat. Animal graves have also been found. One of them contains a dog, a second, a cow or a horse. The great variety in the cemetery contrasts with the organisation of the settlement. The features identified in the sterile sand under the culture layer are interpreted as quadratic or rectangular sunken huts (Fig 4), wells, refuse pits, fireplaces and a few post-holes. Despite active searching, no houses of different constructions have been definitely identified in the preserved and investigated area. As Hauke Jöns says, it is hard to detect any features built on the top of the dark culture layer. On the other hand, it is not certain that the pattern from the cemetery, including different burial traditions, is paralleled by the settlement organisation.

The finds consist predominately of raw materials and waste from different crafts. There are few finished products, except for glass beads, which have been found in large amounts. Fragments of glass, mosaic and amber belong to bead-making. Antler debris originate from the manufacture of combs. Slag and glassed pieces of furnace walls, labelled “Esse stein”, were scattered all over the site, an evidence of intensive forgery. Imported basalt from the Eifel district served as quernstones. Textile manufacturing was identified by loom weights of burnt clay and spindle whorls of different shapes and materials. Pottery of inherent Sukow and Feldberg styles dominate, but there is also some occurrence of imported Frankish pottery. Evidence of bronze and bronze casting is relatively rare. There are very few finds of luxury ornaments and coins in the settlement. In fact, the lack of these items, together with the lack of any elaborate house constructions, makes it less likely that Gross Strömkendorf was an early political centre in the region. There are hillforts in the surroundings, in Ilow and in Dorf Mecklenburg, and the latter is mentioned in contemporary sources as the residence of the ruler of the
Obodrites. The ancient name of the trading site is uncertain. The Royal Frankish annals include a notice in the year 808 of a war expedition by the Danish king Göttrek against a Slavic trading town, in Danish named "Reric" and the subsequent destruction of the place. The merchants and craftsmen were removed to a new town Haithabu. The next notice in the year 810 concerning the murder of the Obodritian ruler is confusing since it took place in the "recently destroyed Reric". Identification of Gross Strömkendorf as the ancient Reric is uncertain, since the source does not provide any geographic or topographic information. However, the archaeological evidence does not contradict this hypothesis. Wood samples date the site to the eighth century, and the dating does not exceed the historical time of the destruction of Reric.

The settlement at Gross Strömkendorf belongs to the earliest phase of urbanisation, but also the chain which culminates in the formation of states. Gross Strömkendorf is a part of a general development in West and North Europe during the Early Middle Age. Under pressure from Carolingian Europe, the northern tribes, in Germany as well as in Scandinavia, were forced to consider several political, religious, economical and cultural innovations. Similarities in archaeological evidence between the German Baltic coast, and for instance Scania make it necessary to reconsider borders set by traditional archaeology. For example, pit houses and Black Baltic ware occur on the north and south shores of the Baltic Sea. The issues in question are common too, and transferable between these regions. The relationship between the growing early port of trades and the political centres set up by the local kings or chieftains, is one issue. Another question is the relationship, continuity or discontinuity, between the trading place and the medieval town. The excavations at Gross Strömkendorf are a step towards increasing our knowledge in these areas.

Thanks to Mrs Gun Stenström for checking my manuscript.

Fig 4. Typical Slavic sunken hut as a dark box-shaped impression in the sandy soil. This one situated at the eastern edge of the excavated area is exceptionally small, only about 2,5 X 2,0 m. Nevertheless it contains a bronze mounting and a rare coin. Photo, the author.

Literature:


The area of Finland has always been influenced from many different directions. Sometimes these influences have been so strong that Finland seems to have acquired a new immigrant population. Stories of Scandinavian kings who conquered Finland have been considered but rejected, because Scandinavian grave forms are not known from the Finnish mainland, and also artefact forms are mainly different. The foreign artefacts found in Finland seem to have been souvenirs or articles of trade.

Among the latter, weapons form an important group. Finnish armament was very similar to that in Scandinavia during the Viking period, but axes and spearheads were mostly of Finnish make, while swords were imported from Western Europe. Possibly they were traded with the Gotlanders, because there are similar details in some male graves in Finland and Gotland. However specific Gotlandic artefacts are almost totally lacking in Finland during the Viking period. Penannular brooches and belts with tassels, part of both Finnish and Gotlandic costumes, were also used in Latvia.

The furnishing in the male graves was also quite similar to that in Birka, in the middle of Sweden. However, Finnish costumes could be decorated with bronze spirals, which were not used in Scandinavia. This fashion in male dress reached its peak as early as in the first half of the 10th century, which seems to have been the most active period for Swedes on the eastern route, and also a period of lively Scandinavian contacts with Finland. At the same time as the Finnish men adopted most of the Scandinavian fashions, they emphasised their personality by using garments ornamented in a typically Finnish manner.

The similarity of the armaments and male dress in western Finland and eastern Scandinavia was easily visible in Eura, where hundreds of Viking period inhumation burials have been excavated. This parish is situated about 30 km east of the city of Rauma, and its most important cemeteries are located on both sides of the Eurajoki River, north of Lake Phjärvi, the largest lake in western Finland. Here, in an area of less the 3 km², almost 50 Viking period swords and more than 170 spearheads have been found. All recognisable swords and more than 85% of the spearheads are of the same type as those in eastern Scandinavia.

The largest cemetery in Eura is Luistari, where 83 Viking period male graves have been excavated. In addition to more than a hundred weapons, many clothing details have been found there. One of them, the dark blue mantle worn by the sword-bearing men at Luistari, was studied and reconstructed in connection with a project of re-living the Viking Age past of the Eura area.

This mantle had been woven as diagonal twill, but a special pattern had been formed by using weft yarns spun in different directions. All the warp yarns are S-plied out of two Z-spun yarns, but in the weft four threads in succession are spun to the left, then four spun to the right and so on, giving the cloth a distinctive slightly striped surface.

This type of mantle cloth was found in several graves, also containing a sword, fastened with an ornamental Borre-style pin or with a large penannular brooch. In one of these graves there were two penannular brooches, a smaller one on the right shoulder, and a larger one on the right side near the waist, which was the usual positioning in the other graves.

Attempts have been made to fasten the reconstructed mantle, 160x110 in size, both with two brooches and with only a brooch near the pelvis, and both these ways seem practical. The sword hand is left free to strike and the large mantle gives some protection to the left arm, if the shield is not nearby.

My opinion is that the brooches found in Birka and on Gotland fastened on the pelvis like the ones in these Luistari graves, were brooches for fastening mantles and not coats as has also been supposed. The Finns shared this fashion of wearing the mantle with the eastern Swedes. It is one of the details which prove that the western Finns were a part of the Viking world.
One of the most common questions from foreign tourists is: where can we look at the Vikings? In three years, when the new tourist attraction Vikingaliv, the World of Vikings, opens, this question will be much easier to answer. The opening in 2002 will coincide with Stockholm’s 750-year jubilee. The old Saltsjöqvarn at the inlet to Stockholm will be remodelled into a theme park covering 4,500 square metres.

The area will provide opportunities to encounter Vikings with all our senses. Visitors will be able to see and hear the Vikings at work, and smell aromas to get a feeling of what life 1000 years ago was like. Children will be able to make their own runestones or search for information on multimedia computers. The Viking museum will, of course, also have restaurants offering Viking food.

The number of visitors is estimated to around 700 000 and 800 000 per year. The cost of completing the project is estimated at 200 million SEK. A building company will be responsible for construction, while the other costs will be covered by contributions from private investors, funds and foundations.

Vikingaliv will collaborate with The Museum of National Antiquities to get all their facts correct. Carin Orrling, Viking expert at the museum, can affirm that there is a enormous interest for Vikings in foreign countries. People are enthralled by the idea of the Viking as the mythical hero. He has the same status as Superman. Smorgasbord, cars and the moose with due respect, but it is the picture of the Viking that comes to many people’s minds when Sweden is mentioned.
Amongst the most remarkable finds from the Viking Age treasures are the silver treasures. While the older Germanic Iron Age depositions of precious metals consist mostly of gold, silver begins to dominate during the Viking Age.

Now, it is common knowledge that silver is not a domestic (Danish) raw material and its presence is explained by external conditions: the extensive contacts through the Baltic area and further along the large Russian rivers, where trade with Arabic merchants resulted in large quantities of silver coins being brought back home. Some time later the flow of silver changed direction and raids on England with the systematic ransom and plundering sustained the supply when trade with the East came to an end. The coins were to a large extent melted down and converted into coveted pieces of jewellery, not least bracelets and necklaces.

An intermediate product during this preparatory work was silver bars which have been found in great numbers. But how were these bars worked into the long rods, from which rings are made? Until now these rods have been seen as the result of an extraordinary time-consuming handwork, that is forging or more precisely hammering and more hammering. And not only that - in order to obtain presentable products, a finishing process of filing or some other treatment would have been necessary to smooth out the marks after all the hammering.

A silver treasure was found in Himmerland in 1971, of which the first part was found in a garden in Skørping, but the soil had just previously been taken from a building site at Rebild, where a good deal more was found. The treasure consisted of bars, different rings and also parts of cut-off rings and rods. (see Skalk 1971:6) Five years later additional items from this treasure were found on different occasions, bringing the total collected find now to no less than 5 kilos of silver, divided among 146 pieces. Among the many pieces is one piece of silver rod, whose bent shape and strange cross section, gave the author - who supports himself as a goldsmith - a mighty surprise. Here was something familiar. The rod actually looked like it had been put through a rolling mill under high pressure. Experience shows that this process produces a blank, even arc and, not least, a characteristic cross section, bent alternately in and outwards.

Interest had been aroused and it was natural to proceed with the question of investigating as to whether this advanced preparation technique was used during the Viking Age. A number of pieces in the Rebild treasure seem to confirm the observation - a bent cloak-pin, where one end has a square cross section and completely parallel sides. The sole evidence of rolling was seen through a microscope as fairly small micro-grooves, scarcely visible to the naked eye, which appear when a modern roller is used. An survey of Danish, Norwegian and Swedish silver treasures augmented the list of the traces of Viking Age rolling even more.

It should not be forgotten, that the investigation also showed that ham-
Nordmannia is one of the many medieval re-enactment societies in Melbourne. Formed in 1996 by a group of people with many years’ experience in a number of other societies, it focuses on the Normans primarily in the period 911 - 1204 CE.

During these three centuries the Normans could be found at various times throughout the British Isles and the Mediterranean - England, Scotland, Ireland, Wales, France, Italy, the Mediterranean islands, Byzantium, the Middle East, and North Africa all saw the Normans attempt (and often succeed in) the establishment of a state, or the acquisition of control over an existing one.

By the end of the period the only possession left in Norman hands was Antioch, the Syrian principality established during the First Crusade, and whose rulers did not see themselves as Normans anymore. For although it was bright, the period of Norman ascendancy was also brief: Like their Viking forebears the Normans tended to assimilate very quickly into any area they settled in, and become indistinguishable within a few generations. Unlike the Vikings in the North Atlantic, the Normans did not create any settlements in previously (more or less) uninhabited areas. But they were very successful in some places at creating a multi-cultural society which could draw on, and which attracted to itself, the learning and culture of both Latin and Greek Christians, Jews and Muslims - a rare feat in Medieval Europe. They have left their monuments in the forms of castles, towers, churches, tombs, literature and institutions, and throughout the world they have inspired re-enactors to study their great adventures and re-create their daily lifestyles.

Nordmannia is a free grouping, with no leader, and no formal structure except the meeting - much more like the Viking practice than the autocracy which distinguished the Normans from their Viking ancestors. The group elects a training officer for the purpose of training fighters and providing leadership in the battle, but other than that most of the activities are simply left to anybody who is prepared to take responsibility for them.

The group has established a strong reputation in Melbourne as feasting hosts, being by far the most active provider of medieval feasts since its inception. There is no such thing as a ‘typical’ Nordmannia feast, with events ranging from a tenth-century lunch and fighting session to a twelfth-century Antiochene extravaganza, with music, dance, and entertainment to match. Among the group are musicians, jugglers, cooks, storytellers and dancers, as well as builders, archers, (very amateur) blacksmiths, leather-workers, and other craftspersons. The group has had a major hand in constructing several buildings, most of which have been knocked down again later, and, like most groups, puts on camping weekends as well as feasts, and participates in public displays. The next Australasian Medieval Conference, the biennial event which is the biggest thing on the Australian Medieval Calendar, attracting groups from around Australia and overseas, is being run by a group of Nordmannia members. (It is hoped that Dan Carlson, president of the Viking Heritage Network, will be attending to give the keynote presentation, in addition to the many workshops, feasts and events which will be part of the conference.)

The group usually publishes a monthly newsletter, and maintains a website which includes a few photos and some articles on topics ranging from short recipes to a long essay on the relationship between the Norman leader Bohemond and his nephew and successor in Antioch, Tancred. For the average member there are two things to focus on: researching the period and ensuring that the reproductions we make are as accurate as possible, and the re-enactment itself that we enjoy and which is our prime reason for forming the society. As well as a weekly
training night for those who fight there is a monthly 'culture night' - a meeting which takes the place of a training night, when we focus on a particular area of research or learning a new skill. In recent months these have included making scraffito ceramic ware for feasts, playing Kubb (Thanks to Olle Hoffman of the Viking Heritage Network for the rules, and the Frojel Vikings of Melbourne for giving us a set of the pieces), French dance, and clothing. Occasional workshops also cover areas such as blacksmithing, making tents, shoes, armour, and furniture, and the perennial favourite, brewing. (Normans were known for their fondness for cider, a tradition which the group has carried on).

The Normans were also known for their fearlessness and their prowess in battle. Again, Nordmannia has tried to carry on this tradition, having some notable successes (although there has also been the odd devastating loss) at events with other groups around the country. Unfortunately the use of horses in re-enactment battles is usually deemed too dangerous, and our glorious knights are forced into fighting on foot, where (as was noted 900 years ago by the Arab chroniclers of the crusades) they are at a relative disadvantage. However many members who had never sat on a horse before joining can now ride, and it is hoped that a Nordmannia cavalry unit will take the field in the future.

Members of Nordmannia are also keen travellers - although the group is based in the inner-city area, the members live as much as 200 km in all directions from the city, and some members cannot make it to any events at the moment, living in Europe or the United States. So be warned - the Norman ascendancy may be beginning again. If you see a group of mounted men, with the distinctive nasal helmets and kite shields of the Bayeux tapestry and other artworks from the beginning of this millennium, remember that you read it here first!

For further information the group can be contacted through their website at http://purl.oclc.org/net/nordmannia or by mail at 21 Mitchell Street, Footscray, Victoria, 3011, Australia.
A sensational picture stone find on Gotland

"It looked like a slab of concrete at first but when we lifted it we recognised the mushroom-shape. It was actually a picture stone." The 8th of October a picture stone was found during construction work at Stenbro in Silte parish on Gotland. "This is a sensational find. It is very unusual to find stones in one piece", says Mr Christian Runeby, the acting County Antiquary of Gotland.

The stone is about 3,05 m long and is the first picture stone that has been found in over thirty years. At the top of the stone is it possible to see the carving of Odin’s eight-legged horse Sleipner and a check-patterned sail. The stone tells us about the voyage to Valhalla just like other Gotlandic picture stones. The stone’s mushroom-shape dates the stone to the period 700-1100 AD. The fact that the stone is long, heavy and very difficult to transport seems to indicate that the find site on the western side of the channel is probably the original location where the stone was erected.

Another picture stone is located on the other side of the channel. There are several examples that show two stones erected on each side of a creek or watercourse just to mark where it was possible to cross to the other side.

Plans are to re-erect the picture stone in Silte later at the same place where it was found in order to re-create a fascinating Viking Age environment.

Investigations in Husaby

According to tradition, the Swedish king Olof Skötkonung was baptised in a well in Husaby by the English bishop Sigfrid in the beginning of the 11th century. Thus he became the first Christian king in Sweden. Olof is supposed to have had a crown demesne in Husaby, which he presented to the church after the christening.

More than two years ago Skaraborg’s county museum began archaeological excavations in the area surrounding Husaby church. The aim was to find traces from the Olof’s demesne. So far the archaeologists have found pieces of ceramics, loom weights, animal bones, post holes, remains from hearths, garbage pits, graves and stratified cultural layers. These finds indicate an important settlement.

Recently further investigations inside the walls of the bishop’s castle have been made. At about 0,5 m depth archaeologists found a burnt floor of clay, animal bones and one piece of pottery. These are the remains from some early settlement. Further analyses will be made to find out more about the dating.

It has been elucidated that when the bishop Brynolf Gerlachsson built his castle in the 15th century, he built it in a place that had been settled earlier. Perhaps he chose a site where an important farm once stood, perhaps even a demesne of the crown.

Excavations have now been finished. Samples from the clay floor have been sent to analysis. Further investigations by the county museum will be based on the result of the samples.

New book!

"Vikingarnas gästabud" By Michaël Fant and Roger Lundgren ("The Viking feast") Publishing company: Richters förlag, Malmö 1998.

What would you say about a wild boar joint with blueberry sauce? Or a bubble and squeak of root vegetables? Or perhaps you would like to try a beetroot soup and Norman pigeon in cider sauce? Why not quenche your thirst with a Tankard of Balder’s beer or berserker mead!

It is now possible to try some new dishes that are inspired of the Viking Age and the Viking feast on your friends. The new book "Vikingarnas gästabud" presents about 50 recipes. You can prepare the dinner by using natural ingredients and without adding preservatives or colouring agents etc. All of the dishes seem both exciting and appetizing and the book is generously illustrated with photos taken by Lennart Hansson among others. Michaël Fant and Roger Lundgren are responsible for the text and one of the fact reviewers is the associate professor Dan Carlsson.

So far, the cookbook is only published in Swedish but there are plans of an English edition in the near future.
Just below Fröjel church in the western part of Gotland and beside the ancient coastline, one of the last and most important trading places on Gotland during the Viking era is to be found. It was well-sheltered from hard winds by the island just beyond and the site of bursting activity over a period of 400 years. Merchants from different countries around the Baltic Sea came here and met local craftsmen and tradesmen.

A cluster of buildings surrounded the harbour with its jetties and in the small houses the craftsmen produced their wares. Gotlandish men and women could pick and choose among a large number of products. There were imported goods such as wine and salt from southern Europe, precious metals from Arabia and amber from Poland and the Baltic states. In the craftsmen’s shops one could buy typical Gotlandic jewellery and those who were wealthy enough could order a gold-plated brooch.

The traces and remains from this trading place are both rich and varied. The archaeological excavations at the site are amongst the most extensive that have been carried out on a Viking harbour and trading place. Until the present we have encountered about 10,000 articles.

There are also several cemeteries with well-preserved skeletons and pieces of intricate handicraft. A well-preserved Viking well and medieval ruins add extra dimension to the place.

In May 1998, it was time for a new excavation to begin at Fröjel. The excavation was a part of the research project “Fröjel Discovery Programme” that is to be carried out over several years and aimed at intensifying knowledge of the Viking Age harbours and trade.

The artifacts
To get answers about the prehistoric society, we have to excavate, since written records are very few, if not nonexistent. But, the more we excavate, the more questions we get, even if some questions are answered through our excavations. This concerns single artifacts, as well as strange structures and constructions. In this news item, I will present two artifacts, or phenomena that we have problem interpreting, or in some other way are strange or divergent from what we normally find in our excavation.

I have in one of my earlier weekly reports on Fröjel Discovery Programme’s internet pages illustrated a strange, round stone with a cavity in the middle. I have received some answers by email, indicating that it obviously is the question of an oil lamp. One almost identical stone was found during the archaeological excavations of the well-known Viking Age settlement at L’Anse aux Meadows, situated on the northern tip of Newfoundland.

This time, it is the question of an iron tool. Obviously, it is some kind of a scraper. The edge is about 4-5 cm broad, with a handle that must have been connected to a wooden shaft. The edge is clearly saw-toothed. So, far, I haven’t come across anything like this tool before. As I see it, it might be some kind of a tool for dressing of fur skins, but I am not sure.

Maybe, there is someone among you readers, who has seen something similar, and who knows what it has been used for.

Dan Carlson
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Illustration: Marie Östberg
Archaeological excavations of the Viking Age harbour in Fröjel, Gotland. Photo: Dan Carlsson.

Merry Christmas and a Happy New Year!

We hope to see you during the excavations during 1999.
The objectives of the network are:

• To develop and maintain the Council of Europe’s Viking Routes project.

• To co-operate with schools, universities etc in the field of education and training in the study of the Vikings.

• To collect information of present Viking history activities, and to distribute information about Vikings and their history.

• To create a fund for The Annual Viking Management Prize to the best Cultural Heritage Management of Viking History.

In promoting these aims, VIKING HERITAGE has begun an information service for its members with the newsletter Viking Heritage Newsletter. It will organize conferences and seminars and act as a monitoring and advisory body on all issues relating to an enhanced understanding of the Viking history, operating at both international and national levels.