The Early Stages of the History of Vyborg: The Results of Archaeological Research 1998–2012

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Abstract

The article describes the archaeological excavations in the medieval town area of Vyborg, conducted since 1998 by the archaeological expedition of the Institute for the History of Material Culture of the Russian Academy of Sciences. The total excavated area currently exceeds 600 square metres. Systematic archaeological research of intact layers is a novelty in the town. According to our experience, the old centre of the town is very rich in medieval and early post-medieval layers with well-preserved construction remains and artefacts. The most visible and dominant single element in the medieval infrastructure of the town was the town wall, built of grey stone. The excavations provide adequate proof supporting the a priori assumption that rocky and hilly topography has strongly guided the development of early urban and urban infrastructure in Vyborg through the centuries. Artefacts tell about the economy and standard of living in the town. The lively trade brought welfare and the material culture was similar to what is found in other international harbour towns around the Baltic Sea.

1 Introduction

This article describes the archaeological excavations in the medieval town area of Vyborg during the last 16 years. The year 1998 was the first field season for the new archaeological expedition of the Institute for the History of Material Culture of the Russian Academy of Sciences (IHMC RAS / IIMK RAN) in Vyborg. Since then, the author of this article has been chiefly responsible for the excavations and numerous negotiations concerning the protection of cultural heritage in the medieval town centre and other historical areas of Vyborg.

Field archaeology in the medieval town area has been conducted both as rescue excavations and scientific research excavations. The author wishes to express his warmest thanks to Karjalaisen Kulttuurin Edistämissäätiö (Foundation for Karelian Culture, Joensuu, Finland) for the financial support in 1998–2008. In 2011 and 2012, the expedition received funding from the oil company Gazprom-Neft. As a rule, the main financer of archaeological surveys at construction sites was the construction company.

The excavation sites were located both on the eastern (1998–2001) and western (2003) sides of the medieval town area. For four field seasons (2004, 2006, 2011, and 2012) the expedition concentrated on a site in the centre of the medieval town, close to the cathedral (Fig. 1). The total excavated area currently exceeds 600 square metres. Furthermore, some fieldwork has been done on the ruins of the cathedral. The results of the last-mentioned excavations are beyond the scope of this article and will be published elsewhere.

This article summarises observations and results from our main excavation areas. The focus is on the medieval and early post-medieval layers, mainly wooden and stone construc-

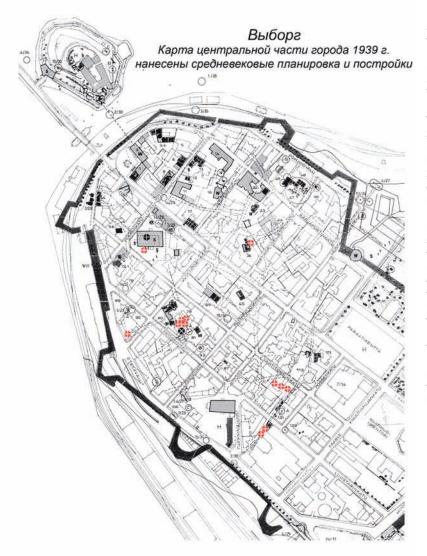


Figure 1. Excavation areas in the medieval town area of Vyborg: the Ratushnaya Tower (two red dots) 1998-1999, UI. Storozhevoy Bashni / UI. Titova (three red dots) 1998-1999, Ul. Yuzhniy Val (one red dot in west) 2003, UI. Vyborgskaya (four red dots and one black dot) 2004, 2006, 2011, 2012. The northernmost dots on the map mark the survey at UI. Krasnoflotskava street in 2007 (eastern red dot) and the site of the ruins of the medieval town church (red and black dots). The dark line with bastions is the defence wall after rebuilding in post-medieval times. The castle island is connected with the town by a modern bridge. Modern houses and street names are marked as they were in 1939 (the base map: J. Lankinen).

tions. The author wishes to refer to his previous articles concerning the subsequent archaeological field seasons. The individual articles, published in 2002–2015 (Belsky et al. 2003; Saarnisto & Saksa 2004a; 2004b; Saarnisto et al. 2003; Saksa 2002; 2004a; 2004b, 2009a; 2009b; 2009c; 2009d; 2009e; 2010; 2011; 2012; 2014; 2015; Saksa & Smirnov 2013; Saksa et al. 2002; 2003), build a cumulative and still developing interpretation of medieval life in this harbour town.

Artefacts have been collected in a systematic way and play an essential role in the interpretation of layers and construction remains. The artefact collections from our surveys are also growing. Some of the finds have been preliminarily published by the author in the articles mentioned above. However, the overwhelming majority of the find material remains to be analysed and published in the future. The expedition has conducted archaeological survey on construction sites on several plots in Vyborg. The total area surveyed is approximately 3000 square metres by now. The year 2007 was an exceptionally fruitful season. A large survey was conducted in the medieval town area, by Ul. Krasnoflotskaya street (Fi. *Harmaidenveljestenkatu*), where vaulted stone cellars were revealed. A second interesting surveyed site was in the Park of Lenin (Ru. *Park Lenina*, Fi. *Torkkelinpuisto*). Disturbed layers were removed from the top of a 16th-century defence wall belonging to the Bastion of Äyräpää of the Hornwerk on the eastern side of the old town centre of Vyborg.

The oldest known map of Vyborg dates to the 1630s. It is of Swedish origin and was made shortly before a total renovation of the town plan. This map is of crucial importance for the interpretation of any of the old cultural layers at archaeological excavations. All other available maps depict the town after its medieval structure had been demolished. The medieval, irregular street network was radically replaced by a regular town plan during the reign of Queen Christina of Sweden in the early 1640s. But even today, certain features from the medieval infrastructure of the town can be seen in a few places in Vyborg: the orientation of some of the oldest stone walls diverges from the regular streets (Neuvonen 1994).

A few medieval sources shed light on the history of Vyborg. These are letters, pieces of chronicles, and so on. All the known sources are very familiar to any scholar with even the slightest interest in the early stages of the town. They have been read and reread numerous times, and interpretations are both repeated and revisited. Thus the oldest historical sources are not likely to provide any radically new information concerning Vyborg. This strongly supports the urgent need for archaeological research in the town!

The thickness of cultural layers varies considerably in Vyborg and may be over 3 metres in places. Systematic research of intact layers is a novelty in the town. Despite the fact that archaeological research started over a hundred years ago in Vyborg, there was hardly any documentation of undisturbed layers and intact medieval of post-medieval find material in the archives prior to our expedition. According to our experience, the old centre of the town is very rich in medieval and early post-medieval layers with preserved construction remains and artefacts.

2 A look at the research history

The documentation of the Vyborg Castle at the end of the 19th century by Finnish archaeologist Alfred Hackman can be named as the first professional attempt to study the early history of the castle and the town. Hackman was in time to make drawings of all the outer and inner walls of the castle before dramatic restoration works took place in the castle in the 1890s and most of the medieval structures were covered by newer structures or wall surfaces. The publishing of Hackman's work was delayed and the article was published only after his death (Hackman 1944).

The Historical Museum of Vyborg was opened in 1893 in a building in art nouveau style, facing the castle. Some artefacts from the soil of the town area were placed on display, and a few prehistoric finds from the vicinity of the town could be seen in the museum, although its main focus was not on archaeology. The museum was destroyed in the war and was not rebuilt.

A considerably larger collection of archaeological material from the town could be displayed in the new museum that was opened inside the castle in the 1960s. From that time on, the exhibition still continues. The latest changes have taken place in the 2010s, and today many of the finds in the showcases come from our excavations. It should be noted, though, that we have not carried out any fieldwork on the castle island.

For almost a whole century, finds from construction sites in Vyborg were not collected at all systematically or otherwise in an adequate way. Plenty of medieval and early post-medieval material was certainly lost forever. For example, the multi-storey stone houses in the medieval centre of Vyborg were built in the turn of the 19th and 20th centuries without any archaeological documentation on the sites. The foundations of these buildings are right on the bedrock.

The potential value of the cultural layers has been obvious, though. In 1913, Finnish archaeologist Sakari Pälsi was sent to Vyborg to survey historical defence constructions that were unearthed due to massive reconstruction of the southern, international harbour for the rapidly developing town. The stone structures observed by Pälsi belonged to the medieval town wall that surrounded the town in the late 15th and 16th centuries. During his stay in Vyborg, Pälsi also conducted studies inside the medieval town church (later cathedral) that had undergone dramatic changes. The following year Finnish archaeologist Juhani Rinne made some small-scale excavations under the floor of the church building and drew conclusions on the building history (Rinne 1914).

Town planning architect Otto-Iivari Meurman was also responsible for the protection of ancient monuments in Vyborg in 1927-1937. He regularly visited construction sites all over the town area and made drawings of construction remains wherever they were revealed. In some cases, the constructions could be cleaned and measured before they were removed or covered by soil again. As an architect, Meurman was not very keen on portable artefacts. He paid a lot of attention to the oldest standing buildings in the town and let them be drawn professionally. Thanks to Meurman, a good collection of drawings is available for research in the archives of the National Board of Antiquities in Helsinki. This valuable material includes, among other things, the old German-style merchant houses (the so-called 'dice-form' houses) of Vyborg and the Ratushnaya Tower of the medieval town wall.

Vyborg was the only town in medieval Finland where two Catholic convent houses were established. Little is known about either of them. Digs and excavations were made on the site of the Franciscan church already in the 1920s and 1930s, but not much evidence was found on the building or the life of the monks in Vyborg.¹ During the war, Finnish restorer Oskari Niemi conducted small-scale rescue excavations inside the Dominican church and around the outer walls. His work in 1941 and 1943 took place under difficult conditions and the results were scanty.

After the war, a twenty-year break followed with no archaeological activity in Vyborg. The first archaeologist of the Soviet era in Vyborg was E. A. Kaljundi, who concentrated on the castle island. His excavations in the 1960s took place simultaneously with the building of a new museum in the castle (Kaljundi 1970).

The expedition for architecture and archaeology in Vyborg started its work in 1979. Among its first objects of study was the site of the medieval town wall by the Round Tower at the Market Square. The leader of this expedition of the Leningrad Department of the Soviet Academy of Sciences (LOIA) was archaeologist V. A. Tyulenev. The expedition worked in Vyborg continuously until 1994. The main sites for excavation were located on the castle island (1979–1991) and in the ruins of the cathedral (1985, 1991), as well as in the Dominican (1985–1994) and the Franciscan (1985, 1991) churches (Tjulenev 1982; Tyulenev 1995). Thus, the focus was often on the known medieval buildings. In addition, the expedition surveyed archaeological remains at construction sites in many parts of the town. The mapping of zones for the protection of cultural heritage in Vyborg was in process. For this purpose, Tyulenev opened test pits in several plots in the old town area to observe the cultural layers.

Most of the work outside known medieval public buildings by Tyulenev's expedition seems to have been sporadic and dictated by ad hoc needs, not a scientific research programme. It was probably for this reason that they never reported such thick and rich cultural layers as those currently studied by our expedition.

3 Where is the Iron Age in Vyborg?

The Castle of Vyborg was probably established in 1293 – a year suggested by a written source and not refuted by any other scientifically valid argument. According to V. A. Tyulenev, archaeological evidence from the castle island shows that the island had been a trade centre already before the 1290s. His excavations revealed remains of trade by the Karelians and a defence structure of logs and piles. The archaeological evidence is scarce and not necessarily convincing. But the location of the island in the Gulf of Vyborg, with good medieval traffic connections both overseas and inland, does support the possibility that Late Iron Age / early medieval trade could have been practised here.

The castle island is very small. In the beginning of the 14th century at the latest, it was too small for the settlement that expanded to the mainland. It is very probable that the first inhabited area on the shore was the small peninsula where a medieval, urban-like central site then quite rapidly grew into a town.

The earliest written document of Vyborg as a town dates from 1403. It is a letter by King Eric of Pomerania granting town privileges. It is reasonable to assume that Vyborg already had an urban character; we do not even know if the town privileges of 1403 were the first to be granted to this trade harbour.

With this background in mind, it seems a paradox that archaeological excavations or surveys have only revealed slight traces of cultural layers dating to the 13th century or the early 14th century. Not a single collection of artefacts from this period is known from Vyborg or the near vicinity of the old town area. However, researchers have mainly concentrated on the history of the castle and other medieval buildings, not on sites where historical remains do not catch the eye on the surface.

Still, some Iron Age finds are known from the town. A ring brooch and a pendant were found on the island of Kirkkosaari at a short distance north-west of the castle island. These finds date between 1050 and 1300, to the period of the Catholic Crusades from Sweden to Finland. Tyulenev also found a lattice pendant dating to the 13th century in the ruins of the cathedral.

4 Summer 1999 – a new opening in the archaeology of Vyborg

The most visible and dominant single element in the medieval infrastructure of the town was the town wall, built of grey stone. Vyborg was one of the few medieval Swedish towns that had a defence wall of stone in the Middle Ages: such massive construction work was undertaken only in the most urgent cases, like in Stockholm, the capital, and Kalmar, a harbour town of essential political importance. Written evidence has survived on the existence of a wall in Vyborg in the 1470s. It is very probable, although not absolutely sure, that the most active period of its construction took place under the reign of Erik Axelsson Tott as Lord of Vyborg Castle. He was also the ruler who established the Castle of Olavinlinna by Lake Saimaa in south-east Finland, at the eastern border of the Swedish kingdom (today, this castle is the home of the Savonlinna Opera Festival).

Thus, the archaeological expedition in Vyborg started its work in a very interesting place in 1998-1999: the first excavation area was opened at the foot of the medieval Ratushnaya Tower (Ru. Bashnya Ratushi) of the town wall. The floor plan of the tower is approximately rectangular and the stone walls are very thick. A few of the embrasures are still left. The basic construction is medieval, but the outer surface of the building has been changed and the tower has a modern roof. Inside, the tower is in fairly good shape with old stairs and exhibition rooms. The town wall of Vyborg probably had over ten towers. With the exception of the Ratushnaya Tower (Fi. Raatitorni, translated as 'Tower of the Town Council') all other towers have been demolished. Some of them were destroyed at an early stage; no solid evidence of even their exact location is available today. The Round Tower, a landmark of modern Vyborg and well known to visitors, was built in the 16th century, almost a century after the medieval town wall.

The excavation area of summer 1999 was situated in the place where the town wall and

the south-east wall of the Ratushnaya Tower meet. The junction has been preserved very well under modern topsoil. The excavation was approximately 50 square metres in area and several metres in depth. Interesting results were achieved related to the technical features of the town wall. It is known that limestone is not a natural resource in the Vyborg district. It had to be imported by sea, and the use of this raw material for the medieval building works in Vyborg was rather limited. Under these circumstances, the town wall was constructed of two thinner walls of grey stone and a filling of smaller stones and gravel in between. Instead of stabilising the inner structure by mortar, the builders left it fairly loose - and less stable. As a consequence, the wall was never very solid and it soon started to collapse.

Although not unexpected, this process was now proved by means of archaeological excavation. At the foot of the town wall, on the inner side, there was probable evidence of medieval settlement that had been immediately adjacent to the defence wall. We saw that the lowermost stones of the wall had been covered by a thick (40-50 cm) burned layer very soon after the wall had been built. The (little but existing) mortar between the stones was almost white, not weathered, while the mortar of the upper stone layers had been much more weathered before the wall lost its function and was buried under the gradually growing cultural layers. The lowermost layer at the foot of the wall was rich with humus - a proper medieval cultural layer with traces of a late-15th-century fire. The cultural layers of Vyborg started to speak to archaeologists in a new way.

5 More excavation areas by the town wall in 2000

The next year our expedition met new challenges in a block near the Ratushnaya Tower, at the corner of Ul. Titova street (Fi. *Possenkatu*) and Ul. Storozhevoy Bazhni street (Fi. *Vahtitorninkatu*). Again we were able to view cultural layers close to the town wall. The work had the character of a rescue excavation: the construction of a new residential building was to take place in an area where, to our knowledge, no big stone houses had existed earlier. We chose to open two separate excavation areas $(32 \text{ m}^2 \text{ and } 24 \text{ m}^2)$ and a survey trench. A piece of the town wall could be documented in the trench, thus giving further proof of the exact location of the wall on this side of the town.

The lowermost horizon of the first excavation area held a surprise: a 2.1-metre-wide stone-paved street running from east to west had been built straight on the bedrock. The location of the pavement under younger layers allowed us to assume that the street was medieval. From the map of the 1630s, we conclude that this street once ran from the Dominican Convent (established in 1392) to the Tower of St Andreas, the most famous of the towers of the 15th-century town wall. According to legend, the Tower of St Andreas exploded on a winter night in 1495 when the Russians besieged Vyborg. This miracle made them retreat and the town was saved. The story can be read in Olaus Magnus' History of the Northern Peoples (1555) and has been repeated countless times ever since.

The second excavation area was no less interesting. It provided a whole cross-section of the character of the cultural layers in this part of the medieval town area, from the very first building phase (from the bedrock) up to modern times. In the lowermost horizon, about 1.8 metres under the modern surface, there was a well-preserved log construction. In connection with the logs, there was a packing of burned stones. Furthermore, two logs had been cut lengthwise, then hollowed out and covered inside with birch bark. The presence of both burned stones and two water pipes suggests that this could have been a sauna! The dendrochronological analyses of the logs gave results that perfectly fit the building history of the town wall: the most probable calibrated dates are the years 1478 and 1480.

Evidence from both field seasons, 1999 and 2000, thus proves that by the time of the construction of the town wall, there was already dense settlement in its immediate vicin-



Figure 2. Constructions and cultural layers in Vyborg. Photos: A. Saksa.





ity – at least in places. But was the total area surrounded by a wall somewhat larger than the existing town; the builders surely expected the town to grow? Did the wall actually surround the inhabited area or did it 'cut' the settlement so that some living plots were left outside the defence line?

To answer these questions we should keep in mind the very demanding topography that always dictated growth, building, and town planning in Vyborg. On the eastern or inland side of the peninsula, the town wall had to follow height contours. The location of the Ratushnaya Tower, the map of the 1630s, and our excavation all clearly show that the wall was on the edge of a bedrock slope.

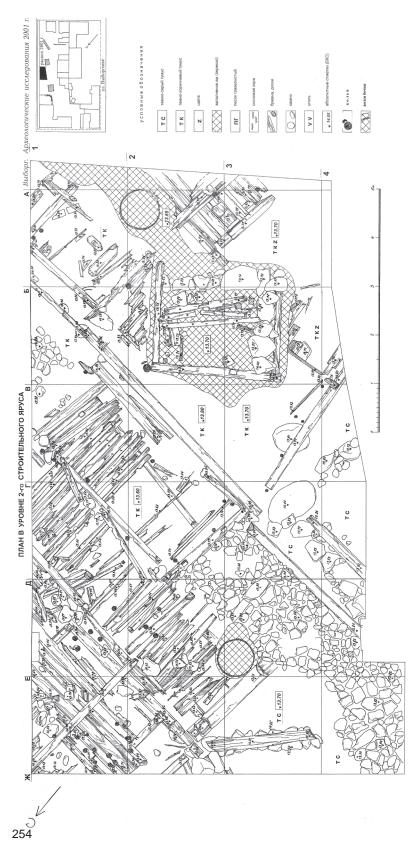
6 The five excavation horizons of summer 2001

Fieldwork was continued in the same block as the year before. The new excavation area of summer 2001 was between the areas excavated in 2000. It was larger than any of the previous excavations of our expedition: 92 square metres in area and 2.4–3.2 metres in depth. Five horizons of intact cultural layers and construction remains were documented and a large number of finds was collected from the different contexts. All the horizons had one feature in common: the orientation of walls and other log structures differed from the regular town plan. We are convinced that they date to periods older than the 1640s and provide insights into the medieval town plan.

The maps, drawings, photos, and finds from the 2001 field season were exceptional in the history of archaeological research in Vyborg. The material was more abundant than ever before, the quantity and the level of preservation of wooden constructions far exceeded any previous observations in the medieval centre of the town. The excavation team carried out all documentation with great patience, thus bringing the standards of field archaeology in Vyborg to a new level. For these reasons, we find it useful to describe the five horizons in detail in this article. Moreover, the character of the cultural layer in 2001 was fairly similar to what was found in our next excavations in the very centre of the town (field seasons 2004–2012) (Fig. 2).

Horizon 1. In this youngest intact layer, there were stone pavements and other stone constructions. In a rectangular structure, there was some mortar and the two wall-like rows of stones were flanked by logs. In one of the logs there were holes, probably drilled for vertical piles. A floor of planks immediately next to this structure had been subject to fire. On the level of the floor there was a stave barrel 80 cm in diameter and made of spruce. The mouth of the barrel had been covered by birch bark that could be sampled for radiocarbon dating. According to the laboratory analysis, the barrel dates to the turn of the 16th and 17th centuries.³ Perhaps the building with a plank floor had been destroyed in one of the fires that caused great damage in Vyborg in 1627 and 1628, as is known from written documents. These disastrous fires marked the end of the medieval town structure of Vyborg. The town had hardly recovered before the new regular street system was introduced and Vyborg saw the beginning of a new era.

Horizon 2. The following horizon was literally packed with wooden and stone constructions (Fig. 3). A stone-paved street ran across the excavation area from east to west. The stones were flanked by logs that followed the same orientation. This 'long' street had been cut by another, younger street in a diagonal direction. The area north of the 'long' street was full of short logs that formed a platform or were the remains of some kind of a foundation. One of the logs in this horizon had probably functioned as a water channel, and there were two barrels, likely used for collecting rain water. Radiocarbon samples could again be taken from birch bark, which was found in a log construction near the southern edge of the excavation area. As expected, the result is slightly older than the one from the horizon above: the most probable date is the 16th century or the very beginning of the 17th century.4





Both of the above-mentioned horizons consisted of dark brown humus, and there were a lot of wood chips and bones of domestic animals like cattle and sheep. Sherds of clay vessels were abundant and a large number of metal artefacts and fragments of leather shoes, as well as wooden and birch bark items, were found. The oldest coins date to the last quarter of the 15th century and the youngest ones are from the 17th century.

Horizon 3. Construction remains were abundant on both the southern and northern sides of a dividing line that could be clearly observed running from east to west approximately in the middle of the excavation area. It could not be interpreted as a street, though, and no other remains of streets could be observed in this horizon either. But there were a lot of other remains of logs, beams, and planks tightly squeezed next to each other. Like in the two upper horizons, there was a log that had been cut lengthwise into two and hollowed obviously a water channel again. A water barrel belonging to an upper horizon had accidentally punctured this older section of a rainwater system.

Horizon 4. The soil was dark brownish in colour with a lot of wood chips, spruce bark, dung, and bones of domestic animals. This horizon was 50–70 cm thick and the number of wooden constructions was again significant. Sherds of stoneware vessels were common, and we also found numerous pieces of fishing equipment, like spruce bark floats and net weights. The find material thus represents both international Hanseatic sea trade and local fishing culture, similar to what is known from medieval Novgorodian lands in Karelia. The coins date from the 1460s to the late 17th century.⁵

Horizon 5. The lowermost horizon was very moist, downright wet. There were a lot of animal bones in this cultural layer, too, and pieces of fishing equipment were found. In contrast to all the horizons above, only a few wooden constructions were found in the bottom horizon. Artefacts date the layer to the 15th century. Surprisingly enough, a plank found

very close to the bedrock surface was radiocarbon-dated to the 13th century.⁶ But this wooden board was a separate object, not part of any in situ construction remains. We assume that the old plank had been carried to this spot from somewhere else, possibly from a place where 13th-century Karelian settlement had once been located.

To sum up: The three excavation areas of our field seasons 2000-2001 gave adequate proof to support our a priori assumption: it was the rocky and hilly topography that strongly guided the development of early urban and urban infrastructure in Vyborg. For example, in the block in question, the height difference measured from the bedrock surface is approximately 2.5 metres within a distance of only 10 metres down to the east. The medieval and early post-medieval inhabitants of Vyborg surely put effort into making their residential areas more comfortable for construction and living. They used masses of gravel to fill pits and slopes, and organic soil was frequently used for the same purpose. This may be worrying for archaeologists: artefacts from landfills do not necessarily give reliable data for dating the layers.

A second major problem to be solved in medieval Vyborg was the waste water. In a topography where pits and slopes are a rule, there are always puddles of dirty water and mud. Water channelling was necessary – just as the remains of channels and rainwater barrels have shown in our excavations.

7 Excavations on the southern edge of medieval Vyborg in 2003

The new excavation area was in a block of the street named Yuzhniy Val, translated as 'the Southern Wall' (Fi. *Etelävalli*). The site is located very close to the southern harbour, where the last remains of the medieval town wall were demolished in the 1910s (see above). The excavation area was about the same size as the one in 2001, and even in this case the total thickness of the cultural layer was over

three metres. We excavated six subsequent horizons; in some parts of the excavation area, the number of horizons was seven. The character of the cultural layer and construction remains was very similar to our experiences from the excavation two years earlier. The dominating colour of the cultural soil was dark brown and there were a lot of wood chips and animal bones in the layers. The number of different kinds of log and plank constructions was as high as expected, and many of the logs had been reused at least once. Recycling of building material could be observed even in the lowermost, medieval excavation layers. The find material dates to the 15th and 16th centuries or to the early 17th century in the uppermost intact layers. Leather shoes, including a child's boot, can be mentioned among the most interesting finds. Some artefacts from the 18th century were found, too, but these find contexts were not necessarily intact.

In the corner of the excavation area, there were two logs, cut and hollowed to function as water channels. Based on radiocarbon samples, these constructions date to the 16th century and the second half of the 18th century.7 One floor construction gave a much older radiocarbon date: it is medieval, and one of the planks was made of a tree that had been felled in the 1410s.8 The layer under this floor was only 5-7 cm thick, but soil samples from it gave very interesting results. According to the analysis by Terttu Lempiäinen from the University of Turku, Finland, the macrofossils represent typical medieval flora. The earliest ¹⁴C dating comes from a seed of *Chenopodium* album that may have been as old as from the 1310s.9

8 In the centre of the medieval town in 2004, 2006, 2011, and 2012

The location of the excavation areas was in the heart of the medieval town area, on a spot where no modern houses had yet been built. The address is Ul. Vyborskaya 8 (Fi. *Luostarinkatu*, translated as 'Convent Street'). One of the two old 'dice-form' stone houses of Vyborg, a so-called 'guild house' (the house of a medieval guild?) is on this block, and the excavations were at the foot of the wall of this house. The stone house looks like medieval merchant houses in Germany, but its real age has not yet been proven scientifically.

The total excavated area was 310 m^2 in four field seasons, and there were about 3.5 metres of intact cultural layers. The number of subsequent excavation horizons was eight, and as many as 11 horizons could be documented in certain parts of the research area (Fig. 4).

The distance to the medieval town church (Cathedral of Vyborg) is approximately 120 m from this spot, and only ca 300 m to the ruins of the Dominican Church and Ratushnaya Tower. The map of Vyborg from the 1630s shows that the area was an open space then – irregularly shaped, wider than a street, but not a square. The location would have been suitable for a medieval marketplace. Based on this assumption and the previous observations of our expedition in Vyborg, we expected to find medieval layers, even very old finds by the standards of Vyborg.

We were certainly not disappointed. Each of the excavation horizons was literally full of wooden constructions, such as walls and floors, dating from the 15th to 17th centuries. The lowermost cultural layers, mainly dark brown with wood chips, dung, charcoal, and animal bones, were thick (30 cm or more). In a few cases, the soil had the character of a filling and artefacts were dated to the first half of the 15th century. Like in previous years, the number of pieces of fishing equipment was relatively high. On the other hand, we did not find as much pottery or textiles as expected.

The oldest dating is again from a water channel covered with birch bark. It was revealed near the bedrock surface and dates to the 1420s. In the soil samples there were seeds of buckwheat (*Fagopyrum esculentum*). Radiocarbon dates indicate that the seeds are very old: dating from the turn of the 13th and 14th centuries. This result is significant, although not surprising. Summing up the dating

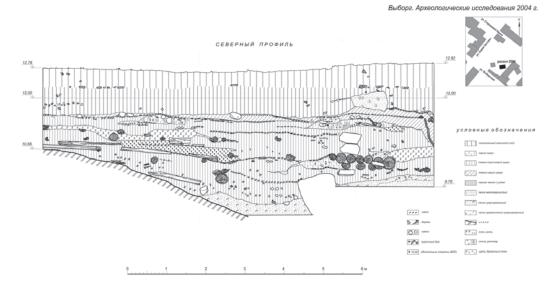


Figure 4. An example of the cultural layer and the profile of the bedrock in the excavations of Vyborg. The northern profile of the excavation in summer 2004 was drawn by L. Kortshagina.

results from all our excavations in Vyborg until now we can say that the oldest dates of wooden constructions are from the beginning of the 15th century, but observations of reused logs in these buildings prove that these were not the first houses in this growing urban settlement. Thus, we expect to encounter building remains dating to the 14th century when archaeological research is continued there again.

However, it does not seem likely that the oldest layers of Vyborg could be found in the close vicinity of 'the guild house' at Ul. Vyborgskaya 8. This was not the most suitable place for building houses in medieval times. Here the bedrock surface is very steep. Log platforms had to be lain before walls for houses and huts could be erected. Medieval examples of such platforms were documented in our excavations. Thus the topography was extremely demanding for any town planning or construction work before thick cultural layers gradually covered the most abrupt steps and pits. Still, the slope between the streets Ul. Vyborgskaya and Ul. Storozhevoy Bashni is quite steep even today.

9 The changing town structure in Vyborg through the centuries

In the beginning of the 14th century, Vyborg was not yet urban (Hiekkanen 2003). The local economy was probably based on animal husbandry, and fishing at sea was both part of the local subsistence and offered good possibilities for growing trade.

Most probably, residential houses were first built on three separate sites on the cape east of the castle island. These locations were approximately the same as those for the three medieval stone churches in the town: the site of the town church and the Franciscan and Dominican monasteries (Fig. 5). Only in these places was the topography fairly even, allowing a less laborious start for the construction work. In the middle of the cape, there is a more rocky and hilly area where the inhabitants could hardly have wished to live. But we do not assume that they lived in the immediate vicinity of the seashore, either. Historian J. W. Ruuth, the author of the first and most exhaustive book on the history of Vyborg (1908, revised edition in five volumes 1974-1982), suggested that the earli-

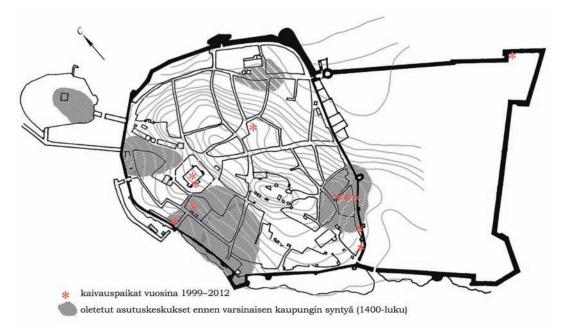


Figure 5. Height contours in the medieval town area of Vyborg. The excavation areas of 1998–2012 are marked with red stars. The dark line shows the medieval town wall (most probable location) and the 16th-century Hornwerk in the east. The areas marked with grey are possible locations of medieval settlement: the castle island, the location of the 15th-century town church (opposite the island), the locations of the Franciscan (south-east) and Dominican (south) monasteries, and a relatively large area of smooth topography by the western shore (UI. Yuzhniy Val). Illustration: A. Saksa.

est settlement was by the shore where the first houses were set in a horseshoe shape. According to our knowledge, there is no archaeological or other direct evidence to support Ruuth's vision.

A severe fire destroyed parts of the medieval town in 1411 during a Novgorodian siege. This is a strong argument for not finding many traces of the 13th-century settlement in archaeological excavations in Vyborg. But after the period of war, Vyborg was soon rebuilt and rapidly grew into an international medieval town with public stone buildings, a street network, and four town quarters. A defence wall of stone was erected in the 1470s, surrounding a town area where there was still space for more construction and growth.

Artefacts tell about the economy and standard of living in medieval Vyborg (Fig. 6). Clay vessels show contacts with German towns, the Baltic countries, and central Europe further south. Imported goods included leather, metal, and wood handicrafts. The lively trade brought welfare and the material culture was similar to what is found in other international harbour towns around the Baltic Sea. For example, leather footwear from the medieval layers of Vyborg is of same shape as fashionable shoes in the paintings of Dutch masters of the era. Silver and copper coins came into use in Vyborg in the first half of the 15th century. Most medieval coins are from Reval (Tallinn) or of Swedish origin.

The great fire of 1477 was one of the most dramatic events in the history of Vyborg, as we can read in written documents. Fires were no exception in medieval towns, of course, but it was this very fire in Vyborg that caused the town structure to change to a remarkable extent. Here we rely on written sources, but our excavations support them. The active rebuilding of the town after the big fire can be traced in excavated horizons where wooden constructions lay tightly. Horizons with only a short time gap in between are clearly separate and differ from each other in a notable way:



Figure 6. Artefacts from the excavations of Vyborg: pieces of fishing equipment, leather footwear, coins, items of bone and metal. Photo: A. Saksa.

new residential houses, shelters for cattle, and other buildings have been erected at an intense pace. During one or two generations, the town reinvented itself!

At the end of the 14th century and in the beginning of the following century, the medieval town area was being filled up with buildings, streets, and lanes. Places where the abrupt topography had hindered the building activity were now taken into use. The planning of infrastructure was systematic, as for example the water channels and barrels have shown in our excavations. The first stone houses were built, as well as houses with a ground floor or a vaulted cellar of stone. Written documents give a fairly detailed, yet not complete picture of renovations of the town church and the two monastery churches (Hiekkanen 2004).

In the 16th century at the latest, Vyborg extended beyond its medieval curtain, the town wall. The new defence fortification, the Hornwerk, was built on the eastern side of the medieval town in the beginning of the reign of the Vasa family in Sweden. The Bastion

of *Pantsarlaks* of the Hornwerk has survived and is now located by the southern harbour of Vyborg. The second large bastion, named *Äyräpää* (in Finnish), has been demolished, but our survey in 2007 took place in the ruins of this massive construction in the Park of Lenin. We had the rare opportunity to document stone structures down to three metres under the modern topsoil.

The real building of a 'town of stone' took place in the late 16th and 17th centuries (Kauppi & Miltšik 1993). Again houses were located in places where the topography had been considered as less favourable. But even in the oldest, medieval town area there were probably spots where no buildings had yet stood. Our survey at Ul. Krasnoflotskaya in 2007 revealed stone cellars dated no earlier than the late 17th – early 18th centuries (Fig. 7).

Acknowledgements

The author thanks the two anonymous referees for valuable comments and expresses his warm



Figure 7. The survey at UI. Krasnoflotskaya street in 2007. Nothing from the stone cellars had been visible on the surface. Note the topography of the bedrock. The photo was taken from the east by A. Saksa.

thanks to M. A. Mervi Suhonen who assisted in the editing of the article for publication.

References

Archival sources National Board of Antiquities, Helsinki

Published sources and literature

- Belsky, S., Saksa, A. & Suhonen, M. 2003. Stadsarkeologi i Viborg. *Medeltidsarkeologisk tidskrift META* 2003 (1): 14–30.
- Hackman, A. 1944. Bidrag till Viborgs slotts byggnadshistoria. Analecta archaeologica Fennica XI.
- Hiekkanen, M. 2003. Viipurin lääni rautakaudesta keskiaikaan. In M. Saarnisto (ed.) Karjalan synty: Viipurin läänin historia I: 475–484. Joensuu: Karjalan Kirjapaino Oy.
- Hiekkanen, M. 2004. Viipurin kolme kivikirkkoa. In J. Korpela Viipurin linnaläänin synty: Viipurin läänin historia II: 252–253. Joensuu: Karjalan Kirjapaino Oy.
- Kaljundi, E. 1970. Viiburi lossi ajaloost. *Ehitus ja* Arhitektuur 1970 (3): 53–63.
- Kauppi, U-R. & Miltšik, M. 1993. Viipuri: Vanhan Suomen pääkaupunki. Suomalaisen Kirjallisuuden Seuran toimituksia 593.
- Neuvonen, P. 1994. Viipurin historiallinen keskusta: Rakennusperinnön nykytila. Helsinki: Suomen historiallinen seura.
- Rinne, J. 1914. Viipurin entinen tuomiokirkko. *Suomen Museo* 12 (1914): 53–67, 79–94.
- Ruuth J. W. 1908. *Wiipurin kaupungin historia*: I nidos. Wiipuri: Wiipurin kaupunki.

- Ruuth, J. W. 1982. Viipurin kaupungin historia: I osa: Vuoteen 1617. Helsinki: Torkkelin säätiö. R. Rosén et al., revised edition.
- Saarnisto, M. & Saksa, A. 2004a. Radiocarbon Dates from Archaeological Excavations in Viipuri: The Corner Site of Former Uudenportinkatu and Etelävalli. *Fennoscandia Archaeologica* XXI: 37–42.Saarnisto, M. & Saksa, A. 2004b. Radiohiiliajoituksia
- Saarnisto, M. & Saksa, A. 2004b. Radiohiiliajoituksia Viipurin arkeologisilta kaivauksilta. In J. Korpela Viipurin linnaläänin synty: Viipurin läänin historia II: 259–261. Joensuu: Karjalan Kirjapaino Oy.
- Saksa, A. I. 2002. Archaeological Chronology of Medieval Vyborg: Preliminary Results of the Excavations of 1998–2000. In P. Uino (ed.) Fenno-ugri et Slavi 2002: Dating and Chronology: 98–109. Museoviraston arkeologian osaston julkaisuja n:o 10.
- Saksa 2004а = Сакса, А. И. 2004. Новые данные по ранней истории средневекового Выборга (предварительные итоги археологических исследований 1998–2000 гг.). Страницы выборгской истории: сборник статей: 569–584. Выборг: Европейский дом.
- Saksa, A. 2004b. Viipurin kaupunkikaivaukset 1999– 2001. In J. Korpela Viipurin linnaläänin synty: Viipurin läänin historia II: 88–90. Joensuu: Karjalan Kirjapaino Oy.
- Saksa, A. 2009a. Baugeschichte und kulturhistorische Stratigraphie des mittelalterlichen Wyborgs (nach Materialien der Ausgrabungen 1998–2008). In A. Caune & I. Ose (eds.) The Hansa Town Riga as Mediator between East and West: Proceedings of an International Scientific Conference Dedicated to 70 Years of Archaeological Research in Riga, Held in Riga, Latvia, on 23–25 September 2008: 152–162. Riga: Institute of the History of Latvia Publishers.
- Saksa, A. 2009b. Kaupunkiarkeologia Viipurissa:

Kaupungin alkuvaiheen ongelma. In H.-M. Pellinen (ed.) Maasta, kivestä ja hengestä: Markus Hiekkanen Festschrift: 226-239. Turku: Kulttuurien tutkimuksen laitos, arkeologia.

- Saksa 2009с = Сакса, А. И. 2009. Раскоп на ул. Южный Вал в Выборге: Стратиграфия культурных напластований средневскового города. In A. E. Мусин (ed.) Хорошие дни: Памяти Александра 473-484. Великий Степановича Хорошева: Новгород, Санкт-Петербург & Москва: Леорарт.
- Saksa 2009d = Сакса, А. И. 2009. Содержание проекта экспедиции. Королевский Альбатрос: Выборгский информационно-туристический портал. http:// www.vbrg.ru/articles/istorija_vyborga/aleksandr_ saaksa_raskopki_starogo_goroda_polnye_ot/soderz-hanie_proekta_ekspeditsii/ Read 28 October 2015.
- Saksa 2009e = Сакса, А. И. 2009. Средневековый Выборг: Начало городской истории (по итогам раскопок 1999-2006 гг.). In Е. Н. Носов (ed.) Археология и история Литвы и Северо-Запада России в раннем и позднем средневековье: Доклады Международного российско-литовского семинара: Санкт-Петербург, 4–8 декабря 2006 г.: 139–146. Санкт-Петербург, Нестор-история.
- Saksa, A. 2010. Viipuri 1500–1600-luvulla arkeologisten kaivausten valossa. In Y. Kaukiainen, R. Marjomaa & J. Nurmiainen (eds.) Suomenlahdelta Laatokalle: Viipurin läänin historia III: 34–35. Joensuu: Karjalan Kirjapaino Oy.
- Saksa 2011 = Cakca, A. H. 2011. Современное состояние археологических исследований Выборге: Результаты и проблемы. Труды III (XIX) всероссийского археологического съезда. Великий Новгород-Старая Русса, Том II: 257–258. Санкт-Петербург: ИИМК РАН.
- Saksa, A. 2012. Viborg: From Fishing Village to the Medieval City. In E.-M. Viitanen (ed.) 18th Annual Meeting of the European Association of Archaeologists: Abstracts: 95. Helsinki. Saksa 2014 = Сакса, А. И. 2014. Археологические
- Выборге: раскопки в Исследование средневекового межевого участка на улице Выборгская, 8 («дом купеческой гильдии» начала XVII века). Труды IV (XX) всероссийского археологического съезда в Казани 2014 г, Том III: 323-327. Казань: ИА АН РТ, К(П)ФУ, ИА РАН & ИАЭТ СО РАН.
- Saksa 2015 = Сакса, А. И. 2015. Средневековый Выборг как восточное продолжение городской цивилизации побережья Балтики. In П. Г. Гайдуков (ed.) Города и веси средневековой Руси: Археология, история, культура: К 60-летию Н.А.Макарова: 256-271. Москва & Вологда: Древности Севера.

- Saksa, A., Belsky, S., Kurbatov, A., Polyakova, N. & Suhonen, M. 2002. New Archaeological Excavations in Viipuri: Results of Field Investigations of the 1998-2001 Seasons and Current Research Problems of Urban History. Fennoscandia Archaeologica XIX: 37-64.
- Saksa et al. 2003 = Сакса, А. И., Бельский, С. В., Курбатов, А. В. & Полякова, Н. Ю. 2003. Выборг: Первые века истории (некоторые итоги исследований 1998-2001 гг.). In Э. Б Зальцман, Е. Ю. Голубева, И. О. Деменьтев & Л. В. Сыроватко (eds.) Проблемы балтийской археологии: Сборник научных трудов: 129-140. Калининград: Изд-во КĹЛ
- Saksa, A., Saarnisto, M. & Taavitsainen, J.-P. 2003. 1200-luvun lopun radiohiiliajoitus Viipurista. SKAS 2003 (3): 15-20.
- Saksa & Smirnov 2013 = Сакса, А. И. & Смирнов А. М. 2013. Археологические исследования средневекового Выборга в 2011–2012 гг. In Бюллетень Института Истории материальной культуры РАН 3: 145-152
- Tjulenev, V. A. 1982. Entisajan Viipurin uusista arkeologisista tutkimuksista. In Viipurin kaupungin historia: I osa: Vuoteen 1617: 25-34. Helsinki: Torkkelin säätiö.
- Tvulenev 1995 = Тюленев, В. А. 1995. Изучение старого Выборга. Санкт-Петербург: ИИМЌ РАН.
- Uino, P. 1997. Ancient Karelia: Archaeological Studies -Muinais-Karjala: Arkeologisia tutkimuksia. Suomen Muinaismuistoyhdistyksen Aikakauskirja 104.

Notes

- Uno Ullberg 1925 and Esa Kahila 1936 (mentioned by Otto-Iivari Meurman in his correspondence; archives of the National Board of Antiquities, Helsinki).
- 2 See Uino 1997: 187 Fig. 6: 10: 7.
- SU-3603, 180±40 BP SU-3602, 330±40 BP 3
- 4
- 5 The Baltic countries: silver artig of the episcopate of Dorpat (Andreas Peper, 1468-1473). Sweden: Juhan III (1568-1592) 2 öre 1573 (2 copies, copper) and 1/2 öre 1581 (1 copy), Christina (1632–1654) 1/4 öre 1634, 1637 and 1640 (3 copies, copper) and Charles XI (1660–1697) 1/6 öre 1667 (1 copy).
- SU-3589, 760+40 BP 6
- Poz-4294, 325±25 BP; Poz-4295, 185±25 BP; Poz-4385, 7 185±25 BP
- Poz-4383, 555±30 BP 8
- Poz-4297, 625±25 BP

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