## EXCAVATIONS IN THE NEW-PERNAU QUARTER OF ARTISANS

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The rescue excavations at 5/7 Uus Street made it possible to investigate an area of ca 190 m<sup>2</sup> on the territory of the artisans quarter in the southern and south-eastern part of the medieval New-Pernau (Nien-Pernow in Low German). The remnants of the wooden buildings and wooden pavements were well preserved in the thick manure layer. Organic material, mainly objects of leather, formed the majority of the finds.1

The medieval owners of the sites in the area of the excavations can be found only in the Heritage Book of the 16th century. There is no written evidence on earlier times, as the Town Hall Archives were destroyed in fire in 1524. The Heritage Book contains parts from 1525— 1573 joined together, as well as later additions. The author of the part most interesting to us (folios 73-100) is an alderman Nicolaus Barenfeld; he wrote this part in 1543, without any references to earlier times.2 According to the description there should be two framework buildings (stenderwerck) and a wooden house (holten hus) in the western side of

Holy Ghost Street (hilligen Geistes strate).3

The excavations did reveal a framework building of the 16th century at the level of 210 cm,4 with a burnt northern part (Fig. 1). The dimensions of the building did not permit to establish its position in the south-western corner of the excavation. The western part of the house remained outside the boundaries of the excavation and the southern part was destroyed. At least 9 m of the lateral length of the house could be identified on the basis of a charcoal line in the northern part and the stones placed under its corner. The construction date of this house cannot be much earlier than 1543, as the mason Andres Block and the rich widow of the alderman Hinrich Gruters mentioned in the Heritage Book had built (vpgebuweth) their framework houses only recently. The most interesting of the parts of the house were the joints of the baseframe and the floor. The timber-framed house had been erected on a brick foundation, under which was the floor of a burnt wooden house (Fig. 1, IV). The eastern wall of the timber-framed house was 2.3 m west of the eastern wall of the burnt crossbeam building. There was a comparatively short period between the burning of the crossbeam building and the construction of the framework building. We know of large fires of 1488, 1513, 1524, and 1533 in that period. It is known of the fire of 1488 only that it caused great losses to the population (groth schade). As to the fire of the night of May 8, 1513, also the Holy Ghost Church

<sup>3</sup> Ibid., pp. 89—90.

PäM 14489—A 2507.
 Laakmann, H. Das Erbbuch von Neu-Pernau 1543. — Sitzungsberichte der Altertumsforschenden Gesellschaft zu Pernau. IX. Band 1926—1929. Pernau, 1930, pp.

<sup>&</sup>lt;sup>4</sup> The levels have been measured down from the excavation 0-level, which was 6 m above the "Kronstadt zero" and 20-30 cm above the ground,

is reported to have burnt to the ground (in de grunth), in the very quarter we are interested in. The records on areas destroyed in the fires of 1524 and 1533 mention buildings in the northern part of the town.

The details of the crossbeam building representing presumably the wooden architecture of the 16th century enabled us to investigate the foundation beams, the floor, and parts of the burnt wooden roof. The floor of the house was heavily warped because of the open stove with cobblestones that had been under it. The cobblestone stove was complete, the beam floor had also partly been preserved on the level of the cobblestones (Fig. 2). The cobblestone stove in the north-eastern part of the wooden building with a rough floor could have been used also as an open hearth. Our stratigraphic research showed that the stove had been dug into a sand hill with a height of 0.5 m. The bottom of the stove was only 2.5 m above sea level. Fragments of walls at a distance of 1 m were the only preserved parts of the building surrounding the stove. After a cultural layer of 30-40 cm had formed over the sandy surface surrounding the stove, it had been covered with cobblestone pavement, which had been in use in the 15th-16th centuries. The pavement started from the side of the Holy Ghost Church and descending with a strong slope (difference of heights up to 80 cm) passed the remains of the stove in the north and north-east at a distance of 0.5-1 m. In the northern part the pavement was supplied with a gutter of kerbstones (Fig. 3). Under the layer of sand an earlier, much inferior pavement, was found. On it there appeared finds of the second half of the 14th century: fragments of a Jacobakanne, a knife, remnants of hooped wooden vessels, and objects of leather.

Remarkable were low cups of stoneware (Fig. 4), which were found in the lowest layers of the northern part of the excavation.

An open hearth of 90×100 cm with a brick bottom and stone edges found at a depth of 300 cm can be considered as the oldest erection of the northern part of the excavation. The layer of charcoal mixture on the hearth was thin, but had a diameter of 1.5 m in the north—south direction. Of the wooden structure surrounding the hearth only irregularly placed posts and poles have preserved. The foundation beam of a later building that had been erected at the same place lay 10 cm higher. There was a doorway with a width of 95 cm for a wooden-hinged door opening into the south. Besides, a post with a diameter of 20 cm has been preserved of the wall, and the foundation beam of the wall has been fastened to this post with a groove. The western doorjamb was jointed into the foundation beam. In the grooves of the doorjamb and the post there was a wallboard with a thickness of 4 cm and a length of 150 cm (Fig. 5). The corner of the crossbeam building reached the grooveless side of the post. The building itself (except 3 m of the foundation beam of the western wall) had been destroyed in order to build a box for the waste, in the bottom of which a jug dating back to the 13th—14th centuries was found.5 The corner of the crossbeam building and the part of the wall containing joints apparently belonged to a building consisting of a crossbeam building and an annexed entrance hall. North of these there was a wooden pavement in the direction of east—west. The layer under the pavement and the building revealed stoneware (fired both in reducing and oxidizing conditions), a robust handle of a pot lid, also more finds of the 16th century, which had been

<sup>5</sup> Wahlöö, C. Keramik 1000—1600. I Svenska fynd. — Archaeologica Lundensia. Investigationes de antiquitatibus urbis Lundae VI. Lund, 1976, Plates 217—225, 393.

transferred there with later excavations. The layer was undisturbed on the southern edge of the same site, around a stockade built between two sand hills.

The stockade, reaching from the east to the west, 7 m south of the open hearth, was buried in mud; its highest preserved part was at a depth of 354 cm, the sharpened ends of beams reached the layer of 4.5 m. Over the muddy sand, at the level of 375 cm, a manure layer started, with its bottom part almost findless, but the upper part containing plenty of pieces of woollen cloth. The manure layer had been formed around a later stockade, which was situated 20 m south of the former one.

Another stockade had been erected directly in the sand, the sharpened ends of beams with a diameter of 7-8 cm reaching to the depth of 4 m. The ca 5 m part of the stockade built straight from the east to the west turns slightly to the north-east and continues in the direction of north—south with poles with a diameter of 3 cm. At the turning-point another east—west stockade joins the afore-mentioned east—west stockade. If it is the border of two sites, their southern border has been built stronger than the stockade between them. The foundation frame of the southern wall of a small (ca 2.3×5 m) framework building rests on the western stockade reaching from the east to the west. The eastern wall, that had suffered from fire, covered a remnant of the north—south stockade with a diameter of 3 cm, also a block with a diameter of 31 cm and length of 31 cm. Under the ends of the foundation frame of squared timber with a diameter of 20 cm of the southern wall of the framework building there were blocks of  $40\times50$  cm, with a thickness of ca 20 cm and with their lower outer corner made convex (max 10 cm). When installing the blocks some of the posts of the east—west stockade had been removed or pressed aslant, the western block resting on the crosspost of the stockade. The doorway of the building was to the west (distance between the joint-holes of the doorjamb 75 cm), the northern doorjamb was at the same time the central girder. In the southern part of the house there was also a floor of round beams with a diameter of 10-15 cm and under the door rectangular beams with joints (one of them with a groove), apparently from some earlier timber-framed house, were found. The floor with its asymmetric foundation beams rested directly on the manure layer, which sharply decreased under the western wall of the house, being replaced with sand. The floor of the northern part of the timber-framed building was substantially more irregular and most of it remained outside the boundaries of the excavation. A house of the east-west direction had been built 0.5 m east and ca 20 cm higher of the burnt framework building built in the north—south direction. The new house was of the same type but not so well preserved. The foundation of the building had been levelled with sand, the beams under the floor irregularly placed. Only the foundation frame of the southern wall, with a diameter of 20 cm and length of at least 5.5 m, was completely preserved; its eastern end was outside the boundaries of the excavation. The frame was situated 25 cm south of the southernmost east—west stockade described above and rested on short horizontal beams. Under the east-west-directional floor beams of the house numerous pieces of red woollen cloth, felt, eggshells, nutshells, and a sherd of stoneware were found. In the eastern part the floor of the building was even, the beams with a length of ca 2.5 m and a diameter of 15 cm had been laid in east—west direction. In the western part there was no proper floor. On the bottoms of these two houses a wooden pavement had been built. The foundation frame of the eastern house was filled with beams and it had been used as the foundation for the pavement. The pavement consisted of north—westdirectional beams with a length of 2.3 m and a diameter of 15—18 cm, with finished ends. The bottom of the western house had been filled in a more "natural" manner. Over the southern part of the house a pavement of boards had been built, ca 2 m wide. There was a newer wooden pavement 2 m north of the one described, its southern part rested on the previous one. It had been built with less care and of thinner beams (diameter 8—10 cm). The pavement was wider (3.5 m) than the previous one, with a waste hole of 1×1 m built in its northern part. Next to the waste hole the width of the free pavement was 1.8 m. The pavements described here lay on the same absolute level (ca 220 cm) as the stone pavement described above, which had the same direction and had been built on the sand hill 4 m to the south. The area between them was filled with a manure layer with a thickness of 1.5 m containing numerous woodchips. The most interesting finds of the excavations came from this area.

A set of finds lay on the surface of the manure layer, on the level of 180— 240 cm. These finds consisted of two different ladders, beams, and a board with joint-holes (Plate XVII); also a stretcher lying on the beams (Fig. 6) was found. At the same place a back piece, shoulder piece, the back bottom part, and two front bottom parts of a deerskin jacket dated to the first half of the 16th century were disinterred as well. The leather pieces had been pricked and split in order to reduce their stiffness (Plate XVIII). The front pieces and sleeves of the jacket could have been made of cloth, there were fragments of thread in the seams, preserved because they had been smeared with beewax.6 In the same layer there was a small bag of silk with a diameter of 8 cm (Plate XIX). The silk (1 cm<sup>2</sup> of it contains 45 woofs and 60 warps, the threads with an S-strand), that had become dark brown, had been sewn with a yellow stronger silk thread in Z-strand.7 The bag was decorated with an Sshaped monogram of gilted silver thread. On the 210 cm level we found also a fragment of a bone holder of a stilus (Plate XX, 4). A key dating from the 16th century 8 that was found on the level of 311 cm could belong also to the same layer (Plate XX, 3). A relatively compact and heavy object could have sunk up to 90 cm in the soft soil.

In the layer of stone and wooden pavements the manure level contained relatively fewer finds; however, 0.5 m lower of these the manure layer became richer in finds. Above the layer rich in finds we found a spiral ring of bronze band with twisted ends and the middle part (Plate XX, 8). A more solid spiral ring of the same type was found in the upper part (Plate XX, 9). Spiral rings of bronze bands with sharp ends have been found in South-Estonian village cemeteries of the second half of the 15th century up to the beginning of the 17th century and the more solid rings are considered to date from earlier times.9 In addition to pieces of red woollen cloth we found also several more interesting pieces of cloth: for example, a 25 cm long fragment of a garment with a 6-7 cm deep neckhole and a plated decoration (Plate XXI, 1); 1 cm2 of the cloth contained 10 + 9 threads (z and s), the decoration thread was with S-strand. Another more interesting find was a fragment of an all-wool cloth with a crocheted edge (Plate XXI, 2). The thickness of the cloth was 1 cm<sup>2</sup> 8 + 7 threads (z). Both cloths had been weaved according to the formula 2/1 d. At the depth of 282 cm

<sup>6</sup> Restorer Endel Valk-Falk's opinion.

<sup>&</sup>lt;sup>7</sup> Hereinafter data of the textile restorer Heige Peets.

Estimation of Mag. Ain Mäesalu.
 Valk, H. Lõuna-Eesti sõrmused 13.—17. sajandil. — In: Muinasaja teadus I. Tallinn, 1991, p. 186.

we found also a wooden seal-cover wound in a thin piece of all-wool cloth (1 cm<sup>2</sup> 6 + 6 threads (z)). It was decorated with tin foil with pressed-in squares. More interesting of the leather finds were a netlike ornamental upper part of a shoe (Fig. 7) and a child's boot (Fig. 8). Of great interest is also one piece of leather with two dugs at its edge. Soft udder-skin and stomach-skin covered with short hair is said to have been popular for making winter footwear in the Middle Ages. On the level of 292 cm we found pieces of a Schnabelschuhe with lining filled with hair. The lining was of red woollen cloth (1 cm2 10 + 11 threads (s, z)), with a formula 1/1.10 The pieces of footwear should date from an earlier time than the second half of the 15th century, but it should be taken into account that people could have stuck to the old fashion longer.11 Women wore long-toed footwear even at the beginning of the 16th century.12 The upper parts found had turned edges, which shows observance of the traditions of footwear sewing dating from

earlier times than the 16th century.18

A rare find was a leaden pilgrim badge from the level of 287 cm (Plate XX, 1). For example in Denmark only 4 of the 17 pilgrim badges found in 10 years had been discovered in archaeological excavations, the rest having been found with the help of a metal detector.14 Because of the perishability of lead such finds are not ordinary in Estonia either. The badge with a diameter of 3 cm shows Jesus Christ crucified on an arbor vitae, the Blessed Virgin, and John the Evangelist. The badge must have been cross-shaped, with a length of 11 cm, but only the upper part with the round emblem and the left arm of the cross have been preserved. The emblem corresponds to the sign of the Ordo Sancti Salvatoris Womens' Order, that had been depicted also on the nuns' golden rings of the Vallis Mariae (Mariendal) Daughter Monastery near Tallinn, with the same persons depicted also on the honey cake mould of the monastery. 15 However, the pilgrim badge of the Mother Convent of the Order, located at Vadstena, had been quite different, depicting St. Bridget at a writing-desk,16 The pictures on the badges were fixed and stable, thus this pilgrim badge cannot have originated from Vadstena or other famous pilgrimage places. The pilgrim badges of the daughter monasteries of the Order of St. Bridget depicted also St. Bridget, but up to now there have been no examples of the Vallis Mariae Monastery. This monastery won serious favour among townspeople and especially the "non-Germans" already during the second decade of the 15th century.18 At the beginning of the 16th century a stone chapel was built in front of the church, presumably for serving pilgrims.<sup>19</sup> The origin of the pilgrim badge needs further research. The crucifixion group depicted was the most popular in the 15th century, judging by the reliefs of German church-bells. Thus six of the seven church-bells with the Calvary group known in the territory of the former East Germany date from the 15th

11 Thiel, E. Geschichte des Kostüms. Berlin, 1985, p. 208.

<sup>10 5</sup> Jahre Stadtarchäologie. Das neue Bild des alten Göttingen. Göttingen, 1984, p. 43, Fig. 58 a.

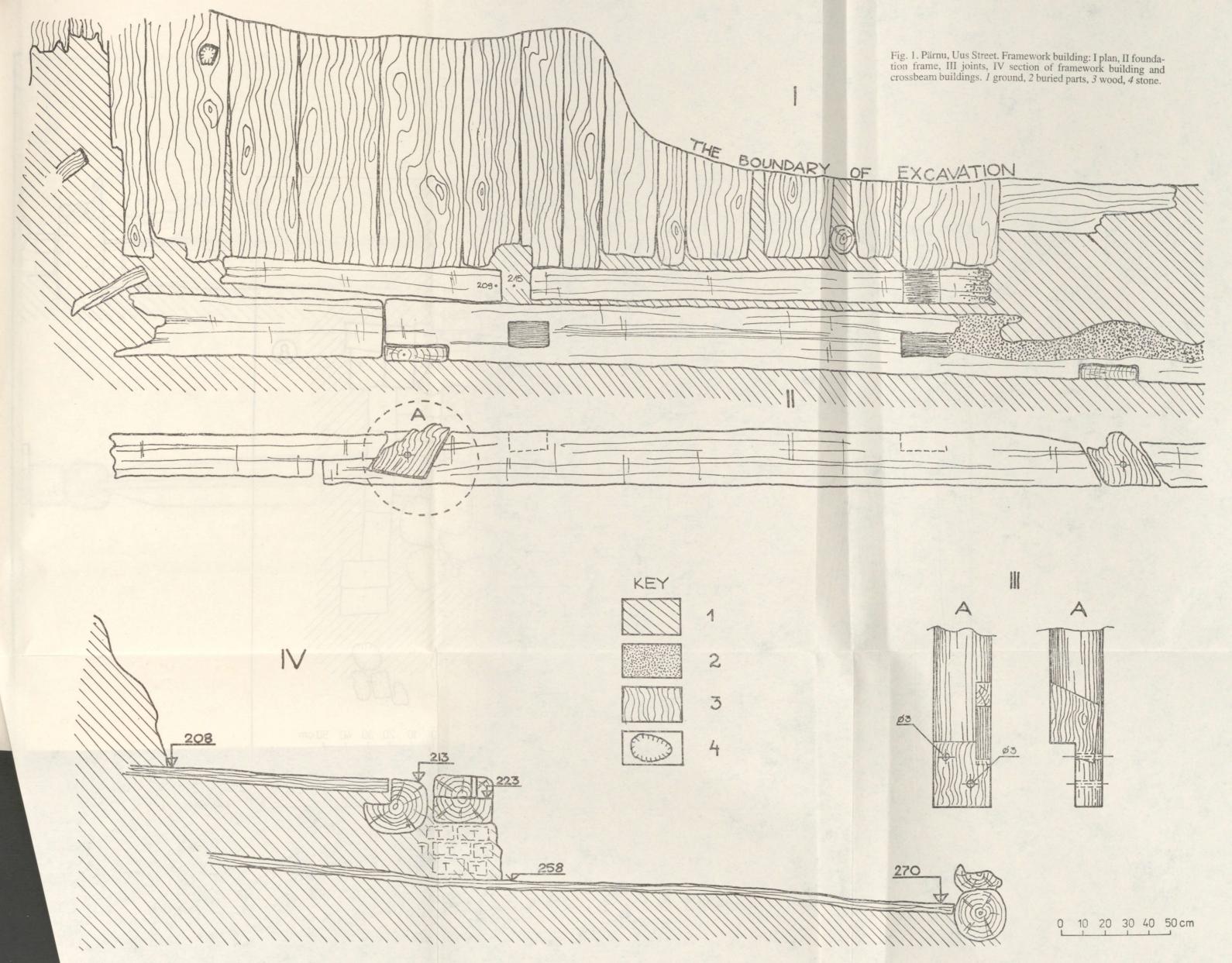
<sup>12</sup> Kybalova, L. Das große Bilderlexicon der Mode. Prag, 1966, Figs. 209, 213. <sup>13</sup> Montembault, V. La restauration du cuir. - Renovatum anno 1988. Tallinn, 1989,

Liebgott, N.-K. Metaldetektorer og middelalderens fromhedsliv. — In: Festskrift til Olaf Olsen på 60-års dagen den 7. juni 1988. København, 1988, p. 221.
 Raam, V. Pirita klooster. Tallinn, 1984, pp. 44, 46.

<sup>16</sup> Andersson, L. Sankt Birgittas pilgrimsmärken. - In: Medeltiden och arkeologia. Lund, 1986, p. 103.

17 Ibid., Fig. 4 B.
18 Raam, V. Pirita klooster, p. 6.

<sup>19</sup> Ibid., p. 12.



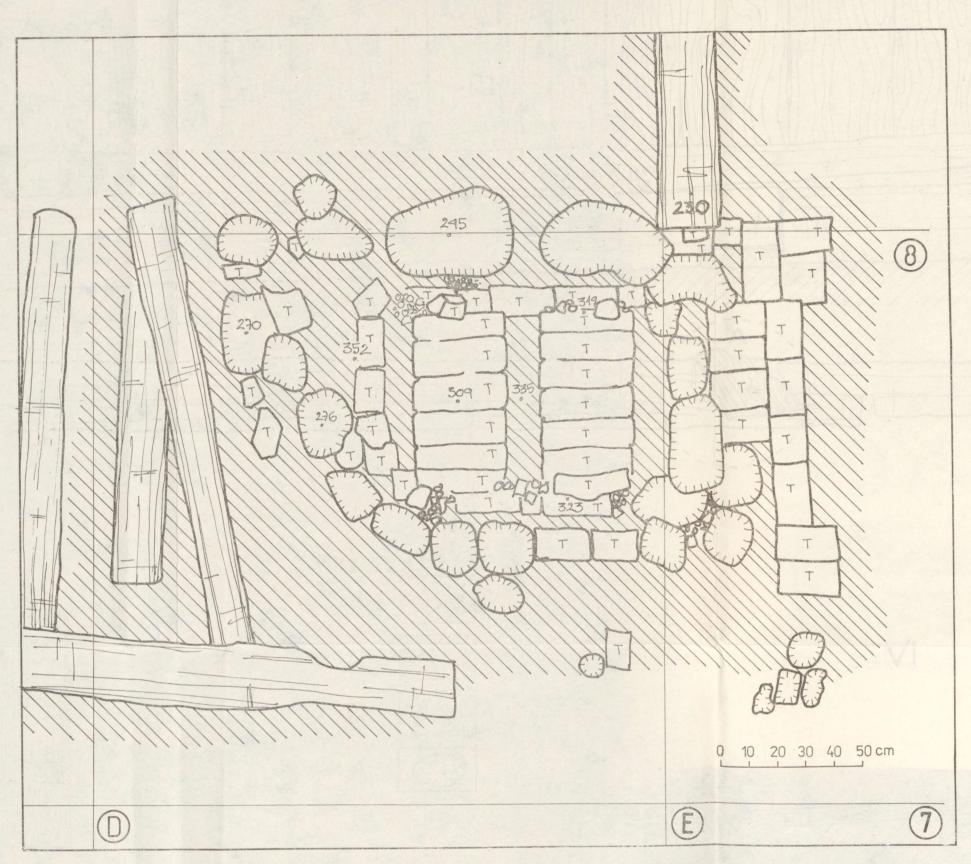
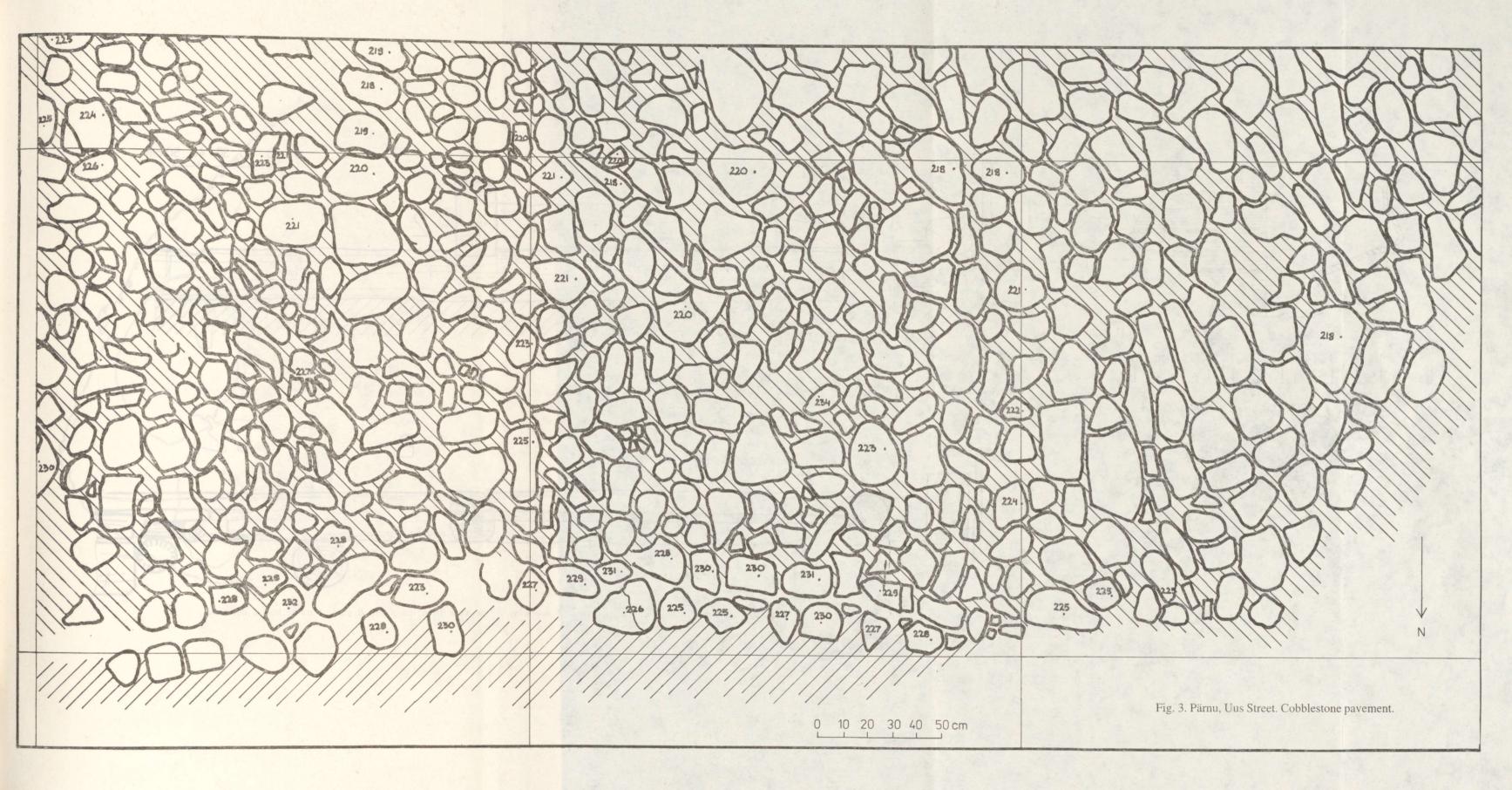


Fig. 2. Pärnu, Uus Street. Open stove after the removal of cobblestones. T brick.



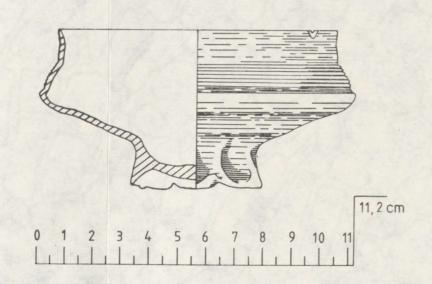


Fig. 4. Pärnu, Uus Street. Cup of stoneware.

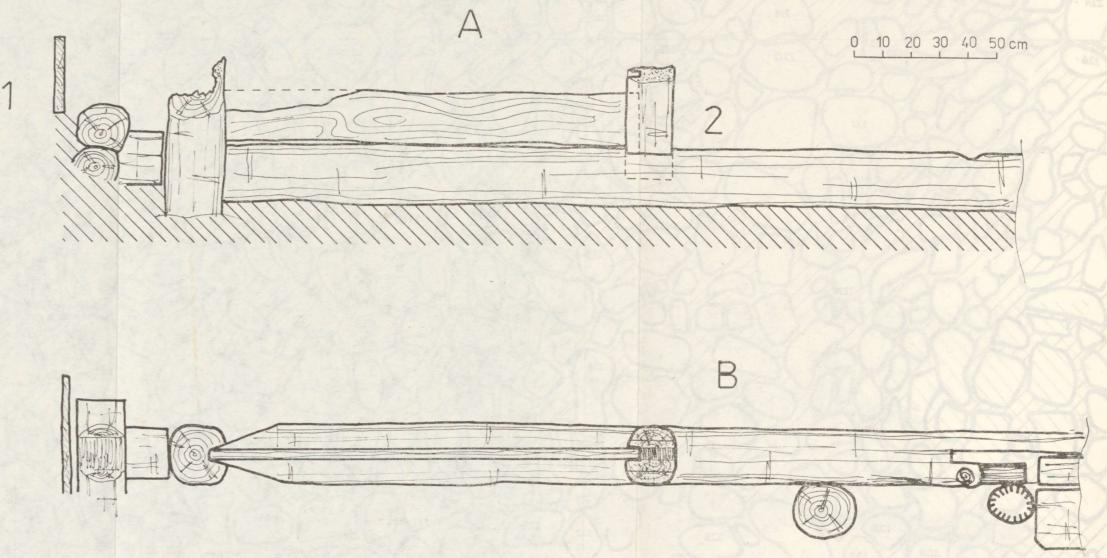


Fig. 5. Pärnu, Uus Street. Parts of a building with wallboard and doorway. A the view from the south, B plan. 1 waste box, 2 doorway.

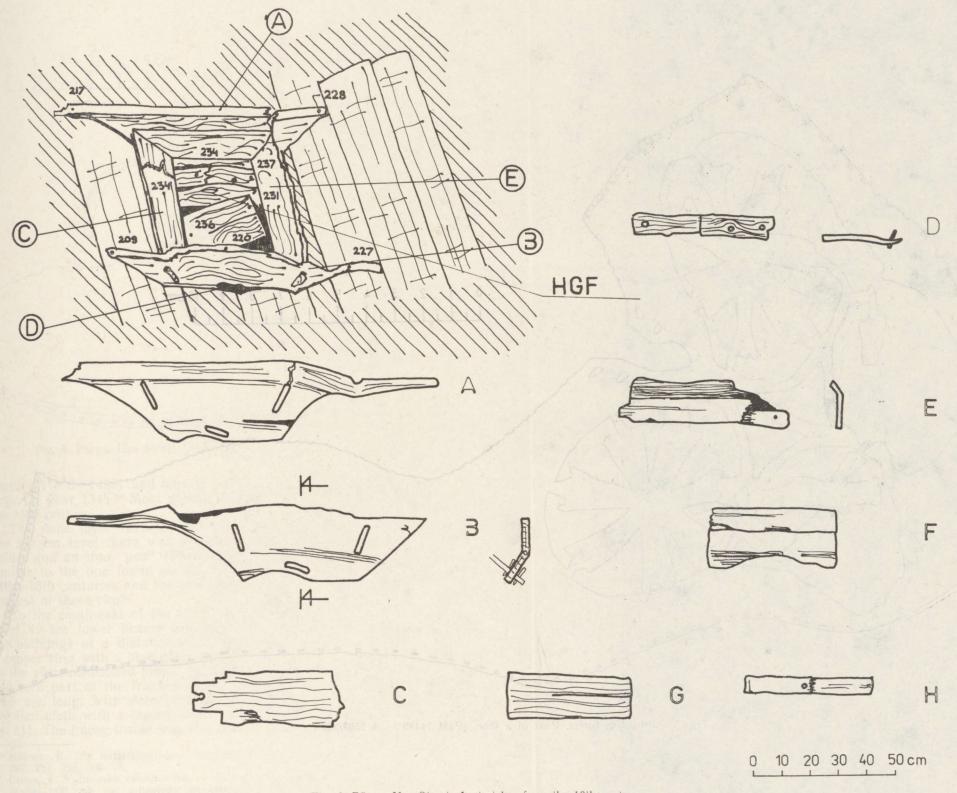


Fig. 6. Pärnu, Uus Street. A stretcher from the 16th century.

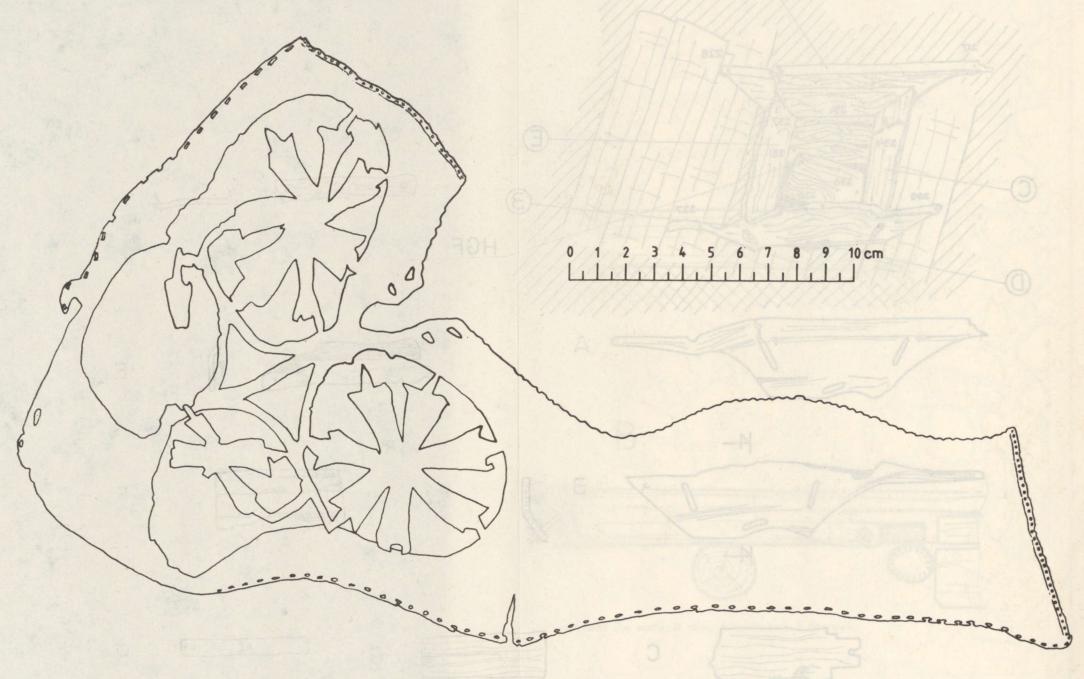


Fig. 7. Pärnu, Uus Street. Piece of a shoe. (PäM 14489 - A 2507/332.)

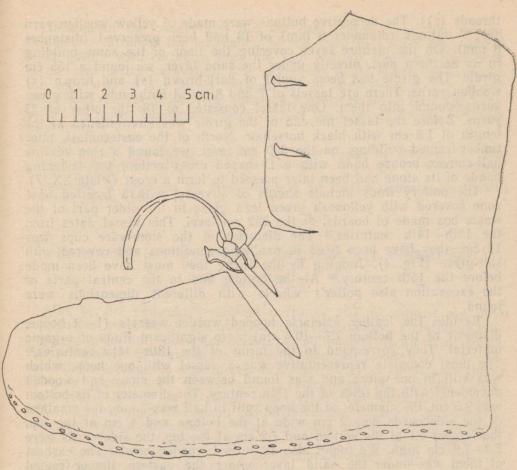


Fig. 8. Pärnu, Uus Street. Child's boot. (PäM 14489 - A 2507/329.)

century (1405—1488) and only the bell of the Mühlhausen Blasiuskirche from the year 1345.20 Most probably the pilgrim badge found belongs to the 15th century.

The same layer revealed also a bronze thimble (Plate XX, 2); on the 290 cm level there was a completely preserved stilus with a bone holder and an iron "pen" (Plate XX, 5), which is of a widespread type similar to the one found on the level of 210 cm. These date from the 14th—16th centuries and the one completely preserved seems to be the earliest of these two.<sup>21</sup>

To the south-east of the burnt timber-framed building (on the same level as the lower beams that had fallen on the foundation frame of the building) at a distance of 2 m and on the 308 cm level, we found a copper ring with a blue glass ball (Plate XX, 6). It may have belonged to the afore-mentioned house. In the manure under the beam floor of the southern part of the framework building we found a piece of garment, 14.5 cm long, with decorative buttons. The item was made of green woollen cloth with a teased inside (formula 1/1,  $1 \text{ cm}^2$  14 + 12 threads (s, z)). The lining inside was of a brown broadcloth (2/2,  $1 \text{ cm}^2$  30 + 18

<sup>&</sup>lt;sup>20</sup> Hübner, K. Die mittelalterlichen Glockritzungen. Berlin, 1968, Nos. 196, 253, 260, 267, 281, 295, 305.

<sup>&</sup>lt;sup>21</sup> Caune, A. Viduslaiku rakstāmrīku — stilu atradumi Latvijā. — Zinātniskās atskaites sesijas materiāli par arheologu un etnogrāfu 1988. un 1989. gada pētijumi rezultātiem. Arheoloģija. Rīga, 1990, p. 62.

threads (z)). The decorative buttons were made of yellow woollen yarn (z); 7 buttons (diameter 6 mm) of 13 had been preserved (distances 8 mm). On the manure layer covering the floor of the same building in its northern part, directly under the sand layer, we found a 155 cm girdle. The girdle has been wound of dark-brown (s) and brown (z) woollen yarns. There are tassels of 7 and 8 cm at both ends, with green yarns wound into them. One tassel consisted of 18, the other of 23 yarns. Before the tassel the end of the girdle was strengthened at the length of 1.8 cm with black horsehair. North of the easternmost, later timber-framed building, on the 300 cm level, we found a ring of fine half-convex bronze band with a D-shaped cross-section; the fastening bands of its stone had been later pressed to form a cross (Plate XX, 7).

The pottery finds include sherds of a vessel with a facetted base zone covered with yellowish green lead glaze in the older part of the waste box made of boards, at the 292 cm level. This vessel dates from the 13th—14th centuries.22 The diameter of the stoneware cups was 12 cm; they have been fired in oxidizing conditions and covered with salt-glaze (Fig. 4). Judging by the firing they must have been made before the 15th century.<sup>23</sup> At the bottom and in the central parts of the excavation also potter's wheels with different dimensions were

found.

Besides the leather artefacts hooped wooden vessels (1-2 hoops, diameter of the bottom 7.7-10.5 cm) were significant finds of organic material. They correspond to the forms of the 13th—15th centuries.<sup>24</sup> The most complete representative was a vessel with one hoop, which was still in one piece and was found between the stone and wooden pavements with the finds of the 15th century. The diameter of its bottom was 9.5 cm, the diameter of the hoop split in half was 7 mm, the smallest of the sideboards was 2 cm wide at the bottom and 4 cm at the top, the largest 4.1 at the bottom and 7.2 cm at the top, the sideboards were 7.3-7.9 cm high. We found also 19 turned wooden bowls. The earliest of them was under the sand layer under the eastern timber-framed building and the wooden pavement. Its bottom was 1 cm thick, the diameter of the bottom was 10 cm, the height of the side 4.5 cm and its thickness 1.5 cm, the height of the bowl 3.5 cm, the longest diameter 15.5 cm. Its shape resembles that of a bowl from Rostock dating from the second half of the 13th century or the first half of the 14th century.25

The buildings and finds characterize the part of the New-Pernau Hanseatic town preserved from the 14th—16th centuries. The material originating from later times has not been presented here in order to dedicate the whole article to the part more interesting to us. As numerous leather remnants were found in the medieval layers and the excavation was situated in the artisans' quarter of that time, the conservator Endel Valk-Falk derived a version that the finding of ladders in the position described here, in abundant manure, may mean that a tannery pit may have been at that place.<sup>26</sup> Yet we failed to find anything resembling a

leather soaking pit with wooden or brick walls.27

Wahlöö, C. Keramik 1000—1600, Plates 217—225, 393.
Horschik, J. Steinzeug 15. bis 19. Jahrhundert. Von Burgel bis Muskau. Leipzig, 1978, p. 29.

<sup>24</sup> Schäfer, H., Lange, R. Mittelalterliche Funde und Befunde aus dem Stadtkern von Rostock. - In: Bodendenkmalpflege in Mecklenburg, Jb. 1987. Berlin, 1988, pp. 217—218. 25 Ibid., p. 220.

<sup>&</sup>lt;sup>26</sup> Valk-Falk, E. Nahk renessansskostüümis. — Renovatum anno 1992. Tallinn, in

Comp. by: Clarke, H. The Archaeology of Medieval England. London, 1984, pp.

Results of the excavations did not cast suspicion on the written evidence confirming the foundation of the town in 1265.28 No cultural layer dating with certainty from the 13th century could be discovered in the area of the excavation. The pavements found enable us to doubt the regularity of the street network of the New-Pernau order town, which was characteristic of the towns of Eastern colonists from Germany according to the best-known researcher of the town of Pärnu, Heinrich Laakmann.29

1906, p. 19.

29 Laakmann, H. Geschichte der Stadt Pernau in der Deutsch Ordenszeit (bis 1558).

Marburg/Lahn, 1956, p. 42.

#### KAEVAMISTEST UUS-PÄRNU KÄSITÖÖLISTE LINNAJAOS

#### Aldur VUNK

Uus tn. 5/7 päästekaevamistega uuriti ca 190 m² suurust ala. Anaeroobsetes tingimustes oli hästi säilinud orgaaniline materjal. Keskaegset puutöötraditsiooni iseloomustasid puithooned (sealhulgas kolme vahvärkhoone ja ühe laudseintega eeskoja jäänused (joon. 1, 5)), 14.—15. sajandi vitsiknõud, 16. sajandi redelid (tahv. XVII) ja kanderaam (joon. 6) ning puitsillutised. Nahkesemetest märgitagu 16. sajandi alguse vesti (tahv. XVIII) ja jalatseid (joon. 7, 8). Tekstiilileidudest (tahv. XIX, XXI) väärivad tähelepanu kootud rõivatükk, V-kaeluse ja põimkaunistusega kootud rõiva tükk ja monogrammiga siidkott. Lisaks keraamikaleidudele (joon. 4), sõrmustele (tahv. XX, 6—9), stilustele (tahv. XX, 4, 5), võtmele (tahv. XX, 3) ja sõrmkübarale (tahv. XX, 2) leiti 15. sajandi palverändurimärk (tahv. XX, 1).

Kaevamistel selgitati ka Uus-Pärnu kruntide ja hoonete paiknemist

(joon. 2, 3).

#### О РАСКОПКАХ В КВАРТАЛЕ РЕМЕСЛЕННИКОВ В ЛЕВОБЕРЕЖНОЙ ЧАСТИ ПЯРНУ

### Алдур ВУНК

Аварийные раскопки на ул. Уус 5/7 велись на площади 190 кв. м. В анаэробных условиях хорошо сохранился органический материал. Средневековые традиции деревянного ремесла характеризуют остатки сооружений (постройки на рис. 1 и 5, мостовые), деревянная посуда 14—15 вв., носилки (рис. 6) и лестницы 16 в. (табл. XVII). Из кожаных изделий можно отметить обувь (рис. 7; 8) и жилет начала 16 в. (табл. XVIII), из текстильных — шелковый кисет с монограммой (табл. XIX), фрагмент одежды с обвязанными краями (табл. XXI, 2), кусок одежды с треугольным вырезом и плетеным украшением (табл. XXI, 1). Найдены керамика (рис. 4), кольца (табл. XX, 6—9), стилусы (табл. XX, 4, 5), ключ (табл. XX, 3), наперсток (табл. XX, 2) и, кроме того, пилигримский знак 15 в. (табл. XX, 1).

Исследовали также планировку дворов и сооружений в левобереж-

ной части Пярну (рис. 2 и 3).

<sup>28</sup> Hausmann, R. Beiträge zur Geschichte der Stadt Pernau im Mittelalter. — Sitzungsberichte der Altertumsforschenden Gesellschaft zu Pernau, IV. Band. Pernau, 1906. p. 19.