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MEDIEVAL TOWN WALL OF TARTU IN THE LIGHT OF RECENT RESEARCH

The present study of the town wall of Tartu will try to summarize the results obtained so far during the archaeological investigations and discuss the condition of the town wall, the date of construction and its symbolic meaning to inhabitants of the medieval Old Livonia. As a result of archaeological research, it can be said that the wall consists of dry stone, soil and irregularly poured lime mortar to bind the stones. For constructing the wall, stone and limestone, intact bricks and the fragments of bricks have been used. The improvement and modification of the fortifications continued probably throughout the whole medieval period. Although the construction of medieval town wall of Tartu has been dated according written sources to the second half of the 13th century, namely to the time after the Russians' raid in 1262, the existing research results show that it seems more likely that similarly to Tallinn, the wall was built in the first half of 14th century, when the former city seems to have been completely re-planned.

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Introduction

Besides Tallinn, Haapsalu, Pärnu, Viljandi and Narva, medieval Tartu was one of the six towns in Estonia surrounded by walls. As written sources are scarce and the wall, unlike the Tallinn town wall, has been completely destroyed – by becoming severely damaged in the hostilities at the beginning of the 18th century, and the remnants were demolished after the fire of 1763 (Vaga 1980, 59) – hence for more information we need to pay more attention to the archaeological aspects.

After the conquest of Tartu in 1224, the Germans began organizing the diocese under the leadership of bishop Hermann. The bishop's castle is first mentioned in written sources in 1234. Over the years in the south part of Dome Hill, a bailey, situated west from the castle, was built. The castle and the Dome Hill belonged to the authority of bishop, at the foot of the castle by the mid-13th century an urban merchants and artisans settlement, the so-called downtown was developed, with its own ruling town council. The town council was subject to the bishop (Prints 1967, 14 ff.).

The wide floodplain valley of River Emajõgi, bound from north-west to south-east direction in the town territory, is the central element of relief in Tartu. At the current north-west side of the city it has steeper slopes and narrows down to approximately 800 m. At the south-east side it widens to 1.5 km with smoother slopes. The absolute heights at the floodplain valley are 30–35 m and on the edges of the valley about 50–60 m above sea level (Marksoo 1980, 14).

Medieval Tartu was situated at the south-west side of floodplain of River Emajõgi. The bishop's castle along with Dome Hill (where the Dome Church was situated), which belonged to the diocese of Tartu, were located on the edge of the floodplain, distinguished from the rest of the plain by the moat. The medieval town of Tartu, reaching almost to River Emajõgi, was located directly next to the bishop's castle at the floodplain and its slopes.

Bishop's castle at Dome Hill was the centre of the medieval defense installations, consisting of the main castle and an elongated bailey, which were separated by a deep moat. As mentioned in council transcript dating to year 1555 (Tuulse 1942, 54), the main part of the castle was the east wing, which had a weapons' room in it. This hypothesis is based on the Polish documents and confirmed by Voldemar Vaga. He pointed out that audits meticulously describe the eastern basements and the first floor of the bishop's castle as the most important part of the castle (Vaga 1969, 179).

The town wall, which consisted of altogether 27 towers (9 of them with gates) (Prints 1967, 39) and measured 2,145 km in length¹, started from the west corner of the bishop's castle, completed a circle around the west and north side of the Dome Hill, descended to the floodplain and proceeded between the current streets of Lai and Kroonuaia towards River Emajõgi (Fig. 1). The wall turned south-east on the shore of Emajõgi and proceeded between Magasini Street and Vabaduse Avenue towards south-east, across the Town Hall Square and up to Poe Street. From Poe Street the wall turned south-west and extended up to the east corner of the bishop's castle.

We know nothing about the formation of town wall during the Middle Ages because of the loss of the town council archives. The earliest specific data are the town plans from the 17th century, which consist of the location of the town wall during late Middle Ages.

The archaeological investigations of the medieval town wall of Tartu have so far been scarce. In most cases investigations have taken place in the form of archaeological monitoring, on sporadic cases also as archaeological excavations. Several research reports have been lost over the years. Since the monitoring results obtained during the work are still largely unpublished, and not easily available, this article also has the purpose of source publication.

The present study of the town wall of Tartu will summarize the results obtained so far during the archaeological investigations and find the answers to three questions still unanswered:

¹ Measured on the digital map at Town Government of Tartu.

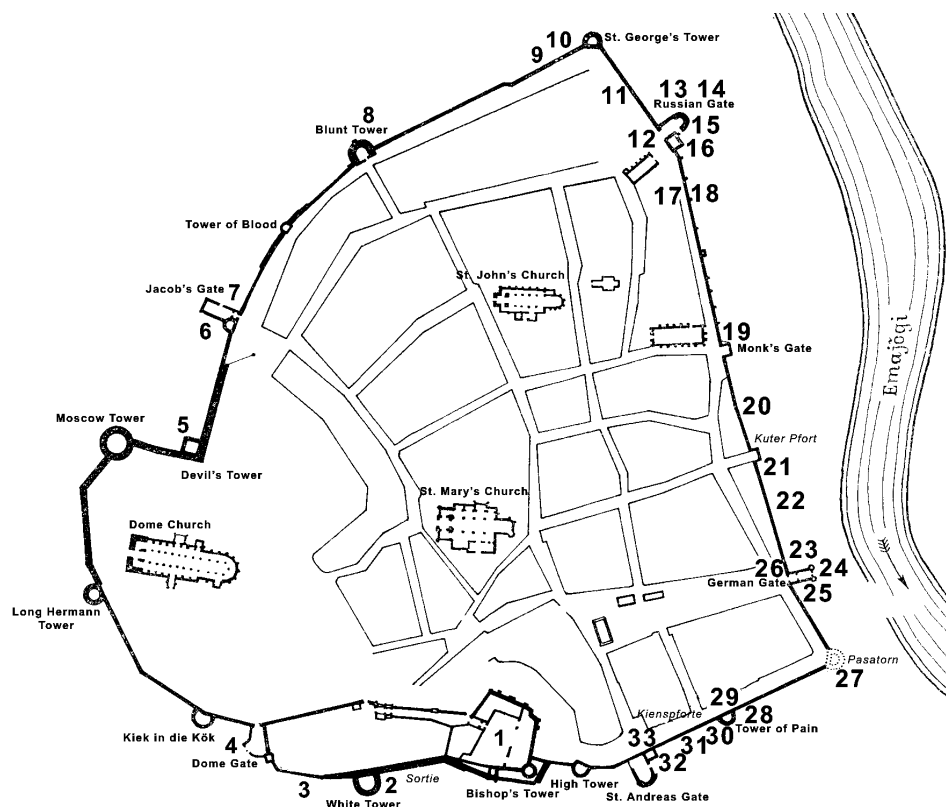


Fig. 1. Excavations carried out in the area of the town wall. 1 Trummal 1964, 2 Piirits 1996, 3 Jonuks & Tvauri 1999, 4 Hermann 1968, 5 Hermann 1974, 6 Hermann 1974, 7 Altoa 1979, 8 Hermann 1974, 9 Hermann 1974, 10 Mäesalu & Trummal 1988–1990, 11 Bernotas 2010, 12 Vissak & Heinloo 2005, 13 Hermann 1974, 14 Tiirmaa 1977, 15 Piirits 1998, 16 Piirits 2006, 17 Metsallik & Tiirmaa 1996, 18 Bernotas 2009, 19 Tvauri 2010, 20 Stange 1933, 21 Vissak & Piirits 2008, 22 Piirits 2008, 23 Stange 1933, 24 Tvauri 2005, 25 Piirits 2005, 26 Piirits 2004, 27 Tvauri & Bernotas 2006, 28 Tvauri 2001b, 29 Heinloo & Vissak 2010, 30 Tvauri & Bernotas 2006, 31 Tiirmaa 1979, 32 Metsallik 1982, 33 Hermann 1974.

1. How and in what form has the medieval town wall of Tartu survived in the ground?
2. When was the wall built?
3. What was the function of the wall in the Middle Ages?

Theoretical background

Herbert Sarfatij (1990, 1993) has said that generally speaking and literally seen from the inside as well as from the outside, the town defenses may be considered as possibly the most prominent material expression of medieval urban character,

which has made them useful for archaeological examination as well. It should be stated that because only sporadic ruins have survived of medieval walled towns in what are now Estonia and Latvia (leaving aside Tallinn) – as in Riga, Tartu, Valmiera, Cēsis, Pärnu, Viljandi (Alttoa 1975, 3), or no remains have survived on the ground at all – as in Haapsalu and Narva, the archaeological investigation is a necessary solution to interpret specific fortification works.

Creighton and Higham (2005, 32) have defined the town walls, gates and related structures as strikingly multifunctional, representing a complex blend of military pragmatism and commercial logic, allied with the aspiration for communities to express their political identities and social status through conspicuous building projects. To some they were, indeed, symbols of power, pride and prosperity; to others who lived both within and beyond them, they were monuments of oppression (perhaps representing the dominance of a colonial authority) and repression (for example, symbolizing seigneurial control over tenants) or just rather inconvenient; or to others they might on occasion provide real and much needed protection (op. cit., 249). There are also examples from Europe, where the walls were built against attacks apparently not only by human enemies but also by river floods, in example Nijmegen along Waal and Dordrecht along the Old Meuse in Netherlands (Sarfatij 1990, 194).

Since this study is somewhat limited to only archaeological material, I, however share the standpoint of Oliver Creighton and Robert Higham (2005, 121–164) that for better research, three major approaches to the physical remains of town walls should be considered: topographical study, architectural analysis and archaeological inquiry.

From countries adjacent to Estonia, scientific methods of dating have been used for getting the dendrochronological dates of the wood from town fortifications of Visby, Gotland (Bråthen 1995, 30 ff.). Although sawing the discs for dendrochronological dating from the alleged raft (Stange 1933, 25) of medieval town wall of Tartu has been a question at issue on several occasions, the excavations have not yet started.

The results of this research have largely been achieved by using the so-called historical-comparative method, which is widely used in archaeology. To respond to the third question from introduction, I will try to contemplate the function of the town wall of Tartu more broadly than just in the light of defense function. Although enclosing with walls was common, there were also a number of towns, which flourished without the need for defense. As an example from countries adjacent to Estonia, the town of Turku in Finland, which was founded at the end of the 1280s (Hiekkanen 2003, 49), had no town wall, but was defended by the castle instead (Uotila 2003, 159). It is noteworthy that while “private” traditions of defense, as represented by the castle, were a peculiarity of the medieval period, the defended town had both pre-medieval ancestry and a post medieval future (Creighton & Higham 2005, 21 f.).

Current research

The petition of the town council of Tartu to the town council of Lübeck, which asks for support to build the fortifications, is the earliest written source where the town wall was mentioned. As the source (LUB I: CCXVI) is cited in nearly all texts related to the town wall of Tartu, then only the paragraph concerning the town wall is quoted here:

Your decision, keeping in mind the fact that our fortification, when it will be done, is support not only to our province but to shield the lands situated below us, and forewall to ensure the safety of residents, welfare to travelers passing by, peace to people both near and far.²

This petition, which shows the intention of building a wall, is dated by most scholars to the period after the Russians' raid in 1262 (e.g. Freymuth 1927; Tuulse 1942; Vaga 1969; Mäesalu & Vissak 2002; Heinloo 2006). However, it does not conclude from any written source, when the town wall of Tartu was actually built.

The town plan drawn up by Georg Schwengell, dated to 1636 (EA, f 2623, n 1, s 2050, 1.11), is the oldest remaining source, on which we can determine the location of the wall. Having the names of the towers written on them, makes the latter one, and the 1683 plan, drawn up by Carl von Friesen (EA, f 2623, n 1, s 2050, 1.20) the most important ones (Vaga 1969, 162). Unfortunately, in the oldest plans it is difficult or impossible to distinguish medieval towers and parts of wall from the ones built during the Livonian War by Russians and the refurbishments made in the 17th century. Relying on those plans we cannot alas conclude anything about building phases during the Middle Ages. From the late 17th century derives the oldest survived maquette of fortifications of Tartu, which is deposited in the army museum of Stockholm, Sweden (AM.072587, Armémuseum). The oldest publication of the reconstruction plan of the medieval Tartu is published by Richard Otto (1918, 14 f.).

The oldest depictions of the town wall and fortifications derive from year 1704. They depict the siege and conquest of Tartu by Russian forces during the Great Northern War (Laidre 2008, 352, the original in Krigsarkivet, Stockholm, Sweden). These, however, are only imprecise overviews of the town.

The earliest research written as a scientific material is published by Otto Freymuth (1927), who has dated the building of town wall to the period after the 1262 Russians' raid (1927, 4).

Armin Tuulse has concentrated only on the bishop's castle on Dome Hill. Tuulse (1942, 52 ff.) also presumed that the castle and the city wall were built after the 1262 Russians' raid, and that the fortress was merged into town defense system in the second half of the 13th century.

Polish audits from 1590 and 1616, which are disserted in detail by architectural historian Voldemar Vaga (1969), provide important information about the fortifications of Tartu during the post-Livonian War period. Based on those, Vaga

² Translation from Latin to Estonian by Jaan Unt (Altoa 1995, 149).

(1969, 164) specified that not all fortifications depicted on the 17th century plans date from the Middle Ages, but parts of it were built by Russians during the Livonian War (1558–1583). Vaga suggested that the town wall was built in the end of the 13th century (EArA 1965, 63 f.), which he later clarified as the period after 1262 (1969, 165).

The most meticulous description of the town wall is published by building historian Olav Prints (1967, 39), who examined the earlier plans of Swedish researchers and described a series of towers and gates, which in Vaga's "Architectural History of Estonia" are not mentioned. Prints (1967, 18) correlated the construction of town wall in the second half of the 13th century with the adoption of Tartu to the Hanseatic League. This assumption cannot however be accurately read, because the Hanseatic League was a merchants' organization where no "adoption" of towns as subjects occurred (Anti Selart, pers. comm.).

Archaeologist Vilma Trummal (1970, 4, 26), who excavated the remnants of the bishop's castle on Dome Hill, assumed that the construction of wall started in the second half of the 13th century, but added that the stone buildings from the eastern part of the town (including the town wall) were not erected before the 14th century.

Historian Ago Vallas (1987, 22) has assumed that the building of town wall was carried out in several phases. In his opinion, the building probably started at Dome Hill, continued with the fortification of northern and southern side of town and finally finished with the reinforcing of eastside part next to River Emajõgi.

Kaur Altoa (1975, 27), who has analyzed the Russian Gate and the section of wall south from it, has dated the mentioned parts of wall to the 14th century. He also pointed out (1985, 36 ff.) that the Russian Gate has details distinctive to the defense architecture of the 16th century and it might have been built in several phases. Based on written sources (1995), he discussed the time of construction of town wall, the supposed wall separating downtown and Dome Hill and the ancient road from Lai Street across the Dome Hill. Altoa assumed that the construction of the town wall might have begun in the second half of the 13th century, but left open the completion dates of the later perimeter (1995, 141 ff.). Later (1999, 16) he specified the beginning of building of the wall to the last third of the 13th century and the riverside part of wall not before the 14th century.

Archaeologist Romeo Metsallik (1995, 31) has summed up the results of archaeological investigations of Tartu until 1995 and presumed the completion of town wall in the 14th century.

Archaeologists Ain Mäesalu and Rünno Vissak (2002, 155) have assumed that before the 1262 Russians' raid the town could have been surrounded by wooden and earthen fortifications and that the re-planning of the town territory began the same year after the town was burnt down. The authors assumed that the town had serious difficulties constructing the wall during the second half of the 13th century.

Although several authors have proposed their opinions about the date of construction of the town wall, so far these have been based mainly on written sources. Sources based on archaeological surveys, publications by Eero Heinloo

(2006; 2007) should be noted. Heinloo has also dated the beginning of the wall construction to the second half of 13th century (2006, 67).

Although over the years the town wall has been excavated altogether in 33 places³ (Fig. 1), there have been no findings for exact scientific dating found and hitherto all the published dates have been based on the written sources or in individual cases (Metsallik 1982; Bernotas 2010a) also derived from the stratigraphy of cultural layer.

While most authors have dated the construction of the wall primarily on the basis of the petition of the town council of Tartu to the time after the Russians' raid in 1262, I do not think the construction of the wall in the second half of the 13th century is particularly likely. Therefore I raise the hypothesis of my own: after the German conquest medieval Tartu was until the 14th century a wooden town, reaching up to the present-day Tartu University Botanical Gardens in the north and to the Tartu post office plot in the south. Building of stone masonry started at the beginning of the 14th century when the new town plan was introduced. The new town plan included the building of medieval town square/market, town wall, masonry churches and houses.

Archaeological material

Today, the town wall has survived on surface in very few remaining fragments in Tartu University Botanical Gardens, Vabaduse Avenue and Jakobi Street. The best-preserved section is the section in the Vabaduse Avenue, where the height of the wall on the ground, measured from the riverside part, extends up to 5 meters (Alttoa 1975, 13).

The wall rests, according to current knowledge, partly on a dry stone⁴ foundation (e.g. walls of the bishop's castle; Trummal 1964, 23), the fundament of the Devil's Tower (Hermann 1974, 43), for building Jacob's gate (Alttoa 1979, 28 f.) and at Poe Street (Tvauri & Bernotas 2006b, 5); at some places also packing with soil is used. At the section between the Russian Gate and the Monk's Gate the wall was stacked into ditch as a wedge under 45-degree angle and had irregular lime mortar thrown between wall tiles (see Figs 2–3) (Bernotas 2010a). It should be noted that the last-mentioned masonry stacked into ditch as wedge has not yet been discovered anywhere in Estonia. Pairing with lime mortar is also used for various parts of wall (e.g. Ain Mäesalu, pers. comm.; Piirits 1998; Jonuks & Tvauri 1999, 5 f.; Vissak & Piirits 2008, 13 f.). At Gildi Street area, 4–5 inch thick pinewood logs as a foundation raft were laid under the wall (Stange 1933, 25). Unfortunately, there are no reports or drawings from the last-mentioned excavations.

³ Excluded are excavations carried out by Õ. Utter in 1959 at Jakobi Street area and excavations conducted by K. Lange in the University Botanical Gardens in 1992, as the reports of both surveys have been lost and the material is unpublished.

⁴ Building method by which structures are constructed from stones without any mortar to bind them together.

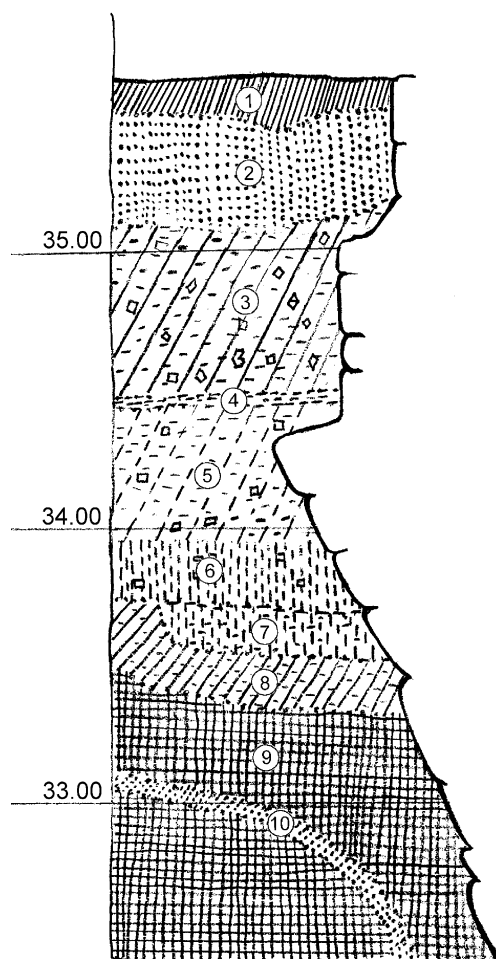


Fig. 2. The southern profile of the excavation pit in Vabaduse Avenue (according to Bernotas 2010a). 1 layer of turf (10–22 cm thick), 2 sand (30–40 cm thick), 3 brown layer of debris, consists of fragments of bricks, transparent material, limestone, and slate (60–65 cm thick). This was also the depth of the pit, excavated during the restoration works of 1997–1999, 4 stria of lime (4–5 cm thick), 5 brown soil, included fragments of bricks and lime (50 cm thick), 6 dark brown organic-rich soil, included sporadic fragments of bricks (20–25 cm thick), 7 dark brown organic-rich soil, included fragments of bricks and lime (16 cm thick), 8 dark brown organic-rich soil with strias of lime (18–30 cm thick), 9 dense brown organic-rich layer, included fragments of lime and several smaller stones (90–100 cm thick), inside of which at absolute height 33.10 above sea level, 10 stria of sand started (10 cm thick), from which the water washed out all the sand.

The wall is stacked of stones, between which both fragments of bricks (Metsallik 1982, 3 f.; Metsallik & Tiirmaa 1996, 2; Piirits 2004, 3; 2005, 18 f.; Tvauri 2005, 3 f.; 2011; Bernotas 2010b, 3), intact bricks (Tiirmaa 1979; Piirits 1998, 5; Tvauri & Bernotas 2006b, 13 f.; Bernotas 2010b, 3) and limestones (Jonuks & Tvauri 1999, 5 f.) are attached. For cladding the parts of wall and



Fig. 3. Town wall in the excavation pit in Vabaduse Avenue (according to Bernotas 2010a). Photo by Rivo Bernotas.

towers, bricks are also used abundantly (Hermann 1974, 43; Tiirmaa 1977; Alttoa 1979, 29; Piirits 1996; 2006, 8; Vissak & Heinloo 2006, 113 f.; Heinloo & Vissak 2010, 11). In single cases slate stones (Metsallik & Tiirmaa 1996) and monk-nun type of roof tile fragments (Piirits 2008, 3 f.) have been used for cladding the wall.

The thickness of the town wall has been different in different areas: 1.7 to 2 m on the north side (e.g. Hermann 1974; Alttoa 1979), up to 2–2.4 m on the east side (e.g. Vissak & Piirits 2008; Bernotas 2010b, 4) and up to 2–2.9 m (e.g. Tvauri & Bernotas 2006b) on the southern side. The thickness of excavated walls of towers is ranging from 1.9 to 3.5 m at the White Tower (Piirits 1996) to 2.17 m at Jacob’s Gate tower (Alttoa 1979), 2 m at Blunt Tower (Hermann 1974, 43), up to 4.5 m at the front gate of the Russian Gate (Vissak & Heinloo 2006) and approximately 2.3 m of tower Pasatorn (Tvauri & Bernotas 2007, 171). At the construction of German Gate also “huge stones and strong mortar” have been mentioned (Stange 1933, 16). The varying thickness of different sides of wall are albeit too small for making far-reaching conclusions of the exhaustive fortification of one or the other side.

From the point of view of dating the town wall, medieval layers have so far been unearthed only at a few places. A shred of stoneware vessel, originating from Lower Saxony (TM A 160: 13), which can be dated to the 14th century, and one fragment of the bottom of Langerwehe stoneware vessel, which can be dated to the 15th century (TM A 160: 12) have been found from the organic-rich layer nearby a wall of tower Pasatorn. The pottery found from the 2009 excavations at the section of town wall between Russian Gate and Monk’s Gate (Bernotas 2010a) belongs to north-west Russian wheel-thrown pottery type 3.2 (TM A 180: 6;

TM A 181: 8) (Tvauri 2000a, 101), the time of usage of which expires at the end of the 13th or at the beginning of the 14th century, and to type 3.3 (TM A 181: 9), which is dated from the second half of the 13th century until the end of the 15th century (op. cit., 104 f.). It should be noted that the 13th century version of pottery type 3.2 was the dominant group in the excavations of a few hundred meters to north-west, in the Botanical Gardens, in the 13th century cultural layer, which revealed numerous findings of Russian origin (Tvauri 2000b, 25).

Discussion

The construction of the medieval town wall of Tartu resembles mostly the outer wall of medieval convent castle and the town wall of Viljandi (Tvauri 1999, 21; 2001c, 100). Both are up to 2–3 layers stacked of stones packed with sand or mortar as rows of stone and are around 2 to 2.5 m thick. There are also marked similarities between the section of wall south from the Russian Gate and the defense wall of the Holy Spirit convent in Riga (Alttoa 1975, 23).

Related to the new town plan, the problems relating to the area of Town Square should be firstly examined here. During earlier excavations in the western part of the Town Hall Square a wide range of timber frame buildings (Metsallik 1995, pl. 4) and in the east part remnants of woven wooden fence and about 60 cm thick 13th–14th century cultural layer (Tvauri & Bernotas 2006a, 107) have been found. In this light, expanding the Town Hall Square area upon an urban market-place in the second half of the 13th century (Heinloo 2006, 64) seems doubtful.

A comparative example would be a situation in Tallinn, where the remains of buildings and the ceramics, dating to the first half of the 13th century – mid-14th century, which is referring to the early stage colonial period, have been discovered. The latter is a proof that the Town Hall Square in its current form derives from a later period (Mäll & Russow 2003, 194). At the end of the 13th century – at the beginning of the 14th century, real estates located at Town Hall Square were liquidated, covered with a layer of fill and then the central square and a medieval market of Tallinn in this territory was established. While the area was overly moist as referred to drainage discovered during previous excavations, filling the site instead of excavation to eradicate traces of earlier settlements was preferred (Mäll 2004, 257). Similar activities have occurred in Europe, for example in s'Hertogenbosch town in Netherlands. Excavations at the most central area of the town, the market square, have shown that the original settlement started on this spot in the late 12th century with the building of some very small dwellings. After a partial removal of these buildings and the raising of the surface level by means of fillings between the middle of the 13th and middle of the 14th century, the area was transformed into a market square in the second half of the 14th century (Sarfatij 1990, 185).

Based on the research findings we cannot say so far whether the towers and gates have been secondary to the wall or not. Looking at the thickness of walls of

some of the towers and gates (e.g. Moscow tower, the thickening of the forewall of front gate of the Russian Gate), there is no doubt that these have been built in an era of developed firearms. Most likely the improvement of the towers and gates persisted throughout the medieval period. The secondary counterforts attached to the wall in the section between Russian Gate and Monk's Gate at the Vabaduse Avenue, suggest that the town wall could have been modified.

Clay mines, the clay-conservation concavities, wodge of cull-bricks and kilns for firing bricks found from the area between Ülikooli–Vallikraavi–Vanemuise streets were all dated to the end of the 13th – beginning of the 14th century (Vissak 2000, 116; Heinloo 2006). It is quite clear that all these antiquities were related to the construction activity, which started in town. Heinloo assumes that during the fourth quarter of the 13th century a suburban settlement was already developing (2006, 73), the area was used as an industrial centre until the second quarter of the 14th century (2006, 65), and the output of bricks was for the later construction stages of town wall, churches, and the castle (2007, 70). However, I would consider this date as too early. Let us remember that the oldest firmly dated stone masonry in Tartu, St. John's Church is built after the year 1321, when a log raft underneath the church walls was laid (Läänelaid 2002).

Looking at the drainage ditches situated in the Riga-suburb of Tartu, their direction either towards the river or contemporary moat stands in contrast. The earliest drainage ditches are dated from the second half or the end of the 14th century (Heinloo 2007, 70). It can be assumed that the construction of the drainage system has more to do with dates of the completion of the city wall and filling the moat with water.

According to opinions from various scholars, the eastern part of the area enclosed by town wall from Rüütli Street towards River Emajõgi has been overly moist and unfit for habitation before the Middle Ages (Trummal 1970; Abakumova 1990; Tvauri 2001a, 32). Sample of soil from the riverside part of the Kүүütri Street from the prehistoric layers indicated a typical river plantage (Abakumova 1990, 26) and the remains of plantage found from the cultural layer of the Late Iron Age from the central part and nearby of the Town Hall Square show the existence of a moist environment for growth (Abakumova 1990, 24). Macro-fossils found from the Late Iron Age surface in Tartu University Botanical Gardens suggest a marshy meadow ground, floodplain and waterside (Abakumova 1990, 26). If we look at the excavations conducted in 2009 in the section between the Russian Gate and Monk's Gate, where the town wall was stacked into trench as a wedge (Bernotas 2010a), this would rightly raise a question, who would build this type of construction on a marshy soil? Based on the data mentioned above and material gathered from the cultural layer during the last-mentioned excavations, we should consider the possible date of construction of the wall to the furthest time since the end of the Late Iron Age (1227).

Trummal (1970, 14, 25) has assumed that the execution of the meadow of Emajõgi at a depth of 2–3 m required a lot of manual labor and working time and that the part of the town wall near Emajõgi was completed much later than

elsewhere, where the walls were built on a higher surface. She presumed that the intense preparatory work for the erection of fortifications started immediately after the conquest of Tartu by the Germans.

Based on the results of archaeological excavations and on the ordinance of Danish Queen Margareta from 1265 of establishing fortifications in Tallinn, historian Jaak Mäll has assumed that the Danish post-Conquest urban settlement, developed since 1220s, had a relatively irregular shape, and “stretched” along existing streets, thus the future course of wall perimeter was negotiated, existing buildings were disassembled, former plots reallocated, and humus containing “black” soil was dug. The latter was moved to the established mound (Mäll 2004, 259 ff.). While written sources about Tartu offer only a few details about this period, however, we may suggest that a similar process was also carried out in Tartu.

An interesting nuance is that in the other Old Livonian towns enclosed by walls, the building of walls might have begun during the same period. The town wall of Viljandi was dated by Andres Tvaauri (2001c, 107) from the end of the 13th or the beginning of the 14th century, which he later clarified as the first half of the 14th century (Andres Tvaauri, pers. comm. in March 2010). The town wall of Pärnu might be dated similarly, where the first written reference about the building of town fortifications comes from 1420 (Vaga 1965, 66), and a radiocarbon date from the log raft found under the section of town wall at Munga Street during the excavations at the beginning of the 1990s is with 68.2% probability from AD 1310–1405 (590 ± 30 BP⁵) (Bernotas et al. 2009, 155). The town wall of Haapsalu is dated to the 15th century (Pärn 1997, 41), but the 14th century cannot be ruled out either (Erki Russow, pers. comm.). Also, in the town of Narva, construction of the wall began during the 1370s (Kaljundi 1979, 50). The question whether such a bearing dated to the 14th century has been sporadic, or associated with the general trend of medieval towns of Old Livonia, needs another study.

It should probably be presumptive that the bishop’s castle and stone wall, built after the German conquest of Tartu, were not only military buildings, but symbolized the current way of life and demonstrated the power of the new rulers to indigenous people, as well as to the governors of the neighboring countries. It should be noted that although never examined, but looking at Tartu town wall from the perspective of defense function, the question arises – why and against whom was it built? After the Russians’ raid in 1262, the next act of war under the walls of Tartu was in 1558 in the Livonian War (military raid by the master of Teutonic Order, Wennemar von Bruggenei in 1396 was limited to capturing the castles and looting the land of diocese; Freymuth 1927, 25); the Russian invasion against the diocese in 1481 left Tartu intact (Freymuth 1927, 29). Thus it seems safe to say that the town wall of Tartu, having the deterrent effect against attacks by foreign enemies, in addition to the above-mentioned symbolic sense, was more

⁵ Calibrated by computer program CAL40.DTA OxCal v2.18 cub r:4 sd:12 prob[chron] (Bronk Ramsey 2005).

than just the protection-based military building. Finally, we should not overlook symbolism in the 1708, when the town was destroyed by the troops of Peter the Great, the demolished city wall and bishop's castle as traditional symbols of old power gave the people a clear signal that the former time and way of life were never coming back.

Summary

Of the extent of the town wall of Tartu during the late Middle Ages, only ruins survive today. So far as a result of archaeological research, it can be said that the wall is partly founded as a dry stone, partly soil or irregularly poured lime mortar was used to bind the stones. For constructing the wall, stone and limestone, intact bricks and the fragments of bricks have been used. The improvement and modification of the fortifications continued probably throughout the whole medieval period.

Although the date of construction of the medieval town wall of Tartu is largely based on written sources, i.e. to the second half of the 13th century, namely after the Russians' raid in 1262, the existing research results show that it seems more likely that the wall was actually constructed in the first half of the 14th century, when the former town seemed to have been completely re-planned. While at least in three different sections (Metsallik 1982; Tvauri & Bernotas 2006b; Bernotas 2010a) the town wall was built through the cultural layer dating to the 13th–14th centuries, it is logical that the wall was built later, which indicates that a settlement had previously been in this area.

The antiquities related to clay manufacturing dated to the same period (Heinloo 2006) allow us to consider that in addition to the town wall, the construction of stone houses and stone churches also probably began after the re-planning of the town. The different constructions and the cultural layer from the 13th – 14th century at Town Hall Square suggest that the medieval Town Hall Square as a market square derives from the first half of 14th century. This hypothesis is also supported by the fact that at the same time a new street network, Town Hall Square and the location of defense fortifications were planned in Tallinn.

Similarly with Tallinn, somewhere during the turn of the 13th – 14th centuries dramatic changes in the infrastructure of Tartu took place, when old wooden buildings were demolished and an entirely new network of streets was established

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TARTU KESKAEGNE LINNAMÜÜR UUEMATE UURIMISTULEMUSTE VALGUSES

Resümee

Käesolevas uurimuses on kokku võetud seniste arheoloogiliste kaevamiste käigus saadud tulemused Tartu linnamüüri kohta, soovides leida vastused küsimustele, kuidas ning millisel kujul on see maapinnas säilinud, millal on müür ehitatud ja milline oli selle funktsioon keskajal.

Linnamüür on tänapäeval maapinnal säilinud vaid üksikute fragmentidena Tartu Ülikooli Botaanikaaias, Vabaduse puiesteel ja Jakobi tänaval. Kõige paremini on müür säilinud Vabaduse puiesteel, kus selle kõrgus jõepoolsest osast mõõdetuna ulatub maapinnal kuni 5 meetrini. Müür on seniste uurimistulemuste põhjal vundeeritud osaliselt kuivmüürina, pinnasega pakkimist on kasutatud Jakobi värava juures ja Poe tänaval, kasutatud on ka lubimördiga sidumist. Vene värava ja Mungavärava vahelises lõigus oli müür laotud 45-kraadise nurga all; kiiluna kraavi ning müürikivide vahele oli korrapäraselt loobitud lubimörti. Gildi tänava alal on mainitud ka alusparveks laotud 4–5 tolli paksuseid männipuust latte.

Müür on laotud maakividest, mille vahele on lisatud nii tellisetükke, terveid telliseid kui ka lubjakive. Müüriosade ja tornide vooderdamisel on samuti kasutatud rohkesti telliseid. Üksikutel juhtudel on müüri vooderdatud ka paekividega ja müüritäiteks on kasutatud munk-nunn-tüüpi katusekivi katkeid.

Linnamüüri paksus on piirkonniti olnud erinev, olles 1,7–2 m paksune põhjaküljel, 2–2,4 m idaküljel ja 2–2,9 m lõunaküljel. Kaevatud tornide müüride paksus ulatub 1,9–3,5 meetrini Valge torni müürifragmendil, 2,17 meetrini Jakobi värava tornil, 2 meetrini Tömptornil, kuni 4,5 meetrini Vene värava eesväraval ja 2,45 meetrini Pasatornil. Linnamüüri paksuste vahed erinevatel külgedel on siiski liiga väikesed, et nende põhjal ühe või teise külje põhjalikuma kindlustamise kohta kaugeleulatuvamaid järeldusi teha. Müüri erinevate lõikude ehituslikest erinevustest tulenevalt tuleb arvata, et linnakindlustuste täiustamist ja uuendamist jätkati vastavalt vajadusele kogu keskaja jooksul.

Ehkki seni on valdavalt kirjalikele allikatele tuginedes Tartu keskaegse linnamüüri ehituse dateeringuks pakutud 13. sajandi teist poolt, täpsemalt 1262. aasta venelaste rüüsteretke järgset aega, näib seniste uurimistulemuste põhjal siiski tõenäolisem, et müüri ehitus toimus 14. sajandi I poolel, mil senine linn näib olevat täielikult ümber planeeritud. Kuna vähemalt kolmes erinevas lõigus on linnamüür ehitatud läbi 13. sajandi lõpu ja 14. sajandi kultuurkihi, on loogiline, et müür rajati hiljem, mis näitab, et varasemalt oli sellel alal juba asustus olemas. Samasse perioodi ajanduvad savitöötlumisega seotud muistised nn lõunapoolse eeslinna alalt lubavad tõenäoliselt pidada, et lisaks linnamüürile alustati linna ümberplaneerimise järel ka kivikirikute ja -majade ehitust. Raekoja platsi lääneosast avastatud mitmesugused sõrestik- ja raamkonstruktsioonidega ehitised, idaküljes paiknenud vitstest punutud tara jäänus ja umbes 60 cm paksune 13.–14. sajandi kultuurkiht lubavad oletada, et ka Raekoja plats keskaegse turuplatsina pärineb linna ümberplaneerimise järgsest perioodist.

Vaadates Tartu linnamüüri vaid kaitseotstarbekuse aspektist, tekib küsimus, miks ja kelle vastu see rajati? Pärast 1262. aasta venelaste rüüsteretke toimus sõjategevus Tartu müüride all uuesti alles 1558. aastal Liivi sõja ajal (ordumeister Wennemar von Bruggenei 1396. aasta sõjakäik Tartu vastu piirdus vaid piiskopkonna linnuste vallutamise ja maa-ala rüüstamisega; 1481. aastal piiskopkonda tunginud venelased jätsid Tartu samuti puutumata). Seega tuleb pidada tõenäoliseks, et ka Tartusse pärast Saksa vallutust ehitatud kivist piiskopilinnus ja hilisem linnamüür polnud ainult välisvaenlaste tõrjumiseks püstitatud militaarehitised, vaid sümboliseerisid senise elukorralduse muutust ning uute valitsejate võimu nii põliselanikele kui ka naabermaade valitsejatele. Lõpuks ei saa sümbolismist mööda vaadata ka 1708. aasta linna hävitamise puhul Peeter I vägede poolt: purustatud piiskopilinnus ja linnamüür kui senise võimu sümbolid andsid siinsetele elanikele selge signaali, et endine aeg ei tule enam kunagi tagasi.