

Plan Structure Typology of Old Estonian Towns in the 13th–17th Centuries

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Summary

The current article examines the first two significant stages in the building history of old Estonian towns – the Middle Ages and the ‘Swedish era’ – more precisely the emergence and development of urban structures at that time. As only a few constructions forming building structures have survived from both periods, the article focuses on an analysis of plan structures, at the same time systematising historical maps, compiling a plan typology and the relevant street schemes. The aim of this research is to delineate the singular plan pattern of each heritage conservation area of an old town, highlighting the need to protect it, not just the visible parts but also the layers buried under cultural strata.

Although some old towns have been individually researched, the differences in the development of their plan structures have not been properly examined, nor are there any generalisations about the patterns of their shaping and changes in Estonia as a whole, or in the Baltic Sea context. There are few comparisons of medieval towns with Estonia, although Gerhard Eimer’s thorough work (1961) on the Swedish era urban building was later supplemented by Nils Ahlberg, who included Estonian towns as well.

The following offers a short overview of towns in the medieval, renaissance and baroque periods in Estonia and the Baltic Sea region, because the specific features of an urban type have developed in a concrete situation and are only understandable in a historical perspective.

Medieval town

We cannot use one single theory to tackle medieval towns – their emergence and development occurred as a result of many factors. Although every town is individual, some general principles of formation can still be pointed out. The places where European medieval towns emerged were, as a rule, trade route junctures or other favourable trading locations by water, and sometimes ancient destroyed centres.

Between the 9th and 14th centuries, the number of towns in Germany increased from 40 to 3000. There were 70 medieval towns within the current borders of Sweden, of which 60 have survived, and 20 still have their medieval plan. The majority of Swedish towns emerged in the 13th–15th centuries, and the oldest date from the turn of the 10th–11th centuries (Sigtuna, Lund, Helsingborg, Skara and Visby). Finland has six towns

of medieval origin (Turku, Viiburi, Porvoo, Ulvia, Rauma and Naantali).

Considering local circumstances, the reasons why medieval towns emerged in the Estonian territory could be interpreted in various ways. According to today's prevailing opinion, there were no towns here, as they were defined in the medieval era, at the end of ancient times, although settlement sites (*Hakelwerk*) probably existed near larger strongholds, and Wiek-type settlements by the waterways. Among the numerous ancient Estonian strongholds, the conquerors built a stone castle only on or near seven of their sites. Of about one hundred medieval stone castles, 13 developed into towns. In Estonia, a town is considered medieval if it received its town rights in the 13th–14th centuries: Tallinn (*Reval* 1248), Old-Pärnu (*Pernau* 1251), Tartu (*Dorpat* mid-13th c), Haapsalu (*Hapsal* 1279), Viljandi (*Fellin* 1283), Paide (*Wittenstein* 1291, later *Weissenstein*), Rakvere (*Wesenberg* 1302), New-Pärnu (*Perona* 1318) and Narva (*Nerva* 1345). At the end of the 16th century, Kuressaare (*Arensburg* 1563) and Valga (*Walk* 1583) received their town rights. Lihula (*Leal* stronghold 1238) was a medieval urban settlement as well. They are all hereby examined as examples of the emergence and development of urban settlement and heritage conservation areas, except for Tallinn, as it is the most researched town.

Renaissance and baroque towns

The terrestrial models of the renaissance ideal town as an expression of a cosmic picture of the world, which supposedly constituted preconditions of an ideal society, started in 15th century Italy. Renaissance towns have been regarded as art, which, in addition to architecture, was also expressed in the plan patterns designed by the planners, although the geometric-symmetrical plans were largely quite utopian. Such regular towns of ideal clarity and order have been associated, contrary to the initial idea of democracy, with power and colonisation. They sprang up in Swedish-ruled provinces, including Estonia (1629–1710). Sweden was one of the few countries in Europe where such a large number of new towns were built that followed the principles of a renaissance-era ideal town. Thirty new towns were constructed in today's Swedish area, 15 were relocated, and all old towns had to be renovated. In the regions controlled by large powers, renovations were planned in 450 places and over 600 plans were drawn up. Simultaneously with renovating the towns, Swedish strongholds and urban fortifications were modernised. By 1653, 28 towns in Finland had been built or renovated according to regular plans (gridiron plans).

In Sweden and Finland this period left a strong imprint on the hearts of medieval towns, whereas in Estonia the renovation was limited to fortifying strategically significant towns and modernising strongholds in Tallinn, Narva, Tartu, Pärnu and Kuressaare; towns were extended only in Pärnu and Narva. The development of most of the other small towns halted.

Starting points of the urban plan typology

On the whole, towns are born organically or according to plans, expressed in their irregular or regular plan structures. According to the prevailing idea, medieval towns were largely self-emerging, although planning should be considered as well.

Medieval German towns were structured according to streets, squares and town walls, plus adjoining strongholds. Hans Planitz examines the location of the market square and changes in its shape and function. He gives examples from the pre-medieval town period in Wiek-type settlements that later developed into towns. The 11th–12th century towns initially had typical oblong square markets next to commercial streets. Oval-shaped towns emerged at road junctions, with the main market in the centre. Other markets could be triangular or keel-shaped. The prevailing regular street scheme in the second half of the 12th century had a quadrangular market square in the town centre. In the 13th century this scheme spread to German-occupied areas. Regularity in the street scheme was usually evident in new towns surrounded by walls.

Eimer's analysis also focuses on developments caused by the location of the squares, market places, churches and town halls that shaped medieval Swedish towns, influenced by European models. The earlier towns sprang up as long streets by trading routes. A typical town of the 12th century had an elongated triangular square. The norm in the mid-13th century central square was the scheme church–market–town hall, and the big quadrangular town square had to have fixed proportions and dimensions. In the 14th century, examples existed in the German regular colonial town

scheme, which emphasised the grandeur of the town hall at, or in the middle of, the market square; the church(es) were located separately in a smaller square. In the 15th century, Erik XIII, King of Sweden, actively interfered in urban construction. In creating a new type of town, he used old German towns as a model, stressing urban fortifications and the importance of the central position of the church.

Having thoroughly examined the Swedish town plans, Ahlberg found similar features in their patterns and distinguished the following plan schemes in medieval towns: one long street, the main street running at an angle to the coast, a street network parallel to the coast, crossroad towns, a fishbone pattern, and regular plan patterns. Renaissance and baroque urban construction is characterised by regular ideal towns with gridiron and radial plans and by the modernisation of fortifications. The model for the following plan structure typology of Estonian towns is mainly the work of Ahlberg, as he systematically analysed the historical plans and pointed out the singularity of the plan patterns.

Types of medieval town plans

The first maps of Estonian towns with streets on them mainly date from the second half of the 17th century. These maps make it possible to draw conclusions about medieval plan schemes, as in the course of a few centuries nothing much changed in these towns. The street network is always older than the buildings.

(1) **A town with one long street** is oblong, built along the one dominant main street. The oldest Estonian urban settlement with such a plan scheme is **Lihula**, located by a large road that probably already existed in antiquity and

was fully established in the Middle Ages. The oldest plan of the Lihula Episcopal castle and small town dating from 1683, compiled by Samuel Waxelberg, shows the castle, the more important buildings and the borders of the built-up area. The entire small town was situated by the Tallinn–Virtsu road, between the present Penijõe Road and Oja Street. The building structure in Lihula is still dominated by a general oblong shape running along one long street.

(2) **Rakvere** has a **T-shaped street scheme**, although the north-south Pikk Street is dominant. It is crossed by the axis of today's Kreutzwald and Tallinn Streets, which was important for long-distance traffic. In the area where the streets cross, the archaeologists have found settlement traces from antiquity, and the remains of wooden buildings from the 12th–13th centuries. Waxelberg's 1683 plan marks the castle buildings, the wall around them and the above-mentioned streets. In the panorama drawing illustrating the map, the buildings are chiefly located along Pikk Street. Although Rakvere was burnt down during the Great Northern War, we can nevertheless assume that the streets in the older part of the town are at least medieval, whereas the direction of Pikk and Tallinn Streets is probably ancient.

(3) An example of an Estonian town where the **main street is made up of roads leading to the port** is, with certain reservations, **Kuressaare**. In the initial stage of the street network, the street leading to the castle and the sea was not the later main street Lossi, but the earlier streets of Pikk and Tolli, which joined the Episcopal castle with the territories of the Teutonic Order in western Saaremaa. The principal reason why the streets ran towards the coast was the location of the

castle, which controlled the harbour by Kuressaare Bay. The earlier town centre was also located in the area close to the castle. Despite this, the Kuressaare plan structure is irregular; besides the castle and the harbour, its development was influenced by natural conditions, the manor lands around the town, and the new location of the town centre.

Even more clearly than in Kuressaare, the streets in **Haapsalu** start from the market square near the Episcopal castle and run towards the sea. The streets are marked on the 1686 Waxelberg plan. Anton Pärn's thorough research of urban construction in Haapsalu, together with the archaeological evidence, seems to prove that an urban settlement existed there at least in the mid-13th century. On the basis of archaeological excavations, the location of the circular wall, and its five gates that marked the town contour until the Livonian War, has been reconstructed. It is additionally concluded that the medieval street scheme, influenced by the relief, the existing roads and the location of the castle, has largely survived today.

(4) The **Y-type street scheme** can be seen in **Valga**, which developed in the place where the important Old Livonian trade and war routes diverged. The battles sweeping across the town and its repeated destruction are among the reasons why the town's earlier building history is only reflected in the street scheme. The current triangular central square at the divergence point may have been the market square of a medieval settlement. This is confirmed by Johan Holmberg's plan dating from 1683 and archaeological excavations in the district by the central square.

(5) Examples of the **regular plan pattern** are Viljandi, Paide and Tartu. In medieval Estonian towns, the regular

plans were enhanced by building new strongholds and adjoining towns surrounded by fortified walls.

There exist several reconstructions of **Viljandi**'s medieval regular plan, of which Kaur Alttoa's version has been the most accepted over the last decade. The main axis of the regular urban plan with a symmetrical street scheme was Lossi Street, crossed by alleys. The town church stood on the eastern side of the main rectangular square by Lossi Street. The trapezoid shape of the town surrounded by walls and an occasional irregularity in its street scheme may have been influenced by earlier directions of the roads. As a result of archaeological excavations and the examination of the street paving, it is assumed that the street network in Viljandi in the 14th century at the latest is that which survives today.

Medieval **Paide** is depicted on several copper engravings as having regular planning, buildings and a centrally located main square, surrounded by a stone wall with bastions and a moat. As there is no archaeological data on the town's fortifications, the engravings could well be nothing more than someone's imagination. The 1683 Waxelberg town plan marks the street scheme, mainly regular, as the crossing streets start on the quadrangular central square. Such clear regularity in the street scheme cannot be haphazard, and this suggests that in the planned fortified town only the streets were successfully finished.

The development of the regular town plan in **Tartu** was influenced by its earlier settlement and roads, as well as by the possible planning in connection with the building of the town wall, although unlike the colonial town scheme the market square is not located in the town centre. An

excellent overview of the medieval town is evident in the 1640s plan, with a street network which aimed to make the medieval street scheme regular. The Swedish-era renovation plans derived from the need to modernise the town fortifications, most of which was never realised – the town wall was surrounded with bastions, best seen in Erik Dahlberg's plans from 1696 and 1697. Swedish-era plans have been localised in the contemporary street network, which enables us to claim that, until the end of the 17th century, the medieval regular street structure survived, and although older buildings have been destroyed, the structure is still visible today.

Urban plan types in the Swedish era

The following examines the town plan types in Narva and Pärnu, which spread from Sweden to Estonia in the 17th century. An example of the unrealised ideal town plan is Kuressaare.

(6) On gridiron plans, parallel crossing streets run through the entire town. The term is used as a general name (Swedish *rutnätsplan*, Finnish *ruutukaava*, and English *gridiron plan*), as both square and rectangular urban districts were planned.

The medieval regular-plan **Narva** was supposed to become the second residence of the Swedish throne. The most ambitious renovation plans compiled over forty years were those of Georg von Schwengell and Johan von Rodenburg, from 1645 and 1647. They maintained the medieval town, but wanted to build an adjacent much bigger urban district with a regular gridiron plan and surrounded by a defensive wall. Narva was modernised according to Dahlberg's plan of 1686, which marked the medieval urban district

as well as the new districts with streets crossing at right angles, where the street directions were connected with the old ones. The town plan survived almost unchanged for over 300 years, proved by the Swedish-era streets on the map dating from 1936. Narva's historical buildings were destroyed in WW II, and the town plan structure has changed quite a bit.

The 17th century maps of medieval **Pärnu** are quite revealing, as the earlier street scheme is marked on most maps, showing how the Swedes planned to renovate the castle and the town. The clearest information about the old and the new urban districts is provided in Paul von Essen's plan from 1696, which distinguishes the medieval street network and a regular gridiron plan in the south-east, surrounded by earthworks with bastions. It is as an excellent example of the Swedish-era planning, which follows the principles of an ideal town and solves the complicated task of uniting the old and the new, thus creating a whole with a symmetrical composition which met the requirements of the time.

Although by the Swedish era the structure of **Kuressaare's** town plan was on the whole fully established within today's heritage conservation area, Magnus Gabriel De la Gardie Nicodemus commissioned Tessin to produce a project for reconstructing the castle and the town. Tessin's 1652 plan connects the old castle to the ideal town with its symmetrical and orthogonal plan, surrounded by a defensive wall and a moat. Kuressaare's unrealised plan of the ideal town was innovative both in the Baltic region and throughout Sweden.

Conclusion

The following types of plans can be distinguished in medieval old towns: one long street (Lihula), a T-shaped street scheme with one dominant long street (Rakvere), streets running towards a body of water (Haapsalu and Kuressaare), a Y-shaped street scheme at a road junction (Valga), a regular plan (Paide, Viljandi, Pärnu, Tartu and Narva) and an irregular plan pattern (Tallinn and Kuressaare). Unlike Sweden, Estonian fortified towns preferred regular plan patterns. This probably indicates some sort of planning typical of German colonial towns. Traces of ancient roads have survived in the town plans of Lihula, Rakvere and Valga. They are also vaguely discernible in Tartu and Viljandi, and perhaps in Paide. All Estonian medieval towns sprang up near strongholds. The exception is Valga. Medieval street structure seems to have survived well in Tartu, Haapsalu, Kuressaare, Lihula, Rakvere, Viljandi, Paide, Valga, partly in Pärnu, and to a lesser extent in Narva.

Sweden focused on fortifying strategically important towns (Tallinn, Narva, Tartu, Pärnu and Kuressaare). A regular gridiron plan was dominant in urban planning (Narva and Pärnu). A project of an ideal town existed for Kuressaare, which was never realised. Bigger changes took place in expanding medieval towns (Pärnu and Narva), and although the new plans did not drastically alter the medieval plan structures, the regular gridiron plans were connected with the existing street schemes.

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