

## Vesa-Pekka Herva, Timo Ylimaunu & James Symonds THE URBAN LANDSCAPE AND ICONOGRAPHY OF EARLY MODERN TORNIO

### Abstract

When founded in 1621, Tornio was the northernmost town in Europe. The founding of Tornio was part of a larger urbanization boom in the Kingdom of Sweden which established itself as a northern European great power in the early 17th century. This paper discusses the meanings of, and the townsfolk's relationship with the urban landscape of Tornio in the 17th and 18th century, focusing especially on the links between local identity and spatial and built forms. The paper emphasizes the role of local traditions and ways of life for understanding continuities and changes in the urban landscape of Tornio. On the other hand, however, the reorganization of urban space and the development of urban cartography reflect attempts by the Swedish Crown to tighten its control over the development of towns around the Gulf of Bothnia. Various aspects of this mixing of local traditions and the Crown's interests will be considered in the paper.

Keywords: cartography, early modern Sweden, historical archaeology, Tornio–Torneå, urban landscape

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### INTRODUCTION

When founded in 1621, Tornio (Torneå)<sup>1</sup> was the northernmost town in Europe. The town was located at the mouth of the River Tornio, which, along with its tributaries, had served as an important waterway to Lapland since prehistory. Prior to the 17th century there were relatively few urban centres in Sweden and King Gustav II Adolf set about building a series of new towns. Tornio was intended as a gateway to Lapland and its burghers were licensed to control the Lapland trade. Tornio was a small town – described as a mere ‘cluster of shacks’ by Jean-François Regnard in the late 17th century (Regnard 1982 [1731]) – and was in many ways the last outpost of urban Europe which was regarded as an exotic curiosity by various European travellers.

This paper discusses the urban landscape and cartography of early modern Tornio from a broadly

archaeological perspective. Rather than providing a comprehensive description of how the urban environment of Tornio changed over time, this paper focuses on a few broad themes or aspects of the townscape. The approach adopted in this paper is interpretive in orientation and concerned primarily with the meanings of, and the townsfolk's relationship with, the urban landscape. The townscape of Tornio and its changes will be considered against local traditions on the one hand and broader developments in Sweden and Europe on the other. The approach taken here recognizes that spatial and built forms do not merely reflect ideas ‘behind’ things but contribute to historical processes by shaping the perception and understanding of the world in a more or less active manner (e.g. Akkerman 2001).

The distinctively local and material culture-oriented perspective on the urban landscape employed here attempts to complement larger-



Fig. 1. Tornio and the other medieval and early modern towns around the Gulf of Bothnia. Drawing: V.-P. Herva.

scale analyses of urbanism which are useful and important in their own right, of course, but tend to produce ‘aggregated’ histories and often concentrate primarily on economical and social aspects of towns (see e.g. Lilja 2000). A local perspective allows focusing on such aspects of early modern urban landscapes that tend to fade away in large-scale analyses but potentially shaped human life and the experience of the world in important ways. The approach taken in this paper attempts to provide new insights into the meaning of otherwise familiar features of early modern urban landscape, rather than ‘explain’ the development of a given urban environment in any straightforward sense.

The material discussed in this paper comprises of material culture and urban maps. As to the former, the main body of data derives from the archaeological excavations conducted in Tornio since the late 1960s. As to the latter, maps have a dual role in the study. Firstly, they are interpreted

in terms of what the urban space of Tornio was like and how it changed during the 17th and 18th centuries. Secondly, we will reflect upon the role of maps as a means of ‘disciplining’ urban space and producing new perceptions of it. Travelogues have also been consulted, but they are not quite as useful here as one might expect. While several travellers visited Tornio during the 17th and 18th centuries, their published travelogues describe the urban landscape of the town only very briefly and in passing.

#### TOWNS AND MARKET PLACES IN A NORTHERN PERIPHERY

Medieval and 16th-century urban sites in Sweden, including Finland, concentrated in the southern parts of the Kingdom, that is, south of the Ulvila–Gävle line (see Fig. 1). The earliest towns in the central and northern parts of the Gulf of Bothnia date from the late 16th century (Pori, Hudiksvall,

Härnösand and Umeå) and the others only from the 17th century (Ranta 1981; Ahlberg & Redin 1994). There were, however, several important harbours/market places in the northern regions of the Gulf of Bothnia in the Middle Ages. Medieval market places were located at the river mouths, which offered good communication routes to the north and east. The most important harbours around the Bothnian Bay (northernmost part of the Gulf of Bothnia) were Oulu, Ii, Tornio, Kemi, Luleå and Piteå. In the 13th century, large quantities of furs, dried and salted pike, and salted salmon were exported into central Europe via Stockholm (Luukko 1954: 194–7; Nyström 1983: 82–3; Wallerström 1983: 16–55). The trade in furs and fish also attracted the merchants of the Hanseatic League to these northern harbours (Vahtola 1997: 56–85). Markets in the northern periphery of the Swedish Kingdom grew slowly to accommodate other traders from Karelia, central Sweden, and Finland.

The Swedish Crown took various actions between the 14th and the 17th centuries to control markets on the northern periphery of the Kingdom. For instance, an order was given in the 1420s that all trade in market places should be confined to purpose-built warehouses. This regulation took effect and by the mid-17th century the market place of Tornio had no fewer than 60 warehouses (Luukko 1954: 198; Friberg 1983: 56, 210–5; Vahtola 1997: 84). Market places thus developed into ‘warehouse villages’ which were not permanently inhabited but turned into urban-like central places with various economic, social, religious and administrative functions during the market seasons (Ylimaunu 2007: 25–6). Market places around the Bothnian Bay were active in specified periods each year which could last for several weeks (Luukko 1954: 486–7; Lundholm 1991: 266–301). During the market season, people from different parts of north-eastern Europe and from different cultural backgrounds engaged in trade and manifold social activities at market places, and the busy market place of Tornio, for instance, was described as a town by Olaus Magnus (1973 [1555]: XX, 1) on the basis of his own visit there in the 1510s.

An increase in illegal trade and a growth in the population of coastal areas surrounding the Gulf of Bothnia ultimately led, on the initiative of the Crown, to the founding of several towns. Sweden’s Age of Great Power witnessed an intensive period of urbanization, and the network of urban centres was extended to the northernmost

reaches of the Gulf of Bothnia in the early 17th century (Ranta 1981). This urbanization boom arose from the Swedish Crown’s desire to concentrate trade in towns, thereby controlling it for taxation purposes.

The towns founded in the 17th century on the coast of the Gulf of Bothnia largely succeeded in replacing the former coastal market places in coastal areas. Market places played an important role in the urbanization of the northern parts of the Swedish Kingdom, as they arguably provided a kind of mental and material template for the subsequent 17th-century towns (see also Luukko 1954: 490; Lilja 2000: 35–6; Grundberg 2001). Continuity between market places and towns is also obvious in the sense that the latter were at least sometimes founded on or near the site of former market places (Ahlberg 2005a: 70), albeit continuity in itself was perhaps not important to the Crown. The emergence of proper urban centres nevertheless also signified a transformation of medieval mercantile trading centres into early modern economic centres.

#### TOWN PLANNING AND BUILDING IN EARLY MODERN SWEDEN

The Crown had sought to control town planning and building since the Middle Ages, and King Magnus Eriksson’s town law from the mid-14th century was the basis of planning and urban building still in the early modern period; the town law was revised in 1619 and widely followed, even though it was not officially promulgated (Jutikkala 1968; Lilius 1985: 13). The code of 1619 was primarily concerned with the urban plan at a general level, and while orders regarding town building were also given in, for instance, town privileges, the overall instructions were rather unspecific (Jutikkala 1968; Lilius 1985: 16–7).

The lack of urban maps was a major defect in efficient urban planning but the founding of the Swedish Land Survey by Gustav II Adolf in the late 1620s improved this situation in the long run. Despite the attempts towards systematization of town planning and building, the management of urban space remained incoherent throughout the 17th century, and even the codification of laws in 1686 failed to improve the situation in this respect (Ranta 1981: 109–10; Kostet 1995: 21–2). The inability of the Crown to provide clear instructions was one part of the problem, but supervision, which was the

responsibility of town administrative courts, also tended to be weak, and towns tended to stick to their own traditional ways in the management of the urban environment (Ranta 1981: 109–10).

The towns founded at the beginning of the 17th century were apparently not set out according to a definitive town plan, but the surveyor arguably staked off the plan at the site, measured the plots and drew up a plan afterwards (Kostet 1995: 172). That does not necessarily mean that the surveyor staked off towns without any plans, of course, but new towns were ordered to be built according to a designed urban plan for the first time only in 1641 (Kirjakka 1982: 78). Some early influence of regular Renaissance plans is arguably in evidence already in the 16th century, but more wide-spread adoption of grid plans and regularization of old town plans started around the mid-17th century (Lilius 1985: 11–2; Kostet 1995: 170–2). On the eastern side of the Gulf of Bothnia this development is associated, above all, with the energetic efforts of Per Brahe, Governor General of Finland (Lilius 1985: 14; Kostet 1995: 171–2).

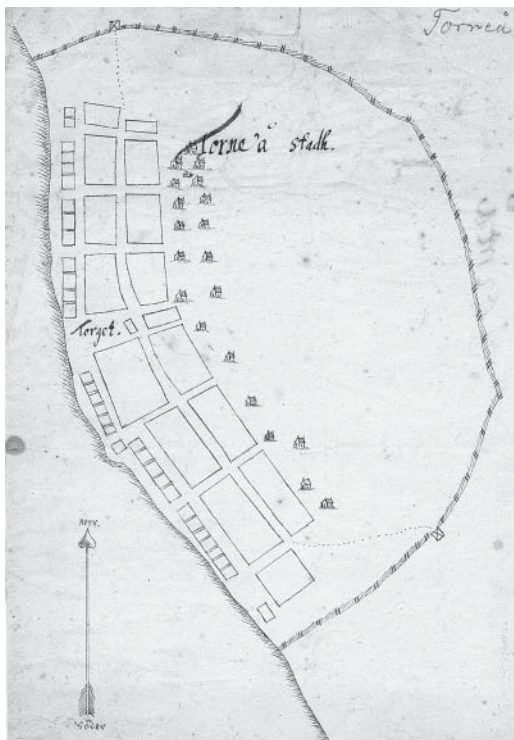


Fig. 2. Earliest known town plan of Tornio possibly dating from around 1620 (*Läntmät. lev. 1892 nr. 40 [kartavd. m. form.]*, RA). Original in Riksarkivet, Stockholm.

## THE HISTORY AND ARCHAEOLOGY OF TORNIO

The town of Tornio is located on the small island of Suensaari in the delta of the River Tornio. King John III of Sweden planned the founding of Tornio in the 1580s, but the endeavour failed due to the resistance of the local inhabitants. In particular, the king's plan was not to the liking of the *birkarls*, powerful farmer-merchants, who had traditionally controlled trade in the Tornio valley up to Lapland and benefited enormously from the existing trading arrangements. The plan was never completely abandoned, however, and King Gustav II Adolf ordered in 1620 that a town should be founded on the island of Seittenkaari some 20 km south-west of Suensaari. The local people resisted this plan once again, and Tornio was finally founded in 1621, on the island of Suensaari, which was the only appropriate location for the town in local opinion (Mäntylä 1971: 13–22). The town was granted a privilege to control the Lapland trade over a huge area in northernmost Fennoscandia (Fig. 1). This trade proved highly profitable and Tornio began to prosper towards the end of the 17th century and became one of the wealthiest towns in Sweden. Despite economic success Tornio remained a comparatively small town throughout the 17th and 18th centuries, during which time its population never exceeded seven hundred residents (Mäntylä 1971: 404–7; 418–23).

By the mid-17th century, isostatic uplift had made the harbour of Tornio shallow and this led to calls, lasting well into the 18th century, for the town to be re-located (Mäntylä 1971: 151). The townsfolk were also afflicted by several man-made disasters, and the town was either partly or completely destroyed by fire several times during the 17th and 18th centuries. The Great Northern War, which broke out in 1700, represented an important watershed in the history of Tornio. The war disrupted trade and led to hard times within the town. Tornio was badly destroyed by fire in 1714, and seized by Russian troops in 1715–7 (Mäntylä 1971: 208–40). A steady course of development throughout the 18th century was abruptly brought to an end in 1809 when Finland became an autonomous Grand Duchy of Russia, and a new border was established in the River Tornio valley, reducing the strategic importance of the town (Mäntylä 1971).



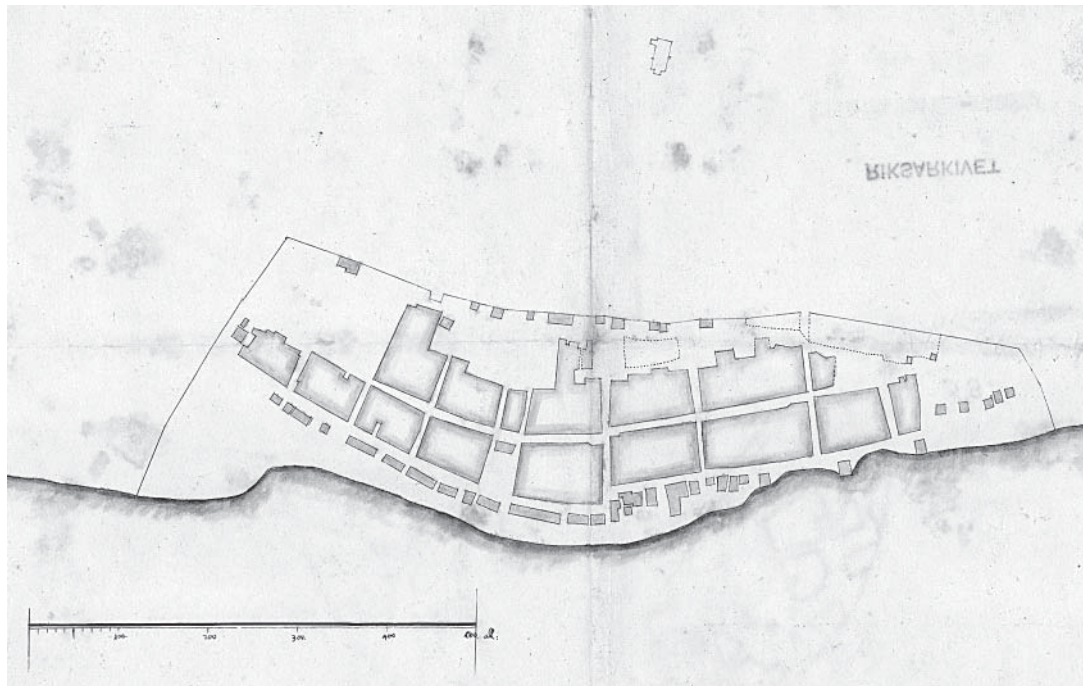


Fig. 3. Map of Tornio dated to around 1647 and apparently based on measurements (*Ut. känd proven. nr. 433 [kartavd. m. form.], RA*). Original in Riksarkivet, Stockholm.

Tornio was one of several towns founded around the Gulf of Bothnia in the 17th century and had many similarities to these contemporary foundations. Small towns with a few hundred inhabitants were the norm in early modern Sweden and in peripheral areas of Europe in general (Clark 1995; Eliassen 1995: 43–4; Lilja 1995: 54–5). In a conventional view, small Swedish towns were considered:

*merely agglomerated villages endowed with a few 'urban' functions. Most bore the physical imprint of agrarian structures. They were surrounded by fields and meadows for agriculture and cattle breeding, and the urban landscape itself was dotted with vegetable gardens. Cowsheds and stables were standard features of urban landscape, and residential buildings were often topped by grassed roofs that served as pasture for smaller livestock. (Lilja 1995: 50–1)*

More recent research has stressed the rationale of urban systems in their own economical, political and military context, but the fact remains, of course, that small towns were often centres of

agrarian economy and directly involved in rural activities (Lilius 1985: 9; Eliassen 1995: 43–4; Lilja 1995: 59–61).

The archaeology of post-medieval urban communities has become an established branch of study in different parts of the world over the last few decades, and is recognized as making a significant contribution to understandings of the development of urban environments and societies, along with 'modernization' more generally (e.g. Funari & Jones 1999; Green & Leech 2006; Hicks & Beaudry 2006). In Tornio, several archaeological excavations have been conducted in the town since the 1960s. The first modern excavation successfully located and unearthed the early modern town hall by the market square (Koivunen 1968). After a 30-year hiatus, archaeological work continued in the town in the late 1990s, when a number of relatively small-scale test and rescue excavations were carried out at several locations. A large-scale rescue excavation was conducted in 2002 by the second street (modern Keskikatu) near the early modern market square and smaller-scale excavations have been conducted also since then (see Ylimaunu 2007: 17–20; Nurmi 2011: 36–56 for summaries on the archaeological fieldwork in Tornio).

Despite producing a wealth of archaeological data about life in early modern Tornio, two factors limit the usefulness of archaeological evidence for the study of Tornio's urban topography. First, no plot, whether modern or historic, has been excavated completely, and most excavations have rather 'dipped into' the central parts of present-day plots, in part due to reasons beyond archaeologists' control.<sup>2</sup> The two extensive trenches of the 2002 campaign remedied this problem to a degree, by sampling several historic plots, but due to time and funding constraints large areas were left uninvestigated. Secondly, it has proved difficult, despite clear evidence for continuity in the town plan, to align historic maps precisely with the town plan of today (Mökkönen 2001a). This makes it difficult to relate archaeologically documented buildings and other features to specific 17th and 18th century plots.

#### MAPS AND PICTURES OF TORNIO IN THE 17TH AND 18TH CENTURIES

Given that visual representations, and urban maps in particular, play a central role in this paper, they

are briefly presented in this section. Instead of presenting all the cartographic material, however, we merely discuss those maps that provide useful information on the urban space of Tornio in the 17th and 18th century and/or serve to illustrate broader tendencies in Swedish urban cartography.

Three maps document the plan of the town of Tornio in the 17th century. The earliest map (Fig. 2), of which two almost identical copies are known, has conventionally been dated to the early 1640s (Kostet 1995: 53–5), but the case has recently been made that it actually dates from the early 1620s and represents the staked off or projected plan of the town (Ylimaunu 2007: 81–2; Herva & Ylimaunu 2010). The next surviving map (Fig. 3) has been dated to 1647 and the irregularity of the plots shown on this map suggests that it is based on actual measurements (Kostet 1982; 1995: 56). The aforementioned maps are simple and provide only limited information on the structure of the town, which consisted of two streets and sixteen blocks, enclosed by a toll fence at that time. Warehouses are shown by the harbour and the town hall by the market square on both maps, and the latter also shows the location



Fig. 4. Map of Tornio from 1697/8 by Hans Kruse (Lantmät. lev. 1892 nr. 43 [kartavd. m. form], RA). The plan of the town had become somewhat obscure by the end of the 17th century. Original in Riksarkivet, Stockholm.





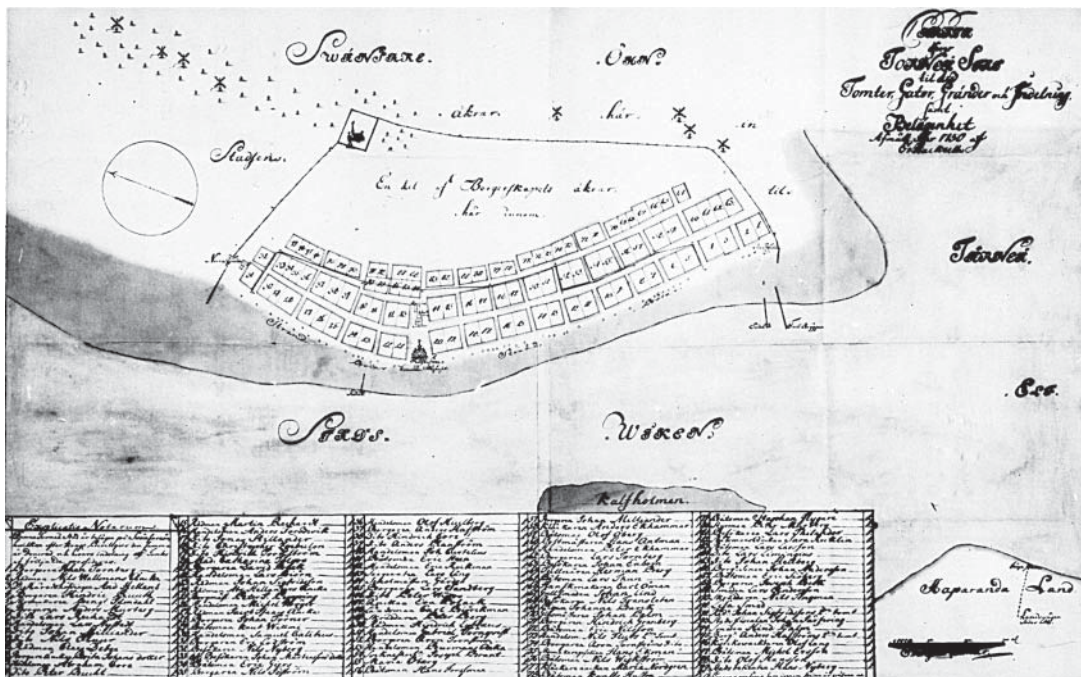


Fig. 6. Map of Tornio drawn by E. Hackzell in 1750. The traditional curvilinear shape of the urban plan was maintained also in the 18th century, but longish blocks were divided into roughly square-shaped ones. Original in Riksarkivet, Stockholm.

## TRADE AND WAREHOUSES IN THE URBAN LANDSCAPE OF TORNIO

The following thematic discussion attempts to illuminate links between urban landscape, cartography and society in a northern periphery of Europe. The aim is to characterise several aspects of the urban landscape of Tornio and to consider their significance against broader social and environmental issues.

As trade is arguably a main reason for the birth of towns around the coast of the Gulf of Bothnia in the 17th century, it is appropriate to first consider the relationships between trade, urban landscapes and town maps. To understand this aspect of early modern Tornio, there is a need to first look at the pre-urban past of Suensaari. Little is known about the early history of Suensaari prior to the founding of Tornio, but tax records show that a few farmers had settled on the island. Furthermore, various historical sources suggest that there was an important pre-modern market place at the mouth of River Tornio – most likely on Suensaari (Mäntylä 1971: 12, 22; Friberg 1983: 56, 210–5; Lundholm 1991: 296–8).

The exact location of the site is not specified in historical documents, but Suensaari is the only location to fit the aforementioned Olaus Magnus's description of a pre-urban market place, although scholars have traditionally tended to assume, without any proof, that the market place was located on the island of Pirkkiö, next to Suensaari (Olaus Magnus 1973 [1555]: XX, 1; Vahtola 1980: 503; see also Brunnius 1965 [1731]).

A number of other clues may also give further corroboration for the presence of the market place on Suensaari. To begin with, a survey conducted in Tornio in 1623 shows that there were 30 warehouses and 27 houses in the town, but whereas all the warehouses had already been completed, some houses still lacked a roof, floor, and/or windows (Mäntylä 1971: 27–8; 1993: 186). One possible interpretation is that there were warehouses on Suensaari before the founding of Tornio, whereas ordinary houses had to be built from scratch. It is true, on the other hand, that warehouses could be easily relocated, and the survey data therefore only suggests that the warehouses may have been older than the town itself.



However, there is also a topographical detail that calls for attention. As all the 17th-century maps of Tornio show (Figs. 2–4), the first block south of the market square by the first street juts out from the street line. Mökkönen observed during his urban-archaeological survey of the town in 2000 that this anomaly recorded on maps appears to correspond to artificial-looking terracing in the area.<sup>4</sup> If the jutting block really has to do with artificial terracing, it probably means that the earthwork pre-dates the town, which in turn would allow speculation on its possible association with a pre-urban harbour. Of course, there is no evidence to support this inference, but it may be of interest that the topographical feature in question is also spatially associated with the market square of Tornio.

Finally, the quarrel over where to locate the town of Tornio, referred to earlier, may also hint at continuity between the market place and the town. That is, if the market place was on Suensaari, it would perhaps explain why the locals considered Suensaari, rather than Seittenkaari, as the proper location for the new town. This suggestion is further supported by the fact that Seittenkaari would apparently have offered a less problematic harbour than Suensaari.

Suensaari, then, was a place of trade from the viewpoint of both the Crown and the locals, and it is therefore no surprise that the material and symbolic landscape of the 17th-century town of Tornio seems to revolve around trade. In the actual urban landscape, trade-centrism was most clearly materialized by warehouses, which according to 17th-century maps lined up along the entire

western edge of the town between the harbour and the rest of the town. To make a simple analogy, the row of warehouses can be understood as a sort of neon sign, which conveyed the idea of the town as a centre of trade to those arriving by sea (Ylimaunu 2006a). It is probable that warehouses were higher than the houses in the early 17th century masking the rest of the town from the view (Mäntylä 1971: 28), and providing a uniform trading face to incomers. Only the town hall and the church, built in the 1640s, would have been clearly discernible behind the warehouses.

Early town maps, not only of Tornio but of other towns as well, reaffirm the significance of warehouse structures. Unlike a majority of other individual buildings, warehouses were frequently marked even on early 17th-century Swedish maps. While the early maps of Piteå and Luleå, for example, show that warehouses were not always recorded (Ahlberg 2005a: 495, 518–9; 2005b: 62, 72), their general occurrence on maps is nonetheless worth noticing. As there is always a choice of what is marked on maps and what is left out (Harley 1988; Turnbull 1993), it seems clear that warehouses, from the vantage point of the cartographer and/or the Crown, were invested with special economic and symbolic meaning. Moreover, the decision to specify the locations of warehouses, along with the customary buildings associated with the king/state, and the church, thus established a symbolic connection between trade and the power of the Crown. In other words, cartographic conventions in this case manifest an early modern centralized state and a mercantilistic ideology.

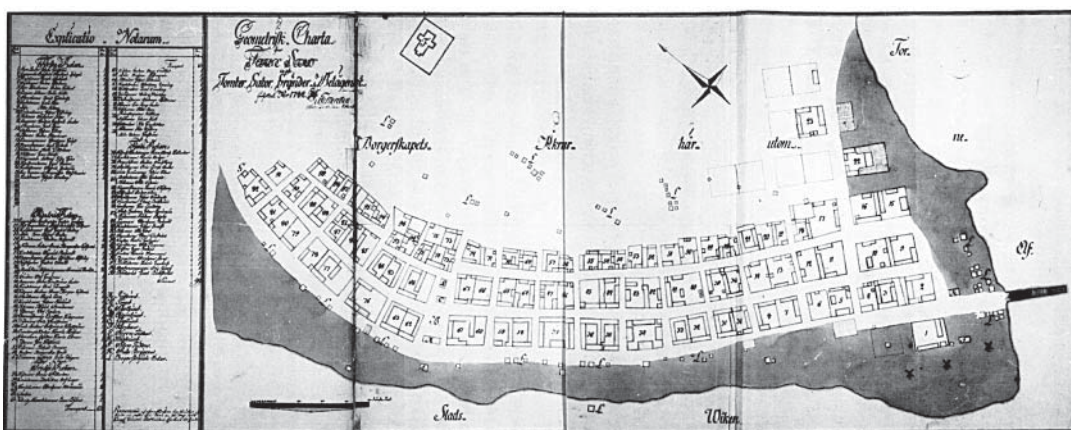


Fig. 7. Map of Tornio drawn by A. Fr. Merckell in 1782 (*Lantmät. lev. 1892 nr. 3 a [kartavd. m. form.]*, RA). Individual buildings are marked for the first time and the tendency towards enclosed plots is clear.

A third point to illustrate the significance of warehouses is that all of the maps of Tornio discussed above show the row of warehouses in the same place throughout the 17th and 18th centuries, even though the depth of the harbour had deteriorated over this time, forcing bigger ships to anchor further away from the town. On the map of 1782 it can be seen that the harbour had moved to the south, but that the warehouses continue to line the south-western bank of Suensaari – although admittedly the row would seem to have been sparser in the late 18th century and new warehouses had been built further south (Ylimaunu 2006a: 34).

On the basis of the above discussion, we would submit that warehouses in Tornio can be understood as monuments which represented the ancestry of the town, extending back to the Middle Ages, and thereby creating a tangible connection to pre-urban trading activities in the site. When the town of Tornio faced the constant threat of re-location for geographical or economic reasons, warehouses signified stability and continuity, and promoted a sense of attachment to the place.

Other towns around the Gulf of Bothnia were quite similar to Tornio with regard to trade and warehouses. Firstly, several, if not all towns founded in the 17th century were located in or close to old market places – Saloinen (later Raahe), for example, was founded in 1649 a few kilometres north of the old market place (Söderhjelm 1911: 2–5; Mökkönen 2001b: 4–5) – but it is often difficult to define whether or not there was continuity in the form of close spatial association. Secondly, the urban-cartographic material shows that warehouses were commonly an integral and visible element of urban landscapes, but it is risky to engage in detailed comparisons on the place-

ment of warehouses, since maps from different towns survive quite unevenly, and warehouses were not always recorded.

These precautions aside, the 1622 map of Umeå, for instance, shows warehouses lining up the harbour similarly as in Tornio (Ahlberg 2005a: 566–9; 2005b: 92). The 1649 and 1653 maps of Kokkola also document dozens of warehouses similarly located as in Tornio, and while only a few warehouses were marked on the 1663 and later maps (Jutikkala & Hietala 1990: maps 3–4; Kostet 1995: 61–2, maps 22–3; Mökkönen 2000: appendices 3.2–3.7), it makes little sense to assume that warehouses would have disappeared; perhaps a more reasonable assumption is that they were simply not drawn for some reason. The maps of Pori, to take another example, show warehouses lining up the façade of the town in the 1730s, but apparently not in the late 17th century, since the map of 1696 shows only a rather small concentration of warehouses by the waterline (Mökkönen 2002a: figs. 5–7, appendices 3.1–3.3). Warehouses were not always placed as an unbroken ‘shield’ in front of the town, however, but could also comprise one or more clusters, which were located on the shore, partly or entirely on water, or on close-by islands. Relevant examples include Härnösand, Oulu, Raahe and Kokkola (Mökkönen 2001b: 13, appendix 6.1; Ikonen & Mökkönen 2002: appendices 3.4–3.5; Ahlberg 2005a: 433–4; 2005b: 27–8; 108, 111, 124–5).

To what degree warehouses achieved an ‘iconic’ status and served as a material index of continuity in other contexts than Tornio cannot be resolved here, but it seems probable that the specific meanings assigned to warehouses varied between towns, and various factors could efficiently prevent the



Fig. 8. Tornio in the late 17th century according to Erik Dahlberg. From E. Dahlberg, *Teckningarna till Svecia Antiqua et Hodierna*, 1716.



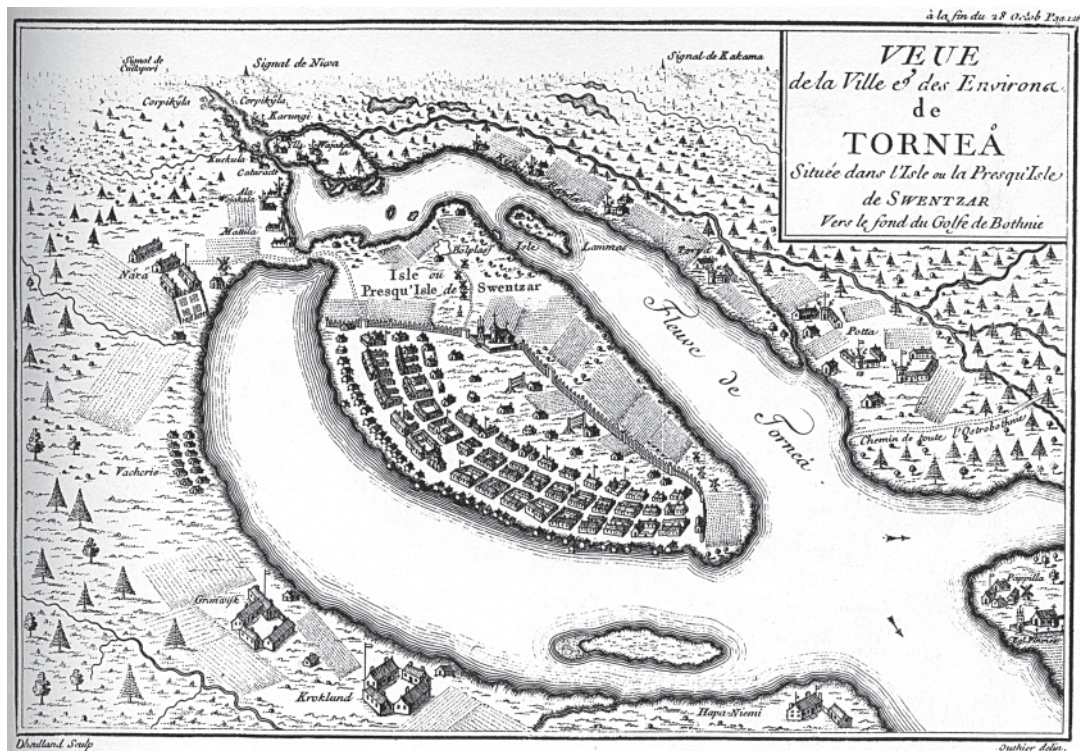


Fig. 9. Bird's-eye view on Tornio in the 1730s. From R. Outhier, *Journal d'un voyage au nord en 1736 & 1737, 1738*.

warehouses from becoming, even in principle, as monument-like buildings. Luleå, for instance, not only toed and froed between two locations in the early 17th century but the harbour with warehouses was also located some distance from the town itself (Nyström 1992). The maps of Oulu from the mid-17th and early 18th century, in turn, suggest that the placement of warehouses changed somewhat over time (Ikonen & Mökkönen 2002: appendices 3.4–3.5). Furthermore, the harbour was moved to a different place in the 1720s, and while the old harbour with its warehouses continued to serve as an inland port, its importance decreased significantly (Halila 1953: 138; Palola 2005).

#### 'NON-MODERN' AND AGRARIAN ASPECTS OF THE URBAN LANDSCAPE

Warehouses were arguably expressive of local tradition in early modern Tornio, but various other aspects of the urban landscape also played a similar role, and the aim of this section is to focus on the 'non-modern' aspects of the urban plan and building culture of Tornio. Maps document the urban space of 17th-century Swedish towns around the

Gulf of Bothnia only in a cursory manner, and the maps of Tornio described above and reproduced in Figures 2–4 and 6–7 are representative of other towns as well in this respect. Since buildings were usually not marked on Swedish maps until the later 18th century (and that is not a norm even then), maps are of limited value for studying the internal organization of space at the level of plots.

It is well known that uncontrolled development and disorder continuously threatened the internal structure of early modern Swedish towns. When Swedish laws were being codified in the 1680s, it was requested, among other things, that all buildings other than dwelling houses should be located at the back of plots. This proposition was widely criticized (Kirjakka 1982: 62), and both the standard itself and the criticism that it met clearly imply that the organization of space within individual plots in towns was not strictly ordered in 17th-century Swedish towns. In Tornio, for instance, the map of 1647 shows irregularity in the plots by the second street, and by the 1690s the regularity of the town plan had deteriorated significantly, to the disappointment of the town officials (Mäntylä 1971: 150–2).



Lilius has argued that wooden towns in Finland were characterised by a regular grid plan and, from around 1650, plots enclosed by one- or two-storey timber buildings with the long side facing the street. This order is taken to reflect Renaissance ideals, which identified straight streets with uniform façades as a distinct and important component of urban space (Lilius 1985: 9, 15). A rare perspective drawing of Raahe made by Mayor Henrik Corten does indeed show the urban space of the town organized roughly in the manner described by Lilius (see Mökkönen 2001b: 6 with references), but as far as we are aware, there is otherwise little evidence of enclosed plots in the towns around the Gulf of Bothnia at that time. A contemporaneous drawing of the inland town of Kajaani is illustrative: the town plan is regular and most buildings are located by the streets, but since there are so few buildings in the town, and since some blocks are almost entirely unbuilt, the resulting townscape was clearly open rather than enclosed (Mökkönen 2006a: 62 note 6). Nicholas (2005: 163) observes that the ‘the practical impact of “Renaissance” idea of town planning has been overestimated’ and Lilius apparently reproduces this line of thought, albeit perhaps unintentionally. That is, due to his art historical approach, Lilius is primarily concerned with ideals of urban planning rather than the actual built environment, but a close correspondence between ideals and reality tends to be implied.

The archaeological data from the large-scale Keskikatu excavations in 2002 (Herva 2003) would seem to suggest that although houses and other buildings were aligned with streets and located on the edges of plots in the 17th century, plots were not completely enclosed by buildings; in some cases the gable of main building was facing the street and the yard was open (Nurmi 2011: 157–8; see also Lilius 1999 [1965]: 27–33). Thus, it seems likely that the urban landscape of 17th-century Tornio differed somewhat from the ‘classical’ townscapes of Swedish and Finnish wooden towns described by Lilius (1985). The available evidence is admittedly quite thin, but the urban landscape of 17th-century Tornio was perhaps more open and in a sense more ‘village-like’ than the present-day images and preserving examples of wooden towns would lead us to believe. It is perhaps of some interest in this context that the English explorer Clarke (1997 [1838]: 206), who visited Tornio in 1799, remarked that

the town was very quiet and that long grass was growing on the streets, giving the appearance that the place had been abandoned for years.

The ‘back-woods’ agrarian character of the 17th-century Tornio townscape was further underlined by the incorporation of fields within the urban area enclosed by the toll fence. The presence of such ‘rural’ features in an urban environment was not unusual, because small cultivated plots, such as vegetable gardens and the like were common not only in the small towns in peripheral Sweden but also in medieval and early modern towns in Europe more generally (e.g. Clark 1995; Lilja 1995: 50–76; Lindeblad 2006). Notwithstanding this fact, it seems that few towns had such large fields inside the toll fence as those marked on the 1697/8 map of Tornio. The 1649 map of Kokkola shows patches of fields in the town, but these apparently disappear in the second half of the 17th century, when the town was regulated (Mökkönen 2000: appendices 3.2–3.8). The 18th-century maps of Pietarsaari and Pori also show relatively small areas of fields within the town (Mökkönen 2002a: figs. 5–7; appendices 3.1–3.3; 2002b: appendices 3.1–3.2).

The history of the fields within Tornio is not entirely clear because various uncertainties are related to the dating and interpretation of the earliest maps, but it is possible that the fields ended up inside the toll fence only in the latter half of the 17th century (see further Ylimaunu 2007: 70–3; 79–82; Nurmi 2009; Herva & Ylimaunu 2010). After their incorporation into the town, however, the fields comprised a major element of the urban landscape. The conspicuous presence of the fields inside the town perhaps blurred further the division between urban and non-urban landscape, which was arguably not very strong in such geographically peripheral small towns in the first place (see Eliassen 1995: 43–4). Through the fields, then, some kind of symbolic and psychological connection to agrarian ways of life was presumably maintained. In the Crown’s view, however, the fields should not have been there; King Carl XI expressed his discontent on the incorporation of the fields within the town when he visited Tornio in 1694 and ordered that the town fields should be removed (Kostet 1995: 79). The order was apparently disregarded – the maps from the 18th century and the perspective picture from the 1730s show that the fields remained within the urban area.

Log buildings dominated small towns around the Gulf of Bothnia in the 17th and 18th centuries (Lilius 1985; Ahlberg & Redin 1994), and Tornio was built almost exclusive of wood until the 19th century. Corner stones do sometimes occur in 17th-century archaeological contexts in Tornio, but houses were typically erected directly onto the ground without stone foundations (Herva 2003; Ylimaunu 2006b; 2007: 32–5). Buildings constructed in this way tended to deteriorate rapidly when faced with the rigours of the northern climate, but this simple construction technique persisted in Tornio throughout the 17th century, and a number of buildings explored by archaeological excavation even lacked a proper stone foundation in the 18th century (Ylimaunu 2006b; 2007: 48–9). Since archaeological data is limited from most towns around the northern parts the Gulf of Bothnia, it is impossible to assess how common or uncommon stone foundations were in the region, but in Oulu, which has been extensively excavated, stone foundations seem to appear more often than in Tornio (see e.g. Mäkivuoti 1990). In Turku, on the south-western coast of Finland buildings commonly lacked proper foundations in the Middle Ages, but tile and stone foundations were introduced from the 17th century onwards (Kykyri 2005).

In contrast to common houses, public buildings in Tornio – the town hall and the church – both had stone foundations in the 17th century (Rinne 1911; Koivunen 1968). Colour was also used to differentiate these structures from the rest of the urban environment. Both the town hall and the church were painted with red ochre in the 17th century (Mäntylä 1971: 158; Petterson 1986: 41, 44, 52, 142). This distinguished them from dwelling houses, which were not painted until the first half of the 18th century (Ylimaunu 2007: 49–55). This reflects a more general trend in Sweden. The houses of the gentry, and other buildings that were associated with the Crown were the first ones to be painted with red-ochre paint in the 17th and 18th centuries, whereas farmers did not paint their houses until the 19th and 20th centuries; hence, the presence of red-ochre paint on a structure established a clear indication of social status and linked the structure to the authority of the Crown (Vuorela 1975: 420–1).

A study of probate inventories, where values of real estate are frequently given, also indicates that the inhabitants of Tornio favoured humble and

ephemeral architecture well into the 18th century (see also Ojala in Clarke 1997 [1838]: 348 note 234). The mean value of Tornio residents' property rose three-fold from the late 17th to the late 18th century, but the mean value of buildings in Tornio did not rise significantly. While the buildings of the wealthiest inhabitants were several times more valuable than those of the poorest members of the community, only a small proportion of the wealth generated by trade in the town was re-invested in buildings (Ylimaunu 2006b). It can also be noticed in passing that, as argued elsewhere in detail, the artefactual finds from the excavations in Tornio also point towards a lack of 'consumption-mindedness', which cannot be explained only in economic terms and rather seem to document personification of, and attachment to artefacts (Herva & Nurmi 2009; Nurmi 2011).

Several factors are likely to have contributed to the 'non-modern' features of the Tornio townscape. Given that Tornio, just like other small towns in northern peripheral areas, was deeply immersed in agricultural production, rural features are perhaps only to be expected. Furthermore, the fact that Tornio did not grow significantly during the 17th and 18th centuries allowed a sort of stagnation in terms of planned urban development. The reluctance to invest in the built environment, in turn, was encouraged by the general 'instability' of the town, as indicated by the fluctuations of population, until at least the mid-17th century. Frequent destructive fires also promoted uncertainty, as did the constant threat of re-location that hung over the town since the later 17th century. But while there is no need to envisage active, conscious resistance to modernization and urban-living, it may also be misplaced to regard the 'non-modern' aspects of Tornio as mere by-products of local economic and social circumstances. That is, even passive maintenance of pre-urban traditions would have created a sense of continuity, which in turn served as a psychological weapon against the perceived uncertainties inherent to the early development of the town (see also Herva & Nurmi 2009).

## GEOMETRY AND CONTROL IN THE URBAN ENVIRONMENT

Most towns around the Gulf of Bothnia were laid out or re-ordered on a geometric grid plan during the 17th century. Although this development argu-

ably stemmed (in part anyway) from the adoption of Renaissance town planning ideals in early modern Sweden (Lilius 1985: 9–15), the simple tracing of changes in urban environments back to a new 'style' in town planning and building fails to grasp important questions. Firstly, how and why did a certain style of ordering urban space develop and why was it adopted (cf. Leone 1984; Miller 1988; Johnson 1996)? Secondly, how did a certain style of ordering urban space affect the life of the inhabitants of such towns? As to this second question, recent research and thinking in material culture studies and various other disciplines proposes the relationship between people and things is deeply reciprocal (e.g. Clark 1997; Ingold 2000; Knappett & Malafouris 2008; see also Turner 2000). Thus, the re-ordering of towns potentially affected the ways of perceiving and relating with the urban environment and the world in general (see Akkerman 2001; Herva & Nordin in press).

That the grid plan became popular in early modern Europe is hardly surprising, for it can be seen to express values and patterns of thinking that began to emerge in early modernity and are at the very heart of modernization. That is, grid plan can, since the early modern period, be associated with the western preoccupation of the objectification, commodification and control of both environment and people (see e.g. Mrozowski 1999; Ingold 2000). Straightness and rectilinearity obviously characterize regular grid plans, and 'the straight line', as Ingold puts it, is 'an index of the triumph of rational purposeful design over the vicissitudes of the natural world' (Ingold 2007: 153). Grid plan in this view not only underlines the humanity of urban environment, but also articulates the conceptual division between nature and culture, which has profoundly shaped the western understanding of the world, and of human–environment relations, since early modernity (see Pálsson 1996; Ingold 2000).

The attitude of Man conquering the natural world and subjecting it to human control manifests itself also in 17th-century Swedish town planning. Take, for example, the somewhat utopian regularization plan of Raahe, which simply disregarded the fact that the town should have partly been built in the sea, that is, its execution would have required a massive earth-moving operation to fill a small bay (Kostet 1995: 120 map 80; see also Mrozowski 1999). An idea of social

control was also associated with the rectilinear design of urban space – that is, straight streets were considered in the 18th century to make urban environments safer (Kirjakka 1982: 45–6). The point, in essence, is that straightness and geometric order allowed more effective surveillance than non-geometric space. Geometric plans changed the relationship between the Crown and the people by bringing the everyday lived-in environment of townsfolk under the control of central administration, and thus concretely brought the Crown closer to people (Matthews et al. 2002; Ahlberg 2005a: 78). In this view, there is more to the new order of urban space than a mere material expression of a new ideology.

The new order of urban space, then, did not simply reflect new aesthetic ideas or a new ideology, but had a rather more deep-cutting effect: regularisation embodied or externalized control in the urban space. The new urban design did not merely assert the power of the Crown, as was the case, for instance, with Dahlberg's pictures of Swedish towns, but effectively changed the ways people moved about in their everyday environment (see also Herva & Nordin in press). The built environment disciplined people in geometric orderliness and 'rectilinear behaviour' that also advanced the conceptual separation of culture from nature and therefore, ultimately, an emerging modern understanding of the world. The reordering of space was not limited to the level of urban plan, but also extended to smaller-scale arrangements of space. For example, benches were installed in churches during the 17th century – when the Protestant Church was put in the service of the Swedish Crown – to promote spatial and also social orderliness (Ylimaunu 2007: 73–6).

In practice, the towns around the Gulf of Bothnia often deviated from the ideal of grid-like plan in a number of ways. In Vaasa, for example, the town plan was regularised at the level of the street system and blocks, but the earlier borders of plots preserved within certain blocks (Mökkönen pers. comm.). These notions withstanding, Tornio maintained its organic urban plan and 'medieval' features in a very prominent manner and for a long period of time. The town was not regulated in the 17th century although some reordering of the urban space took place after the fires of the 1670s (Mäntylä 1971: 147–9). When the hostilities of the Great Northern War were over, an entirely new grid plan was drawn. According



to this plan, Tornio was to be relocated, but the inhabitants chose otherwise, and rebuilt the town in its original location (Mäntylä 1971). The town was partially regularized at this time, but the result was actually something of an illusion of regularization. Square blocks now replaced the older longish ones and plots began to be enclosed at this phase at latest, but, in essence, the regularization appears to have restored the original 1620s town plan in a somewhat modernized form. Tornio is therefore among the very few post-medieval Swedish towns that were not regularized in a rectilinear grid plan, although people commonly objected to regularisation also elsewhere.

Several factors were no doubt involved in this course of development, but both the unfulfilled plans of regularisation in the 17th century and the post-war events would seem to point to some kind of attachment to the original place, plan and character of the town. At any rate, there must have been other than straightforward 'rational' reasons for the persistence of the not-so-practical location of Tornio and its 'old-fashioned' plan, especially because relocation of early modern towns in Sweden was by no means exceptional; Luleå and Umeå, for example, were relocated in the 17th century (see Ahlberg & Redin 1994). Furthermore, wooden towns were in principle highly malleable due to the transferable nature of log buildings and the frequent destructive fires also enabled the instigation of new, more geometric town plans (Lilius 1988; Jutikkala 1999; Mökkönen 2006a: 53). In Tornio, however, these opportunities for redevelopment were rarely grasped.

#### URBAN MAPS AND THE CONTROL OF URBAN SPACE

The development of urban cartography can also be linked to concerns for environmental and social control. Studies of historical cartography in Finland, however, have conventionally tended to regard (more or less implicitly) the development of cartography as a 'natural' evolution; better techniques, instruments and instructions supposedly gave rise to more detailed and 'objective' maps as the modern age unfolded (Kostet 1995: 23–31; Mökkönen 2006b: 16–9). Technological advances certainly influenced cartography but the social context of map-making is essential for understanding how and why changes came about (e.g. Livingstone 1992; Bender 1999: 31–4; Herva

& Ylimaunu 2010), and that takes us back to the concerns of control.

Map-making exercises control over people and land both symbolically and practically, and the former aspect was perhaps much more important initially than the instrumental value of maps. The idea of using maps as a tool of symbolic control is simple: to represent something on a map is to claim authority over the object of representation (Pelletier 1998: 52). In this respect, the very decision and action of mapping is significant regardless of whether or not the map itself ever has any practical use. It is hardly a coincidence that land survey and cartography were organized in Sweden in the late 1620s, soon after Sweden had become a great power with centralized administrative machinery (see also Baigent 1990; Herva & Ylimaunu 2010).

As to the practical value of maps, it is often argued that urban maps were made in early modern Sweden for the purposes of controlling urban planning and development (see e.g. Kostet 1995: 29; 2000: 33), although it is not altogether clear how useful 17th-century maps were in this respect. To a degree, then, especially given that towns tended to develop more or less freely, this function of urban maps fits better in the category of symbolic than actual control. The development of Swedish map-making has also often been connected with taxation, but there is actually very little evidence of early cadastral maps having been put in the use of a tax revision (Baigent 1990: 64–7). Be that as it may, Swedish urban maps initially contained little written or numerical information, as the earliest maps of Tornio exemplify, but more and more data was gradually included.

For instance, the 1697/8 map of Tornio lists names of burghers, along with details of the taxes they had paid, linked to specified plots. In the 18th century, the data collected on individual plots and included on maps became more detailed, and the 1750 map of Tornio lists not only the names of plot owners, but also their occupation (Kostet 1982: 161–3). The 1782 map documents individual buildings in specific plots, and this change, in our view, represents the same process as list making: by collecting data, and more detailed data, the Swedish state extended its (theoretical) possibilities for surveillance and social control (Melkersson 1997; Vahtola 2004: 137–41; Foucault 2000 [1980]: 202–4). It seems that towards

the end of the 18th century maps were not made and data collected for any specific purpose, but maps were becoming potential 'all-purpose' tools rather than instruments for solving specific problems. This proposal is supported in relation to the maps of Tornio, by Kostet's observation that unlike earlier maps, the 1782 map apparently cannot be linked to any particular regulation order or a specific need (Kostet 1982: 172–3).

It is instructive to consider briefly the changes in the mode of representing urban space on Swedish maps in the 17th and 18th century. As previously noted, the earliest Swedish urban maps highlight buildings associated with the institutions of the Crown. A similar tendency may be observed in the illustrations of Dahlberg's (1968 [1716] *Svecia Antiqua et Hodierna*: houses of high-ranking officers, churches, vicarages and castles are depicted in a larger scale than ordinary houses. This convention apparently manifests hierarchy and power relations in society during Sweden's Age of Great Power and royal autocracy. In the later 18th century, by contrast, institutions of the state were not underlined through visual effects on maps. The 1782 map of Tornio, for example, not only shows all the buildings in the town, but also shows them in equal detail, and makes no attempt to visually differentiate buildings by type or function. In its seeming non-indexicality (i.e. context-independence), the map conjures up an illusion of a meaningless 'objective' world where spatial units are interchangeable – a world that can be manipulated for whatever purposes by those in power (see Turnbull 1993: 15, 44).

A similar course of development is observable in Swedish urban cartography more generally although changes do not necessarily occur exactly at the same time. To take but one example, all buildings in Kristiinankaupunki were drawn on a map three decades earlier than in Tornio (Mäkelä 1984: 465; Mökkönen 2001c: appendix 3.4). Another important point is that the drawing of buildings on maps, or any other similar change, does not necessarily indicate that the Crown became suddenly interested in a particular aspect of the urban environment. Rather, it may well be that such changes in cartography were fuelled by more abstract reasons and were not initiated by specific concerns. Indeed, it is misplaced in our view to trace each and every change on maps to some specific order or perceived need of the central administration; urban cartography was influenced

by manifold concerns and agents at various levels, and it is rarely possible to identify 'prime movers' behind specific features. Our argument centres on the general trend of development of urban cartography, and that trend appears relatively straightforward: more and more accurate data was cumulated on maps, and it seems entirely feasible that, as this process had been set in motion, the very recording of data became an end in itself.

## CONCLUSIONS

The history of towns in Finland and Sweden has conventionally been written in politically and economically driven terms, and in an 'event-oriented' manner. The history of towns, in this view, had been seen to unfold through orders given by kings and state officials, shifts in political power, wars, fires, and so on. This approach tends to privilege grand narratives, which regard the particular merely as an instantiation of broader trends. We do not claim that this is the only mode of conducting historical research in Finland and Sweden, but the legacy of grand narratives tends to dominate the understanding of urban development, especially in regard to considerations of urban space. The development of specific towns is often used to illustrate 'stylistic' changes in town planning and/or other large-scale changes whereas the significance of locally derived circumstances and traditions are more or less disregarded (see also Mökkönen 2006a: 56 with references).

In this paper, we have argued, and illustrated through the case of early modern Tornio, that the development of urban landscape may have been contingent upon apparently idiosyncratic or insignificant local traditions and events. Furthermore, local identity was connected with the urban landscape more deeply than is initially obvious. For instance, warehouses were central, practically and symbolically, to the functioning of the town, but they were also monuments that implied continuity with the past. By the same token, the 'rural' or 'non-modern' features of the townscape did not merely reflect the economical background of the town, but also promoted a sense of continuity and therefore served as a psychological weapon against the perceived uncertainties of life at the bottom of the Gulf of Bothnia. This uncertainty derived from the very introduction of the (quasi-)urban way of life, initial instability of the town, as indicated by major fluctuations in the earlier 17th century,

frequent destructive fires, and from the later 17th century onwards, plans to relocate the town.

The development of Tornio was contingent upon highly localized factors, and particular histories, but this development was also influenced by state level authority. The Swedish Crown, which set about founding towns such as Tornio in the early 17th century also attempted to exercise social and political control over urban populations in various ways. A main vehicle for ordering and disciplining urban space was the regular Renaissance town plan, which was introduced to a majority of towns around the Gulf of Bothnia around the mid-17th century, but Tornio retained its curvilinear plan and various other 'non-modern' features. The regularisation of urban space in Swedish towns during the 17th and 18th centuries, as well as the development of urban cartography, mediated and materialized a new understanding of the world, and thus marked an important culmination point in the development of the 'modern' on the northern periphery of Europe.

## NOTES

<sup>1</sup> Tornio is the Finnish form of the town's original Swedish name Torneå. The town belonged administratively to Västerbotten County until 1809 when Finland was joined to Russia and the redrawing of the Russo-Swedish border left Tornio in Finland, which in turn became a Grand Duchy of Russia. Tornio and all other towns in Finland dating from the early modern period were originally Swedish towns, but are referred to here by the Finnish names they are known today. The Swedish names, however, are given in Figure 1.

<sup>2</sup> This is mainly because electricity and telephone cables and other public utilities often border modern streets; excavating too close to cables is prohibited and, on the other hand, the canals made for the cables have anyway partly or completely destroyed cultural layers.

<sup>3</sup> This map remained unknown in Finland until 2007 when it was 'discovered' in Bibliothèque nationale de France. See O. Pekonen, Tornio piirityi kartalle metrin tarkkuudella, in: *Kaleva*, 2 December 2007, 16.

<sup>4</sup> We wish to thank Teemu Mökkönen for sharing his field observations on terracing and its possible relationship with the 'odd' block on the early maps of Tornio.

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