The Meaning of Urban Centrality in a Medium-Sized Eighteenth-Century Town

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In May 1777, the council of the elders of the Swedish town of Turku (Åbo) decided to establish a new principle for the taxation of taverns. Previously, the taverns had been taxed at the same level, but that arrangement had been unpopular because some taverns were located in more convenient places than others and, thus, had higher product sales. The new taxation system divided the taverns into four categories according to their location and ease of access in the topography of the town; those in the 'best' places were to pay four times as much tax a month as those in the 'less attractive' places.[1] Reading between the lines, the tax reform reveals that there was an understanding of the town as a symbolic topography of more central and more peripheral places. But what did eighteenth-century townspeople mean when they wrote about 'better' or 'worse' places? More generally, how can we use historical sources and methods to approach early modern symbolic understandings of urban topography?

In human geography and economic geography, the exploration of *centrality* stems from Walter Christaller's *central place theory* (1933), which describes an abstract model for generating hierarchical levels of centrality in human residential settlements.[2] Since Christaller's time, central place theory has been revaluated and thoroughly debated, and the phenomenon of centrality and centralisation has been studied in human geography from a wide range of standpoints, including urban land value, traffic and distance, accessibility, power and administration, and qualitative and imagined dimensions of the urban experience.[3] Recent developments in the research on centrality and central places include, among other things, the use of big data and a shift towards networks and clusters.[4]

In the field of history, however, relatively few scholars have immersed themselves in the study of urban centrality as a historical phenomenon. One of the earliest examples is Hans-Heinrich Blotevogel's research on eighteenth-century and early nineteenth-century Westphalia, where he investigated the relationship

DOI: http://dx.doi.org/10.7557/4.4483

between urban and rural centres as a measurable subject.[5] In subsequent studies, historical centrality has been observed from the standpoint of the economic history of urban development in Central Europe.[6] Furthermore, the historical research on centrality has tackled the subjects of social topography and urban renewal.[7] In recent studies, the historical aspects of urban centrality have been explored through symbolic representations of townscape and urban infrastructures, the historicity of the concept of centrality, the spatial distributions of entrepreneurs and political and ceremonial performativity in urban space.[8]

This article examines what centrality entailed in an eighteenth-century medium-sized town. The central question of the article is how the symbolic understandings, everyday practices and the geographic and spatial distribution of various social and economic factors and actors exhibit the phenomenon of centrality, and moreover, what 'centrality' means in historical enquiry. The question is approached from four angles that cover (1) the linguistic expressions of urban topography, (2) the urban land value and social topography, (3) the spatial distribution of restaurants and taverns and (4) the practices of control and surveillance. These case studies are chosen, because they enlighten, first of all, the historical wordings of urban perception, and at the same time the symbolic, economic, social and institutional aspects of urban geography and the use and experience of urban space. The case studies, based on a comprehensive sample of various historical sources, are examined with historical geographic information system (historical GIS)[9] methods. The four thematic approaches follow previous historical studies about urban centrality, and here the simultaneous scrutiny of these different aspects within one town aims at the reading of the interrelation of various aspects and outcomes of centrality. The article strives to understand how the analysis of distinct case studies and their interrelations can explain how the phenomenon of centrality was conceived, described and produced in an early modern medium-sized town. Naturally, as the reverse of 'centrality', this article observes as well the 'periphery' that arises particularly in the cases of eighteenth-century concepts, taverns and street lighting.

The case study explored in this article is the town of Turku, which today is located in Finland but in the eighteenth century was one of the most important towns of Sweden. The empirical material used in the study includes newspapers, court minutes, city council minutes, historical cartography and tax registers. The variety of sources and their cross-readings allow for the simultaneous examination of conceptual, qualitative and quantitative aspects of different source types. This method strives to unveil how parallel historical phenomena are represented in divergent types of documentary evidence.

A major challenge in the examination of centrality as an eighteenth-century or, more generally, a historical phenomenon is the historicity of the concepts related to centralities and symbolic experiences of urban space. The notion of the *city centre*, *centre ville* or *centrum* is derived from the Latin word *centrum*, which designates a central point. It does not appear in European major languages with its modern meaning of *urban core* until the end of the nineteenth century.[10] The problematic nature of *centrality* and *centre* as subjects of historical enquiry has been highlighted by Pierre-Yves Saunier. He depicts how the notion of centrality is often taken for granted, as a universal concept, applicable in all contexts over time and in different historical circumstances. Saunier highlights how the 'city centres' in England and France were economically and socially different, and how the concept of 'centrality', as a modern conceptual framework, is too vague for a historical approach to the question of urban symbolic and topographic hierarchies.[11] Therefore, the examination of urban centrality as a historical subject lies in the complex interdependent settings of the history of concepts and various economic, social, symbolic and topographic phenomena.

Historical GIS stems largely from the framework of geography, and a major issue is often the processing of historical sources into adequate datasets for programs. As Ian Gregory and Paul Ell have emphasised, the relevance of the method for historical questions is equally important.[12] In historical GIS, a central problem is the difficulty of attaining data that can be interpreted spatially and numerically at the same time in order to unveil its historical contexts and meanings. This twofold methodological question is unavoidable in an exploration of urban centrality, because the representations of centrality are formed in a process that intertwines the symbolic values of urban space, urban topography and language and concepts.

In addition to the purely historical interest in the subject, historical perspectives on the subject of centrality may also enrich contemporary theories and understandings of urbanisation by emphasising the role of long-term processes and the historical roots of modern theories and representations of urbanity.

The article begins with a short overview of Swedish urbanisation in the eighteenth century and the status and role of Turku in the Swedish and European urban setting. The next section discusses the conceptual and linguistic perceptions of the townscape in addition to the concepts that were used to express centrality and the symbolic hierarchy of the urban topography. The subsequent three sections apply historical GIS methodology to urban history and the question of centrality. The first of these introduces a method of mapping eighteenth-century property values in the urban topography and contemplates its relation to urban centrality and social

topography. The next section explores the location of taverns, restaurants and coffee houses in the town and examines how they exhibited centralities in the social topography of the townscape. The final section elucidates the meanings of centrality in the practices of surveillance, control and street lights.

Urbanisation in Eighteenth-Century Sweden and the case of Turku

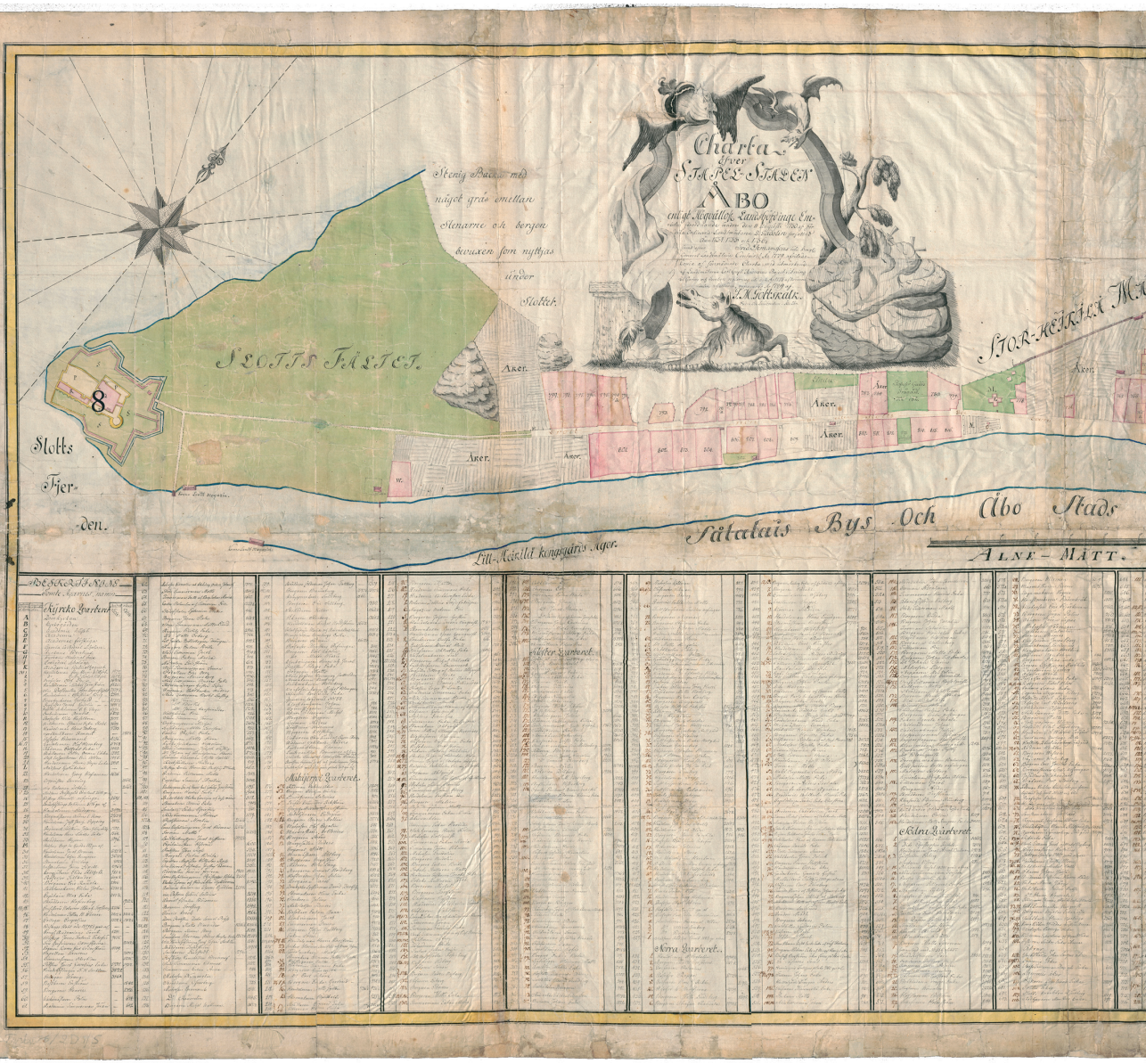
In the eighteenth century Sweden was sparsely populated, and the degree of urbanisation was relatively low compared with that of Central and Western Europe. The capital, Stockholm, was the only metropolis of eighteenth-century Sweden, with approximately 50,000–80,000 inhabitants. Turku was among six large towns in Sweden, with between 5,000 and 15,000 inhabitants.[13] In the European context, Turku was a medium-sized town. The majority of the urban population of early modern Europe lived in small or medium-sized towns like Turku.[14]

Among the towns of eighteenth-century Sweden, however, Turku was exceptional. It was the only town in Sweden with a university, an episcopal see, and several administrative and judicial bodies. Furthermore, it was the hub of foreign trade for Finland, or the *eastern land* (*österland*) of Sweden.[15] The social composition of the townspeople was heterogeneous, which can also be seen from the historical records that tell us about everyday life in the streets of the town. The presence of all urban social classes of eighteenth-century Sweden renders the town an ideal subject for a case study in historical urban geography.

Turku was founded at the end of the thirteenth century. By the end of the fourteenth century the town area consisted of a dense settlement around a cathedral, a market square and a Dominican convent, situated along the banks of the River Aura.[16] By the end of the eighteenth century, Turku had expanded far beyond its medieval limits, and the urban fabric was formed of a thousand urban plots situated in the river valley, which was enclosed by rocky hills. Clearly visible on the eighteenth-century maps are the medieval town centre, with its narrow streets around the cathedral and the marketplace, and the seventeenth-century rectangular quarters and wider streets, which were built after the regularisation of Swedish towns from the 1630s (figure 2).[17]

The main axes of the town were the river and the two parallel, latitudinal streets of *Konungsgatan* and *Drottningsgatan* on opposite sides of the river. The most important nodes of the urban topography were the market square (*Stor torg*), with the only bridge of the town crossing the river, the cathedral, and the new market square (*Ny torg*). The boundary of the town was marked with a toll fence, a central

Figure 1. The population of the towns in Sweden in 1800. Sources: *Historisk statistik för Sverige*, del. 1. Befolkning (Stockholm: Statistiska centralbyrån, 1969), pp. 61–62; *Suomen kaupunkilaitoksen historia*, tilasto-osa (Helsinki: Suomen kaupunkiliitto, 1984), pp. 12–13. Map: Panu Savolainen.



feature in Swedish towns after land customs were established throughout the kingdom in the 1620s.

Turku had experienced severe devastation during the Russian occupation from 1713 to 1721 during the Russo-Swedish war, and the second quarter of the eighteenth century became a period of reconstruction. During the second half of the

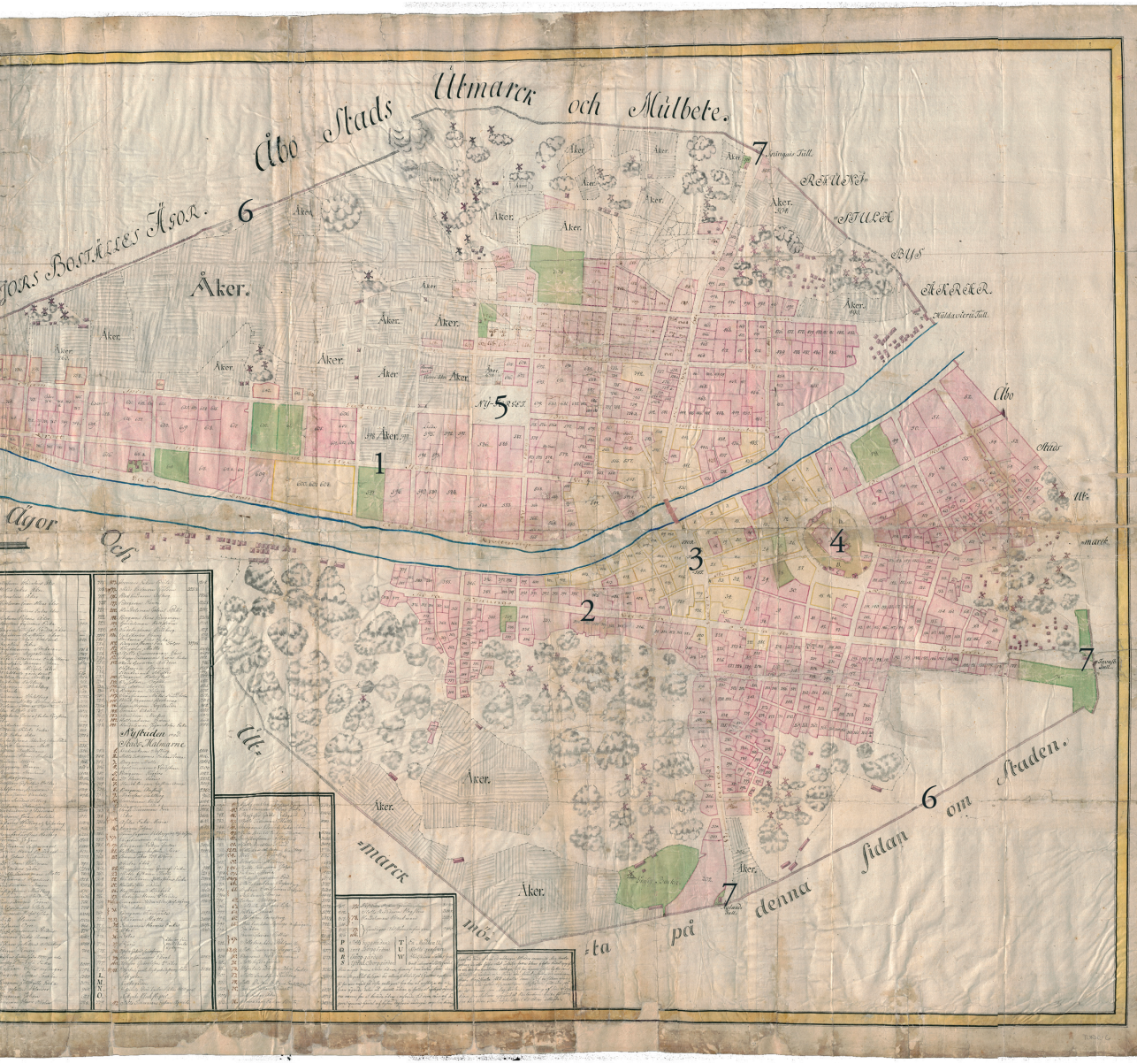


Figure 2. Map of Turku from 1756. 1: Drottningsgatan, 2. Konungsgatan, 3. The Market Square, 4. The Cathedral, 5. The New Market, 6. The toll fence, 7. Toll gates. The National Archives of Finland, Helsinki.

Figure 3. The town of Turku in 1798, as seen downstream from the town. The Royal Library, Stockholm.

century, extensive improvements were made to the townscape of Turku. The urban administration (*magistrat*) and the advocates of royal power stipulated regulations to render private construction more elegant; furthermore, public projects, such as pavements and street lighting, received increasing attention from the higher authorities.[18] The closing decades of the eighteenth century were an active period of progress in private construction, and the townscape was constantly being renewed. However, there were only minor changes to the town plan in Turku, and all the new districts were all located in the outskirts of the town.[19] Despite the recommendations to build in stone and the tax exemptions for stone buildings, the majority of the buildings in the town were still one- or two-storey wooden houses, which was the case in most eighteenth-century Swedish towns.[20]

As the framework of the article stems from the symbolic, economic and social meanings of centrality, the approach excludes the impacts of town planning for centrality, although I will briefly discuss the important seventeenth-century expansions, as well as the large nineteenth-century urban renewal, at the end of the article. The interrelation of centrality and town planning is an obvious back-

ground of the article, since several previous historical studies of urban centrality stem from major actions of newly planned city centres.[21]

Although historical maps offer a useful starting point to approach the historical topography of a town or city, they reveal symbolic or experiential aspects of centrality or the hierarchy of the urban space mainly through the locations of monuments, landmarks and nodes. Therefore, attaining the representations of the experienced urban space presumes the examination of various documentary records that reveal the symbolic dimensions and social imagination of the urban space and topography.

The Language of Urban Space and Concepts of Centrality

This section of the article explores the expressions and concepts that were used in the written sources from Turku during the eighteenth century to define the symbolic dimensions of centrality and the hierarchy of the urban topography. Descriptions of urban topography can be found from various and divergent sources, and the following examples illustrate how an eighteenth-century academic dissertation, court minutes, newspapers and administration documents reveal different conceptual formulations of centrality. The court material is based on the minutes from 1760, 1775 and 1790, and the newspaper material has been gone through at the digital portals of the royal/national libraries of Sweden and Finland. It is important to notice that in Swedish and Finnish newspapers, the phrase 'city centre' (*stadens centrum*) was used for the first time in the early nineteenth century in descriptions of military occupations.[22] The modern meaning of the expression – the central area of an urban settlement – did not become established until the 1860s.[23] Therefore the following analysis explores what words and concepts were used to depict the symbolic and spatial hierarchies of the town.

In Turku, the most important symbolic hierarchy was the deep-rooted convention of dividing the town into 'major' and 'minor' sections (in Swedish, *Stora* and *Mindre sidan*). Even though by the end of the eighteenth century the urban fabric was evenly distributed on both sides of the river, this division persisted. It followed the medieval topography, where the town's most important monuments and nodes (the cathedral, the Dominican convent and the market square) were located on the eastern side of the river. References to the major and minor sides of the town appear frequently in tax records,[24] and they are highlighted in topographic descriptions of the city. Daniel Juslenius begins his description of the topography of the town in his dissertation *Aboa vetus et nova* (1700) by stating: 'The river

Aura intersects the city, and divides it to the *eastern part*, or the *major*, and to the *western*, or the *minor*, and runs into the sea beside the castle'.[25] In addition to the division into major and minor sides, the town was frequently described and categorised according to six administrative quarters, which were distributed evenly with three on each side of the river. Four of the quarters – the Church Quarter (*Kyrkoqwarteret*), the Convent Quarter (*Klösterqwarteret*), the *Mätäjärfwi* Quarter and the *Aningais* Quarter – were of medieval origin. The Southern Quarter (*Södra qwarteret*) and the New Town Quarter (*Nystadsqwarteret*) were formed in the seventeenth century.[26]

The major and minor sections described an image of the town as a whole, and the administrative quarter names were used mainly in urban administration documents such as tax registers and newspaper announcements, but on more specific occasions the symbolic topography was expressed in different ways. These expressions, which originated from discourse in everyday life, have left traces in eighteenth-century newspapers, administrative records, court testimonies and diaries. This 'micro-level approach' to urban topography offers a glimpse into everyday life in the lived urban space.

The testimonies of the lower court (*kämnärsrätten*)[27] reveal how ordinary townspeople depicted the surrounding townscape. As the court minutes were transcribed from oral testimonies into revised protocols, their information must be interpreted carefully according to the original verbal phrasing in the courtroom. Rigorous reading reveals, however, that the expressions in the court minutes probably follow the descriptions provided by the witnesses relatively faithfully. The variations of the written testimonies of the same events indicate that the court clerk strictly followed the details of the spoken narration when compiling the revised protocols. For example, descriptions of movement and routes in the town were usually narrated in detail, and they reveal three different ways of locating places in the urban topography: (1) place names (quarters, streets), (2) places related to certain people (houses, taverns, fields) and (3) landmarks (hills, the toll fence, the cathedral).[28] These three separate methods are often all present in topographical narrations in the court minutes, and they form a tripartite categorisation that has been recognised in previous studies that have explored the spoken discourses of toponymy.[29] A central feature of the topographic narrations of the court minutes is their specificity: they lack general definitions of topography. The only symbolic characterisations of centrality appear in the descriptions of movement, where 'upward' (*upåt*) and 'downward' (*utföre* or *ner*) mean towards or away from the market square, one of the nodes of the town.[30]

The newspapers offer glimpses of more specific expressions of centrality, especially in the rental announcements. The first rental announcements or queries about rooms for rent in the newspapers of Turku[31] in the 1780s simply listed the rented rooms with their street names or the names of their quarters. From the 1790s, the rental queries began to mention housing preferences as well, and a key concept for designating the quality of the location was 'a veritable street' (*reel gata*) or 'a major street' (*stor gata*).[32] In eighteenth-century Swedish, the concept of *reel gata* meant a street lined with elegant houses or located in a reputable neighbourhood.[33] In the newspapers of Stockholm, these expressions emerged some decades earlier when announcements were first introduced.[34] In Turku, the central location of the rental rooms or apartment was also specified by using the expression 'in the vicinity of the church and/or the market square' (*nära kyrkan och/eller torget*).[35] This shows that the descriptions of the urban topography lacked concepts of centrality expressed at a general level; without exception, they instead referred to specific urban nodes or monuments.

To sum up, the exploration of a variety of eighteenth-century sources unveils diverse conceptual and linguistic expressions that were used to designate the symbolic dimensions of urban topography. The example of Turku reveals not only some of the general concepts that were common in eighteenth-century Swedish, such as the notion of *reel gata*, but also a number of specific expressions of centrality that originated from the local topography, such as the convention of dividing the town into major and minor parts on either side of the river. These follow the five elements of mental maps of urban topography, edges, pathways, districts, nodes and landmarks, outlined by the urban geographer Kevin Lynch in his seminal work the *Image of the City*, and also the conventions of describing sixteenth-century Florentine townscapes.[36] The next sections of the article introduce the methodology of historical GIS to examine how the geographical and spatial analysis of centrality relates to the symbolic and linguistic levels of urban topography.

Property Value and Social Topography

The following paragraphs will consider how historical GIS methods can be applied to the examination of urban centrality. Historical GIS originated in the 1990s and is an interdisciplinary field of history, where geographical tools are applied to the analysis of historical datasets that contain spatial information.[37] Here, historical GIS is applied to analyse and cross-read various datasets in the framework of centrality in the context of a single town.

In economic geography, land values and property values have been a central theme in the exploration of urban centrality. The underpinning assumption in these studies is the commensurate relation between land value and urban centrality; in other words, that central places increase the value of the surrounding land according to a certain function of distance.[38] Land value has been analysed previously as a subject of historical GIS; for example, in a case study of the prices of meadows in fourteenth-century England.[39] The following analysis is an example of turning early modern property records into spatial data and a geographical visualisation of property values.

The property values used in the analysis are based on a comprehensive assessment of property (*förmögenhetsuppskattningen*) that was carried out in Sweden between 1800 and 1803. It was decreed at the Diet of Norrköping in 1800 after a severe state debt crisis of the 1790s, and the objective was to increase the taxing of private property. The assessment included every household and listed the various categories of property.[40] Although the households were listed according to the numbering of the urban plots, the statistical data can be turned into geographical information with the help of a town plan from the early nineteenth century.

In Turku, the assessment was carried out in 1800. The assessment of property values was partly based on earlier fire-insurance policies or previous assessments made by the town officials about the prices of the plots and buildings. In cases where no previous value had been defined for a house, the public servants responsible for the assessment made an estimation of its value. If a household was indebted, their property was not valued, and publicly owned property was also excluded from the assessment.

Because the original historical dataset is rather subjective, a close statistical analysis of the land values would not be meaningful. However, the spatial distribution of the land values (figure 4) reveals a pattern that provides opportunities for qualitative insights. First of all, the distribution reflects a centrality, as property values were much higher in the surroundings of the cathedral, the market square and the bridge than in the fringe areas of the town. Moreover, the most valuable urban houses followed the strands of the river. The geographic relief correlates strongly with the values in the fringe areas, where properties were mainly built on rocky hillsides. The property values drop and become flat in line with the isograms. In general, house values were more or less proportional to their distance from the market place and the river, and here the pattern is similar to many modern examples examined by urban geographers.[41] Nearly all houses assessed at over 1,000 riksdaler were located in the oldest part of the town, which was settled before the seventeenth century. Being on the main axes or the most important street

Figure 4. Property values in Turku in 1800. Map: Panu Savolainen.

corners also seemed to increase house values, which echoes previous remarks on the value of medieval housing in large towns in medieval Europe.[42]

The pattern of property values seems to follow the conceptual and symbolic understandings of urban topography. In newspaper announcements, only the cathedral and the market square were highlighted to specify the location of rented apartments, and this central area of the town was also the most valuable in the quantitative data. Equally, the higher value of the properties flanking the major streets is relatively clear on the map.

The distribution of property values reflects the social topography, which can also be approached by exploring the spatial distribution of the population and households. From 1765, in principle every individual in Sweden was listed in the poll-tax records, regardless of whether they had to pay the tax.[43] In towns, the households (or social units living under a common patronage) were listed according to the plot number; hence, the record comprises spatial data on the population that can be turned into a geographical representation to reveal the number of households living on each plot (figure 5).

The spatial distribution of households in 1775 reveals a pattern that is relatively consistent with the spatial distribution of property values, notwithstanding that the cases have a time difference of 25 years. The data indicates a much higher population density in the more modestly built fringe areas of the town and throws into sharp relief the strong contrasts between the social topography of the district around the cathedral and the market square and the fringe areas of the town. The examples of property values and the number of households per plot both show how divergent historical datasets may converge when converted into geographical representations. Here they represent the common denominators of the historical social topography, which is reflected in different documents created for different purposes.

Taverns, Restaurants and Centrality

The examination of the spatial distribution of business activities reveals how specific economic actors were settled in the urban geography. Here the analysis of various serving and restaurant entrepreneurs offers an apposite case study, since these entrepreneurs can be comprehensively listed and, because of the traceable addresses, also mapped with precision. Moreover, these serving places were primarily and sometimes the only social institutions frequented by the majority of townspeople, and their spatial distribution offers a comprehensive case study to

Figure 5. Number of lodger households per plot in 1775. Map: Panu Savolainen.

reveal how the social and economic topography was structured.[44] They also enable references to earlier studies from other cities.

More than thirty restaurants and coffee houses were established in Turku during the second half of the eighteenth century. The coffee houses were of Swedish import and the first ones, from 1743 onwards, were established by incomers from Stockholm.[45] The locations of the coffee houses (*kaffehus*), taverns (*krog*) and restaurants (*källare*, *tracteur*) are indicated in the minutes of the city council and in newspaper announcements, or they can be traced in the poll-tax records. They enable us to explore the spatial distribution of the various businesses using GIS.

The mapping reveals the contrast between the spatial distribution of taverns on the one hand and restaurants and coffee houses on the other hand. During the second half of the eighteenth century, all the coffee houses, except for the first one established in 1743, and all the houses where restaurants were run, were located within 300 metres of the market square. By contrast, less than ten per cent of the taverns were situated as close to the market square; the majority of these were located in houses that were approximately 500 metres to one kilometre from the market square. This pattern resembles the spatial distribution of different serving and restaurant entrepreneurs in eighteenth-century English towns.[46] In the case of Turku it is noteworthy that the most distant areas of the town lacked taverns.

The coffee houses of Turku were located in much the same manner as in Stockholm and London. In Stockholm, the eighteenth-century coffee houses were a feature of the old town, especially the northern part of *Gamla stan*, whereas restaurants (*källare*) were spread more evenly across the whole city and the southern and northern islands, known as the *stadsmalmar* or suburbs.[47] In London, too, the coffee houses were concentrated in the oldest district of the city.[48]

The spatial distribution of the taverns follows a pattern that resembles that of the property values and the distribution of the number of lodger households (figures 4 and 5). This follows a certain logic: the larger clusters, on both the major and minor sides of the river, were located in areas inhabited mostly by craftspeople and retailers.[49] Many of them kept taverns as a secondary trade, and the distribution follows more or less accurately the pattern of these social strata. An interesting cluster is the concentration of taverns further down the river; this might have been a consequence of high demand in the vicinity of the sea customs and port area of the city. Where the restaurants and coffee houses formed a monocentric concentration around the market place, the taverns composed several consolidations and exhibit an underlying polycentric pattern of social and economic topography of the town.

Figure 6. Taverns, restaurants and coffee houses of Turku, 1743–1809. Map: Panu Savolainen.

The arrangement of taverns, restaurants and coffee houses reflects a relatively systematic spatial distribution within the urban topography. It indicates that restaurant and coffee-house entrepreneurs systematically sought and acquired suitable spaces for their trade in the vicinity of the market square. The contemporary records do not reveal any explicit reasons for this spatial concentration. Nevertheless, the spatial distributions of the serving and restaurant entrepreneurs reveal nuanced differences in the topography of the town. They represent a centrality that was probably created as a result of multiple factors, such as the social topography, mutual economic interests, the symbolic importance and status of the market square, and the availability of suitable physical spaces in the more affluent houses around the market square.

Major interventions of town-planning had been changing the town plan of Turku during the latter half of seventeenth century. The purpose of the mid-seventeenth-century town plan was to create a new grid plan, with a new market square, on the 'minor' side of the river. Despite the completely realised new plan, the most valuable property, the houses with the smallest numbers or without lodgers, coffee houses and restaurants at the end of the eighteenth century were almost entirely grouped in the oldest part of the town around the market square and the cathedral. The limits of the medieval town area are primarily recognisable in the property values and in the map with the number of lodgers. It seems that the status of the old town area persisted over centuries even though more spacious quarters with better built wide streets were designed on the 'minor' side of the river.

Practices of Control and Street Lights

The last section explores the questions of control and surveillance, concentrating on the town guards and the introduction of street lighting. I examine what the spatial patterns of patrolling of the guards and the street lighting reveal of the urban topography and the aspects of centre and periphery.

The town guards operated from the *corps de garde*, which was located in the market square. They patrolled the streets at 9 pm and 10 pm and sporadically during the night.[50] If a threat or a crime occurred, the distressed townspeople had to head towards the market square or call the guards by shouting. The cases that were brought to the lower town court often described how the attention of the guards had been obtained. Sometimes, when patrolling the streets, the guards intervened in incidents they encountered, on their own initiative, but usually the townspeople had to call the guards by shouting or by fetching them from the market square.

Some of the court cases are identified with house or street names so accurately that the scenes of the crime can be plotted on a map. Figure 7 shows all the geographically identifiable cases that were brought to the lower court in 1760, 1775 and 1790. There are relatively few cases and they do not form a sufficient dataset for a quantitative analysis, but they allow us to make some remarks about the activity of the guards. The guards made routine patrols every evening, but it seems that certain taverns were under constant surveillance because these taverns regularly stayed open later than they were allowed to. These taverns were situated in a relatively broad area that spanned both sides of the river.[51]

The interventions of the guards were concentrated in the streets surrounding the market square and *Konungsgatan/Tavastgatan* Street, leading to the eastern toll gate. Most of the interventions took place on the initiative of the guards or after the guards had been fetched from the *corps de garde*. In the three years included in the sample the guards could find the scene of the crime by locating the shouting person, without visual perception, in only two cases.[52]

The map shows how the public control and surveillance of the urban space was oriented to the central location of the *corps de garde*, the habitual patrol routes of the guards and certain taverns. The fringe areas of the town lacked immediate public intervention in crimes; these cases may have been settled by the townspeople or brought to the court later without any intervention from the guards. In the eighteenth century larger European cities witnessed a process where town guards and police forces were territorialised and distributed evenly among the districts to render the control more effective.[53] The example of Turku shows how the town guards acted in a medium-sized town, without territorial division, but having effective patrolling in the most troubled streets and taverns, although leaving the fringe areas of the town unsecured.

The question of control was also related to the physical character and centrality of the soundscape. The urban soundscape was important for keeping track of time, for a wide range of public notices, which were indicated with drums and chimes, and for controlling the urban space at night. Therefore, it was important to clear the auditory landscape of all unnecessary disturbances. In many regions of early modern Europe, and in Sweden, shouting for no reason was illegal.[54] The historian David Garrioch has argued that the early modern city 'formed a semiotic system, conveying news, helping people to locate themselves in time and in space, and making them part of an "auditory community"'.[55] In this sense, the use of the voice for surveillance also made up part of this auditory landscape that was determined by the physical distance from the *corps de garde*.

Besides the patrolling guards, the installation of street lights shows how the topography of surveillance was produced and experienced. The use of light represented a key issue of power, especially in the northern towns where the nights are long. The establishment of street lighting (and also the lack of light) was intertwined with the means and practices of control of the urban space all over eighteenth-century Europe.[56]

Discussions to establish a permanent lighting were held already during the last decades of eighteenth century, but the town got its permanent street lights only in 1805. Before the installation of the street lighting in 1805, the midwinter city was dark from 5 pm onwards. All who were moving on the streets had to use a hand lantern, but eventually this obligation was not always respected.[57] Descriptions from court records reveal how the dark streets could lead to fatal accidents, when drunken townsfolk stumbled on the narrow streets, or simply fell down to the river when they put a foot wrong.[58]

There is no comprehensive information about the locations and the number of lanterns that were installed in the winter of 1805. The distribution of the lanterns can however be reconstructed approximately by indirect pieces of information. In Turku, the house owners were in charge of buying and maintaining lanterns in front of their houses, and the urban administration checked that they respected their duty. During the first years after the installation of the lighting, several police inspections were carried out to tackle negligent maintenance. These documents reveal over 60 names of house owners ordered to participate in the maintenance, as well as house owners that were exempted from the maintenance.[59] Using the census registers, it is possible to position their houses on the map. Using these fragments of information, it is possible to reconstruct roughly the density and topography of the street lighting established in 1805 (figure 7).

Nearly all the cases of neglect were clustered in the streets that were at a longer distance from the market square (figure 7). It seems that the house owners living in the vicinity of the market square fulfilled their duties better, perhaps because of the proximity of the controlling authorities. All the five houses exempted from the maintenance were located on the fringes of the town. The urban administration reminded these complaining house owners that their houses were already located in districts without the duty of lantern maintenance, and this reveals that the fringes of the town were left without lanterns.[60] As the newspaper *Åbo Tidningar* reported in February 1806, the 'major streets' of the town were furnished with lanterns.[61]

The significance of street lighting for the security and collective surveillance of the urban space is demonstrated by a catastrophe that took place in the town of Turku two decades after the lighting was installed. In 1827, three-quarters of

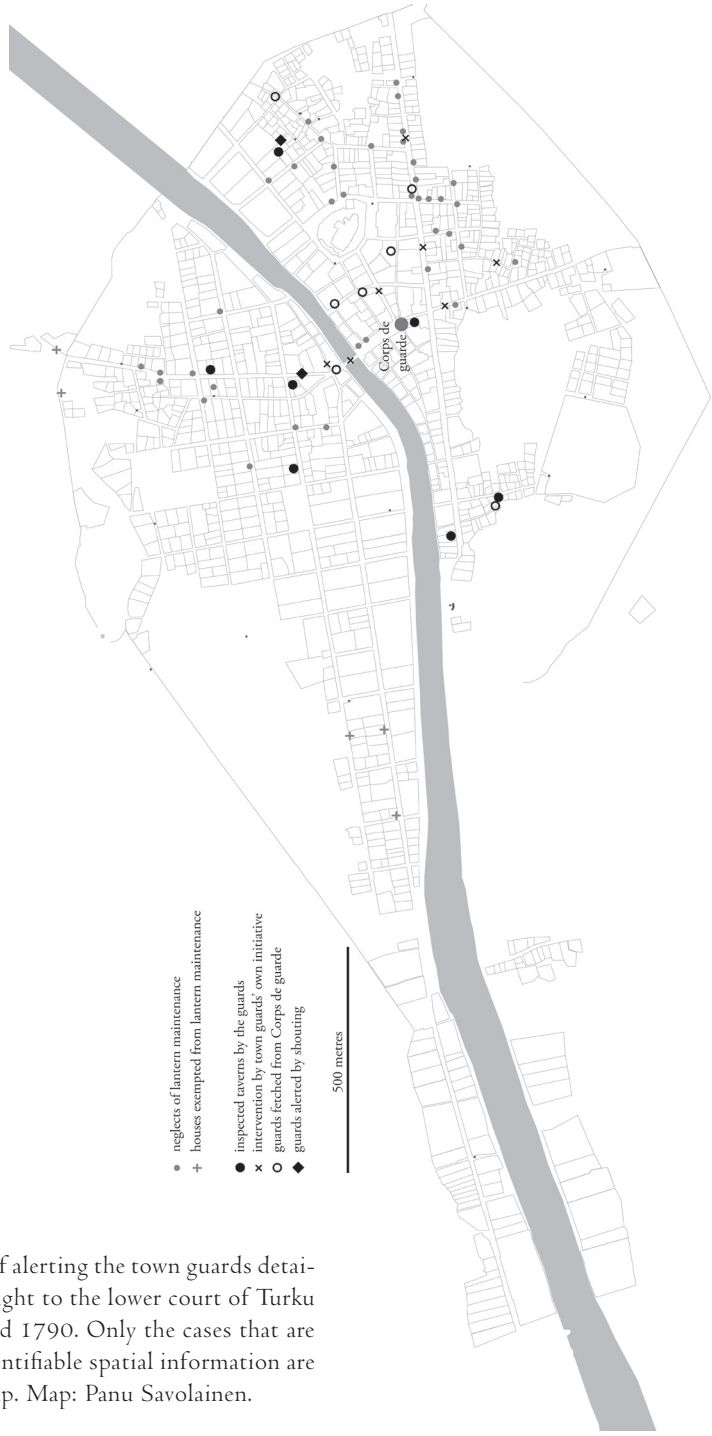


Figure 7. Means of alerting the town guards detailed in crimes brought to the lower court of Turku in 1760, 1775 and 1790. Only the cases that are described with identifiable spatial information are plotted on the map. Map: Panu Savolainen.

the town was destroyed in the most devastating fire in the history of Northern European towns. The oldest districts, about 75 per cent of the urban fabric, were completely destroyed, and all that remained were the outskirts on the southern and eastern sides of the town. Most of the urban population who had lost their homes were sent to the neighbourhoods that had been saved. The population of these districts increased hugely during the months that followed.[62] Among the first orders from the authorities was the installation of street lights in the remaining districts.[63] This reflects the importance of light as an instrument of surveillance, security and control. The dim flames of candles and oil lamps did not produce much light for the urban space; nevertheless, as one of the first interventions for the afflicted town, it was considered important.

As the duty of purchasing and maintenance of the lanterns was a duty of house owners, the installation caused a remarkable change to the character of the nighttime urban space. As the townspeople kept a check on the lanterns attached to their houses, the new practice created at the same time a mutual surveillance of street life among the urban community. A common pattern in relation to other European towns was the unequal distribution of light: the most affluent quarters and streets were illuminated first, and the fringes were left unlit. [64] The public light was an instrument of control and surveillance, but it also had a dimension of social inequality that followed the geographical centrality.

Conclusions

One of the challenges of urban history is to tackle the subject of urban space not only from the angle of the physical and geographical urban fabric, but also from that of the social and symbolic existence of urban space. Urban centrality covers both angles as a result of the interplay between cities as physical spaces on the one hand and as imagined and socially produced spaces on the other hand. Through the lens of historical geography, or geographical history, the concept of centrality becomes a historical subject.

The results of this article are twofold. First, the case of Turku reveals how centrality was put into words in eighteenth-century expressions and how these symbolic dimensions of urban topography can be traced in the spatial distribution of various economic, social and institutional phenomena. Secondly, this attempt clarifies how historical GIS methods can be applied to conceptual analysis and considers opportunities for a cross-reading of geographical data, where divergent historical datasets are used at the same time.

Even though expressions like 'centrality', 'centre or 'periphery' did not exist in the eighteenth-century language, the hierarchies of urban topography were depicted in other kinds of wordings. These reveal how the urban topography was understood in different circumstances and how the idea of centrality (and periphery) was tied to various formulations, such as the 'major' and 'minor' sides of the town, moving 'upward' (away from the centre) or 'downward', or characterisations as 'a veritable street'. These descriptions of the experiential topography reveal a detailed and nuanced picture how eighteenth-century townspeople, most of them completely unfamiliar with maps, understood, navigated and narrated their spatial surroundings.

The modern ubiquity of maps has transformed our perception of urban topography profoundly.[65] However, urban historians often interpret the urban hierarchies from historical cartography where the urban geography is transformed into geometrical forms and often represents the interests of the central power and town planners.[66] Printed town plans emerged in the case of Turku only in the nineteenth century, as was the case in the majority of European medium-sized and small towns. As the vast majority of the townspeople of eighteenth-century Europe were unfamiliar with town plans, the analysis of the descriptions of urban topography renders visible a linguistic and symbolic realm of the urban topography that preceded the cartographic worldview of ordinary townspeople.

The means of GIS offer a more detailed and spatially precise glimpse of the hierarchies and the patterns of eighteenth-century urban topography. The case studies uncover how the urban topography was composed of a (1) central core, the surroundings of the market place and the cathedral, (2) the fringes of the core marked by high concentrations of taverns and (3) the outskirts, lacking taverns, public surveillance by the town guards and finally left without street lights when the lanterns were installed in the streets of Turku in 1805. This pattern that follows a geographical principle of centrality in relation to the distance from the market square is visible in various ways in all the case studies, unveiling the superimpositions and correlations of distinct economic, social and institutional phenomena. The pattern of centrality follows the verbal valuations of e.g. rental announcements, described by the vicinity of the market square and the cathedral in the newspapers. Put together, these examples reveal a centrality that had common factors in the property values, verbal expressions, the social structure of the town, and the distribution of restaurant entrepreneurs. This highlights the importance of the simultaneous understanding of the conceptual and geographical, or qualitative and quantitative, dimensions of the symbolic hierarchies in historical urban geography, recently highlighted in the emerging field of 'spatial humanities'.[67]

The most valuable property, and all the more esteemed social institutions such as coffee houses and restaurants, were located in the urban heart and followed the limits of the medieval urban area, which reveals the durability of the temporal persistence of urban topography, urban fabric and symbolic values. Despite the vast new town planning efforts of the seventeenth century, the historical town core persisted as the heart of the city. Beyond the oldest part of the city, the spatial distribution of taverns interestingly exhibits the clustering of lower-class serving entrepreneurs outside the oldest town area. These smaller clusters reveal how a town could incorporate several smaller superimposed and merged centralities that were functionally divergent. The coexistence of a general pattern of centrality and on the other hand smaller nuances and various qualitative and functional levels of centralities uncovers the complex and constantly changing nature of urban topographies, earlier highlighted e.g. by the case of commercial entrepreneurs of eighteenth-century Paris.[68]

Finally, the article shows what GIS with simultaneous analysis of eighteenth-century textual descriptions of topography can reveal in the field of urban history. The cross-reading of historical datasets and the eighteenth-century wordings of urban topography can shed light on the different understandings and levels of centrality. The mix of approaches and the use of different datasets underline the importance of geographic and symbolic topography in the research of everyday life of early modern towns and for urban history in general.[69]

Historical urban fabrics, even if protected and left (almost) physically unchanged, are constantly being altered by changing symbolic values, representations and imaginaries. In the redesign of Turku after the fire of 1827 the market square was moved to the other side of the river. It completely changed the physical, visual and symbolic topography of the city, and only few fragments of the old town around the old market square were rebuilt, while most of the area was made into a park. The old urban heart was abandoned. From the 1980s, there has been a growing intent to recreate 'the historical centre' of Turku around the old market square. The collective historical consciousness is producing a new, historically motivated centrality around the physical remains of the past.

Notes

1. Urban Administration Protocol 30 May 1777 §1 p. 570, Turku City Archives.
2. Walter Christaller, *Die Zentralen Orte in Süddeutschland. Eine ökonomisch-geographische Untersuchung über die Gesetzmäßigkeit der Verbreitung und Entwicklung der Siedlungen mit städtischen Funktionen* (Jena, 1933).

3. On later developments of Central Place Theory and different aspects of centrality in urban geography, see e.g. Keith Beavon, *Central Place Theory: A Reinterpretation* (London and New York, 1977); Alex Anas, Richard Arnott & Kenneth A. Small, 'Urban Spatial Structure', *Journal of Economic Literature*, 36 (1998), pp. 1426–1464; Rafael Henrique Moraes Pereira, Vanessa Nadalin, Leonardo Monasterio & Pedro Albuquerque, 'Urban Centrality: A Simple Index', *Geographical Analysis*, 45 (2013), pp. 77–89. DOI: https://doi.org/10.1111/gean.12002

4. Richard Shearmur & David Doloreux, 'Central Places or Networks? Paradigms, Metaphors, and Spatial Configurations on Innovation-related Service Use', *Environment and Planning A*, 47 (2015), pp. 1521–1539. DOI: https://doi.org/10.1177/308518x15595770; Michiel van Meeteren & Ate Poorthuis, 'Christaller and 'Big Data': Recalibrating Central Place Theory via the Geoweb', *Urban Geography*, 39 (2018), pp. 122–148. DOI: https://doi.org/10.1080/02723638.2017.1298017

5. Hans-Heinrich Blotevogel, 'Kulturelle Zentralfunktionen – theoretische Konzepte und Beispiele aus Westfalen seit dem 18. Jahrhundert', in Günter Wiegelmann, (hrsg.), *Kulturelle Stadt-Land-Beziehungen in der Neuzeit* (Münster, 1978), pp. 63–114.

6. See e.g. Harold Carter, 'The Development of Urban Centrality in England and Wales', in Dietrich Denecke & Gareth Shaw (eds), *Urban Historical Geography: Recent Progress in Britain and Germany* (Cambridge, 1988), pp. 191–210; Dietrich Denecke, 'Research in German Urban Historical Geography', in Dietrich Denecke & Gareth Shaw (eds), *Urban Historical Geography. Recent Progress in Britain and Germany* (Cambridge, 1988), pp. 24–33.

7. Pierre-Yves Saunier, 'Center and Centrality in the Nineteenth-Century. Some Concepts of Urban Disposition under the Spot of Locality', *Journal of Urban History*, 24 (1998), pp. 435–467. DOI: https://doi.org/10.1177/009614429802400401; Marko Lamberg, *Dannemännen i stadens råd: Rådmanskretsen i nordiska köpstäder under senmedeltiden* (Stockholm, 2001), pp. 139–165; Daniel Malet Calvo, 'The meaning of centrality and margin in Lisbon's Rossio: Spatializing urban processes before and after the 1755 earthquake', *Portuguese Journal of Social Science*, 14 (2015), pp. 123–141. DOI: https://doi.org/10.1386/pjss.14.2.123_1

8. Monnet, Jérôme, 'Les dimensions symboliques de la centralité', *Cahiers de Géographie du Québec*, 44 (2000), pp. 399–418. DOI: https://doi.org/10.7202/022927ar; Reculin, Sophie, 'L'établissement et la diffusion de l'illumination publique à Rennes au XVIII siècle', *Annales de Bretagne et de pays de l'Ouest*, 120 (2013), pp. 89–106. DOI: https://doi.org/10.4000/abpo.2670; Karin Sennefelt, *Politikens hjärta : Medborgarskap, manlighet och plats i fribettidens Stockholm* (Stockholm, 2010), pp. 172–187; Natacha Coquery, *Tenir boutique à Paris au XVIIIe siècle* (Paris, 2011).

9. Historical GIS is a discipline that uses methods of Geographical Information Systems to explore historical sources and datasets, see e.g. Ian N. Gregory & Paul S. Ell, *Historical GIS. Technologies, Methodologies and Scholarship* (Cambridge, 2007); Ian Gregory & Alistair

Geddes (eds), *Towards Spatial Humanities: Historical GIS and Spatial History* (Indianapolis, 2014).

10. Saunier, 'Center and Centrality in the Nineteenth-Century', p. 436; *Oxford English Dictionary*, headword 'city centre'; Svenska akademiens ordbok, headword 'centrum'; *Encyclopédie, ou Dictionnaire raisonnée des Sciences, des arts et des métiers* (tome second, 1751), pp. 822–828.

11. Saunier, 'Center and Centrality in the Nineteenth-Century', p. 436.

12. Gregory & Ell, *Historical GIS*, pp. 11–12; Sam Griffiths & Alexander von Lünen, 'Preface', in Sam Griffiths & Alexander von Lünen (eds), *Spatial Cultures: Towards a New Social Morphology of Cities Past and Present* (London & New York, 2016), pp. xxiii–xxiv. DOI: https://doi.org/10.4324/9781315610269

13. Sven Lilja, 'Small Towns in the Periphery: Population and Economy of Small Towns in Sweden and Finland during the Early Modern Period', in Peter Clark (ed.), *Small Towns in Early Modern Europe* (Paris & Cambridge, 1995), pp. 50–76.

14. Peter Clark (ed.), *Small Towns in Early Modern Europe* (Paris & Cambridge, 1995), p. 1.

15. Oscar Nikula, *Åbo stads historia 1721–1809* (Åbo, 1970).

16. Liisa Seppänen, *Rakentaminen ja kaupunkikuvan muutokset keskiajan Turussa: Erityistarkastelussa Åbo Akademin tontin arkeologinen aineisto.* Academic Dissertation. (Turku, 2012).

17. Riitta Laitinen & Dag Lindström, 'Urban Order and Street Regulation in Seventeenth-Century Sweden', *Journal of Early Modern History*, 12 (2008), pp. 257–287. DOI: https://doi.org/10.1163/157006508x369884

18. Nikula, *Åbo stads historia 1721–1809*, pp. 43–87; Panu Savolainen 'Une ville retardaire? Le début de l'éclairage des rues dans une ville provinciale finlandaise (1805–1827)', *Revue d'histoire urbaine*, 50 (2017), pp. 13–28. DOI: https://doi.org/10.3917/rhu.050.0013

19. Panu Savolainen, *Tirkistelyä förmaakeihin ja ylishuoneisiin: Turkulaista asumista kahden vuosisadan takaa* (Turku, 2014).

20. See e.g. Thomas Hall & Katharina Dunér (red.), *Den svenska staden: Planering och gestaltning – från medeltid till industrialism* (Stockholm, 1997).

21. Saunier, 'Center and Centrality in the Nineteenth-Century'; Malet Calvo, 'The Meaning of Centrality and Margin'.

22. *Götheborgs Allehanda* 72 & 73, 10 June 1808, p. 4; *Finlands Allmänna Tidning* 103, 4 September 1823, p. 4.

23. tidningar.kb.se; digi.kansalliskirjasto.fi/sanomalehti, keywords 'centrum' and 'stadens centrum'

24. Voudintilit, Turun kenraalikuvernementin tulli- ja muita tilejä 7063 (1717–1719), p. 60, p. 65, The National Archives of Finland.

25. Daniel Juslenius, *Aboa vetus et nova* (Aboae 1700), p. 5: '*Aura* amnis mediam intersecat urbem; & dividens eam in *partes orientalem* seu *majorem*, & *occidentalem* seu *minorem*, ad arcem mari miscet.' Translation by the author, the italics are original.

26. Nikula, *Åbo stads historia 1721–1809*, p. 32.

27. In the lower town court or *kämnärsrätten*, in Swedish, were brought all minor crimes and the court functioned also as a premilinary investigator to the higher town hourt (*Rådstufwu rätten*).
28. See e.g. Åbo Kämner Rättens Protocoll 26 August 1760 §1, p. 1286; 6 December 1760 §2, p. 1779; 11 March 1775 §6, p. 173; 16 March 1775 §2, p. 181; 30 March 1775 §4, p. 208 12 October 1775 §4, p. 564. The National Archives of Finland.
29. Emanuel A. Schegloff, 'Notes on a Conversational Practice: Formulating Place', D. Sudnow (ed.), *Studies in Social Interaction* (New York, 1972), pp. 75–119.
30. See e.g. Åbo Kämner Rättens Protocoll 11 March §6, p. 27, 24 March 1760 §2, p. 503; 2 October 1760 §3, p. 1498; 19 February 1790 §5, sine pagina, The National Archives of Finland; Pehr Stenberg, *Pehr Stenbergs levernesbeskrivning: Av honom själv författad på dess lediga stunder.* Del 1. 1758–1784. Utgiven Av Elg, Fredrik; Stenberg, Göran & Wennstedt, Ola. (Umeå, 2014), p. 519.
31. *Åbo Nya Tidningar* 1789, *Åbo Tidningar* 1791–1799, 1801, *Åbo Tidning* 1800–1810.
32. digi.kansalliskirjasto.fi/sanomalehti, headwords 'stor gata' and 'reel gata'.
33. *Svenska akademiens ordbok*, headword 'reel gata'.
34. tidningar.kb.se, keywords 'stor gata' and 'reel gata'.
35. See e.g. *Åbo Tidningar* 29, 15 July 1793, p.4.
36. Kevin Lynch, *The Image of the City* (Boston 1960); Colin Rose, 'Thinking and Using DECIMA: Neighbourhoods and Occupations in Renaissance Florence', in Nicholas Terpstra & Colin Rose (eds), *Mapping Space, Sense, and Movement in Florence: Historical GIS and the Early Modern City* (London & New York, 2016), pp. 19–20. DOI: https://doi.org/10.4324/9781315639314
37. Gregory & Ell, *Historical GIS*, pp. 1–2.
38. See e.g. Warren R. Seyfried, 'The Centrality of Urban Land Values', *Land Economics*, 39 (1963), pp. 275–284. DOI: https://doi.org/10.2307/3144365; Edwin S. Mills, 'The Value of Urban Land', in Harvey S. Perloff (ed.), *The Quality of Urban Environment: Essays on 'New Resources' in an Urban Age* (London & New York, 2015), pp. 231–253. DOI: https://doi.org/10.4324/9781315680484
39. Gregory & Ell, *Historical GIS*, pp. 178–180.
40. Kollegiers m. fl. landshövdingars, hovrätters och konsistoriers skrivelser till Kungl Maj:t 1600–1840, Förmögenhetsuppskattningen 1800–1803, The National Archives of Sweden.
41. Seyfried, 'The Centrality of Urban Land Values'.
4.2 Jean Lestocquoy, *Les Dynasties Bourgeoises d'Arras du XIe au XIVe siècle* (Arras, 1945), p. 122; Bronisław Geremek, *The Margins of Society in Late Medieval Paris* (Cambridge, 1991), pp. 68–77; Lamberg, *Dannemännen i stadens råd*, pp. 151–152.
43. Kirsi Sirén, 'Skatteindrivarna och prästerskapet som folkbokförare, befolkningshistoriska källor i kritisk belysning', *Historisk Tidskrift för Finland*, 83 (1998), pp. 1–16.

44. Beat Kümin & Ann B. Tlusty, *The World of the Tavern: Public Houses in Early Modern Europe* (Farnham, 2002); Beat Kümin, 'Drinking and public space in early modern German lands', *Contemporary Drug Problems*, 32 (2005), pp. 9–27; Susanne Rau & Gerd Schwerloff (eds.), *Zwischen Gotteshaus und Taverne: Öffentliche Räume in Spätmittelalter und Früher Neuzeit* (Köln, 2004).
45. Panu Savolainen, *Teksteistä rakennettu kaupunki: Julkinen ja yksityinen tila turkulaisessa kielenkäytössä ja arkielämässä 1740–1810* (Turku, 2017), p. 174.
46. Rosemary Sweet, *The English Town 1680–1840: Government, Society and Culture* (London & New York, 1999), p. 233.
47. Claes Lundin, 'Källare och kaffehus i Stockholm under senare hälften af 1700-talet', *Samfundet St. Eriks årsbok* 1903, p. 55.
48. Cowan, Brian, *The Social Life of Coffee: The Emergence of the British Coffeehouse* (New Haven & London, 2005), pp. 157–161.
49. Raimo Ranta, *Turun kaupungin historia 1600–1721* (Turku, 1975), pp. 185–192.
50. Nikula, *Åbo stads historia 1721–1809*, pp. 212–214.
51. Åbo Kämner Rättens Protocoll, 27 March 1760 §8, pp. 542–545; 21 June 1760 §7, pp. 932–936; 15 July 1760 §5, pp. 1084–1085; 20 November 1760 §2, pp.1665–1671; 9 December 1760 §1, pp. 1780–1784; 11 March 1775 §3, pp. 170–170v; 15 April 1775 §1, pp. 229v.–230; 18 April 1775 §2, 236v, The National Archives of Finland.
52. Åbo Kämner Rättens Protocoll, 20 January 1775 §1, 30v.–34v; 21 February 1775 §3, pp. 134v.–141, The National Archives of Finland.
53. Catherine Denys, 'La territorialisation policière dans les villes au XVIII[e] siècle', *Revue d'histoire moderne et contemporaine*, 50 (2003), p. 13–26.
54. Swea Rikets Lag 1734, Missgiernings Balk, cap. XXI, §8. See also Emese Bálint, 'Mechanisms of the Hue and Cry in Kolozsvár in the Second Half of the Sixteenth Century', *Journal of Early Modern History*, 12 (2008), pp. 233–255. DOI: https://doi.org/10.1163/157006508x369875; *Samantha Sagui, 'The Hue and Cry in Medieval English Towns', Historical Research, 87 (2014), pp. 179–193. DOI: https://doi.org/10.1111/1468-2281.12030*
55. Garrioch, David, 'Sounds of the City: The Soundscape of Early Modern European Towns', *Urban History,* 30 (2003), pp. 5–25 (p. 5). DOI: https://doi.org/10.1017/s0963926803001019. See also Niall Atkinson, 'Seeing Sound: Mapping the Florentine Soundscape', in Terpstra & Rose (eds) 2016, pp. 149–168.
56. Sweet, *The English Town 1680–1840*, p. 81; Sophie Reculin, *'Le règne de la nuit désormais va finir': L'invention et la diffusion de l'éclairage public dans le royaume de France (1697–1789)* (Lille, 2017).
57. *Åbo Tidningar* 12 February 1806. For the same practices elsewhere, see e. g. Wolfgang Schivelbusch, *The Disenchanted Light – The Industrialization of Light in the Nineteenth Century* (San Francisco, 1988), pp. 81–84; Roger Ekirch, *At Day's Close – Night in Times Past* (New York & London 2006), pp. 31–32, 66–67.

58. Riitta Laitinen, 'Nighttime Street Fighting and the Meaning of Place: A Homicide in a Seventeenth-Century Swedish Provincial Town', *Journal of Urban History*, 33 (2007), pp. 602–619. DOI: https://doi.org/10.1177/0096144207299181
59. Urban Administration Protocol 28 October 1807 pp. 758–763v., 31 October 1807 pp. 767v.–769, 769–770v, 737v.–738, 13 September 1809 pp. 415–416, 20 September 1809 pp. 421–422, 9 October 1809 pp. 459–459v., 5 March 1810 pp. 224–230, 10 March 1810 pp. 236–238, 12 March 1810 pp. 240–244, 6 October 1810 pp. 1025–1032v, Turku City Archives.
60. Urban Administration Protocol 8 April 1807 pp. 242v–245.
61. *Åbo Tidningar*, 1 February 1806.
62. Svante Dahlström, *Åbo Brand* (Åbo, 1929).
63. Urban Administration Protocol 20 October 1827, pp. 1015–1025, Turku City Archives.
64. Savolainen, *Teksteistä rakennettu kaupunki*, pp. 24–26; Wolfgang Schivelbusch, 'The Policing of Street Lighting', *Yale French Studies*, 73 (1987), pp. 62–63. DOI: https://doi.org/10.2307/2930197; Sweet, *The English Town 1680–1840*, pp. 81–83; Reculin, 'L'établissement et la diffusion', pp. 92–95.
65. J. S. Keates, *Understanding Maps* (London & New York, 1996).
66. See e.g. Jeremy Black, 'Government, State and Cartography: Mapping, Power and Politics in Europe 1650–1800', *Cartographica*, 43 (2008), pp. 95–105. DOI: https://doi.org/10.3138/carto.43.2.095
67. Ian Gregory & Alistair Geddes, 'Conclusions: From Historical GIS to Spatial Humanities: Challenges and opportunities', in Gregory & Geddes (eds) 2014, pp. 174–177.
68. Coquery, *Tenir boutique à Paris*, p. 158.
69. Nicholas Terpstra & Colin Rose (eds) 2016, pp. 213–214.

Summary:
The Meaning of Urban Centrality in a Medium-Sized Eighteenth-Century Town

During the last two decades, the spatial culture of urban societies has been explored with Geographical Information Systems (GIS) tools. This article explores the meanings of 'centrality', substantial in the field of urban geography but relatively seldom studied by urban historians, through the simultaneous interpretation of quantitative and qualitative spatial descriptions and datasets from the eighteenth-century Swedish town of Turku (Åbo). The concept of 'city centre' and 'centrality' emerged only at the end of the nineteenth century, and the article strives to understand how eighteenth-century townspeople conceptualised their city and how various quantifi-

able phenomena exhibit the spatial hierarchies, differences and thresholds of the urban topography. The empirical material consists of court minutes, newspapers, academic dissertations, various tax registers and documents of the town administration. The simultaneous examination of linguistic descriptions of the topography, the spatial distribution of property values and restaurant entrepreneurs, and spatial practices of control unveils how the town was spatially structured, experienced and conceptualised. The study reveals the different and changing patterns of geographical centrality and, moreover, raises the recently highlighted importance of spatial culture in the early modern urban experience.

Keywords: HGIS; Centrality; Urban geography; Topography; Toponymy; Spatial culture; Spatial humanities