THESIS ON CIVIL ENGINEERING F61

The Shifting Paradigm of Spatial Planning in Estonia:

The Rise of Neighbourhood Participation and Conservation of Built-up Areas through the Detailed Case Study of Supilinn, a Historic Suburb of Tartu City, Estonia

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Declaration:

Hereby I declare that this doctoral thesis, my original investigation and achievement, submitted for the doctoral degree at Tallinn University of Technology has not been submitted for any academic degree.

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Paradigma muutus Eesti ruumilises planeerimises:

kogukonna aktiivsuse esiletõus ja väljakujunenud linnapiirkonna säilitamine Tartu ajaloolise linnaosa Supilinna näitel

MART HIOB

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KIRJASTUS

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Introduction

Spatial planning is concerned with the ways in which people shape and govern spaces taking into account social, economic, aesthetic and environmental issues (Van Assche *et al.* 2013). In an academic context spatial planning is a discipline of science that deals with ideology, methods and practice for creating and maintaining a sustainable environment, both built and natural. In the current work, spatial planning is used as a comprehensive term for all planning of space at all levels – regional, urban, local planning, land use, green infrastructure, technical infrastructure and social infrastructure planning, zoning *etc*. Planning here is considered a separate discipline, not a subcategory of any other field like architecture, engineering, geography or sociology. Planning includes aspects of many different disciplines both of natural and social sciences, and combines them for the optimal outcome for our surroundings.

Spatial planning is a field of practice that concerns all members of society as we all use our common space for the existence. Therefore, spatial planning has high relevance for society.

In Estonia, public awareness about shaping our physical surroundings is considered low (Koov 2016). Spatial planning has weak scientific and educational traditions in Estonia – there is no specialised curriculum either at the bachelor or master levels, and doctoral degrees in planning are lacking. This work tries to fill the last mentioned gap. Some scientific research teams are dealing with related specialities but no strong competence centre has emerged.

In this doctoral thesis the author maps the current situation in Estonian spatial planning research and practice. The historic neighbourhood Supilinn in Tartu, Estonia, is used as case study to exemplify the planning evolution throughout the last centuries with the emphasis on the last fifty years. Also the characteristics for good living environment are discussed and evaluated. In this work, the terms “neighbourhood”, “district” and “area” are used as synonyms for part of town, which may be identified by geographical limits. As the case study area, Supilinn, has both clear geographical boundaries, and a consciousness and identity of its own, the term “community” is also applied.

This work, hopefully, helps to initiate a much needed discussion, and development enhancement in Estonian spatial planning research and practice.

The thesis is organised in seven sections. The first section notes the six articles that make up the major body of this work along with the author’s contributions to each article. Five of the six articles are in English and have been published in

peer-reviewed international scholarly journals. The sixth article, about detailed planning and physical history of the case study area, is in Estonian with an English summary, and is published in an Estonian peer-reviewed scholarly journal.

The second section is a look at spatial planning history, theory and practice in Europe in general and particularly in the Estonian context. It is critical to understand that spatial planning is still a fledgling profession in Estonia and most planning work is carried out by architects, landscape architects, geographers and other professions not specially trained or educated in spatial planning.

The third section introduces the specifics of this particular thesis and volume of work. It addresses the problem statement, purpose of the study and the research questions. The fourth section details the methods used in this work. The fifth section is an introduction to the case study area which includes both an historic and contemporary assessment of Supilinn, a historic district in Tartu, Estonia.

Finally, the last two sections contain the results of the study. The sixth section holds summaries of the six articles. The conclusions in the seventh section address the significance of the articles and systematically answer the research questions posed in section 3.

1 List of publications

1.1 Publications

1. Hiob, M. (2012). Planeeringuline kujunemine. Supilinn 17.-21. sajandi linnakaartidel ja -plaanidel (Development of Supilinn's Street and Plot Structure – Supilinn on Maps and Plans Between the 17th and 21st Centuries). – *Acta Architecturae Naturalis*, 2, 51-76. [In Estonian]

2. Hess, D. B., Hiob, M. (2014). Preservation by Neglect in Soviet-Era Town Planning in Tartu, Estonia. – *Journal of Planning History*, 13 (1), 24-49.

3. Hiob, M., Nutt, N. (2016). Spatial Planning in Estonia – From a Socialist to Inclusive Perspective. – *Transylvanian Review of Administrative Sciences*, 47 E/2016, 63-79.

4. Hiob, M., Nutt, N., Nurme, S., De Luca, F. (2012). Risen from the Dead. From Slumming to Gentrification. – *Transylvanian Review of Administrative Sciences*, 36 E/2012, 92-105.

5. Nutt, N., Hiob, M., Nurme, S., Salmistu, S. (2013). Gentrification in a Post-Socialist Town: The Case of the Supilinn District, Tartu, Estonia. – *Transylvanian Review of Administrative Sciences*, Special Issue, 109-123.

6. Nutt, N., Hiob, M., Kotval, Z. (2016). Supilinn, Tartu – The Lively Vernacular against Urban Renewal: A Lefebvrean Critique. – *Space and Culture*, 1–13.

1.2 Author's contribution to the publications

Publication 1, Mart Hiob. The author of this thesis is the sole author, responsible for the research concept, for composing the study design and data collection, drawing the conclusions and writing the manuscript.

Publication 2, Daniel Baldwin Hess and Mart Hiob. Hiob presented and developed the idea, worked out the initial methodology and was fully responsible for the data collection, partly responsible for the conclusions.

Publication 3, Mart Hiob and Nele Nutt. Hiob was the corresponding author of the article, helped to develop the idea, worked with the methodology formation and was one of the two data collectors (with Nutt) and partly responsible for the conclusions as well as mainly responsible for the English version and the final elaboration of the text.

Publication 4, Mart Hiob, Nele Nutt, Sulev Nurme, Francesco de Luca. Hiob was the corresponding author of the article, helped to develop the idea, worked with the methodology formation and was one of the two data collectors (with Nutt), and partially responsible for the conclusions. The author was responsible for the English version and the final elaboration of text.

Publication 5, Nele Nutt, Mart Hiob, Sulev Nurme, Sirle Salmistu. Hiob with Nutt were responsible for the study design the development of methodology formation, and data collection. The author was solely responsible for the literature review and partially responsible for phrasing the conclusions as well as mainly responsible for the English version and the final elaboration of text.

Publication 6, Nele Nutt, Mart Hiob, Zenia Kotval. Hiob was partly responsible for the literature review and methodology formation, was one of the two data collectors (with Nutt), and partially responsible for drawing the conclusions. Hiob was responsible for the English version and the final elaboration of text.

2 Planning theory and practice

2.1 History of spatial planning

Spatial planning dates back to the rise of urban settlement more than 8000 years ago (Mumford 1961). First attempts of modern planning date back to the beginning of the 19th century, but systematic theories and practice were developed towards the end of the 19th century and the beginning of the 20th century. In the last hundred years, spatial planning theory and practice have undergone great changes. Roughly speaking, at the beginning of the 20th century, planning was considered primarily an esthetical, and secondly a social challenge, in the middle of the century, planning problems were approached by quantitative methods claiming objectivity, and at the end of the century planning as a political and public issue spread throughout Western countries. The same trends apply largely for Estonia (see Fig. 1), with some delays because of the Soviet occupation and peripheral geographical position. Today, public involvement in planning procedures is considered undisputable in Europe and grounded in the European regional/spatial planning charter from 1983 (Torremolinos Charter).

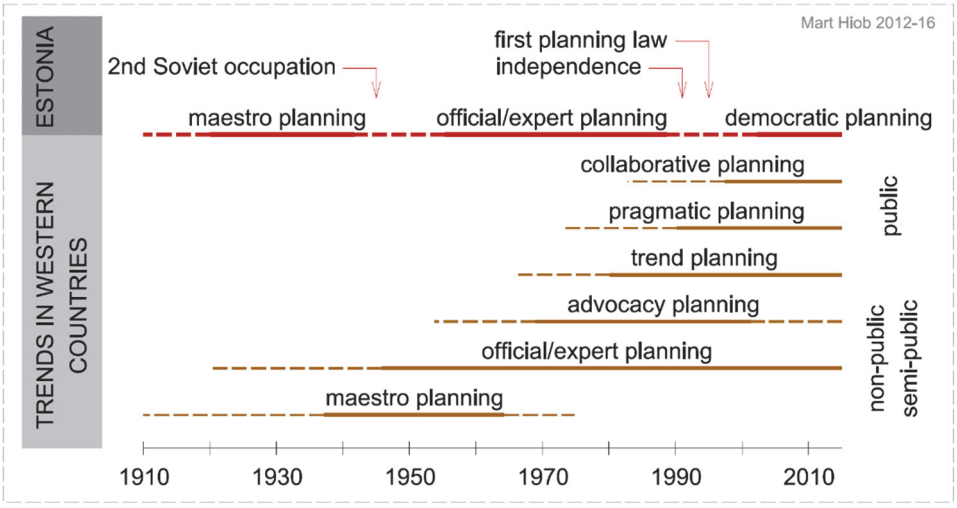

Figure 1. Spatial planning trends in Western countries compared to simultaneous trends in Estonia. Mart Hiob 2012-16.

Urban planning movement in the 19th century was trigged by unhealthy conditions for residents in towns and especially for working class people. Planning of adequate infrastructure was considered the major solution to the

problem (Selberg 1993). Another aspect in the 19th century planning as well as in the early 20th century was aesthetically pleasing network of streets, squares, facades and major public buildings. The most prominent planning examples in Europe included Ildefons Cerda's plan for Barcelona in 1855-63 and Georges-Eugène Haussmann's plan for Paris in 1851-58.

Another direction in planning emphasised the importance of starting up new urban settlements instead of reconstructing the existing ones. The proposal of garden city concept put forward by Ebenezer Howard in 1898 has proved especially popular for garden suburbia (Fishman 1982). Other theorists proposed strict separation of functions that would create conflicts when mixed. Famous Swiss-French architect Le Corbusier proposed a separation in four types of uses – residential, manufacturing, leisure and transport (Le Corbusier 1973). The traditional streets with fixed building lines were to be replaced by high-rises in greenery connected by wide motorised traffic arteries (Fishman 1982). These were the main characteristics for modernist urban planning ideology dominant after World War II in Western countries up to the 1960s and 1970s. In Eastern Europe the modernist model was applied until the collapse of the Soviet Union at the end of the 1980s. In many developing countries and in non-democratic societies modernist planning is popular to this day.

In times of severe social crises, the aims to provide basic facilities like paved streets, potable water, sewerage and electrical power, the modernist solutions proved efficient. The quality of life focused also on health care, education and day care facilities, recreation areas, and social housing. In the spirit of positivist thinking scientific methods for assessing social trends and policies were developed by a set of quantitative indicators (Aschauer 1990).

Before and after World War II spatial planning was largely considered as a challenge in physical planning and urban design to produce detailed master plans for town building. Economic, social and political aspects in urban development were not thought to be a matter for planners who were predominately architects. (Taylor 1998)

From the 1950s up to nowadays many different approaches were developed theoretically and put into practice. In the early 1970s, theorists distinguished between procedural planning theory (theory-of-planning) that dealt with planning process, and substantive planning theory (theory-in-planning) that dealt with the growth and development of cities (Stiftel 2000). The criticism of modernist ideology relying on rational tools lead to a multitude of proposals with different proportion of positivist and comprehensive aspects. Here are eight of

them characterised – rational-comprehensive, incremental, transactive, communicative, advocacy, equity or just, radical, and humanist or phenomenological approach (Whittemore 2015).

Rational-comprehensive planning model, used also in modernism, was based on the expert planner who would both define the problem, identify alternatives and means, and find the solution to meet the desired ends (Banfield 1955, 1959). Planning was considered a non-political, technical or scientific matter that would solve spatial problems in both comprehensive and detailed ways (Faludi 1973, Stiftel 2000). Unfortunately, the rational model was both simple and unachievable as planning problems had no undisputable optimal solutions (Rittel & Webber 1973). A more sophisticated extension to the synoptic theory of planning includes systems approach that recognises the interactivity and interdependency of planning actions to the extent that is beyond our capacity to compute. Taking incremental, minor steps (Lindblom 1959) and hierarchical mixed scanning were suggested as alternative methods (Etzioni 1967, 1986) where the proposed solution was to split up into smaller steps which allowed for the evaluation of the intermediate results during the process. Incrementalism suggested simultaneous selection of aims and policies, and trying out the policies in practice instead of following theoretical principles (Stiftel 2000).

During the democratisation of the 1960s in the Western countries top-down planning practices were also heavily criticised. Best known was the book by Jane Jacobs about unfair and unproductive urban renewal in US cities (Jacobs 1961). In 1969, Sherry Arnstein introduced the ladder of citizen participation to discuss the levels of public involvement from manipulation to citizen control (Arnstein 1969). In the 1980s, this was further developed to include wider societal circumstances (Connor 1998). Arnstein encouraged genuine participation by the transfer of power, including financial means, to local neighbourhood representatives, but also identified the vulnerabilities of full citizen control. Advocacy theory of planning promoted that planners should use their knowledge and power to advance the cause of their client – to shift the focus of planning from management of development to action for greater equity (Davidoff 1965). In addition to poor neighbourhoods in the USA, advocate planners became common in the service of environmental groups, trade associations, and even corporations (Stiftel 2000). In Western Europe, social democratic governments promoted the public sector and private companies did not have as much influence as they did in North America (Levy 2000). Also cultural differences, combined with greater population density, such as preferences for housing, urban traditions and community bonds played a substantial role from country to

country. European planners did not have to face as severe challenges of inequity, slumming and urban sprawl as in the USA (Levy 2000).

Radical planning theory from 1973 and redevelopments in 1981 and 1987 argued that progressive planners should use systems of rationality similar to instrumental rationality, though for radical equity purposes like promoting public ownership of land and job generating industries, worker-managed enterprises, tax reform, community organisations, and leveraging of public resources through partnerships with private enterprises (Stiftel 2000).

In the late 1970s and the early 1980s, a humanist or phenomenological theory of planning stressed the unique ways of how people learn and interchange knowledge given the diversity of human experiences and perspectives. Planners' professional knowledge cannot be transferred from context to context as universal justification for intervention without appropriate adaption (Whittemore 2014).

Another approach, transactive planning was described in the 1970s by John Friedmann (Friedmann 1987), who promoted the cooperation of professional planners and local residents and businessmen by using relevant knowledge from both parties (Whittemore 2015). Planners know the broader context and they are able to predict results of different actions while locals may describe their concerns and pronounce their preferences. In the 1980s John Forester elaborated, with the help of Habermas' theories, the idea of the communicative planner who practises open and impartial communication which should thereby lead to democratic decision making in a complicated situation of competing ideological and economic ideas and institutions (Forester 1988). Contemporary collaborative method developed by Patsy Healey, discussed later, is based on the communicative theories that are used in consensus building. Starting from the 1990s, a movement of New Urbanism (Calthorpe 1993, Duany & Plater-Zyberk 1992) has become popular in North America. The approach is oriented towards physical design efforts on the declared purpose to enhance civic life and social capital (Stiftel 2000). The ideology, in the USA implemented legally in municipalities as form-based code (Sitkowski & Ohm 2006), has elements of post-war physical planning as regards the belief in urban design determining the social conditions in built-up areas (Taylor 1998). The design oriented approach has supporters also in Europe but their influence is often marginal (Thiis-Evensen 2015b) even though the promotion of compact city and the quality of public areas popular among contemporary urban designers are similar.

In the 1970s, there was a renewed pressure in the USA from the practitioners' side for the rational-comprehensive approach when many large-scale programmes to end decline in urban centres had failed. They argued that more expertise is needed, and bottom-up planning would not be able to solve urban challenges (Whittemore 2015).

In the last half of the century central framework conditions for spatial planning in Western countries have undergone great transformations which have stimulated collaborative planning approaches. For starters, it was recognised that planning was as much about management and preservation as it was about development and change. In the front row of preservation was the environment protection movement as well as the cultural heritage activists. The sustainability movement, which grew to international proportions since the 1987 Brundtland Commission report, appeared to focus on resource renewability and preservation, with as much concern for the relationship of rich vs. poor (Stiftel 2000). In many Western countries economic growth as well as population and wealth levelled off. Planners had to deal with stagnation or often shrinkage (Haase 2015). This lead to the need to manage and protect existing built-up areas in more effective ways with greater help and involvement of local residents.

During the last half of the century, the methodology in planning has changed. Qualitative criteria are used to measure the success of planning efforts as often as the quantitative ones. For instance, in residential building activities, the appearance of the building, local surroundings, floorplan, public transport access *etc*. count as much as the amount of usable floor area. The shift has taken place as a result of improved living standards where satisfying quantity of space is taken for granted for the average household and the quality of space becomes more important. Nevertheless, in times of great market pressure, where new residential space is highly needed, the politically declared aims of quality are not always accomplished in practice (Sigurjonsdottir 2015, Thiis-Evensen 2015a).

In traffic planning the change from car oriented planning when the number vehicles passing through a given point was the measure for efficiency, the capacity measurement has shifted to the number of people or freight as basic units (Boitor *et al.* 2013). Instead of transport the researchers talk about mobility which includes pedestrians and cyclists previously overlooked in design standards. The change gains continuous popularity as new city plans prefer creating suitable spaces for shared use which downgrades areas for motorised vehicles (e.g. Reykjavik Municipal Plan 2010-2030).

2.2 Spatial planning history in Estonia

First documented planning efforts in Estonia date back to the early enlightenment period during the Swedish reign in the 17th century. In the military archives of Sweden there are city plans on several Estonian towns with planned construction or reconstruction of street networks. The oldest one is the plan of Tartu from 1638 (author Joh. v. Rodenburgh), followed by Narva in 1645 (G. v. Schwengeln) and Pärnu in 1681 (P. v. Essen) (Raid 2013). These plans were not significantly implemented during the Swedish reign, but elements of the plans were carried out later in the Czarist regime. In the 18th century, two new towns, to perform as regional centres, were planned and built in Estonia – Paldiski (building of sea fort started in 1718, city rights in 1783) and Võru (started in 1784). The early plans depicted street network, building lines and major public edifices.

In the course of the industrial revolution, the abolition of serfdom and the domination of monetary economy in the 19th century, towns multiplied both in population and area. New residential and industrial districts were planned and built. The case study area of this thesis, Supilinn neighbourhood in Tartu, is an example of such development with its main street network and housing layout as we know it today. The planning document of Supilinn was compiled around 1810 and approved in 1816 (Hiob 2012). The second half of the 19th century and first decades of the 20th century saw intensive building activities around newly constructed railway stations both in existing towns and as new settlements.

Planning and building activities in Estonia were regulated by local building regulations – in Tartu city first in 1776, then in 1882 (Teedema 2010), and again in 1895 and 1901 (Kinnitati Tartu… 1945). During the interwar independence the first building regulations in Tartu was compiled in 1930 (Üldine ehitusmäärus 1930) and building act of Estonian Republic was adopted in 1939. Due to Soviet, German and the second Soviet occupation, the law had marginal consequences on actual planning and building.

Before the Soviet occupation the first and only planning effort covering the whole existing city and its surroundings was carried out in 1913 as the general plan competition for Greater Tallinn, which was won by Finnish architect Eliel Saarinen (Hallas-Murula 2014). With the start of World War I and fundamental societal changes after the war the proposed plan was never implemented. During the Estonian Republic's period several new urban districts were planned and built (e.g. Tammelinn and Tähtvere in Tartu, Lillep-Varsaallika and Merivälja in Tallinn) along with smaller complexes (e.g. Oma Kolde terraced houses in

Tallinn). In Tallinn, project designs of spatial influence of central squares and main arteries were created under the rule of Republic's president Konstantin Päts (Lass 2008, Hallas-Murula 2015). The newly established geographical department of University of Tartu led first by Johannes Gabriel Granö, later by Edgar Kant carried through the spatial analyses of different regions – Tartu city, different counties and the country as a whole (Kurs 2002). Nevertheless, these works seldom developed from analysis to planning.

During the Soviet occupation planning was guided by central methodological instructions and directives which were in the 1960s presented as a uniform building and planning code (*SNiP* – in Russian *building regulations and principles*, still in official use in the Russian Federation), not by any regulating law in the field (Vanagas *et al.* 2002, Lass 2008). Planning decisions as part of the command type of government satisfied political aims of the Communist Party which tried to control the state and all facets of the society (Vanagas *et al.* 2002). Since all land was owned by the state, and planning was held secret, there was no need for special public procedure – planning was considered a rational work of specialists ordered by the ministry of construction, carried out in large design corporations, and consulted to a variable extent by local officials (Hess & Hiob 2014). Planning concerned urban areas and areas to be developed but limited work was carried out at the regional (county or "*rajoon*" in Estonian) level (Lass 2008).

The aims declared by the Communist Party were often unrealistic, especially during the Stalinist regime, and did not fit into the existing social fabric of the city (Hess & Hiob 2014). The modernist approach launched in the late 1950s and dominating till the end of the Soviet era regarded both historical structure of perimetrical city blocks and housing of previous periods as outdated and obsolete. The priority was given to the street network consisting of broad lanes for automobile transport. The revolutionary ideas of Corbusian modernism borrowed from Western ideologists favoured constructing of large blockhouse areas without street facades and complete redevelopment of historical neighbourhoods (Ojari 2004, Hess & Hiob 2014).

The inefficiency of the Soviet model and permanent shortage of living space limited the redevelopment occasions as historical neighbourhoods were in permanent use – there was no space for (temporary) relocation for the redevelopment period. Since the districts of pre-WW II origin were regarded as outdated, only minimal investments were made. This resulted in amazingly authentic preservation of both Czarist and the Estonian Republic period urban fabric. A good example of preservation of ancient environment is the abundance

of cobbled streets well into the 1980s (e.g. look at the photos of Tartu at the beginning of the 1980s).

A prominent exemption from planned demolition were the oldest parts of the cities – old centres of ten Estonian towns Tallinn, Tartu, Haapsalu, Kuressaare, Lihula, Paide, Pärnu, Rakvere, Viljandi and Võru. These areas were widely researched and restored following the dominant ideology of historical reconstruction (Orro 2015, Hansar 2010).

After the reestablishment of Estonian independence in 1991, the restitution of plots in historical neighbourhoods made it complicated to carry out plans of redevelopment. These plans were also criticised for lack of respect for cultural heritage. Nevertheless, the experts shaped during the domination of modernist design and engineering principles did not reconsider their negative attitudes towards pre-modernist housing layout, and advocated for limited preservation (e.g. Talvistu 1998).

The post-Soviet society of the 1990s experiences a general disdain for planning that the Western countries had experienced in the previous decade in a wave of postmodernism and neo-conservatism. Both in the West and in Eastern Europe it was especially relevant for strategic, more general planning which was often replaced by single urban and regional projects (Albrechts 2004). Still, spatial planning in Estonia was soon legally revived following the Germanic model that was regarded as the ideal to aspire towards. The planning focus in Estonia was on land-use planning not as much formations of strategic principles. This pattern was inherited partially from Soviet times when large districts were dealt with in great detail to fulfil the Soviet ideal of scientific and fully socially controlled communities (Ojari 2004).

The first planning and building act adopted in the Estonian Republic was in force from 1995 till 2002, the first separate planning act from 2003 till 2015 and the second planning act came into force in 1st July 2015. In Estonia, there is a four levels planning hierarchy – different plans for the whole state, every county, every municipality and urban quarters or plots where construction is considered. The land-use planning takes place at all levels except the state level. A well-known Belgian theorist Louis Albrechts has argued that strategic planning that does consist of guidelines rather than clearly defined land-use boundaries would be the appropriate tool on dealing with the challenges of dynamic contemporary society (Albrects 2004). The weakness of strategic approach is the implementation – when the guidelines are vague, decision makers are tempted to support solutions that seem economically profitable. Another problem could

be the conflict between two separate but equally valued aims like good services and lively town centres versus residential use of higher storeys of the same buildings – noise from the active use of streets may disturb the residents, especially at night-time. In consequence, the central role in Estonian regional and municipal planning is played by land-use regulations.

In Europe, strategic planning for cities and regions gained popularity at the end of the millennium (Albrechts 2004) but it does not reflect significantly in Estonian planning act of 2003. The last act of 2015 defined the planning principles (like democratic procedure) and strategic aims (like sustainable development), while the widened opportunity to avoid time-consuming detailed planning procedure implied greater details in general municipal plans drifting them further from the strategic doctrine of Albrechts.

Current research reveals that in last decades planning practice in Estonia has developed from a normative, positivist way of thinking to a social and collaborative approach. The tendency could be slowed down by some requisites in the new planning act which reduced the requirements for public involvement for the purpose of approving the efficiency of planning procedures. As public participation has not yet become an integral part of spatial planning in Estonia the weakened legal requirements could be abused by some officials in municipalities.

Of the societal transformations discussed at the end of the previous chapter the shrinkage challenge has currently become a much discussed topic in Estonia in light of both rapid population decline in outlying districts and the diminishing overall number of inhabitants (Hiob *et al.* 2015). During the last severe recession in 2008-10 people accepted living space of various quality in fear of losing the opportunity to purchase a personal dwelling in the unsustainable price rally of the real estate boom. The turn from the preference of quantity to quality first occurred only in recent years. In traffic planning a setback for the preference of pedestrians and cyclists came in 2016 with new street design standard that enlarged the obligatory parking space for motorised vehicles while in other clauses pedestrians and cyclists are given priority (Linnatänavad 2016). The standard was renewed mainly by old-school transport engineers without extensive involvement of planning activists and the representative organisations of planning experts.

Since many specialists in Estonia have modernist education from design oriented institutions, the longing for simple, physical solutions in complicated world of multiple rationalities sill occurs. The fear and sometimes disdain for public

opinion displayed during the Soviet occupation has partially survived. It cannot be blamed exclusively on Soviet legacy, as the recognition of sociality as the driving force for the advancement of culture as a whole has also not been accepted in some well-educated circles in older European democracies (Healey 2012).

2.3 Spatial planning theory today

Spatial planning has been an integrated part of overall social processes like democratisation, globalisation, environmentalism *etc*. Different challenges – trends, problems or needs – were over time reflected in competing theories that were at the same time related to each other (Sager 1995). Since planning of space involves many disciplines from economics and sociology, to architecture and fine arts, the approaches and opinions are widely diverse. It is not easy, and even reasonable, to define isolated planning theory since planning is carried out, in addition to specialised planners, by architects, real estate developers, engineers, politicians, and any active society member. All of their actions should be covered by the complex but not necessarily uniform theory that is oriented towards solving planning practice problems (Fainstein & Campbell 2012). Some examples of planning discourses include analytical, communicative, juridical, eco-cultural, historic-cultural, environmentalist, architectural, engineering-technical, economic, project-technical *etc*. (Kalle 2015). This shows the amplitude of topics to be addressed in theoretical research.

In general, planning theorists with background from architecture and engineering tend to stress a normative approach, and describe what the result of planning process should be – a built-up area (Harrison 2014). On the other hand, scientists with sociology background are primarily concerned with the process of how we end up with planning results. Good planning theory should describe both what is planning, the object of planning, and how to plan, the method of planning (Fainstein & Campbell 2012).

To further complicate matters, planning is not a final product but rather a tool to achieve preferred spatial results for overall common good, in both physical and social aspects, that could be identified as public interest (see Fig. 2). It is not surprising that with so many stakeholders with their opinions and interests the public interest is not a uniformly identified entity, but an object for constant discussions and alterations. It is a necessity to have flexibility in finished plans as circumstances change and planning document should not obstruct good

solutions. On the other hand, plot owners tend to seize any opportunity to profit at the expense of public interest when the completed plan is too vague. A combination of the lack of expertise in local governments, and the weak public consciousness, developers often succeed in interpreting planning documents in their favour. The theory is not capable of giving final answers for similar dilemmas, and planning practice will always need an experienced planner qualified to solve problems on a case by case basis.

Figure 2. Stakeholders in planning for public interest. Mart Hiob 2016.

One final difficulty for planning theorists is the lack of common methodology often necessary for consolidating a specific discipline (Fainstein & Campbell 2012). Planning methods depend on the problem identified, thus borrowing from a wide range of methodologies. Planners are connected to each other with their common interest in dealing with space at different levels of detail, not by shared tools. This complicates planning discussions between theorists with diverse educational background like architects and sociologists or geographers.

Despite of the difficulties, planning theory is necessary. The purpose of theory is to help to improve practice and make better planning decisions (Fainstein & Campbell 2012). Planning theory and practice are closely interdependent. Spatial planning itself has extensive and long-lasting influence on many people which stresses the importance of the best possible knowledge for decision-making. The

challenges in contemporary society, where spatial planning could be part of the solution, are plentiful – environmental damage, social inequity, loss of heritage to name a few. The theory would outline both principles for planning process, and criteria to evaluate intended outcomes and actually achieved results. The planning challenges to be addressed are often presented by societal changes. Nevertheless, planning theorists are also able to predict coming difficulties and propose clarifications how to deal with them. It is easier in cases of available similar examples where comparable circumstances and indicators are observed, e.g. multiple cases of gentrification. Yet, there are always individual characteristics as stated earlier. In the continuously transforming society new challenges not previously encountered are constantly emerging, and demand a creative response from the theorists. One of such challenges nowadays could be the impact of new personal electronic devices, and potential hidden benefits for their users and everybody else using the public realm (Silva 2016).

In the multitude of theoretical approaches there are keywords that play a central role. In general, the most popular theories in Western literature are the collaborative planning approach as the theory for the method of planning, and the socially active space providing equal opportunities as the theory for the object of planning.

One of the prominent proponents of the first approach is Patsy Healey from England. In short, the aim of planning is described as process of collaboration where involved stakeholders cooperate for the balanced solution that brings most happiness to the greatest number of people (Healey 1997). In an idealistic situation, all participants have equal opportunities to promote their favourite solution and the legal rights of all parties are acknowledged. The basic idea recognises that identity and human knowledge are primarily obtained in social interaction (Healey 2012).

The collaborative approach has been criticised for being unrealistic. Especially Jürgen Habermas' concept of communicative rationality, which is a basic part in collaborative planning theory, has been claimed to be hard to put into practice. Moreover, in the disguise of collaboration, the resourceful counterparts deploy their power and accomplish their tasks at the expense of the weaker members of the society (Harris 2002). In defence, supporters of collaborative planning refer to consensus building as a process with a number of prerequisites to be fulfilled for the effort to succeed (Innes 2004). Otherwise, the outcomes are expected to fail as could be the case in everyday planning.

Other critics are not content with the reduction of physical reality to a topic of discussion. They criticise "/…/ anti-realist ontology, which has largely replaced a focus on epistemology (ways to produce knowledge about the world) with a concern for hermeneutics (ways of constructing and interpreting meaning), and that planning theory will struggle to engage meaningfully with the urban condition unless there is an ontological shift" (Harrison 2014, p 66). The critics could be justified when regarding endless planning debates that do not lead to any solution for urgent issues. Still, the proposed alternative is not positivist rationality, but a changeable reality, "speculative realism" (Harrison 2014).

When concerning the characteristics of the object of planning or the desired space one of the most prominent authors is Jan Gehl from Denmark. He has, since the 1970s, promoted dimensioning of our surroundings according to the apparatus of human physiology, to achieve building proportions fit for human scale, spaces arranged for use by pedestrians and cyclists. The ideology, which has the roots back into the 19th century thinkers like Camillo Sitte in Austria, is anti-modernist and glorifies the functional and compact structure of pre-car-dominated street and road network. At the same time the ideologists reject the reconstruction of the past (Martindale 2014). The ideal is to improve the liveability of urban settlements by encouraging social interaction with spatial instruments. The idea stresses that dense human settlements are primary for communication and interaction. For a good city environment one needs to take care of meeting places that make people feel good (Gehl 2001, 2012). Gehl has worked for his ideas for more than 40 years and the success of his native city of Copenhagen has encouraged planners to adopt his method worldwide.

The critics of the concept of liveability, as presented by Gehl, are worried that heavy restrictions on motorised vehicle use may lead to traffic jams and loss of costumers using the car. This in turn makes it unpopular and hard to implement. It has been emphasised that the designs for liveability could be too strict which leaves no space for continuous development needed for sustainable living environment (McNeill 2011). Upgrading areas often leads to gentrification processes and the displacement of people who cannot afford to live in "new" high value neighbourhood. It has also been claimed that proposed and constructed public areas are often laid out on private plots and have to follow the restrictions posed by the owner which hinders real public use, and makes the areas quasi-public (Wainright 2014). The modernist criticism would concentrate on the lack of great urban ideas, and landmark objects with high artistic value. Without symbolic buildings it would be hard to brand the area, but branding has

been a popular tool to gain greater fame and tourist incomes among larger and smaller urban agglomerations (Greenberg 2000).

Popular movement of New Urbanism in the North America has similar components of liveability and compact city ideology but relies largely on design (form-based code) as a leading tool. It has been criticised for inauthentic construction of wishful environments which work as facades and are not in common use. The source of the ideology is the widespread ugliness of car-oriented American cityscapes (Ellis 2002). In Europe, the idea of New Urbanism has not prevailed in similar form of design instructions.

Among theorists, there is continuous focus on justice and equity in city life. This reflects an emphasis on both just process where all participants are treated equally and the urban space delivering fair opportunities for all members of society (Fainstein & Campbell 2012).

Specialised planning education should include all components of planning theory, both widespread and less popular, in a balanced combination. This gives a broader view on planning issues and helps to understand the society in its versatility.

2.4 Estonian contribution to spatial planning theory

In Estonia, planning theory development has been limited. Estonian planning has been heavily influenced by Western examples. Since the start of military planning during the Swedish rule in the 17th century, the ideas of formation of surroundings flowed in from German speaking Europe and Scandinavia. During the rule of Czarist Empire, much of the ideology arrived through a filter of central government in St. Petersburg but the origin was still in Europe, especially Italy.

The international planning competition of Tallinn and the surroundings (so-called Greater Tallinn) in 1913, the most prominent planning attempt before World War I, was won by Finnish architect Eliel Saarinen using contemporary international ideas of ordered urban space with regular street and square network (Hallas-Murula 2014).

During the Estonian Republic period 1918-40 planning ideas were borrowed again directly from Western Europe. Planning consisted of layout of street network, and physical design of the built environment. Still, new ideas to expand the scope of spatial planning were put forward in the inter-war period. One of the most important achievements of urban geography and spatial planning

theory in Estonia was geographer Edgar Kant's studies about Tartu and Estonia in the 1920s and 1930s (Kurs 2002). Almost simultaneously with well-known German economic geographer Walter Christaller, who studied South-German city network in 1933 and established central place theory in 1933 (Sonis 2005), Kant defended his doctoral thesis with similar ideas in 1934. In 1935, Kant published the work "Bevölkerung und Lebensraum Estlands" (in German *Population and living space in Estonia*) which built on his thesis. In the study there was systematically given the hierarchy of Estonian towns and settlements. The work was used as a textbook in German speaking Western Europe after WWII but was forbidden in Estonia during Soviet occupation (Kurs 2002).

On town and neighbourhood level, there were attempts to give international ideas national characteristics. Still, the German model was clearly visible in e.g. the reformation of central streets in Tallinn in the second part of the 1930s (Hallas-Murula 2015). Similarly, new neighbourhoods in Tartu, Tammelinn (approved in 1923) and Tähtvere (approved in 1929), were based on international garden city ideas adopted for Estonian context.

With the demise of Estonian Republic, the autonomous development of spatial planning theory was essentially interrupted. Many active planners and theorists, among others Kant, fled to Western Europe and the Americas. The Soviet system was centrally guided from Moscow and individual creative thinking was limited. After the death of Stalin in 1953, the Soviet guidelines for urban and spatial development (*SNiP*, discussed earlier) largely made use of Western ideas like separation of functions, preferential development of infrastructure for motorised vehicles, use of neighbourhood units *etc*. (Ojari 2004).

Also, after regaining the independence, the primary theory of planning came from Western Europe, especially Scandinavian countries and Germany. New guidelines have been produced for the implementation of planning principles both on municipal level and on more detailed city block and plot level. The guidelines have focused on specific Estonian planning challenging in local legal context, and their international application is severely restrained.

Spatial planning has never been a separate field of study in Estonian academic institutions – it has largely been a sub-discipline of architecture. In the 1990s architects experimented with new approaches which were confined to urban design segment of spatial planning (Kalm 2001). In current situation, spatial planning research is done in several institutions, Tallinn University of Technology, University of Tartu, Estonian Academy of Arts, Estonian University of Life Sciences and Tallinn University. Nevertheless, the research is limited as there is

no specific spatial planning curricula even though there was a common effort to create one in 2010-2013. The scientific production is hampered due to the lack of specialised research teams and limited resources.

The architects' curriculum in the Estonian Academy of Arts is called Architecture and Urban Design referring to the historical connections with urban planning. The works of architects concentrate traditionally on the design problems of specific areas which are influenced by both esthetical considerations, functionality, and wellbeing of the users.

At University of Tartu there is a chair of Human Geography and Regional Planning and the Centre for Migration and Urban Studies where research is concentrated on larger scale spatial processes and urbanism but spatial planning has not been as prominent. This seems to be partially changing – articles on planning have been published (e.g. Nuga et al. 2015). The department was among the initiators of the international conferences of post-Soviet studies in 2005 called CAT-ference (CAT – cities after transition). The best publicly known projects are undertaken by the Mobility Lab in the department of geography that deal with the positioning of mobile phone users and thereby analysing their movement patterns to help to understand people's real needs for mobility. In 2015, the first Estonian planning conference was organised by University of Tartu in the cooperation with the Estonian Association of Spatial Planners and other universities and professional unions. This brought together all major actors in Estonian spatial planning, both theorists and practitioners. The date for a new conference in 2016 is set.

At Tallinn University there is a curriculum of Urban Governance which has features of planning, urbanism and urban management (Viljasaar 2015). The studies are based on urban geography. In Estonian University of Life Sciences there has been landscape architecture studies under various names since 1995. Landscape architecture studies include main aspects of urban and regional planning but the scholarly research in the form of refereed publications on planning topics has not been widespread.

At Tallinn University of Technology there are programmes in landscape architecture and architecture, which partially deal with spatial planning. In TUT Tartu College there is the chair of landscape architecture and the curriculum of spatial planning has been approved with a projected start in autumn 2017.

2.5 Spatial planning practice in Europe

Planning practice and theory are intimately connected as discussed earlier – theory influences practical planning, planning influences reality, reality influences theory (Jauhiainen 2015). Since planning poses constraints on liberal-oriented policies promoted by Western governments, the legal framework for planning together with planning practice has ranged from well-defined planning hierarchy, tools and aims to the concentration on economic efficiency and deprivation of planning restrictions (Sager 2011).

A justification for planning was put forward by sociologist Karl Mannheim in his *Man and Society in an Age of Reconstruction* (1940) where he argued that a degree of planning is necessary to avoid anarchy while too much planning leads to dictatorship. It has been claimed that great urban projects that involve a variety of stakeholders are realisable only in dictatorships (Port 1961, 2008). Planning is generally regarded as a necessary tool to produce the representations of reality needed for more efficient use of resources (in wide sense) in the long term and for guaranteeing human rights and equal opportunities to all members of the society (provide public goods and avoid unwanted externalities) (Levy 2000). The discussion remains on how efficient vs. how detailed the planning process should be, and would the planning decisions be compulsory to implementation or give only guidance.

Spatial planning practice, when implemented, influences practically all members of society in one way or other. For our wellbeing, we need good physical and social milieu and planning should have the best available tools to continuously improve our surroundings. At the same time requirements for environmental and heritage protection, elaboration of infrastructure *etc*. have to be taken care of. Nevertheless, despite of thorough planning procedures, the results reflected in the built environment are not always satisfying. In everyday conversations, people tend to heavily criticise the shortcomings of our modern design of urban and rural structures (Shubow 2015b).

The surprising answer would be that as long as there is criticism, spatial planning is operational. Namely, planning is as multifaceted and complex as human society in its entirety. Actually, modern planning should be considered as an integral part of every policy and decision making in our democratic and liberal society. Planning in isolation is no longer possible, claimed Bruce Millan, EU Commissioner for regional policy in 1991 (The EU Compendium… 1997). On one hand, this means that spatial planners should be present in every forum discussing future development. Practically, every decision has a spatial, material

impact in one form or other. On the other hand, every person, both experts and non-experts, should be encouraged to have a say in planning debates.

Still, we may identify fields of knowledge that are more competent in spatial issues. Already in antiquity urban planner, engineer and architect Marcus Vitruvius Pollio identified three basic principles that city building should fulfil – so-called Vitruvian virtues *firmitas, utilitas, venustas* (in Latin *strength, utility, beauty*) (Vitruvius Pollio 1914). The similar list has survived through centuries to modern days. In the 20th century, the modernist planners, both in Western countries and in the Soviet bloc (Ojari 2004), expanded the triad to a four legged animal that needs all four to function without problems – functional, constructional, aesthetic and economic factors (Port 1961, 2008).

Even though the principles are perpetual the role of the planner has been significantly modified. In the days of Vitruvius in the first century BCE one person performed the role of both modern architect, engineers (both mechanical, hydrological, chemical, materials), urban planner and construction manager. The books of Vitruvius cover a wide range of modern disciplines from mathematics to music (Vitruvius Pollio 1914). Similarly, Leon Battista Alberti was considered the universal expert in the Renaissance period in the 15th century. Nowadays, claims of universal genius are not as easily accepted as the different scientific fields have developed and the possession of universal knowledge in every detail is no longer possible for the limited human mind.

Vitruvius named his books *De architectura* (in Latin *on building* or *on architecture*), and called himself an *architectus* (in Latin *master builder*) as well as Alberti talked about "us architects" (Alberti 1755) but his book was originally titled *De re aedificatoria* (in Latin *on the art of building*). As a consequence, the fields of architecture and spatial planning, which have developed from the same source, are sometimes mingled to this day. In contemporary language *builder, engineer, architect* and *urban/spatial planner* are different professions, but especially the last two have had overlapping fields of practice in many countries. The combination of the long tradition on characteristics of architect's universal abilities, and the modernist ideology that positioned the architect in the centre of spatial design (which was equalled with spatial planning) has resulted in misconception that in spatial planning architects should always play the leading role. The yearning for a universal genius of architect is displayed in discussions on who should lead the planning and building processes both on the municipal and state level. Concepts of the powerful city architect that would play the role of a judge in urban planning disputes (Port 2008), and the consultative state

architect (that may be occupied only by an educated architect) operating also in spatial planning field (Arhitektuuri… 2011, Ettepanekud… 2014) are common in Estonia even today.

Because of the variety of tasks and approaches in contemporary planning, it is not suitable for one universal genius to be solved. It is generally recognised that planning work needs a team lead by an experienced leader educated in planning in general or in one of the main fields – architecture, landscape architecture, human geography, less frequently infrastructure engineering, sociology, economics *etc*. The abilities of the leading planner include a variety of qualifications from the technical, management, and synoptic skills to the competences in place making, legal matters and negotiations (Kitchen 2007).

A desire for simplification is often displayed among both specialists as well as politicians and laypeople when regarding the 21st century's democratic market economy realities within which spatial planning is operating. Contrary to the expected, in the planning documents one cannot determine explicitly what will happen in our physical and social space – planning may only influence and restrain the developments. The real driving forces behind changes are governed by market economy rules that are hindered selectively by specific legal measures, amongst others planning.

The basis of European spatial planning today is in the European Regional/Spatial Planning Charter adopted by European ministers responsible for regional planning in 1983 in Spanish city Torremolinos.

The Charter defines spatial planning as follows (European… 1983):

> "Regional/spatial planning gives geographical expression to the economic, social, cultural and ecological policies of society. It is at the same time a scientific discipline, an administrative technique and a policy developed as an interdisciplinary and comprehensive approach directed towards a balanced regional development and the physical organisation of space according to an overall strategy."

According to the Charter planning is characterised as being:

- democratic (participation and decision making by representatives of elected body),
- comprehensive (integrating sectorial policies),
- functional (regional consciousness), and

- long-term oriented (economic, social, cultural, ecological and environmental trends).

In the Charter there are also listed the objectives of planning:

- balanced socio-economic development of the regions,
- improvement of the quality of life,
- responsible management of natural resources and protection of the environment, and
- rational use of land.

At the European Union level there are several non-binding documents in addition to the Torremolinos Charter. Started up in 1990, European Territorial Cooperation (ETC), better known as Interreg, is one of the two goals of cohesion policy and provides a framework for the implementation of joint actions and policy exchanges between national, regional and local actors from different EU members. The primary objective of ETC is to promote a harmonious economic, social and territorial development of EU as a whole. Interreg is built around three forms of cooperation: cross-border (Interreg A), transnational (Interreg B) and interregional (Interreg C). Five programming periods of Interreg have succeeded each other – Interreg I 1990-1993, II 1994-1999, III 2000-2006, IV 2007-2013, and V 2014-2020 (Interreg webpage 2015).

In 1999 European Spatial Development Perspective was adopted in French city of Nantes giving three main concepts and 13 policy aims and 60 policy options. In 1999, the Tampere ESDP Action Programme (TEAP) was adopted with a list of 12 actions (Waterhout 2008), which led later among others, to SPESP (Study Programme on European Spatial Planning, 1998-2000) under the auspices of Directorate-General for Regional and Urban Policy (EU Regional Policy webpage 2015), European Spatial Planning Observation Network or ESPON (started 2002) programmes (ESPON webpage 2015), and Territorial Agenda of the European Union or TA (started 2007) (Territorial Agenda webpage 2015). For the Baltic Sea region Nordic Centre for Spatial Development or Nordregio was started in 1997 by Nordic Council of Ministers (Nordregio webpage 2015).

The planning cooperation within European Union also takes place in specific areas like transport, tourism *etc*. The relevant examples for Estonia are planning of sea areas within the cooperation framework of Vision and Strategies around the Baltic Sea 2010 or VASAB (Planning department webpage 2015) and Baltic SCOPE (Baltic SCOPE webpage 2015). Maritime planning is the only area of spatial planning in European Union to be regulated by a directive (Directive 2014). In the transport sector the new alignment of high speed railway through

all three Baltic States, Rail Baltic, is an example that has required close collaboration in spatial planning across national borders.

Additionally, several voluntary associations improve the cooperation in the spatial planning sector, both practice and education. The most noteworthy are European Council of Spatial Planners – Conseil européen des urbanistes or ECTP-CEU (ECTP-CEU webpage 2015) and Association of European Schools of Planning or AESOP (AESOP webpage 2015).

Despite cooperation projects, the primary responsibility and standards of planning are charted by single member states of EU or EEA (European Economic Area). There are no European directives that regulate planning processes or decision making methods apart from general human rights and obligations of every European citizen. In addition to public procedures, European spatial planning systems resemble each other in their hierarchical build-up. Planning is carried out on different levels – federal level (in federal states like Germany), state level, regional level, county level, municipal level and neighbourhood, quarter or plot level as a public procedure.

In later decades, in the European Union context one has used terms *spatial* and *territorial*, which are sometimes considered slightly different but are equally often used (Waterhout 2008). In private conversations architects have expressed opinion that territorial (in Estonian *maa-ala*) is 2-dimensional whilst spatial (in Estonian *ruumiline*) is 3-dimensional. In European context *spatial* indicates a more general approach and *territorial* is pointing at specific location (Waterhout 2008).

To further complicate the issue, in addition to *planning*, documents name *policy, development policy* and *cohesion policy* as synonyms or very similar topics. In current thesis, the term spatial planning is used to cover all mentioned phrases.

It is worth noticing that both, decision-making in planning and, even more clearly, the implementation, usually have to follow the capitalist rules of the market. It is important to clarify that market rules apply equally to private and public stakeholders. Non-profitable public spending is justified only in the cases for culture, healthcare, defence, social equity or special cases of strategic or symbolic value (e.g. power grid, national pride projects). All economically unfavourable decisions should be justified with proper argument and compared to other alternative uses of resources to obtain similar aims.

2.6 Spatial planning practice in Estonia

In Estonia, spatial planning is coordinated by the Planning Act from 2015. Before the current act previous laws outlined a similar system of planning started up by Planning and Building Act in 1995. The planning principles follow the guidelines of the Torremolinos Charter like democratic decision making, openness and balanced consideration of social, economic, cultural and natural environment (Lass 2008).

In addition to Planning Act, spatial planning in Estonia is legally influenced by Building Code, which provides building regulations and specifies rules for construction close to roads and technical infrastructure, the Nature Protection Act, which regulates construction in nature protection zones, areas close to rivers and lakes and on the coast, and the Heritage Conservation Act, that regulates building activity in conservation sites.

The Planning Act gives guidelines both to planning procedures and to the content of planning documents. It regulates primarily physical conditions but a wide range of opportunities to determine functional use of the space is also allowed as long as it is rationally justified for achieving the declared objectives of a given planning document – e.g. the number of flats in an apartment building indicates how many parking spaces are needed and is thereby often justified as a functional planning condition not named specifically in the Planning Act.

Estonia has two levels of government and four levels in planning hierarchy. National spatial plan and national sectorial special plans are prepared at state level while county plans and sectorial thematic plans are formulated in all 15 counties. Counties are deconcentrated branches of the national administration for coordinating policies at the regional level – there are no elected bodies on the county level. All municipalities (currently more than 200 but an ongoing reform aims to reduce the number considerably) are obliged to have adopted a comprehensive municipal plan, which gives strategies for obtaining development aims and general land use instructions. The whole territory of a municipality has to be covered by a municipal plan. The plan is still missing in some municipalities as planning is not prioritised by local councils.

The national government implements spatial policies directly through the national spatial plan, special plans, and indirectly through planning on county level, and a variety of sectoral agencies, such as the Road Administration (in Estonian *maanteeamet*), the Environmental Board (*keskkonnaamet*), the Land Board (*maa-amet*), the Rescue Board (on fire protection, *päästeamet*) and the

Heritage Board (*muinsuskaitseamet*). Each of the agencies must approve planning activities that concern its area of responsibility. State coordinates municipal planning through counties as comprehensive municipal plans and detailed plans, that change already approved comprehensive municipal plan, are approved for their conformity with the county plan.

Municipalities are the main actors in land use planning as their responsibility is to prepare and supervise comprehensive municipal plans, the associated thematic plans, sectorial special plans and detailed plans. The last ones determine the actual use of land by granting detailed conditions for building like height, size of construction area, and number and functionality of the buildings *etc*. Detailed plans are required only in urban settlements for the construction of houses. In cases of single houses that fit into the surroundings and with the comprehensive municipal plan.

The Planning Act includes main planning principles (like improvement of living environment, public involvement, balancing the interests, and sustainable and reasonable land use), and a list of tasks for each planning level document. It also establishes requirements for the person who compiles planning documents. Spatial planning and the work of planner is described in detail in the professional standard spatial planner registered in the occupational qualifications system of Estonia (in Estonian *Kutsekoda*). The standard was created in 2009-2012 with active participation of the author of current thesis. According to the law the planner needs to have education on master level in planning, architecture, landscape architecture or human geography. Alternatively, the planner may possess the certificate of professionality.

As pointed out earlier, planning has two aspects – the process and the result – which both may play a crucial role in planning practice (Allmendinger 2009). Among politicians, developers, lay persons and some architects there is a tendency to declare the result and the content of planning document as more important than the process without seeing the democratising, educational, and community building aspects of planning. On the other hand, due to limited expertise and overburdened public servants the planning process most often lasts longer than composing the content of the plan. The longest procedures are usually the coordination of the planning documents within the municipality or county government, and with state agencies and monopolistic infrastructure companies.

The planning itself is most often prepared by private consultants both on municipal and county level. Still, respectively, the municipality and county

governments have to make all planning decisions. National level plans are coordinated by planning department currently located in the ministry of finance by involving private consultants and experts from other ministries and state agencies. Educational background of planners is architecture, land survey and management, landscape architecture, geography and a number of other disciplines (Metspalu 2011). Active planners and persons interested in planning have assembled in Estonian Association of Spatial Planners, which controls the issuing of certificates of professionality started in autumn 2015, organises study tours and speaks out publicly on topics concerning planning. The association actively promotes the image of spatial planning and contributes to the formation of legislature.

The current problems in Estonian spatial planning include the lack of planning knowledge, especially in municipal governments, poor practical connection between plans of different levels, time-consuming planning procedures, and poor public understanding of the power of planning tools. State agencies are often able to dictate their sectorial stipulations in planning documents without democratic procedures and appropriate consideration. Another problem is the implementation – in decision making in other sectors planning documents are ignored, and even project design and building sometimes do not follow the legal regulations provided by plans.

Problematic spatial issues include urban sprawl which is strengthened when motorised vehicles are prioritised in planning solutions (*NB!* contradictory to official policy publicly announced), and the rise of inequalities as it concerns the professional, economic and ethnic aspects. Tallinn has arguably become one of the most segregated capitals in Europe both socially and spatially (Tammaru 2015). Still, the approach of just city is marginal among practicing planners as well as decision making bodies. As discussed later in current work, on the positive side, the democratic process and people's awareness of their rights and courage to state their opinion has risen considerably in decades of restored Estonian Republic.

Due to the complication there has been claims that development of existing city centres is not possible to conduct by planning tools (Paaver 2015). Needs for the use of space change so rapidly that the planning documents are always outdated. The solution could be more flexible plans, but the threat is the loss of content and planning documents becoming declarative papers for politicians. Here, a balanced approach adapted from place to place is needed. Current research presents one such alternative on urban neighbourhood level.

3 Current research

3.1 Problem Statement

Current work documents developments in spatial planning in Estonia with focus on the last half century when Estonia was occupied by totalitarian Soviet regime with the following restoration of the independence in 1991, and building up a democratic republic.

Spatial planning in post-Soviet countries such as Estonia poses numerous challenges as well as opportunities. Soviet era totalitarian command economy style planning has gone through a decisive change as a result of developments that have taken place both in planning and in society in general. This work demonstrates the evolution of spatial planning in the case study area in Tartu which reflects the changes in planning ideology and practice in second half of the 20th century and into the 21st century. The modernist reconstruction and city renewal were subject to heavy criticism in Western countries in the 1960s and 1970s when Jane Jacobs' The Death and Life of Great American Cities (1961) was published and the iconic Pruitt-Igoe housing complex was demolished in St. Louis, Missouri (1972-76). However, Soviet spatial planning ideology picked up modernist planning first at the end of the 1950s, and did not abandon it before the disintegration of the political system in 1991 (Myers 2008). The Soviet system did not accommodate the democratic features of new town planning ideology like collaboration and public engagement but was guided by norms and political aims (Sild 2014).

At the end of the 1980s and the beginning of the 1990s, the democratisation of the society and privatisation of real estate lead to the need of public involvement in planning processes. The official course was set in 1995 with new Planning and Building Act that introduced German-Scandinavian model which gave local municipalities the leading role in the forming of physical environment. The implementation of democratic principles meant downgrading of the dictator role of the planner, which was hard to accept for the specialist from the traditional planning institutions used to Soviet time top-down planning. Similar tendencies occurred in other post-Communist countries (UN-Habitat 2009).

A notable change toward civic activism in town planning practice occurred between 2001 and 2005, and has developed ever since—significantly delayed

compared to Western Europe and the United States and more than ten years after Estonian independence in 1991. During the transition in the 1990s, top-down planning practices continued in many municipalities. Consequently, current passion among public for preservation, and a vision of planning that simultaneously looks forward and backward in time, stands in stark contrast to the abstract modernist principles of the 1960s through 1980s that are vividly expressed in plans from those decades.

The rise in neighbourhood activities reflects the general dissatisfaction with the establishment. The large political parties have been criticised for their lack of contact with the grassroot. In local politics the politicians have responded occasionally in recent years by avoiding unpopular decisions. The planning decisions have traditionally been largely based on expert opinions even in the situations where popular opinion is against it. Public opinion polls are not always to be followed in resolving spatial planning questions, but poorly reasoned conflicts, where experts "know" better how to improve living conditions of the residents against their own will, should be avoided.

It can be said that over the past twenty years a significant change has taken place in the planning process in Estonia, which is evident first and foremost in greater inclusion of local residents. However, this has happened mostly as a result of constant and active pressure of the awakened local community to fulfil the aims of the democratic procedure stated in planning acts. The local residents know the local values best and can point out which ones are the most important for them. Together with the rise of grassroot activity the planning ideology has also shifted towards more inclusive and collaborative approach.

While planning has become more transparent and appreciative of local assets, the practice of planning still faces many challenges. This research assesses some of these challenges to urban planning through a systematic, detailed case study of one neighbourhood in Tartu, the Supilinn district. The history of Supilinn, the neighbourhood that would not be destroyed, spans centuries, its buildings have survived several booms and busts, its residents are resilient and planning (or the lack of it) has preserved a unique neighbourhood. A district, that barely survived Soviet and early re-independence era, has been preserved, protected and enhanced as a liveable historical community. While history shaped its physical morphology, the people gave it character and life. Supilinn exists today due to

good chance and the perseverance and commitment of its residents. What are the lessons learnt from this one resilient community?

3.2 Purpose of the Study

The purpose of the study is to address contemporary difficulties of planning of built-up areas with Supilinn district in Tartu, Estonia as a case study. The broader context of Estonian planning, both contemporary and historical, and wider spatial context are studied.

One facet of the challenges consists of the extent of public involvement and how much neighbours and residents should have a say about the development of adjacent plots. On one hand, local people are the primary users of the surroundings and the best experts on community settings, and should be treated as expert with experiential knowledge. On the other hand, it would not be always right to rely on public opinion as owners of the plots to be developed have constitutional rights (often reasserted with higher level planning documents) which have to be compensated with public finances if the execution of the rights in hindered unfoundedly. Sometimes, unpopular decisions for the best of the greater community, the municipality, the state or the globe, need to be made.

Another topic includes the fact that planning of built-up areas poses a number of difficulties compared to planning of virgin land. In modernist planning tradition of the 20th century still influential today (UN-Habitat 2009) one prefers new structures and tends to overlook the dilemmas when planning developed areas. Still, nowadays re-planning of built-up districts is much wider than laying out new structures because of the population shrinkage. In contemporary planning practice, the difficulties need adapted approach as traditional planning theory of modernist era still popular does not address them sufficiently.

3.3 Research Questions

This explorative work poses several research questions that are answered through a detailed case study analysis of one historic neighbourhood in Tartu, Estonia. The Supilinn district is a characteristic manifestation of spatial planning dilemmas of older built-up neighbourhoods in Estonia. The case study addresses the following questions:

1. How has Estonian planning ideology and practice evolved, exemplified by the case study area, with a focus on neighbourhood planning?

   a) How has the Supilinn district physically evolved from the 17th century to present time? How much of the historical character has been preserved?

   b) How did Soviet-time planning practice and legislation unintentionally guarantee the preservation of the Supilinn district? Which factors were influential in historic preservation after the 1991 restoration of Estonian independence?

2. Does expert knowledge within the professional field of spatial planning consistently yield decisions that are in the best interest of local residents and how have the local residents and the general public been involved in planning in the last half century?

   a) What role has the public played in Estonian spatial planning during the Soviet regime and after the liberation?

   b) How to balance expert knowledge and experiential knowledge in spatial planning decision making?

   c) What is the role of neighbourhood organisations in spatial planning decision making?

3. Which contemporary characteristics local residents prefer and fear in their historical living environment, and how can desired features be achieved through spatial planning?

   a) What aspects of a historical neighbourhood make it valuable in the context of liveability?

   b) What aspects of gentrification are evident in the Supilinn district?

   c) How to plan historic built-up areas and preserve the existing values with adding new ones?

The answers to the research questions are given in published articles in appendices 8.1 to 8.6, and in the *Conclusions* section of this work.

4 Methods

4.1 Qualitative and quantitative methods

Spatial planning research includes both quantitative measuring and qualitative study. Some topics are fairly predictable and the use of quantitative methods originally developed in natural sciences to study natural phenomena not human society (Myers 1997) is justified. This applies firstly to infrastructural objects like dimension of utility networks and the vehicle capacity of roads. However, predicting traffic load is already an uneasy task involving both quantitative and qualitative methods *(*Boitor 2014*)*. The study of architectural features appearing in a given area, and social composition of a given group are also countable. On the other hand, the qualitative tools (Laherand 2008) are used in "measurement" of esthetical and environmental values in both urban and rural context, and especially, the clarifying of attitudes and preferences of the residents and owners as well as experts, city officials and developers.

This research was carried out in a residential neighbourhood called Supilinn in Tartu city, Estonia. The main task was to find out how to develop the area in coming decades and in a longer perspective for the best of its residents, the citizens of Tartu and its visitors. The presumption has been that positivist analytical study (even when it uses both quantitative and qualitative methods) is not sufficient to explain effectively the conditions for pleasurable and attractive neighbourhood. In addition, participant observation, in-depth unstructured and half-structured interviews, public polls *etc*. were needed. At the same time, objective analysis is necessary for clarifying the framework of the current situation and communicating the data to outsiders, especially representatives of the town council, many of whom are not well-acquainted with the situation.

This research makes use of a multitude of quantitative and qualitative methods. Quantitative methods include counting buildings and their architectural and constructional features, population data, and other data about the physical environment. Qualitative approach includes ethnographic methods like participant and non-participant interview, key informant interview, direct observation, participatory action as well as study of written documents, mostly planning documents (historical study method).

4.2 Mapping and GIS

Use of maps is of essential importance in spatial planning. Maps can be used both in historical research – overlaying historical and current maps to uncover changes and development trends – and in getting overview of the spatial data (collected in geographical information systems – GIS).

When using maps in historical research a number of difficulties arise. Firstly, the historical maps have to be converted into current coordinate system. Quite often the old maps are inaccurate and exact overlaying is not possible. Since old maps are in raster format they have to be digitalised to be ready for manipulation.

In current research mostly historical maps were used to compare changes in built environment across almost 300 years. Also planning documents that included maps were used. The level of details and accuracy of historic maps in various archives (national, municipal and foreign archives) had to be taken into account when drawing conclusions.

GIS is useful for both retrieving spatial information from physical environment and presenting the distribution of physical phenomena. The powerful tools are especially useful when working with large areas and large amounts of information. In current research the use of GIS was limited as the study area was manageable with simpler vector graphics programmes.

4.3 Experiential learning and planning practice

In planning theory and practice, the positivist scientific approach that started in the Enlightenment period and peaked in the 20th century's functional and rational planning models has in last 3-4 decades given ground to communicative planning methods that emphasise values, collaboration and experiential knowledge (Khakee *et al.* 2000). It is widely acknowledged that expert knowledge only is not enough to make reasonable and satisfactory planning decisions. On one hand, human societies are too complex to be measured with existing observation techniques and computing power, and on the other hand, due to varied cultural background, values and preferences finding a common ground is often impossible. Therefore, universal solutions that make use of expert knowledge are not possible.

Experiential learning is widely acknowledged as a way of acquiring valuable information both for individuals and for the society as a whole (Kolb 1984). In the context of spatial planning, experiential knowledge is provided primarily by the

local residents of planned area as they have the first-hand long term familiarity with the positive and negative sides of the existing situation. The learning occurs mostly through action, not just observation (Northern Illinois University 2011). The difficulties with the non-expert knowledge include the complications of acquiring balanced information as the most active residents tend to overshadow the less active ones, and sometimes residents' inaccurate linking the current situation with future developments due to limited comprehension about underlying processes.

However, the opinions experts claim to have expert knowledge about are sometimes based on experts' experiential knowledge instead (Khakee *et al.* 2000). Experts, like all humans, have personal values and preferences and it is hard to distinguish the source of knowledge. Often personal experience determines whether a controversial phenomenon is regarded as desirable and preferable or irritating and adverse.

4.4 Ethnographic research

Ethnographic research is a form of qualitative research which includes case study research, field research, anthropological research, or ethnography, and often also sociology (Whitehead 2005). The methods include among others participant and descriptive observation, semi-structured interviews and focus on natural settings.

Ethnographic research is used in social sciences to study cultural phenomena that are not easily describable with quantitative methods due to their complex nature and actors of free will. The purpose is to seek better understanding of given situations (Laherand 2008) and suggest possible solutions to problems, at least in the case of planning.

Ethnographic research involves subjective experience which is both a threat to credibility and opportunity for new findings. In ethnography the interplay of variables is preferred if it mirrors real-life situation while in experimental research the contextual factors are eliminated. Data collection methods are meant to capture the social meanings and ordinary activities of people in naturally occurring settings (Whitehead 2005). Ethnography emphasises on exploring social phenomena rather than testing hypotheses. The researcher in ethnography type of research looks for patterns of the group's preferences and mental activities in general.

The ethnographic method is field-based, multifactorial, lengthy and holistic which could give in-depth information. On the downside, no researcher can be totally unbiased, and therefore the results indicate probability rather than certainty. The product is mainly verbal explanations, where statistical analysis and quantification play a subordinate role. The results are comparable and translatable rather than transferrable. (LeCompte&Goetz 1982)

The scientific questions of reliability and validity in ethnographic research are addressed in a different way than in quantitative research. The problem of external reliability means the replicability of the results in similar settings, and internal reliability means replicability of conclusions given the results. The problem of external validity deals with the accuracy of the results across groups, and internal validity refers to how much the results are authentic representations of some reality. (LeCompte&Goetz 1982) The results of ethnographic research are not universally reliable and valid under any circumstances (in other words replicable) but rather address a specific situation in a given location. Therefore, the results are not transferrable but yield ideas for solving similar problems in other places.

The best results are achieved by using the participant observation method as it enhances both the quality of the data obtained and the quality of the interpretation of the data (DeWalt & DeWalt 2010) by increasing the amount of primary data compared to secondary data like articles, documents, maps *etc.* (Myers 1997). Participant observation method has concerns with ethical issues – the other community members are not always aware that there is a research going on and that makes it important to preserve the anonymity of the recipients. The questions about limiting the participation to legal and safe actions or the issues of gender, race, social position, and intimate relationships discussed in literature (DeWalt & DeWalt 2010) have not been a topic in current research. Still, the question of bias remains – whether being part of the actual processes in the field has affected the professional analyses.

The use of case studies has a number of advantages – they provide detailed and in-depth information when used in a longitudinal timeframe. Naturally, use of case studies has limits in generalising characteristics to similar built up areas as every place has its own unique features. Still, case studies give the opportunity to conduct in-depth research that may reveal the factual reasons for the observed development. Use of large amounts of statistical data may provide a better overview about the general trends but the details and driving forces usually remain hidden. As spatial planning is a practical discipline, the research

has to concentrate on actual occurrences in the society for which case studies provide an excellent opportunity.

One of the key aspects for any case study based research is the number of case studies being evaluated. In the current research the author undertakes a very detailed longitudinal analysis of one case study – the Supilinn district of Tartu. The validity of using a single case study is in the depth of the multi-faceted analysis which includes personal observations, survey and interview analysis, document and statistical analysis and embedded participation. In addition, the author has extensive knowledge about planning legislature and practice all over Estonia which allows him to assess the comparability of the results in the Supilinn area case study to general Estonian context. Comparable trends and sometimes even details in other Estonian towns and districts are easily observable as legal framework is identical, and social and economic situations are alike. Therefore, the use of case study research in spatial planning is justified.

In carrying out case study of Supilinn the author had multiple roles as a resident (living in the area), a local activist (head of Society of Supilinn neighbourhood's activists group), an expert planner (compiling detailed plans in the area) and a researcher (counting, photographing, interviewing, observing, studying in archives *etc*.). It was a great challenge in trying to stay unbiased since it is hard to distinguish one role from the other. On the other hand, the multiple roles have complemented each other – living on site gave special knowledge for the research, the expertise as a planner contributed to enhanced actions as a community leader. Everything considered, the balance between the roles of a local activist, a practicing planner and a scholar was in author's view reasonably well maintained. Furthermore, it is this very combination of roles and perspectives that have allowed for the richness of detail and the depth of evaluation that provides the validity of using only one case study for this work.

The author moved to Supilinn in 1997-98. The Society of Supilinn was started in 2002 and the author became the head of the board in 2004. The Society of Supilinn has been active on planning matters since initiation. In 2006, the society requested a new comprehensive general plan for Supilinn to be started, and the council of Tartu started the planning process in 2007. In 2010, Tartu city government ordered the compilation of conditions of cultural heritage protection, a thorough research on physical and social characteristics of Supilinn, which was carried out by the author together with landscape architect Nele Nutt (Hiob & Nutt 2010). In 2011, Society of Supilinn on the initiative of the author together with Estonian Association of Spatial Planners and Tartu city government

organised public poll and methodological proposals for the thematic plan of Supilinn (Estonian Association of Spatial Planners *et al.* 2011). The composition of planning proposal itself involved principal discussions with residents, politicians, plot owners, city planning experts and independent professionals where the author was active participant. The thematic plan was approved in 2014. During the process of planning the author carried out research projects both alone and together with colleague Nele Nutt and others, attended scientific conferences, and published articles. The author stepped down from the position of the head of the Society of Supilinn in June 2016.

The author has also been active in the Estonian Association of Spatial Planners (www.planeerijad.ee) and in Estonian Union of Landscape Architects (www.maastikuarhitekt.ee). The author actively participated in the work of compiling the professional standards both for spatial planner (2008-12) and landscape architect (2010-12), and has contributed to the creation of Estonian planning legislation both in preliminary workgroups (2008-14) and by proposing modifications to the final draft of planning act (2014-15) and connected legal acts.

The author started composing urban planning projects in 1999. The first detailed plan in Supilinn was compiled by the author in 2002-04 (so-called *EUROPAN* quarter by the river Emajõgi, more than 10% of Supilinn built-up area). Later more than 10 plans have followed. In other municipalities the author has conducted and carried out more than 150 detailed and general plans since 1999. This extensive role in Supilinn spatial planning and in planning activities throughout Estonia allows the author to use the findings of one detailed case study to elaborate on planning implications on a wider scale.

4.5 Use of methods in current study

A major quantitative research project establishing foundations for this thesis was undertaken in 2010, when a thorough analytical inspection of history and physical environment in Supilinn was carried out (Hiob & Nutt 2010). The data collected and systemised included historical overview of the physical formation and social characteristics by residents' poll, inspection and documentation (photography). Study of historical formation was further developed (Hiob 2012) which also uncovered new data about the history of Tartu[1]. Historical

[1] The first documented borderline of Tartu city area in Supilinn that had previously been positioned in today's Meloni Street was by map analyses determined to be in Piiri

photographs and films, maps and official documents from the archives were studied as part of qualitative data collection.

In describing the object general studies about Tartu city were used – census data, official reports, periodical polls "Tartu ja tartlased" (Tartu and its citizens) 1998-2013 (Tartu ja tartlased 2013), planning documents (in the archives of Tartu city government and Estonian Museum of Architecture), historical photographs (in different museums, mostly in Estonian National Museum and Tartu City Museum), maps (mostly in Estonian National Archives) and other documents (in archives, museums and private collections).

To learn about attitudes and preferences of the residents in Supilinn two polls were organised by the initiative of the author in 2010 and 2011. The first one was carried out in limited time span using both electronic and paper questionnaire with 88 respondents. Even though the questions were developed with the help of professional sociologist, the city government doubted the results were representative. Therefore, a new poll was organised a year later in co-operation with Estonian Association of Spatial Planners, Tartu City Government and the Society of Supilinn (Estonian Association of Spatial Planners *et al.* 2011). This time the questionnaires were handed out only on paper to avoid possible misuse of electronic channels (one respondent may answer several times). This time the number of respondents was 286 (Estonian Association of Spatial Planners *et al.* 2011).

In order to deepen the knowledge about apparent character of the area 11 key informant interviews were conducted with intellectuals that had close ties to Supilinn but did not necessarily live there (Estonian Association of Spatial Planners *et al.* 2011). The anonymous interviewees representing a wide range of professionals from environmental activists to a professor of art's history were selected because they had previously expressed some opinion about Supilinn and they were known to be able to phrase it. A large part of the informants was proposed by the author. A neutral sociologist, whose knowledge about Supilinn was only basic, conducted the interviews.

Planning practice and work with legal acts on planning and planners as described earlier has also contributed to the understanding of overall spatial developments and planning ideology in Estonia both today and in historical perspective.

Street. The discovery reflects in the street's authentic name – *Piiri* meaning *border* in Estonian.

The current doctoral thesis consists of scientific articles, and gathered additional data (previewed articles, newspaper articles, planning documents, overviews, interviews, memoirs *etc*.) for current analysis and conclusions. Because of limited opportunities for scientific publishing under Soviet regime, other sources like newspaper articles and memoirs of the involved were widely used to analyse the topic.

The findings have been presented by the author at following international seminars and conferences with pre-accepted abstract requirement:

- 2008 in Chicago, USA (AESOP-ACSP Joint Congress, poster presentation),
- 2010 in Istanbul, Turkey (14th IPHS Conference, oral presentation),
- 2011 in Bucharest, Romania (Fourth International Workshop on Post-Communist Urban Geographies, oral presentation),
- 2012 in Glasgow, Scotland (22nd IAPS Conference, oral presentation),
- 2012 in Sao Paulo, Brazil (15th IPHS Conference, oral presentation),
- 2013 in Dublin, Ireland (AESOP-ACSP Joint Congress, oral presentation),
- 2013 in St. Petersburg, Russia (XI BS NGO Forum, oral presentation),
- 2013 in Tbilisi, Georgia (5th International urban geographies of post-communist states conference (CAT-ference), oral presentation),
- 2014 in Haifa, Israel (PLPR Conference, oral presentation).

5 Case Study Area – Supilinn

5.1 Historical Overview

Supilinn is an historical suburb of Tartu, Estonia's second largest city with close to 100,000 inhabitants.

Supilinn was part of medieval Tartu area and was situated just outside the walled city on the banks of the Emajõgi River (see Fig. 3). In medieval era and later up to the end of the 18th century Supilinn was only temporarily built-up as all suburbs of the fortified city were razed in the wars up to the Great Northern war lasting 1700-21.

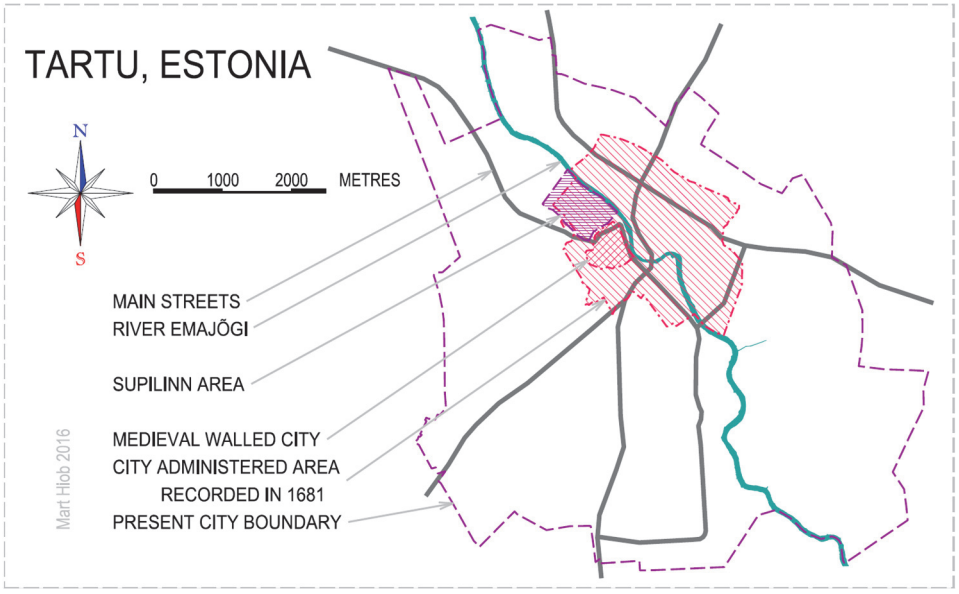

Figure 3. Location of the Supilinn area in Tartu city, Estonia. Mart Hiob 2016.

Existing main street network in Supilinn was laid out in the first decades of the 19th century with some minor addition in the 20th and 21st centuries (Hiob 2012). The general plan was approved around 1810 and the buildings have been added to the mainly rectangular grid continuously to nowadays with several intensive construction periods in the 2nd half of the 19th century and first decades of the 20th century (Teedema 2010). The houses were built in wood, one to two stories high, and mainly for residential use with a number of small shops and manufactures.

Supilinn was not severely damaged in world wars (Tartu linna plaan 1949) and maintained its 19th century atmosphere throughout Soviet occupation period as

the area was not upgraded after the 1960s installation of new sewage and water supply. From the 1960s onward the area started to become a slum as it was seen ideologically outdated and socially marginalised tenants moved in. At the beginning of new Estonian independence period Supilinn was regarded as one of the most disfavoured places for living in Tartu.

In last 30 years three planning documents have been completed specifically for Supilinn neighbourhood while several others made for the whole Tartu city included the Supilinn area. Firstly, in 1986, in the Soviet period three selected areas (the streets of Emajõe and Lepiku and partially Tähtvere) in Supilinn were designated as preserved even though the general plan for the whole city of Tartu from 1974/76 implied complete reconstruction (Hess & Hiob 2014).

After independence and the restitution of pre-war properties the top-down planning of privately owned plots was interrupted. For initiating economic activity, a new plan for Supilinn, that allowed severe densification of existing plots, was compiled during the second half of the 1990s. The plan caused much protests and was unpopular among residents. With the emergence and acceleration of gentrification in the 1990s, the new residents in Supilinn valued the built-up environment as it was, and the densification plan was heavily criticised. Despite of protests, the economic arguments prevailed and the plan was adopted in 2001.

Already in 2005 the new comprehensive municipal plan for Tartu established Supilinn as a valuable area and thereby nullified much of the 2001 plan, which favoured accelerated progress instead of conservation. In 2007, under pressure from local citizens and the Society of Supilinn a new planning process was initiated and completed in 2014. The current plan regards all pre-modernist construction as valuable and tries to preserve the historic atmosphere and reconstruct lost features of public space like trees in the streets.

5.2 Current Situation

Today, Supilinn is a well-defined settlement in Tartu city both geographically and culturally. The built-up area of the district is bordered by the river Emajõgi to the northeast, site of the medieval city walls to the southeast, bank of the ancient valley of the river Emajõgi (which formed during the ice age) in the southwest and the maximum extent of the built-up zone in Tartu on the right bank of the river to the northwest. There are about 2,000 inhabitants in Supilinn today and

about 350 main buildings, overwhelmingly, some 98% being residential (Hiob & Nutt 2010).

In 2010, a thorough research on the material and social conditions in Supilinn was conducted (Hiob & Nutt 2010). The research included both physical inventory (see Fig. 4) and social survey. All main buildings, fences, street pavements and major greenery were photographed and described according to their material, architecture, function and date of construction. In the survey the preferences of the residents for the physical and emotional factors were explored.

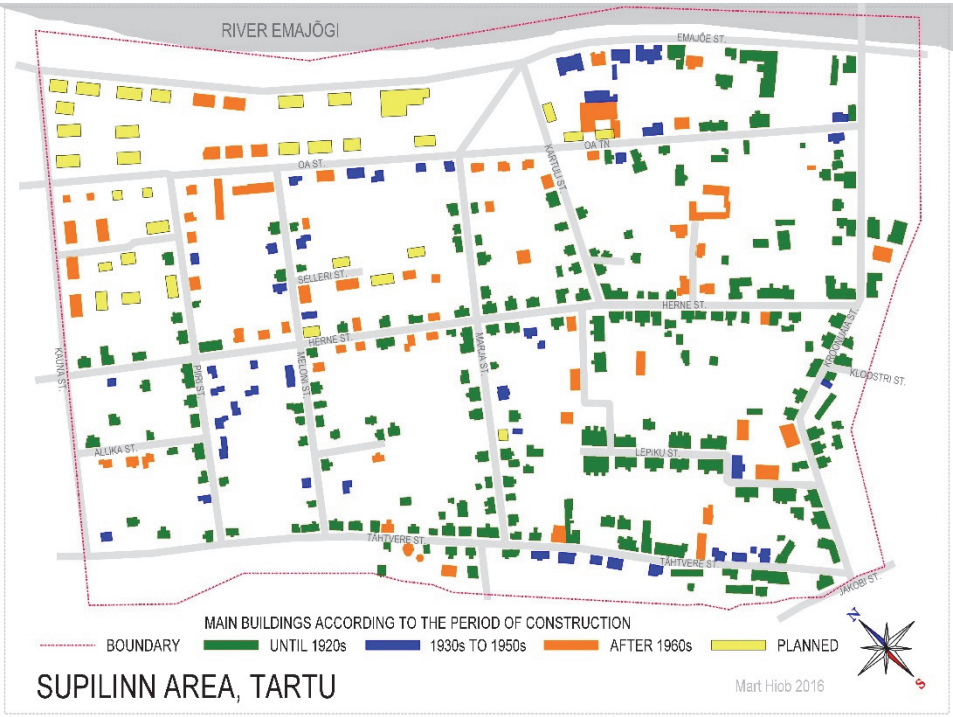

Figure 4. Main buildings in the Supilinn area, Tartu, divided in categories according to the period of construction. The building characteristics vary in accordance with the period of construction. Mart Hiob 2010, updated 2016.

The results showed that Supilinn has retained overwhelmingly pre-modernist architectural character – some 70% of the main buildings were constructed before 1930, 15% in the period of 1930 to 1960 and 15% later. Due to the building activities in the last 5 years the proportion of new houses has risen to 20% (approximately 15 new houses). About 80% of the houses were in wooden construction and 75% had wooden exterior finishing. The area is almost

exclusively residential – about 95% of main buildings are used for living and 5% for business and light manufactures.

In addition to the survey in 2010, a new survey was conducted in 2011 with the modified questionnaire and a larger number of recipients (Estonian Association of Planners *et al.* 2011). In contrast to the 1980s and 1990s, most of the locals very much enjoyed living in the district and regarded their surrounds as valuable historical neighbourhood – 80% answered they like living there very much and almost 90% regarded preserved historical buildings as important. Since the majority valued the current condition of Supilinn, large changes were considered undesirable development – the densification of the previous plan from 2001 was opposed strongly by 60% and opposed moderately by 30%.

Currently, the thematic plan from 2014 has been followed and both preservation and new constructions are planned accordingly. The plan is accepted by the residents, the city government and the real estate developers. The discussions in coming years will concentrate on the design of the streets – how wide should be the driving lanes, how many parking lots would be provided, how much of the tree alleys would be restored and which materials would be used in driving lanes and pedestrian areas.

6 Publications' summaries

6.1 Publication 1. Development of Supilinn's Street and Plot Structure – Supilinn on Maps and Plans Between the 17th and 21st Centuries

The article provides a thorough survey of the history of the planning street and plot structure of the Supilinn settlement based on the maps and plans compiled for Tartu between the 17th century and the present day. Historical maps are used to collect information using both the ordinary observation and comparison and digitally laying the old maps on today's plan. This method allows to specify a number of aspects that otherwise would have been ambiguous. In the case of Supilinn the digital comparison of three historical maps with modern one identified that the city limit of Tartu at the end of the 17th century (and probably earlier) run along Piiri Street, not along Meloni Street as assumed until now.

Entire built-up area of Supilinn was included in the city of Tartu as of 1867. Later, in 1923, the vacant un-built sports park area further northwest of Supilinn was merged with it. The district's initial structure developed spontaneously. Until the first few decades of the 19th century, the development occurred based primarily on practical needs. In connection with the considerable growth of Tartu's population in the early 19th century, a need developed for the densification of Supilinn's sparse habitation. Initially, four new streets were delineated in the first decades of the 19th century. Until the 20th century, new lots were distributed on these streets by dividing hereditary plots or creating new plots from the city's meadow. In this way, Supilinn's characteristic plot structure was created, where long narrow lots reached deep into the interior of the city blocks. The building along the streets was also densified, which resulted in the buildings being densely located along the streets with long allotment wedges behind them. Similar structures have also existed in other Estonian towns, but by today, they have survived, to any extent, only in Lihula.

In the first decades of the 20th century, two more streets were established. From the 1920s until the 1980s, plans were made for the thorough renovation of Supilinn. Since the plans were never realised, most of the district survived in its Czarist era, pre-modernist form. During the last decades one new small street has been established and tens of new houses built on existing plots. Still, the street and plot structure has not changed significantly.

Note: This article addresses research question 1.

6.2 Publication 2. Preservation by Neglect in Soviet-Era Town Planning in Tartu, Estonia

In the former Soviet Union, traditional urban districts with pre–World War II housing were considered obsolete and the aim was to demolish them, but in practice they were frequently ignored, because efforts were focused on new housing production in order to address acute housing shortages. Inertial forces stymied plan implementation for older districts during a rich period of plan making while new residential districts were built at a fast pace on virgin land. This research analyses more than a dozen written planning documents from various periods during the 20th century for Tartu, Estonia, where, had the mid-20th century town plans been implemented, entire quarters of the 19th century and the early 20th century wooden houses and apartment buildings would have been demolished. Findings suggest that several factors acted in concert to set the conditions for both neglect and preservation of such districts during the second half of the 20th century that resulted in continuous occupancy of the dwellings and preserved the built form (and the social structure) of the district. These factors include a focus on building new housing and new districts rather than renovating older districts; a lack of resources to renovate older districts; and a lack of resources to implement plans. On the other hand, public opinion had no measurable effect on the results in Soviet totalitarian spatial planning arrangement. This synthesis of town planning in Estonia demonstrates how planning ideas, in this case modernist planning, have evolved throughout the 20th century parallel to—but temporally delayed compared to—Western Europe and North America.

Note: This article addresses research questions 1 and 2.

6.3 Publication 3. Spatial Planning in Estonia – From a Socialist to Inclusive Perspective

Spatial planning in Eastern Europe has gone through major changes during the years after the Soviet occupation ended around 1990. New planning standards were eagerly accepted but the practice was often carried out in a traditional, totalitarian manner. This article gives an overview of planning laws and practice in Estonia during the transition period since the restoration of the independence in 1991. The example presented is a district in Tartu, the second largest city of 100,000 inhabitants. The article analyses different master planning documents

covering the whole district and compares both their process of compilation and their content to Soviet era plans. The conclusion is that the transition from socialist to inclusive planning in Estonia has taken at least two decades and the process is still not finished. This shows that change in the legal framework alone is not sufficient to transform planning practice – new ideology has to be accepted and implemented by the specialists as well as the politicians and the general public. The increased motivation of local residents to take part in the formation of their immediate surroundings is of critical significance for the transformation towards democratic planning practices.

Note: This article addresses research questions 1 and 2.

6.4 Publication 4. Risen from the Dead: From Slumming to Gentrification

Political tides are evident in most community development practices. Sometimes it hinders good planning while at other times it aids development, and sometimes the unintended consequences of politics preserve neighbourhoods for a long time, allowing for a totally different development outcome. This article is a detailed case study of one such neighbourhood. This neighbourhood, known as Supilinn, in Tartu, Estonia was a rundown area slated for total demolition during Soviet occupation. Due to the lack of finances and low priorities, the former communist regime abandoned the idea of demolition and left the neighbourhood to deteriorate further. Two decades later, Supilinn is a bustling community where young and old, rich and poor, existing and new, all co-exist. A community left to die has resurrected itself through bottom-up planning and citizen initiatives to become one of the preferred places to live, so much so that the neighbourhood now faces the threat of gentrification with social displacement and complete renewal. The authors, all active members in this neighbourhood, have lived and worked there for more than a decade. They tell the story of many such transformations across the landscape through the lens of one case study.

Note: This article addresses research questions 2 and 3.

6.5 Publication 5. Gentrification in a Post-Socialist Town: The Case of the Supilinn District, Tartu, Estonia

This article deals with the changes that have taken place in the Supilinn district in Tartu, Estonia due to the gentrification process. The gentrification process affects the cultural, social, economic and physical environment of the area. People have been interested in this topic since the 1960s. Nowadays, there is also reason to discuss this issue in the context of Estonia and of the Supilinn district. Studying and understanding the processes that take place in the living environment, provides an opportunity to be more aware about them and to influence the development of these processes. This article provides an analysis of the conditions necessary for gentrification in the Supilinn district, describes the process of gentrification and its characteristics also evident in study area, and tries to assess the current developmental stage of the gentrification process.

Every area has a unique look that is shaped not only by the physical environment, but also by the principles, values, and wishes of its residents. Local residents influence the image of the mental and the physical space of the area. Therefore, every neighbourhood needs a specific set of tools to hinder the negative outcomes of gentrification. The article presents a few of them as potential path forward.

Note: This article addresses research questions 2 and 3.

6.6 Publication 6. Supilinn, Tartu – The Lively Vernacular against Urban Renewal: A Lefebvrean Critique

In today's highly technical and rapidly changing world the topic of people-friendly living has become increasingly acute. Therefore, great attention is paid to create new spaces (and transform unpleasant ones). In this race to create new spaces, however, vernacular sites that are already people-friendly have been overlooked or they are taken for granted.

This article explores a neighbourhood, which has evolved into a valuable living environment after some hundreds of years of development characterised by fluctuating planning and design. However, current efforts to regenerate the area may actually ruin the valuable vernacular environment formed over time. The authors have worked with this historic area for over ten years and are familiar with the people and environments in-depth. The longitudinal case study research allows one to observe and compare many different aspects of urban

development (urban analysis, people's values, adopted spatial plans *etc*.) to provide insights to the question of what characterises the lively city – which features one should address for the wellbeing of both residents and guests to the neighbourhood when renewing the urban fabric.

Note: This article addresses research questions 2 and 3.

7 Conclusions

7.1 Significance of publications

Research findings cover facets of spatial planning history and contemporary practice and theory in Estonia exemplified through the case study of the Supilinn area in Tartu city. The research was concentrated on a single area in Tartu, but the general findings here are applicable to the rest of Estonia and in some cases to Post-Communist Eastern Europe. The research focussed on one hand on the historical development and factors that have shaped current outcome in the Supilinn district. On the other hand, general planning principles were detected and modification of current planning practice is advised.

The historical research reached back to the 17th century when the first preserved maps of Tartu and the Supilinn area were available (publication 1). The development and planning of the district was studied through the centuries until nowadays. It is interesting to mention that first land use map of Supilinn area, which has given the area the current character, was approved more than 200 years ago in the first decade of the 19th century. The area of Supilinn has followed a relatively continuous and stable development without major setbacks and a few construction escalations. The district's dominant physical appearance was to large extent reached by the end of the 1920s.

In the Soviet occupation period, building continued with limited pace as the area's houses and street network were considered worthless both materially and ideologically (publication 2). Due to a number of factors Supilinn area was never developed during the Soviet era and it preserved its authentic look and content. One may surprisingly conclude that in the Soviet regime's efforts to wipe out areas like Supilinn, it actually accomplished their genuine conservation for the coming generations.

At the end of Soviet period the modernist ideology of total renewal was already drawn into doubt. Three spatial land use plans for Supilinn from 1986 through 2001 to 2014 demonstrate the great transformations in planning ideals, planning legislation, and how planning was conducted (publication 3). The planning solutions progressed from cautiously selected preservation in 1986 to cautiously selected renewal in 2014. The value of existing buildings and streets was decisively reconsidered. At the same time, the arrangement of the planning process ranged from a declared secrecy in the Soviet era to public polls and

intense involvement of local residents' representatives in the second decade of the 21st century.

The process of democratisation of spatial planning was initiated as a part of the democratic society development in the late 1980s and the early 1990s. Still the transformation could not have happened without local initiative as demonstrated in the case of Supilinn (publication 4). Strengthening of the local community and the belief in valuable surroundings advanced gradually into self-consciousness that allowed one to advocate for the preferences of local residents as full partner to the city government. The clear message and continuous work resulted in the recognition of the originality of the Supilinn district.

In the last quarter of century, similar revitalisation as in the Supilinn area have taken place in many neighbourhoods across the globe – it is widely known in professional literature as gentrification. In Supilinn, it was possible to identify most of the relevant indicators, such as the three waves of gentrifiers, change in real estate value, and conversion of social composition (publication 5). Gentrification had undoubtedly resulted in positive effects like the preservation and gentle refurbishment of historical housing, improved image, and self-conscious community. On the other hand, high popularity made it hard for poorer people to acquire housing in the area and the newest residents' demand for comfort was threatening the authenticity of the area – e.g. the use of traditional materials in street and courtyard pavements was avoided while asphalt and modern stone pavements are favoured.

In the end, an attempt to clarify why the built-up historical areas like Supilinn are highly valued is made (publication 6). In the explanation Henri Lefebvre's theories of different spaces was utilised as a theoretical example. When comparing the use of different spaces, it turned out that many activities were more likely to happen in previously created places than in recently developed complexes. Still, the locally popular places were fragile and inconsiderate improvements might spoil their original value. The study of existing merits in locally highly valued neighbourhoods needs much more attention than the widespread planning practice, that is concentrated on solving problems and introducing alterations, pays to it.

In addition to published articles the following four subsections address the findings and discuss the three research questions posed earlier in this work as follows:

1. The discussion on Estonian planning legislation and practice in subsection 7.2 addresses the research question 1.
2. The discussion on the role of the public and expert knowledge vs. experiential knowledge in subsections 7.3 and 7.4 addresses the research question 2.
3. The discussion on enhancing liveability while protecting historical values in subsection 7.5 addresses the research question 3.

7.2 Estonian planning ideology and practice development

The case study of the Supilinn district in Tartu exemplifies the development of spatial planning ideology and practice in Estonia, and how planning is intertwined with overall social and legislative developments in society. The first spatial land use plan in the early 19th century determined the rectangular street network in the area lined with 1- to 2-storeys buildings which were used both for living, small-scale production and shops next to the building line on the streets' boundary. The traditional mixed use pattern known from the older urban communities, and the building rules that favoured continuous façade lines with wooden buildings separated by fire walls continued to dominate for a century.

From the 1920s with the ideas of functionalist planning, production activities were scaled down and residential use started to dominate. The façades of houses were moved away from the street line to give space for front gardens. In the Soviet era, grandiose plans of renewal suggested full replacement of older housing and the plan of the high modernism period of the 1970s defined a completely new built environment with high rises situated in the middle of greenery. Everything was designated to be changed including street corridors, houses and gardens with one exception – bath house in stone construction by the river Emajõgi was to be preserved. In about half of Supilinn's area, the residents were to be transferred to at least 4-storeys blockhouses, and the rest of the district was to be divided between academic buildings for the university, and sports facilities located in green areas. The general plan of Tartu from 1974/76 claimed a similar fate of extinction for the most pre-WW I wooden housing districts being extreme in uprooting the historical legacy even in the Soviet functionalist planning context.

The current study demonstrates how the advancements in land use and spatial planning reflect the overall changes in society and vice versa. The study shows how developments at the end of the 1970s in architecture and the early 1980s

in land use planning foreboded the coming societal upheaval in the Soviet state. The need for change was not marked only in Estonia and other discontented Baltic republics but centrally from Moscow (Tšekalin 1985). The criticism of the operative norms (SNiP, discussed earlier), limited choice of materials and low building quality was widespread (Šein 1978, Rein & Volkov 1981) but this was also accompanied with a call for increased democracy, and a recognition of public opinion not just the opinion of the experts (Tšekalin 1985).

The rigid top-down system that produced blockhouse areas like Mustamäe in Tallinn, the capital city of Estonia, were freely criticised toward the end of the 1970s and at the beginning of the 1980s, and instead, a low and dense housing policy was advocated (Fjuk 1981). The concept expressed in newspaper articles, that regarded urban space in general and newly manufactured blockhouse areas in particular as alien and threatening, came from historical resources like German sociologist Georg Simmel's critical essay from 1903 (Simmel 1965). The critique of functional and esthetical features was supported by the fear for cultural colonisation, since the building of new mass-produced residential areas in Tallinn, like Lasnamäe, were mainly filled with new immigrants from other parts of the Soviet Union (Heinloo 2009).

Parallel to the criticism of new blockhouse areas, the concern for wooden built heritage emerged (Lindmaa 1977). Simple wooden neighbourhoods, similar to Supilinn, were officially considered inferior and only architectural landmarks were marked as worth conserving. Nevertheless, public appeal for the conservation of Karlova, another pre-WW I wooden houses area in Tartu, was expressed in newspapers (Lutsar & Preem 1984). The alternative views to state project design companies was fostered in the urban research laboratory at Tartu State University. Laboratories publication from 1986 stressed the importance of complex aspects determining the value of a given built-up area, and promoted advantages of historical neighbourhoods, despite of their poor physical condition (Preem 1986). The original authors of the Tartu general plan of 1974/76 tried to reduce the impression of radical redevelopment (Meelak 1984). Still, the criticism of the extreme functionalist approach to urban planning resulted in planning documents that preferred preservation and moderate redevelopment (e.g Kalamaja area in Tallinn – Anupõld 1985). One of them was the concept plan of the reconstruction of Supilinn in 1986, which radically changed the planning solution for the area (Tartu Supilinna… 1986). After the end of Soviet occupation, the pre-Soviet urban areas in Tartu, Tallinn and elsewhere were officially reconsidered as valuable (Hess & Hiob 2014).

During the first decade of independence in the 1990s Supilinn experienced a capitalist approach of maximisation of payoff in real estate business. In 2001, the adopted general plan promoted radical densification of plots and buildings (Supilinna linnaosa üldplaneering 2001) in accordance with the official ideology of market economic principles of free competition. During the process of planning, both the compact city ideology and the revitalisation of rundown area (which are actually relevant arguments) supported the drastic redevelopment and numerous supporters of preservation were overrun. The last mentioned group was unorganised, but this changed after the creation of the Society of Supilinn in 2002. The pressure from the residents for conservation resulted in the declaration of Supilinn as a valuable urban area in the 2005 Tartu comprehensive municipal plan (Tartu linna üldplaneering 2005), and a new general thematic plan for Supilinn was officially approved in 2014 (Supilinna… 2014). By then the argument for the revitalisation had ceased to exist as the technical standard of the area was improving without the help of public funds, and the local values to be preserved outweighed the advantages of the compact city formation.

The last act was passed in a wave of grassroot initiatives with similar demands for their neighbourhood all over Estonia. Since 2000 new neighbourhood societies emerged in Tallinn, Tartu, Pärnu, Paide and other Estonian towns. Public opinion was well prepared and favoured the decision of conservation as it reflected the general sentiment and attitudes in the society. Today, local authorities invite the representatives of neighbourhoods in discussion over the future use and formation of the urban space. For example, the district associations in Tallinn were invited to participate in the effort to redesign some central streets for more pedestrian and cyclists' friendly environment and in Tartu the new general plan was discussed individually with local community representatives.

7.3 Role of the public in planning

Public involvement is considered an essential part of contemporary planning practice. At the same time, it is debatable how strongly the popular sentiment, both on regional, local and neighbourhood level, should be followed in the planning rulings. The balance between listening to public opinion and making unpopular decisions suggested by experts arises daily in planning processes. One has to admit that there is no clear answer to what is the best practice – it emerges and evolves with the planning process itself in a specific set of norms and values (Sager 1995). It has been concluded that there is no point in striving for a single

theory of good practice and a number of approaches should be expected in spatial planning (Whittemore 2015).

The issue of the popularity of planning decisions was already under discussion in the Soviet period (e.g. Kaplinski 1978) and is a hot topic in the year 2016 (e.g. Koov 2016). During the Stalin's regime public discussions were not tolerated (Oruvee & Tihase 1955). Instead, the public criticism was exploited to point out the right and wrong and used for personal attacks (e.g Koido 1952, Kusmin 1952, Port 1954). The general plans for cities and towns were generally kept secret and public discussion was rare. In 1955, surprisingly, it was admitted in official newspaper that architects' designs of plans and buildings were not allowed to be criticised publicly or even among the architects themselves (Oruvee & Tihase 1955). The plans for Supilinn were in that period a part of the Tartu general plans and no separate treatment occurred (Hess & Hiob 2014).

After Stalin's death in 1953, public debates on urban planning issues emerged but were controlled and censored. The public display of Soviet era planning documents was heavily limited in fear of "public enemies" using them against the Soviet regime. Secrecy diminished public support for urban plans as the reasoning for the spatial solutions was hindered. It seemed frustrating to the planners themselves as well (Meelak 1972). Theoretically, the Soviet dictatorship was presented as popular power, more democratic than any Western democracy and the discussion among large crowds was officially welcomed (Port & Tarvas 1956).

There were examples on debates in newspapers on how to design central spots in cities. An interesting example is the series of articles in cultural weekly *Sirp ja Vasar* in 1954 about Viru Square in Tallinn, at the time Stalin's Square, even though Stalin had died a year earlier. The original planning idea was presented publicly in 1949 (Volkov 1949) and allegedly discussed repeatedly in the union of architects (Koido 1952). Altogether eight articles about the architecture of coming Soviet Palace were published in a period of two months[2]. Sometimes general plans were described verbally revealing some aspects of the content and even urged for further openness about the planning principles and parts of general plans (Port & Tarvas 1956).

In addition to specific projects, news from the architects' union, which included announcements about discussions in the union's office on planning and architectural projects, were published in the cultural weekly *Sirp ja Vasar*. In

[2] Available at http://dea.digar.ee/cgi-bin/dea.

some occasions, the meetings were announced beforehand making the gatherings available for non-members of the union.

The criticism in the second half of the 1950s targeted the pretentious layout of streets and squares (EN Arhitektide… 1955), neoclassical planning solutions of rigid building lines (Haljak *et al.* 1956), the implementation of the plans (Arman 1956) as well as the hasty shifts in central guidelines (EN Arhitektide… 1955). Architects Tarvas and Kotli complained that after Stalinist decorations were banned, civil engineers regarded architects as inferior (EN Arhtiektide… 1955). In the 1960s and 1970s discussion with several counterparts on the topics of conservation, planning principles, and architecture and building quality were evident. Especially, the mass production of blockhouses triggered disapproving reactions both among professionals – architects, civil engineers, and economists, other intellectuals and ordinary people (Meelak 1972). Still, criticism did not draw into question the top-down planning hierarchy where local municipalities only consulted their own plans which the municipalities had to implement but were prepared in large state owned planning companies (Bruns 2007).

In the 1970s and 1980s a new postmodernist approach appeared in the planning as well as architectural practice and theory in Western countries (Sultson 2006) which provided a wider range of accepted planning solutions. At the end of the 1970s open criticism of new blockhouse residential areas was conducted (Fjuk 1979). Rather than the principle of planning without given building lines (so-called free planning), the way it was carried out, was denounced – standardised architecture without variation, vast open areas between houses, strictly geometrically laid street grid, oversized structures *etc*. The core objection concerned the inhuman environment that the new residential areas offered – the designers had forgotten that they have to work for human wellbeing (Fjuk 1979, 1981, Lass & Ringo 1981). The aim of urban planning, it was claimed, should have been to encourage and guide social activism (Roose 1981) by creating attractive surroundings and providing cultural buildings (Sootna 1978). Pushing people into flats with unattractive surroundings was wrong and produced criminality (Sootna 1978). It was declared that planning cannot predict the needs of future residents – the plans have to be adjusted for real life. In addition to the lack of realisation of social infrastructure, there were also problems with the content in plans – no youth activity houses, clubs for elderly, jogging trails *etc*. Because of the state ownership, the residents were not interested in maintaining the surroundings outside the flats (Kruusimägi 1978). The criticism of blockhouse areas was also taken place centrally, in Moscow (Sootna 1978).

Authors of planning designs recognised the few problems in urban planning but blamed them on limited input information (lack of computing power), obligatory prefabricated designs with almost no variations, and the lack of funds for maintenance and upkeep (Meelak 1972). Limited number of building types was used because construction companies opposed variation that translated to higher costs and slower building pace during a time of severe housing shortage. To provide quickly shelter for as many people as possible, only absolutely necessary elements like main streets, residential space, schools and kindergartens were constructed but planned service facilities and green areas were postponed. The modernist planning solutions themselves were defended as progressive and cheered by officials both locally, and from other Soviet and Eastern European bloc republics (Meelak 1972).

Public opinion after the restoration of independence in 1991 inherited the widespread criticism of spatial plans as well as plans in general as the oppressive Soviet plan economy had proved to be inefficient. In the 1980s, even before Soviet state reforms of Mr. Gorbachev became extensive, urban planning practice tried out new concepts. The concept plan of Supilinn from 1986 might be regarded as an example of postmodernism, that opposed the prevailing modernist ideology used for mass production of residential units in blockhouses. New planning ideas involved human approach, which had been promoted by some enthusiasts for a decade already. The social wellbeing and pleasant environment were given much heavier significance. Nevertheless, this did not include direct involvement of residents – the estimation of human needs was made on the basis of sociological research and intuition.

First planning and building act of 1995 in Estonian Republic formulated officially the democratic procedure as the only legal approach to spatial planning. In some municipalities, notably in the capital city Tallinn, authorities have attempted to bypass the public procedures by preparing planning documents outside the legal framework. In Tallinn, it was popular to give spatial limits on building with construction ordinances, which were declared illegal in 2005 (Jõks 2005). Until recent years, Tallinn has prepared so-called structural plans that are planning proposals, often used in decision making, but which have no legal standing or public procedure. These are prominent examples of how public display and discussion are considered separate from “real” planning done by experts. Both, the developers and municipal governments, try to avoid complicated planning procedures. In addition to scepticism towards laypersons’ opinions in planning process, these examples reflect the inconvenient and inefficient planning regulation system in some municipalities, where the simplest plans may take

several years to get approved. Partially, the reasons for this inefficiency stay in the legal framework, but the major deficiency rests in municipal organisations where procedures are often duplicated and there is a severe shortage of specialists.

The debate over public involvement is ongoing in all democratic countries with public-led planning systems. Both approaches, democratic and expert-led, have pros and cons. Democratic procedure could hopefully make the solutions better adapted for people's real needs, more popular, and thereby more comprehensible. People perceive them as their own and try to help in case of problems, not dissociate and criticise. The threat is displayed in solutions that are popular but not in the best interest of the neighbourhood in the long run as predicted by experts.

Professionals have more relevant information which would hopefully lead to more functional and rational solutions. On the other hand, when the systems get too complicated, the professionals can't predict the outcome. There are many alternatives and the decision making relies largely on subjective intuition. As professional solutions are not as understandable to the public, there is a threat of disuse or even misuse which leads to negative outcomes of well-meant planning solutions.

There is also a threat that the professionals may have different attitudes and opinions than the average citizen, so-called professional syndicate. With deeper understanding the problems and solutions seem different to the professional than the everyday user. Normally, it would be advisable for experts to try to influence the public opinion towards better understanding, allowing both parties to revise their positions.

In the case of Supilinn, the last thematic plan of 2014 has demonstrated the utmost conformity with the public opinion of local residents during the period of adaption. The polls on planning solutions showed overwhelming support for the conservative approach to preservation. In a historic coincidence, both planning experts and politicians in Tartu town municipality and even almost all local real estate developers favoured the preferred solution, which was passed with only some opposition from a few experts involved in preparation of previous planning solutions.

Arnstein, in her seminal work on public participation, discussed eight distinct levels of intensity ranging from manipulation to citizen control. While Estonia in general and the Supilinn area in particular have made significant strides in the

ideologically preferred direction, efforts fall short of the delegated power and citizen control, the highest levels (see Fig. 5) as the power remained in the hands of central municipal council. It remains to observe how the public opinion and planning ideology will develop in the coming decades.

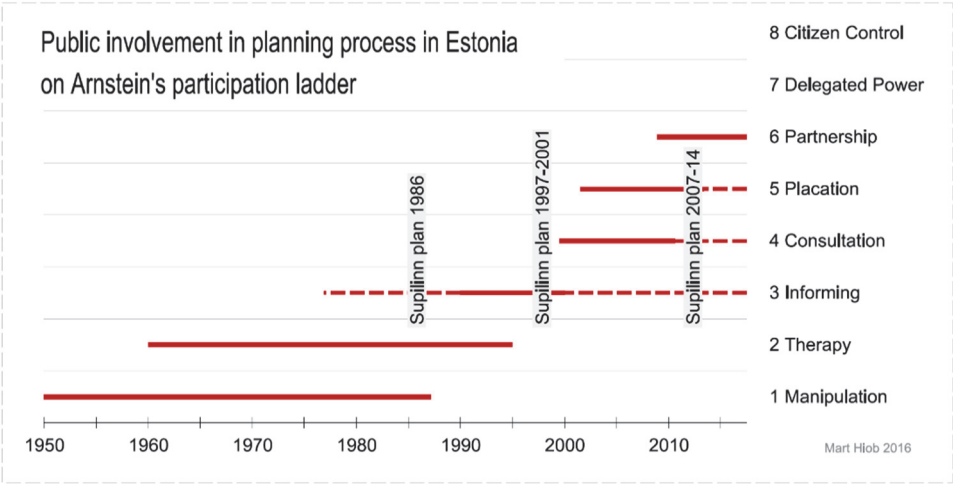

Figure 5. Arnstein's ladder of participation applied for Estonia with the plans prepared for the case study area. Mart Hiob 2016.

7.4 Expert knowledge vs. experiential knowledge

The public discussion on planning topics is often confusing for laypersons and even for professionals due to diverging concepts of values and rationality. In an attempt for objective decision making, monetary value has widely been used as justification. As many aspects in human society are not easy to justify in monetary terms, the economic rationality's dominance over social rationality was already criticised in the 1950s (Diesing 1950, 1958). In economic rationality the payoff maximisation and utility maximisation are distinguished with the first not being preferable in the long run (Hodgson 2012). It is also claimed that due to hardships in measuring utility, rational choice theory does not contribute to the understanding of the results of decision making (Hodgson 2012).

Objective and rational behaviour of humans, in general, has been called in question and techniques to become aware of limits of rationality have been proposed (Jones 1999). Simple argument on altruistic behaviour shows that absolute rational performance is fundamentally problematic – whether it is the consistency of behaviour or more restrictively, maximisation of specific returns (Hodgson 2012). One may conclude that different theories on planning practice

involve different approaches to rationality and separating rationality from irrationality becomes challenging (Sager 1995).

In planning processes both procedural limits of rationality, the concern of how we go about making decisions, and substantive limits that affect specific choices directly, are relevant (Jones 1999). During the Soviet regime after Stalin, scientific rationality was claimed as the foundation of Soviet spatial planning. Despite desired rational planning efforts, the immediate problems occurred with the implementation as intended. The main reason for the lack of realisation of the plans was the shortage economy that limited demolition of structures declared in the plans as obsolete (Tippel 1956). The descriptions published both contemporarily and later, as memoirs, prove that location of major buildings did not follow the plans (Port & Tarvas 1956, Bruns 2007) nor did the location of industrial enterprises (Herkel 1956). The contemporary account of how plans were altered in the 1950s in Tallinn was notorious – the specific interests and corruption in supply of state credit prevailed over planning solutions not only in details but also in the location and design of the central public and transport facilities (Keppe 1956). The decision making was politically influenced by short term gains of the local administrators and industry leaders not made by the independent professional planning experts as ideologically suggested (Tippel 1956).

Among planners, who during Soviet Estonia were almost exclusively architects (Koido 1952, Meelak 1972), it was a widespread opinion that the problems were caused by collective decision making in meetings dominated by non-professionals (Haljak *et al.* 1956, EN Arhitektide… 1955). It was declared that creating architecture (which included urban plans) was like writing a piece for an orchestra and architect was the writer (Herkel 1972), and planning was art where the central piece was the composition of facilities (Meelak 1972). One may conclude, that even though residents' voice was insignificant during Soviet regime, the versatility in the planning decision makings bodies was represented by other professionals responsible for the implementation phase. In Supilinn's case, the conflict between planning professionals and other interest was not as evident since very little of the plans were actually implemented. Still, there were some examples of industry (asphalt production, woodworking, metal processing) introduced in overwhelmingly residential neighbourhood that were in conflict with official general city plan.

Today, the debate on the balance between different shareholders in planning process continues in Estonia. On one hand, the politicians are the official decision

makers, but should they listen primarily to public opinion and local activists, experts hired by real estate developers, their own experts in the municipality or independent planning experts, is open to discussion. Sometimes the last mentioned group positions itself as an impartial judge and could have the heaviest moral weight. Nevertheless, the independent professionals, often located in academic institutions, sometimes propagate standpoints misunderstood by all other parties which demonstrates their different understanding of rationale. This leads to their marginalisation. In an Estonian context the divergence from large segments of society is especially visible among architects (Preem 2003).

In a wider context, the challenge of architects' isolation (especially 'star' architects) from public's expectations has been criticised worldwide (Pogrebin 2006, Outram 2013, Finch 2014, Shubow 2014, 2015a) as well as the lack of functionality in grandiose designs (Daley 2013). The opinion of the laypersons has been ignored in single building design as well as the design of larger complexes (Bingler & Pedersen 2014). The inclusive design that addresses its everyday users may only be accomplished by listening to other professions and to the public in general (Hyde 2012). The answer to the critiques, sometimes does not encourage a change, but rather attempts to justify the negligence of common user (Betsky 2014), thus not being sustainable for the profession.

The idea of taking public opinion as a significant input in planning and design solution has not prevailed among many Estonian architects to date. Instead, educating people to comprehend architecture is predominating not vice versa (Valk 2016). The declaration of the necessity for architects to cooperate with other professions has become habitual (Koov 2016), but the logical implication that other professions may have equal or even dominant role in space design has not yet taken root. Similarly, it is often still hard to accept public opinion as a positive aspect to consider rather than an annoying disturbance. This attitude has most likely its roots in the modernist architecture of the 20th century where the component of educating the public on the matters of beauty and right choices played a central role in the ideology both in Western countries and in the Soviet bloc (Ojari 2004).

On the other hand, there are positive examples where architects have taken a leading role among local residents (e.g. architect T. Paaver in the local residents' Telliskivi Society in Tallinn) to confront both real estate developers and municipal government. Also, in everyday practice, the majority of Estonian architects are willing to cooperate for the best results. This illustrates the diversity and

dynamics of current situation in spatial planning in Estonia. The reluctance among architects to share the leader position in spatial issues may be caused partly by the professional pride but also the negative Soviet era experience, when architectural and urban design were restrained by political guidelines, the strict normative acts, and the limited range of construction materials and building techniques, may have an influence.

In the Soviet system spatial planning was organised strictly as a top-down process where detailed plan was the last step before project design (Keppe 1956). In current Estonian planning legislation, a hint to the previous system is found on the most detailed level, where the purpose of detailed plan is not mentioned to be a public process, that would be an alternative to professional decision making through architectural competitions and layout. Instead, the purpose of detailed plan is to execute the more general, comprehensive municipal plan which is questionable as the general plan is largely achievable also without detailed planning through a building permission procedure.

There are two kinds of plans – design project plans are blueprint plans that form an unambiguous guide to action while strategic plans are frameworks for action (Albrechts 2004). Current Estonian legal framework implies that all plans except the most detailed ones together with sectorial special plans are strategic documents framing actions to help achieve preferred spatial changes. Instead of land-use zoning maps, the plans should give the rules for the stakeholders. Today's plans are not implemented directly into construction but rather provide economic, environmental, and social purposes to be considered in spatial decision making (Albrechts 2004).

The most detailed level in Estonian planning hierarchy, detailed plan, is often misunderstood as a planning document similar to the other levels. In reality it is most often building sketch made public – the reason for carrying out a detailed planning process is not as much for the design purposes as for the inclusion of experiential knowledge of the locals and the public. The tedious and prolonged procedure of planning is undertaken primarily to involve neighbours of the planning area and the public in general, and learn from their opinions while giving them a chance to have a say in the final conditions for the project design. The decision to start detailed planning process should therefore be validated from the perspective, how large is the influence of proposed development to one and every person in the community or region, how much experiential knowledge is needed. The influence is measured, on one hand, from the scope of the change (large house, great change in function) and how centrally located or valued is the

planned area (national heritage area, local protection area). Here, the process of planning is of greater value to the neighbourhood than the result, which could have been achieved through a much simpler building permission procedure.

The planning of Supilinn in the last 20 years has often demonstrated the conflict between professionals and laypersons, between different rationalities and variable knowledge. The first planning attempt according to democratic planning principles was widely opposed by the local residents. On the other side, some professionals declared the current planning solution with extensive popular support as inefficient and groundless.

A number of professionals in Estonia consider the democratic planning process unproductive as it is genuinely political combining expert and experiential knowledge. Given the large number of stakeholders and consumers, the complexity of different opinions, the countless possibilities for solutions and poorly predictable outcomes, there is no given “bad” and “good” decisions in planning. Even the worst planning decisions benefit somebody – at least the ones who spend public and private finances be it contractors, politicians or planners themselves.

For professionals, the role of opponent is frustrating. Historically, spatial planning has been considered a work of the rulers and the specialists appointed by the ruler. With the development of democratic traditions spatial planning today is seen as a democratic process that would encompass the public and ordinary people. In the planning realm the idea is to grant the primary users of space – the residents and employees – possibilities to participate in decision making and to draw from their special competences. In ideal form, the people come together and find consensus on how to develop their neighbourhood, both the community leaders and those less vocal (Wratten 1994). The presumption of this method is that local people have the best knowledge of an area, and are able to describe their preferences, and are willing to reach a common conclusion. This is an idealised bottom-up approach.

Nevertheless, most often these conditions are not fulfilled. Furthermore, bottom-up planning is highly problematic in the cases of planning of “unwanted” facilities like landfills, care centres for mentally ill, enlargements of airports, sometimes also kindergartens and schools *etc*. Additionally, neighbours cannot decide to restrain the use of a plot without compensation when the wishes of the owner are within frames of requirements of the valid planning documents and other regulations.

Still, in the built-up neighbourhoods with long-term residents and entrepreneurs the local people are the best source of knowledge of an aesthetically pleasing environment and desired developments. The purpose of public authority should be, in such cases, to advance bottom-up planning procedures as extensively as possible. A helpful tool in gathering local people's competences is presented by neighbourhood organisations. Such non-governmental organisations, which act as mediators between the authority and the people, could in the circumstances of trustful relations aid greatly in the planning procedures of the local community. The neighbourhood society could collect local views and formulate them into a unified opinion. This diminishes the probability of conflicting views from inside the local community. If the neighbourhood non-governmental organisation has specialists that know the language of planning or cooperates with the public sector to help them use professional terms, the proposals from the organisation are easily understandable in planning procedures. The public authority, on the other hand, would have a single partner to talk to instead of numerous but similar suggestions from autonomous individuals. Still, the persons who do not agree with the agreement reached with the help of the local organisation may promote their own opinions and the local authority has to consider them with the same validity.

The conscious consolidation of neighbourhood organisations by public authorities supports civic society and empowers the ordinary people in the democratic procedures also outside the realm of spatial planning where the Planning Act specifically demands the informing of the neighbourhood organisations. Therefore, it is greatly recommended that the local authorities encourage the establishment of the community organisations and support their activity both politically and financially. In many municipalities in Estonia this is already happening.

In the case of the bottom-up planning approach, the role of the planner is primarily that of an interpreter. Nevertheless, the expertise of the planner is needed for the evaluation of the proposals proposed by the local people. In the historic areas, the acknowledgement of heritage could have a central role both in the community consolidation and the rise of grassroot activities (Harrison 2010). When the process gains momentum and the neighbourhood starts to attract outsiders who wish to be part of the socially active community life in a valued urban built-up district, the process could acquire elements of gentrification including possible threats discussed later.

In Estonia, the urban grassroot activists have emerged mostly from centrally located historic neighbourhoods in Tartu, Tallinn and elsewhere. The Supilinn district has a complex of houses (in Lepiku Street) acknowledged as national heritage, and a few single heritage monuments scattered in the neighbourhood, but the value of the great majority of the buildings and streetscapes are not part of "authorised heritage discourse" (Smith 2006). In the case of Supilinn and many other similar historic neighbourhoods, heritage is not only a group of simple tangible objects but it works as an initiator of, and a participant in the cultural processes carried out by the local residents, among others giving input to the spatial planning activities. Similar scenarios are well-known in the academic literature – in Europe (e.g. Riversleigh and Castleford in UK described by Smith 2006) as well as elsewhere (e.g. in Santiago, Chile, described by Sagredo Aylwin 2016, in Kathmandu, Nepal described by Bjønness 1994, in Yangon, Myanmar described by Logan 2015).

In the last decade the creation of map-based participation tools like Helsinki's Maptionnaire (Maptionnaire webpage 2015), that grants the residents and visitors opportunities to announce their proposals and connect it directly with geographical location, route or area, has been encouraged (Talen 2000). This allows one, in addition to conventional data types, to collect neighbourhood data generated via the cognitive and perceptual imagery of its residents – experiential knowledge (Talen 1999). In Estonian context the Land Board (*maa-amet*) has launched and maintains a public map server with multiple layers including local folklore connected to objects in the landscape. This GIS database facilitates greatly both specialists' and non-specialists' access to spatial information. On a local level Tallinn city has a functioning planning documents' register with up-to-date map (Tallinna planeeringute register 2016) while Tartu city offers possibility for citizens to propose questions and suggestions electronically with pointing out the site in question on a digital map (Ametnik vastab 2015).

7.5 Enhancing liveability while protecting historic values

In a planning situation people of versatile background with diverse values have to seek common ground. It depends on the planner's professional abilities how well different, often contradictory positions are conciliated. Often this means also using diverse planning theories as many planners already do (Whittemore 2015). A practical example is that many people prefer new, unused things – be it furniture or a house – while others like old things that have a 'soul'. And there are also people who like new things that look like old and vice versa.

In the case study area, the conflict could be described within the frames of the gentrification process. Gentrification is a market led or a publicly initiated change in an urban neighbourhood that increases area's respect and the market value of real estate, and leads to replacement of original residents with wealthier newcomers. Originally, the term was applied in London by sociologist Ruth Glass in the 1960s, but has since been enlarged to encompass similar changes in any city's centre and close-to-centre districts. There is a discussion to apply it even in the countryside (Brown-Saracino 2010).

Gentrification entails both positive and negative sides. The preservation and rehabilitation together with the heightened public image stops social and physical degradation of an area. The area sometimes gets a new development boost with new local services and improved technical infrastructure. On the negative side, often poorer residents have to leave and thereby lose their social network, and the physical changes in the neighbourhood may transform the character of the area to unrecognisable. In addition to physical changes, the replacement of residents brings about social and cultural conversions, separation of rich and poor, which is claimed to be an injustice problem (Sutton 2015). One of the greatest challenges is the loss of identity and the dominance of middle class bourgeois consumption habits (Lees 2014).

There have been suggested actions to evade negative sides of gentrification (Lees 2014). It is important to bring the negative sides of gentrification to light and make the politicians conscious about the problems and threats. Alternatives to gentrification are preservation, self-build and cooperatives renting out space below market rent to keep the area affordable for low income residents. Also rent control, progressive land tax, restricting of investment schemes and funds are put forward as the appropriate measures (Sutton 2015).

In Estonia, these strategies work only moderately. Firstly, the poorer residents are usually not ready to organise themselves in cooperatives and housing associations to start up negotiations with landlords. Secondly, lucrative offers to old residents to trade their centrally located but in poor condition apartments for a larger flat with central heating and running hot water is often considered reasonable. Thirdly, defying market forces by introducing restrictions and preferences based on income level of residents works as an invitation for misuse.

In Estonia, gentrification is not generally regarded as a major problem. The environmental shifts are noticed and commented (Olmaru 2015) but no official policy has been adopted. The widespread measures include compulsory preservation but the justification is not given on the grounds of avoiding negative

outcomes of gentrification but cultural heritage protection. Also preservation could encourage gentrification when restoration of existing buildings becomes too costly.

Supilinn has undergone noticeable changes which may be described in the context of gentrification in the last quarter of century. The different waves of gentrifiers have arrived with their own values, which were sometimes in conflict with the ones inherent to existing long-term residents. The first two waves largely tried to illuminate the existing advantages of the old neighbourhood, while the third wave, often supported by the pre-gentrification residents, brought along preference for new construction. The disagreement is exemplified in pavement materials favoured – the new asphalt streets and concrete stones with parking availability both in streets and in courtyards is supported by third wave gentrifiers together with some older residents, while others prefer historical materials like cobble stone, pervious materials and granite slabs.

The overwhelming majority among Supilinn residents favours the preservation of the ancient nature of the neighbourhood. Historic urban areas are characterised both by their age and by their method of construction. The term 'historic urban area' may refer to different eras depending on location and the purpose of naming. In the context of current study, it concerns housing and utility buildings put up roughly before World War I. In Estonia in general, it is widespread to consider historical objects created before World War II as heritage.

The main features of historic areas in this research are the building technique, materials and design. The majority of the houses built were nearly handmade because of poorly mechanised building techniques until almost the 1960s. Partial mechanisation took place in the 19th century but it developed to mass production of housing first in the 20th century. The reason for introducing mass-production of buildings and abandonment of hand labour was caused by several reasons. The most obvious was the development of the building techniques, tools and materials which allowed both prefabricated solutions and mechanised assemblage and therefore higher productivity in putting up new structures. Another reason was the higher labour costs – handmade solutions were not affordable anymore. The third cause was the rising demand coming from the devastation of World War II, the population explosion and the expectations for improved standards of living. The forth main motive combined with the previous ones was the urban planning ideology change starting in the 19th century and making its breakthrough in the 20th century. The new ideology preferred larger

scale urban building blocks, higher and larger houses, and larger scale transport installations (wider streets, multilevel crossroads *etc*.). In addition, advances in project design allowed more complicated and data consuming design.

In the Supilinn area, construction and decoration material, including roofs, was overwhelmingly wood. This had both traditional and practical reasons. The wooden building tradition used to be strong in Estonia. The vast majority of new buildings were raised in wood throughout the centuries. Wood was easily accessible and cheaper material than stone or brick stone. In addition, microclimate in wooden buildings was more pleasurable in long cold winters, rainy autumns and chilly springs. The historic buildings often do not meet present-day requirements for energy conservation and ventilation, as well as water supply, sewage, heating, power and fire protection. The improvements are possible to carry out without major loss of ancient content with help of professional advice.

The design of Supilinn historic neighbourhood is determined by pre-World War I constructing customs. The houses were placed on strict building lines adjacent to the street. There was a possibility to put up a second house behind the first one while the depth of the plot was used for agricultural purposes. The buildings were 1- to 2-storeys with traditionally proportioned windows (length-width was 3 to 2) and one door opening directly to the street. The gable roof, for older houses the hipped roof, was prevalent.

Similar design and material was widespread in the 19th and early 20th centuries Estonian urban construction. Because of their poor amenity standard, the wooden areas were unpopular in the 20th century, both during the interwar period and under Soviet occupation. Urban plans intended to replace them with stone and later with concrete buildings. The human dimension and pleasant wooden material, which were a product of the limitations during the construction period of historic urban areas, has been rediscovered and appreciated in the last decades.

Worldwide, many historic urban areas have been cleared in the last century due to the economic and ideological reasons. The central areas, that historic housing occupied, increased in value and the pressure to replace the small scale housing with higher densities occurred. In combination with the consideration of old houses as obsolete and belonging to the previous, not as glorious, era of the 19th century, the redevelopment decisions with complete demolition of old structures was extensive. Urban renewal in the United States and Western Europe both during interwar period and in the 1950s and 1960s, similar to the

Soviet programmes in the 1950s to 1980s and the Chinese redevelopment from the 1950s up to present day, resulted in the devastation of traditional built heritage and the replacement by mass-produced modern structures.

On the ideological side the old neighbourhoods with small scale houses and narrow streets did not match in the vision of the "Radiant Garden City Beautiful" planning orthodoxy as put forth by Jane Jacobs (Jacobs 1961), promoted by modernist planners, notably the Swiss born Le Corbusier and his modernist followers. The official purpose of redevelopment announced as the clearing of the slums, revitalisation of the core city and the improvement of living conditions for the urban poor were seldom fulfilled (Zhang & Fang 2012), while social networks and traditional living patterns were disrupted.

Nowadays, in Western countries the historic areas are often protected and urban redevelopment means mostly conservation. Still, the renewal as demolition of old structures proceeds unstoppably in developing countries, notably in China, as well as in developed countries where the building pressure, poor public opposition and influential developments agencies in combination continue to replace historic housing with modern one.

In addition to well-established physical environment, the historic neighbourhoods like Supilinn often possess social advantages collectively called social capital. The term 'social capital' originates from sociology and has been taken widely in use in urban planning practice. Social capital emphasises positive consequences of the sociability and diminishes negative aspects (Crawford *et al.* 2008). It connects social benefits to economic capital and "translates" thereby nonmonetary, soft aspects to measurable profits or losses (Portes 2000). The understanding of social capital helps to explain why financially affluent communities are not necessarily more content with their situation than the poor. On the other hand, people are often looking for other benefits than economic and solutions to social problems could be nonmonetary.

The current research has demonstrated that both physical conditions and social contacts increase the living standard of the residents. Older neighbourhoods in continuous use demonstrate advantages that could be attributed to their age. In current study the Lefebvrean description of dividing space into three categories – planned, built and lived – is used to describe the mechanism behind the advantages of established communities (Nutt *et al.* 2016). The use of such a model with a different interpretation was already well-known in the Soviet era (Fjuk 1979).

A number of half hidden aspects like partly disorganised structures, high proportion of public use of privately owned property, uncomplicated design, pedestrian dominance over motorised vehicles and diverse social background make up the characteristics of highly valued lived space. The regulatory criteria used in planning documents do not always guarantee successful living spaces. Highly valued living environment needs time to emerge, and superficially decided reconstruction or destruction of existing areas does not demonstrate a wise spatial planning.

7.6 In summary

Spatial planning is an international phenomenon. Contemporary ideology for Estonian planning practice stems from Western theorists. Western influences were also prevalent during the Soviet regime, even though all aspects had to pass through a filter in Moscow, these influences were visible and could be detected if one knew what to look for. An example of western influence during the Soviet Era would be the use of a neighbourhood unit (mikrorayons) as the basis for planning new residential areas.

Within the last decade, Estonian planning practice has seen a rise in democratic planning ideology and processes. It is no longer an act of creating a plan in a vacuum. Planning theories such as collaborative approach are playing an increasingly integrated role. With this emerging focus on theory and ideology, there is a concurrent rise in neighbourhood associations and public involvement in planning practice.

The case study of Supilinn provides a well-documented example of Estonian planning and building practice through several centuries. Through this detailed assessment of the Supilinn district we may observe the ideologies and their practical implementation representative for Estonian historical neighbourhoods. As seen in this work, Supilinn has been through many iterations during its lifecycle. Beginning with a necessity to accommodate new residents in the 19th century and the first decades of the 20th century, to a poor reputation of being a dysfunctional slum in the 20th century, to a rediscovered sense of liveability in the last decade of the 20th century, to its current status of being the most desired place within Tartu today. This phenomenon is not unique to this one case study but is repeated time and again in other historic neighbourhoods throughout Estonia.

Historic neighbourhoods like Supilinn represent valuable living spaces constructed with natural building materials in human scale. These types of areas need special attention to avoid wasting the historic layers that cannot be reproduced. Here, the threat of super-gentrification with inflated real estate prices and unnecessary renewal of buildings that leads to the loss of authentic material has to be taken seriously and dealt accordingly.

The appreciation of historical neighbourhoods is on the rise in Estonia. The rationale is often multidimensional. For example, cultural reasons like the need to create an identity and respect the work of our forefathers; economic reasons such as the existence of infrastructure, services and public transport; social reasons like closely knit community and proximity to the city centre with social services; environmental reasons such as the presence of green areas and mature trees; and finally political and policy rationale that encourages sustainable development with the use of existing built-up areas rather than the destruction of arable land and forests. Supilinn could be considered as a helpful example for Estonian neighbourhood planning for coming decades. In the age of population and economic stagnation and even stricter environmental limitations, the planning of built-up areas becomes clearly more critical than planning virgin areas. The need for more efficient use of natural resources like arable land and forest, where new Estonian settlements have advanced in recent decades, has become ever more apparent. In facing the challenges to alter the existing built-up areas according to current and future requirements we need good knowledge and awareness of the existing values in these neighbourhoods.

In summary, spatial planning in Estonia has made positive strides in the last decade moving from totalitarian to inclusive processes, there is still much to be accomplished. Planners have generally accepted that they are no longer the dominant experts but negotiations with all stakeholders are needed to reach a balanced solution for society as a whole. The paradigm shift has not always been smooth as individual planners carry on the tradition of positivist thinking of modernism that has moderately survived within education. In addition, politicians and general public ask for simple, unchallenged solutions, unfortunately rarely available in our complex society. Planning as an academic discipline has started to emerge in Estonia as a separate field of study. The research is divided among different universities and the collaboration is not systematic. Nevertheless, with the rise of complexity in society, the necessity for better understanding of spatial processes and the need to influence them urges the advancement of spatial planning research and education.

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Summary

This thesis is about the practice and theory of spatial planning in Estonia, exemplified by developments in Supilinn, a historic suburb of Tartu city, Estonia. During the research, empirical studies were combined with ethnographic methods like participant observation, and active participation in matters concerning the social and physical environment of the neighbourhood. The author has worked for the neighbourhood organisation for 14 years (12 years as the leader) and has personally been involved in discussions with the city government, local residents, developers and planning experts. This intimate relationship together with professional knowledge has contributed to an increased understanding of the neighbourhood's character enabling better tools for influencing future developments.

The research reveals that the Supilinn neighbourhood has a planned history for more than 200 years. In the early 19th century the district was laid out in ordered way of crossing streets and 1- to 2-storey buildings on the street building line. The characteristic wooden buildings have gabled roofs and traditionally proportioned windows. Even today, they make up about ¾ of the building mass in the neighbourhood. In the 20th century slow progress continued and new buildings were added. Soviet time plans foresaw the total reconstruction of the area but the plans were never carried out due to various reasons. During the new independence era, the image of Supilinn has changed radically – regarded as an outdated slum in the first years of the 1990s to one of the most desired and expensive districts in Tartu nowadays.

The planning of Supilinn during the last 50 years demonstrates the changes in planning ideology and practice in Estonia during this period. During the height of modernism in the 1970s, proposed renewal allowed only one original building standing. In the first half of the 1980s, much more preservation friendly planning concepts were introduced. The first plan in independent Estonia attributed some value to the existing building mass but postulated a severe densification with new streets and homes. The last planning document has specified the major part as valuable both regarding the buildings and plot structure as well as large green spaces.

The last planning document was passed with considerable local support. In terms of public participation, this presented the result of major change from strictly secret planning process under Stalinist regime, to some discussion during the 1970s and 1980s, officially democratic planning in the 1990s and active

neighbourhood initiatives in the 2000s. Similar developments took place overall in Estonia. Still, there is the dilemma of balancing popular planning decisions and professional approach when the two are in conflict. There is no clear answer to that question but until recently the scales had been tilted too much toward experts (in local government) and public opinion was not taken seriously enough.

The discussion about good living environment has revealed different values among both residents and professionals. In the case of Supilinn the process of gentrification has brought new conflicts in regard to the preservation of historical heritage and recreating lost public space design. The research reveals some important characteristics of ancient milieus compared to newly developed ones. It is regarded in the context of Lefebvrean division of the space into planned, built and lived environment where lived space displays the highest qualities for meaningful existence.

Kokkuvõte

Käesolev doktoritöö on ruumilise planeerimise teooriast ja praktikast Eestis, mida on avatud Tartu ajaloolise linnaosa Supilinna arengu näitel. Ruumiline planeerimine puudutab pea kõiki ühiskonna liikmeid, sest kõik me kasutame ühist ruumi, mille kasutust planeerimine suunab. Töö koostamisel ühendati empiirilised uuringud kvalitatiivsete meetoditega nagu osalusvaatlus ning aktiivse osalemisega piirkonna füüsilist ja sotsiaalset keskkonda puudutavate küsimuste aruteludel. Autor on olnud tegev planeeringute koostamisel alates 1999. aastast ning töötanud õppejõuna Tallinna Tehnikaülikoolis 2005. aastast. Samuti on autor osalenud aktiivselt Eesti Planeerijate Ühingu ja Eesti Maastikuarhitektide Liidu raames seadusandluse ning ruumilise keskkonna planeerija kutsestandardi väljatöötamisel ning väljaandmisel. Supilinnas töötab autor kohaliku asumiseltsi heaks viimased 14 aastat (millest 12 oli seltsi esimees) ja on isiklikult kaasatud aruteludesse linnavalitsuse, kohalike elanike, arendajate ja planeerimise asjatundjate vahel. Lähedane suhe koos erialase teadmisega on viinud nii piirkonna omapära kui ka selle näitel ruumilise planeerimise sisu laiemale mõistmisele, mis võimaldab paremini mõjutada tulevasi arenguid.

Uuring näitab, et Supilinnal on enam kui 200 aasta pikkune planeeritud linnaosa ajalugu. 19. sajandi algul kavandati piirkond korrapäraste ristnurksete tänavatena ja 1- kuni 2-korruseliste hoonetega kohustuslikul ehitusjoonel tänava ääres. Iseloomulikud puithooned on viilkatusega ja traditsioonilise proportsiooniga akendega. Isegi tänapäeval moodustavad ajaloolised majad umbes kolmveerandi piirkonna hoonetest. 20. sajandil jätkus aeglane ehitustempo uute hoonete lisamisega olemasolevate vahele ja mõne väikese uue tänava äärde. Nõukogudeaegsed planeeringud nägid ette kogu ala rekonstrueerimise, kuid neid ei viidud erinevatel põhjustel ellu. Taasiseseisvumise järel on Supilinna kuvand põhjalikult muutunud – 1990ndate vanamoodsast slummist on saanud tänapäeval Tartu üks kallihinnalisemaid elamurajoone.

Supilinna viimase poolsajandi planeerimine demonstreerib muudatusi kogu Eesti ruumilise planeerimise ideoloogias ja praktikas. Modernismi kõrgajastul 1970ndatel nähti ette kogu hoonestuse lammutamine ühe erandiga – Emajõe saun Emajõe tänavas. 1980ndate esimesel poolel levis palju säilitamissõbralikum planeerimise kontseptsioon. Taasiseseisvunud Eesti esimene Supilinna üldplaneering lubas küll hoonete säilitamist, kuid nägi ette ka tugevat tihendamist ning uute tänavate ja hoonete püstitamist. Supilinna kehtiv

teemaplaneering on määratlenud valdava osa piirkonnast miljööväärtuslikuna nii hoonestuse, krundistruktuuri kui ka haljastuse poolest.

Kehtiv planeering kiideti heaks elanike märkimisväärselt suure toetusega. Avaliku kaasamise poolest näitlikustab viimase planeeringu koostamine arengu tulemust rangelt salajasest planeerimisest Stalini võimu ajal läbi piiratud arutelude 1970. ja 1980. aastatel, 1990ndate ametlikult demokraatliku planeerimisprotsessi, kuid tegelikult endiselt tihti „ülalt-alla“ praktikana, ja aktiivse kodanikualgatuseni 2000. aastatel. Sarnased arengud on toimunud ka mujal Eestis. Tänapäeval jätkub aga arutelu avaliku arvamuse ja erialaste soovituste tasakaalustamise üle planeerimisprotsessis, kui need on omavahel vastuolus. Sellele küsimusele ei ole ühtset vastust, kuid viimase kümnendini on tasakaal olnud tihti ekspertide (ehk omavalitsuse) kasuks ja avalikku arvamust ei ole võetud piisavalt tõsiselt. Oluline on siinkohal välja tuua, et planeerimine ei saa olla lõpuni objektiivne, vaid sõltub alati isiklikest eelistustest. See kehtib nii tavainimeste, aga ka ekspertide ja otsustajate ehk poliitikute kohta.

Hea elukeskkonna teemaline uuringuosa on välja toonud nii elanike kui ka erialainimeste eelistusi. Supilinnas on uue vastasseisu toonud elavustumise (gentrifikatsiooni) järgmine etapp uute elanikega, kus küsimuse all on ajaloolise keskkonna säilitamine ja avaliku tänavaruumi taastamine. Uuring toob välja mitmed ajaloolise ja vastehitatud keskkonna erinevused. Keskkondi on vaadeldud Lefebvre’i kavandatud, ehitatud ja elatud ruumi jaotuse alusel, millest elatud ruum esindab suurima väärtusega elukeskkonda. Looduskaitse edenemise ja ressursside vähenemise tingimustes muutub olemasolevate tiheasustusalade planeerimine järjepidevalt olulisemaks kui uutele aladele hoonestuse rajamine. Seetõttu on oluline pöörata enam tähelepanu olemasolevate väärtuste säilitamisele ja edasiarendamisele, mitte vaid uute loomisele, nagu on seni olnud traditsioonilises ruumilise planeerimise praktikas tavaks.

8 Appendices

8.1 Publication 1

Hiob, M. (2012). Planeeringuline kujunemine. Supilinn 17.-21. sajandi linnakaartidel ja -plaanidel (Development of Supilinn's Street and Plot Structure – Supilinn on Maps and Plans Between the 17th and 21st Centuries). – *Acta Architecturae Naturalis*, 2, 51-76. [In Estonian]

Planeeringuline kujunemine Supilinn 17.-21. sajandi linnakaartidel ja -plaanidel

Mart Hiob

Sissejuhatus

Supilinn on Tartu ajalooline eeslinn, mis asub väljaspool keskaegset linnamüüri Emajõe ja selle ürgoru nõlva vahel.

Käesolevas artiklis tutvustatakse Supilinna kujunemist linnaplaneerimise vaatenurgast. Supilinn on segu looduslikke ja tehislikke pinnavorme järgivast nn isetekkelisest struktuurist ning planeeritud ja korrapärasest struktuurist. Tema kujunemise võib jagada kolme etappi:

– areng kuni 19. sajandi esimeste kümnenditeni, kui tänavavõrk ja hoonestus kujunesid suuresti traditsioonide ja vajaduste kohaselt;

– areng 19. sajandi esimestest kümnenditest kuni 1920ndate keskpaigani, kui rajati põhiosa tänaseni säilinud tänavavõrgust ja iseloomulikest puitelamutest;

– areng 1920ndate keskpaigast kuni tänapäevani, kui on lisandunud uut eri stiili hoonestust, mis on muutnud hoonestuspildi kirjumaks; samas on toimunud hoonestuse tihendamine, üksikute uute tänavate lisandumine ning vähemal määral ka hoonete asendamine.

Tartu vanematel kaartidel on Supilinna ala tähistatud 1. linnaosa[1] piirkonnana, ilma täpsustava nimeta. Võib oletada, et keskaegse Jakobi värava taga paiknemise tõttu on ala kutsutud Jakobi värava esiseks või Tähtvere mõisale läheduse tõttu Tähtvere piirkonnaks. 1803. aasta andmetel koostatud kaardi seletuses[2] on Supilinna ala märgitud kui 4. linnaosa, kuid sellist linnaosa ei moo-

1 Tartus oli kolm linnaosa – 1. linnaosa moodustasid tänane vanalinn koos Toomemäe-tagusega ja Supilinn, 2. linnaosa vanalinnast Karlova poole jääv ala ning 3. linnaosa Emajõe vasakkaldal paiknevad alad.

2 EAA 402.10.127, l 2. Plan von Dorpat, 1818. Plaan koos seletusega on koostatud 1818. aastal 1803. aasta andmete põhjal.

dustatud. 1846. aasta kaardil[3] on Supilinna kohta kirjutatud: Tähtvere eeslinn (*Die Techelfersche Vorstadt*). 19. sajandi keskpaigast pärineval vaestehoolekande kaardil[4] on Supilinn jagatud Tähtvere 1. ja 2. piirkonnaks (*Erster/Zweiter Techelfer'scher Bezirk*). Kroonuaia tänava kesklinnapoolne külg on vanalinna osa (*Altstadt*). Arvatavasti 1870ndatest pärineval linnaplaanil[5] on märgitud kolm ametlikku linnaosa ning lisaks tähistatud Rooma numbritega ka asumid (Supilinn numbriga II), kuid nimesid ei ole antud. 1920ndate lõpus nimetati Tähtvere mõisa põllul[6] kujunenud uus linnaosa Tähtvereks (tänane Tähtvere linnaosa) ning nn Tähtvere-alusele kinnistus ajapikku Supilinna nimi. Ametlikesse planeeringumaterjalidesse ilmus nimi Supilinn praeguste andmete kohaselt alles 1974. aastal. Asumi nimena esineb see dokumentides alles Martti Preemi koostatud Tartu territoriaalse rajoneerimise[7] ettepanekus ning 1986. aasta Supilinna rekonstrueerimise kontseptsioonis[8].

Siinses artiklis tutvustamist leidva uurimuse eripära seisneb asjaolus, et Supilinna planeeringulisest kujunemisest ülevaate andmisel on tuginetud peaasjalikult ajaloolistele originaalkaartidele. Siiani on Supilinna uuritud tekstiliste allikate põhjal (Lea Teedema[9]) või keskendudes arhitektuurile ja hooneehitusele (Mart Siilivask[10], Enriko Talvistu[11] jt). Nende uurimistööde tulemusi on valikuliselt kasutatud kaartidel nähtava täiendavaks mõtestamiseks.

Kaarte on siiani kasutatud nende otsese vaatluse ja kirjeldamise kaudu. Käesolev artikkel tutvustab tulemusi, mis on saadud ajalooliste kaartide digitaalsel võrdlemisel tänapäevaste kaartidega. Selleks kasutati digitaliseeritud ajalooliste kaartide rasterfaile, mis paigutati tänapäevase digitaalse (vek-

3 EAA 2100.11.133. 15. Charte von den im 1-ten Stadttheile Dorpats belegenen Krone Grundplätzen, 1846.

4 EAA 1722. 3.45. Orientirende Uebersicht über die Bezirke der Armenpflege in Dorpat (hinnanguliselt 1850–70).

5 EAA 2623.1.2049. 32. Plan der Stadt Dorpat nebst Umgebung nach dem neuesten Aufnehmung (1870ndad või 1880ndad).

6 EAA 1442.1.356. 1. Tartu Tähtvere linnaosa ehitamiskava, 1928.

7 Preem, M. 1986. Tartu linna territoriaalne struktuur: linna rajoneerimine linnaruumi struktuuri baasil. Tartu: Tartu linna arengu kompleksuurimise laboratoorium.

8 Tartu Supilinna rekonstrueerimise kontseptsioon (projekti peaarhitekt K. Voolaid). 1986. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

9 Teedema, L. 2010a. Supilinna asustuse kujunemine 1704–1899. Magistritöö. Tartu Ülikool, ajaloo ja arheoloogia instituut.

10 Siilivask, M. 2006. Tartu arhitektuur 1830–1918. Historitsism ja juugend. Arhitektuuriideed ja stiilieeskujud kohalike autorite loomingus 19. sajandil ja 20. sajandi algul. Tartu: Rahvusarhiiv.

11 Kaastöö 1986. aasta Tartu Supilinna rekonstrueerimise kontseptsiooni ning 2001. aasta Supilinna üldplaneeringu koostamisel.

torgraafikas) alusplaaniga kohakuti. Ajalooliste ja tänapäevaste kaartide erineva täpsusastme ja teiste erinevuste tõttu tekib hulgaliselt küsimusi, millele vastuste otsimisel on kasutatud võimalikult palju erinevat informatsiooni sisaldavat kaardimaterjali. Alates 18. sajandi viimasest kümnendist pärit kaardid on otseseks võrdluseks juba päris hästi sobivad.

Planeerimata areng kuni 19. sajandi esimeste kümnenditeni

Supilinna ala on esmakordselt näidatud esimesel Tartu linna sarase piire kujutaval kaardil 1681. aastast[12], millest Veiko Berendseni ja Margus Maiste tõlgenduse kohaselt on säilinud 1729. aasta koopia[13]. Supilinna ala on näidatud ka 1700. aasta paiku koostatud Põhjasõja-aegsel Tähtvere ja Tamme mõisa piiride kaardil[14] ning 1759. aasta Tartu ümbruse kaardil[15], mis kujutab eelkõige Tähtvere mõisa maid ning olulisimaid ehitisi ja teid.

Nimetatud kolmelt kaardilt, millel ei kajastu tavahoonestus ega tänavavõrk, võime lugeda Tartu linna sarase piire. Tegemist ei ole tänapäevase täpsusastmega mõõteriistadega mõõdistatud alusplaanidega ja nendel kajastatu ei ole detailides tõepärane. Supilinna ala kohta on märgitud, et siin asuvad linlaste aiad, ning ühele kaardile on kantud Le Claiuse maja (*hus*). Samal kaardil on Tartu linnamüüride vahel märgitud maamärkidena vaid Jaani ja Toomkiriku asukoht (vastavalt *Tyska kyrkan* ja *Doom kyrkan*).

Paigutades need kolm kaarti tänapäevasele alusplaanile, tehti 2010. aasta Supilinna teemaplaneeringu muinsuskaitse eritingimuste[16] koostamisel esmakordselt kindlaks, et erinevalt varem levinud seisukohast ei kulgenud Tartu linna sarase piir algselt piki Meloni tänavat, vaid asus praeguse Piiri tänava piirkonnas. Seega paiknes kogu tänane Supilinna hoonestatud ala (v.a Piiri ja Kauna tänava vaheline kvartal) Tartu linna piirides juba 17. sajandil. Varasema kohta andmed puuduvad. 1786. aasta piirirevisjoni ajal ühildati Supilinnas asuv piir oletatavasti Ülejõel paikneva piiriga ning Piiri tänava koridor nihkus oma praegusesse asukohta. Tartu linnapiiri laiendamise ettepanek tehti 1860ndatel.

12 EAA 995.1.6851. 5. Copey der Geometrischen Charte von Stadt Dörpt, 1729.

13 Berendsen, V., Maiste, M. 1999. Esimene ülevenemaaline rahvaloendus Tartus 28. jaanuaril 1897. Tartu: Eesti Ajalooarhiiv, lk 173.

14 EAA 308.2. 87. Karta över godsen Techelfer och Tammehoff (hinnanguliselt 1700).

15 EAA 2623.1.2049. 39. Plan von der Stadt Dorpat nebst Umgebung, 1759.

16 Hiob, M., Nutt, N. 2010. Supilinna ruumilise kujunemise analüüs ja ettepanekud teemaplaneeringu koostamiseks (algne nimi „Supilinna teemaplaneeringu muinsuskaitse eritingimused"). Tartu: Artes Terrae OÜ, töö nr 19ET10.

1866. aastal mõõdistati uus linnapiir tänase Kauna tänava sihis ning täpsustati piiri kulgemist katoliku tookordse puitkiriku[17] (praegune kirikuhoone ehitati 1895-99) ümbruses, kus kiriku krunt arvati linna sisse, kuid tänasel krundil Veski 7, 9, 11 asunud veski jäi Tähtvere mõisa maadele. Samal ajal liideti linnaga ala, mis jääb Kastani ja Võru tänava teljest kesklinna poole[18]. Piiri muutmise protokoll kiideti linnapiiri laiendamise komisjonis (*Comission zur Erweiterung des Städtischen Jurisdictionsbezirks*) heaks 1867. aastal[19]. Järgmised tsaariaegsed linnapiiri laiendamised Supilinna enam ei puudutanud[20]. Praegune spordipark ning teised Tähtvere mõisa alad kuni Emajõe äärde viiva remmelgaalleeni ühendati Tartu linnaga 1923. aastal ulatuslikuma linna piiride laiendamise käigus[21].

18. sajandi lõpus viidi Tartus läbi kruntide revisjon ning reviisor Otto Gustav Dreyer koostas 1786. aasta andmeid kasutades 1787. aastal Tartu kruntide kaardi. Selle kaardi 1792. aasta koopiale[22] on kantud kõik Supilinnas 18. sajandi lõpus asunud krundid. Tegemist on tunduvalt infoküllasema kaardiga kui eelmised. Siit võime lugeda, et enam-vähem oma praegusel kujul olid olemas Kroonuaia, Tähtvere, Emajõe ja Väike-Emajõe tänav. Samuti on kaardil näha Oa ja Meloni tänava algus. Umbes tänase Oa 16 krundi juures suundus Oa tänav oma praeguselt joonelt kõrvale. Nähtav meeldetuletus kunagisest Oa tänava kulgemisest on tõenäoliselt Oa 22 hoone asend – hoone tagumine külg asub tollase teekoridori ääres. Tänane hoone ei ole küll pärit 18. sajandist, kuid võib olla rajatud vana hoone asukohta.

Mainitud 18. sajandi lõpu kaardilt näeme, et Supilinn on kujunenud vajaduse ning looduslike olude kohaselt. Kaardil näidatud ühendusteed, mida ei saa veel ilmselt tänavateks nimetada, järgisid looduslikke ja tehislikke vorme,

17 EAA 2623.1.2049. 86. План существующаго расположения уезднаго города Дерпта Лифляндской губернии с показанием распространения 1875 года, 1880.

18 EAA 2623.1.2049. 35. Charte von der Jurisdiction-Grenze der Kaiserlichen Kreis-Stadt Dorpat, 1866.

19 EAA 2623.1.2049. 2. Charte von der Jurisdictionsgrenze der Kaiserlichen Kreisstadt Dorpat, 1867; EAA 2623.1.2049. 56. Illuminationsplan der projectierten Grenzen des Jurisdictionsbezirks der Stadt Dorpat, 1874.

20 EAA 2100.11.133. 14. План уезднаго города Дерпта съ показаниемь подлежащихь ныне включению въ городскую черту на основание Высочайте утвержденнаво 22го Января 1882 года положения Капитета Т. г. Министровь участковьб частнаго имения Техельфера и Университетской территори, 1882; EAA 2623.1.2049, l 36. План существующаго в 1882 году расположения и предпологаемаго распростронения и урегулирования уезднаго города Лифляндской губернии Дерпта, 1882.

21 Tartu [koguteos]. Tartu: Tartu linnauurimise toimkond, 1927, joonis: Tartu linna administratiiv-geneetiline plaan.

22 EAA 995.1.6851. 2. Geometrische Charte von der Kreis Stadt Dorpat, 1792. (Koostaja Christian David von Sengbusch.)

nagu Emajõe ürgoru nõlv (Tähtvere tänav), endise vallikraavi ja kaitsetornide asukoht (Kroonuaia tänav) ning Emajõe kallas (Emajõe tänav). Kroonuaia tänav kulges väljaspool linnamüüri ja vallikraavi (endise) Jakobi värava juurest Emajõe äärde. Tähtvere tänav oli lühimaks ühenduseks linna ja Tähtvere mõisa vahel (tänast Fr. R. Kreutzwaldi tänavat ei olnud). Emajõe mudasel kaldal asus rada, mida mööda sai jõe ääres liikuda, aga märjemal ajal ei pääsenud seda pidi luhakarjamaale (*Stadts weide*) ligi ning selleks kasutati tänast Oa tänava algust. Ainukesed „sisetänavad", mis võimaldasid asumisisest läbipääsu, olid tänase Meloni tänava algus ja ümber puuladustusplatsi (kinnistu nr 214 ehk Kroonuaia 70, 76) kulgev Väike-Emajõe tänav.

1792. aasta kaardi järgi asus tänase Supilinna alal[23] ligikaudu 44 nummerdatud krunti, mis olid väga erineva suurusega. Suurim oli Tähtvere ja praeguse Herne tänava vahel paiknenud päruskrunt nr 185 (ka hilisem Herne tänava koridor eraldati suures osas sellest krundist). Tookordsetest kruntidest on praktiliselt samades piirides tänase päevani säilinud krundid nr 214/Kroonuaia 70, 76 (krundist on 19. sajandi algul võetud riba Kroonuaia tänava laienduseks) ja nr 202/Oa 4, 6, 6A. Vähesel määral on muutunud krundid nr 188/Kroonuaia 28, 30 ja nr 189/Kroonuaia 32 – esimest on 1936. aastal[24] teise arvel suurendatud ning teisest on välja lõigatud Lepiku 1A. Teised krundid on kas jagatud väiksemaks, enamasti rohkem kui kaheks osaks, või on krundipiirid üldse muutunud. Suuremalt jaolt on tänane krundistruktuur pärit 19. sajandi lõpust ja 20. sajandi algusest.

Kirjalikele allikatele tuginedes toob Lea Teedema[25] välja, et 18. sajandi lõpus olid 32 krunti hoonestatud põhihoonega ning lisaks kaks jõeäärset krunti abihoonega (paadikuur).

Kokkuvõtvalt võib öelda, et kuni 19. sajandi esimeste kümnenditeni toimus Supilinna areng vajaduse kohaselt, ning raske on tagantjärele kindlaks teha, kas krundipiiride määramisel ja hoonete ehitamisel lähtuti üldisi huve arvestavatest planeeringulistest põhimõtetest. Tartu müüridega ümbritsetud osa kohta on esimesed regulaarsust taotlevad krundipiiride korrastamise planeeringujoonised[26] säilinud 17. sajandi esimesest poolest, Rootsi valitsemise ajast, kui tekkis vajadus keskaegsed kindlustused ümber ehitada. Plaanide elluviimine[27]

23 Käesolevas artiklis käsitletakse Supilinnana lisaks täielikult Supilinnas asuvatele tänavatele ka Tähtvere ja Kroonuaia tänava mõlemat külge, samuti laululavatagust ala koos spordipargiga. Linnapiiri suunas on Supilinna piiriks jõe äärde suunduv remmelgaallee.

24 Teedema, L. 2010b. Supilinna kinnistute ajaloo elektrooniline andmebaas http://www.eha.ee/kinnistud/tartu/public/.

25 Teedema, L. 2010a.

26 Krigsarkivet 0406.28.008.018. Dorpat, 1638.

27 EAA 995.1.6842, l 4. Plan der kayserlichen Stadt Dorpat ohne die Vorstädte, 1775.

toimus aga vaevaliselt ning tänavavõrk korrastati alles pärast Põhjasõda ja suuri tulekahjusid, kui enamik hooneid oli niigi hävinud. Seepärast ei ole tõenäoline, et eeslinnades reguleeriti ehitustegevust rangemalt. Omaalgatuslikule ehitamisele viitavad ka näited, kus hoonestatud krundid asuvad selliselt, et nendega piirnevaid tänavaid on raske kasutada, ning hiljem on tulnud hooned lammutada, et tänavale ruumi teha. Mitu sellist näidet leiab Kroonuaia tänavast, aga ka Emajõe tänav on olnud kevadisel ajal ainult jalgsi läbitav, st jõele liiga lähedale ulatuvad hooned ja piirded on takistanud tänava kasutamist.

Planeeringut järgiv areng 19. sajandi esimestest kümnenditest kuni 1920ndate keskpaigani

Pärast Põhjasõja suuri purustusi ning sellele järgnenud tulekahjusid hakkas Tartus 18. sajandi lõpul elanikkond taas kasvama, mistõttu suurenes ka ehituskruntide vajadus. Arengule andis hoogu juurde ülikooli taasavamine 1802. aastal ning nüüd hakati otsima võimalusi linna piirides olevate hõredalt asustatud alade tihendamiseks.

Supilinna planeeritud uued tänavad – Herne ja Marja tänav täielikult ning Oa ja Meloni tänava lõpuosa, kuid veel mitte Kartuli tänav – on esimest korda kantud 1810.–1811. aastal koostatud skemaatilisele plaanile, mis on kinnitatud 1816. aastal[28]. Samas puuduvad uued tänavad 1811. aastal koostatud kaardilt[29], mis viitab asjaolule, et 1810–1811 koostatud plaani näol on tegemist kavandiga, mitte teostatu kajastamisega. Seega saame öelda, et Supilinna esimese säilinud ja ka suures osas ellu viidud planeeringujoonise koostamisest on möödunud enam kui 200 aastat. 1816 aasta uute tänavateta kaardil on näidatud nummerdatud krundid koos põhihoonega, millel on esitatud ka harja suund. Selle kaardi järgi asus Supilinnas 19. sajandi algul 41 põhihoonet 34 hoonestatud krundil (mitmel krundil oli mitu hoonet).

Aastast 1816 on olemas Tartu 1. linnaosa kaart[30], millele on kantud uute tänavakoridoride äärde moodustatud uued krundid koos uute krundinumbritega. Selle kaardi järgi on rajatud Herne, Kartuli ja Marja (kaardil Uus, *Neu Strasse*) tänav. Meloni tänava pikendus on näidatud jõeni ja Oa tänava pikendus linna-

28 EAA 995.1.6856. 2. Geometrische Charte des I-ten Theils der Kaiserlichen Stadt Dorpat, 1810-11. Kaardist on säilinud ka koopia: EAA 2623.1.2044. 3. Geometrische Charte des 1 ten Stadt Theils der Kaiserlichen Stadt Dorpat, 1816.

29 EAA 2623.1.2049. 83. Plan der Kaiserl. Kreisstadt Dorpat, 1811.

30 EAA 995.1.6856. 3. Geometrische Charte des I-ten Theils der Kaiserlichen Stadt Dorpat, 1816.

piirini. Huvitavaks teeb kaardi see, et osaliselt on loetavad ka ümberkruntimise-eelsed piirid, mis annab võimaluse kindlaks teha, milliseid krunte on muudetud ning millised piirid on säilinud. Veidi segadusse ajab, et kaardil on pea kogu Tähtvere tänava mäepoolne külg märgitud Tähtvere mõisale kuuluvana (*Auf Techelferschen Grund befindliche Plätze*) ning sellel ei ole märgitud ei krundipiire ega -numbreid, kuigi nii vahetult enne seda koostatud kui ka hilisematel kaartidel on krundid ja linnapiir välja joonistatud. Võib oletada, et tegemist oli linna piiridesse kuuluva alaga, mille omanikuks oli Tähtvere mõis.

Supilinna tänavate planeering kajastab Venemaal 19. sajandi algul valitsenud klassitsistliku linnaplaneerimise põhimõtteid. Uued tänavad moodustavad korrapärase täisnurkse plaanistruktuuri, mis ühildub Ülejõe tänavavõrguga (otse Marja tänava sihis asub Ülejõel Lubja tänav). Esimesel säilinud uute tänavate plaanil puudub Kartuli tänav, mille rajamine osutus problemaatilisemaks[31]. Lõpuks saigi Kartuli tänav veidi ebatavaline, kuna ta ei ulatu jõest kaugemale kui Herne tänavani ning ristumine Herne ja Oa tänavaga ei ole täisnurkne. Ka Herne tänaval on väike korrapäratus – see ei ole kogu pikkuses üks sirge, vaid teeb Kartuli tänava alguse juures umbes 7-kraadise pöörde. Selle täpset põhjust on raske öelda, kuid otsustavad võisid olla konkreetsed maaomandi küsimused[32] (kelle krundist kui palju tänavakoridori jaoks lõigata oli võimalik), aga kaasa mängis ilmselt ka eesmärk asetada Marja ja Piiri tänav Herne tänavaga täisnurga alla.

Tänavavõrgu väljaehitamist kajastab 1837. aasta kaart[33], millel on põhihoonete kontuurid. Nimeliselt on välja toodud pastor C. H. Gehewe (*Gehöwe*) teistest suurem maja Tähtvere tänaval (Tähtvere 5). Uutest tänavatest on tihedamalt hoonestatud Herne ja Meloni. Marja tänav ei ole veel lõplikult valmis (*Die neue noch nicht ganz durchgeführte Strasse*), mis tähendab tõenäoliselt, et tänavakoridor ei ole veel läbitav ning seega tänavana täielikult kasutatav. Selle ääres on ainult üksikuid maju.

Kuni 20. sajandi alguseni tihendati rajatud tänavatel hoonestust ning uusi tänavaid ei lisandunud. 1859. aasta 1. linnaosa krundijaotusplaanile ei ole veel kantud pastor C. H. Gehewele kuulunud kinnistutest (nr 184 ja 185) pärast tema surma moodustatud uusi krunte. Selleks hetkeks oli kõige enam uusi krunte loodud – nii olemasolevate kruntide tükeldamise teel kui ka päris uusi krunte luues – Meloni tänavale ning Herne tänava Kartuli tänavast edasi jäävasse ossa. Linnapoolses osas aga paiknesid endiselt tükeldamata päruskrundid. 1860nda-

31 Teedema, L. 2009. Kartuli tänava aeg algas Madis Hanssoni ja Sachka Toomaga. – Supilinna Tirin nr 7.

32 Teedema, L. 2011. Herne tänaval olid vürtspoed, saun ja lihatööstus. – Supilinna Tirin nr 9.

33 EAA 2623.1.2049. 44. Charte der Kaiserlischen Stadt Dorpat, 1837.

tel tihendati oluliselt krundistruktuuri ja hoonestust algul Herne tänava paarisnumbritega küljel ning seejärel ka teisel pool[34]. Supilinnas oli erinevalt ülejäänud 1. linnaosast lubatud ehitada puithooneid. 1880ndatel küll laiendati kivihoonete püstitamise kohustust Kroonuaia tänava kesklinnapoolsele küljele[35], kuid vaadates tänast hoonestust, tuleb tõdeda, et seda kohustust ei suudetud eriti rakendada.

1890ndate teisel poolel muudeti majanumbreid, mille põhjustas tõenäoliselt suur uute kruntide arv. Veel 1892. aasta plaanil asus näiteks Herne ja Kartuli tänava nurgal maja nr 19, kuid 1890ndate teise poole plaanil[36] on see juba nr 35 nagu tänapäevalgi. Hiljem on taolisi muutmisi veelgi tehtud, sest tänapäevastega võrreldes olid 1901. aastal majanumbrid väiksemad Tähtvere tänava paaritul küljel, Herne tänava teises pooles mõlemal küljel ja ka teistel tänavatel peale Emajõe ja Kroonuaia tänava.

Veel 19. ja 20. sajandi vahetuse plaanil[37] ei ulatu Herne tänav tollase linnapiirini (praegune Kauna tänav) ning seal ei leidu ei Lepiku ega Allika tänavat. Plaan näitlikustab Supilinnas valitsevat liigvee probleemi – Kartuli, Marja ja Meloni tänava lõpus on kuni Herne tänavani, Piiri tänaval veelgi kaugemale ulatuvad kraavid. Samuti on Herne tänaval kraav Meloni ja Piiri tänava vahel. Emajõe ja Kartuli tänav kokku ei puutu – nende vahel on Emajõe veed, mis jäävad sinna kuni kaldakindlustuse ehitamiseni 1930ndatel. Piiri tänava ja linnapiiri vahel on näha tihedam kraavitus, mis viitab otseselt ala põhjaliku kuivendamise vajadusele.

20. sajandi algul tekkisid Supilinnas kaks uut tänavat – Lepiku ja Allika. Lepiku kanti kaardile varem, kuid esimene maja kerkis enne tõenäoliselt Allika tänaval. Lepiku tänava rajamine on rohke arhiivimaterjali tõttu hästi jälgitav, Allika tänava kohta samaväärsed plaanid puuduvad.

1907. aastast pärineb Lepiku tänava kruntimise plaan[38], mis eelnes hoonete ehitamisele. Plaan puudutab ajaloolisest krundist nr 185 eraldatud krunti nr. 184g, mis kuulus Hendrik Leppikule, st tänaseid krunte Lepiku 1 kuni 12.

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34 Teedema, L. 2010a.

35 EAA 2623.1.2049. 36. План существующаго в 1882 году расположения и предпологаемаго распространения и урегулирования уезднаго города Лифляндской губернии Дерпта, 1882.

36 EAA 2110.1.4822. 2. Plan von Jurjew-Dorpat (1890ndate teine pool). Ajalooarhiivis on plaani koostamisaastaks hinnatud 1900, kuid plaanil puudub Tähtvere tänava õlletehase (tänase AS A. Le Coqi tehase) hoonestik, mis on 1901. aasta plaanil olemas. Õlletehase neljakorruseline õllekeeduhoone ehitati aastatel 1893-98, varem oli ehitatud kaks laagerduskeldrit.

37 EAA 2623.1.2044. 45. Uebersichts-Karte der Stadt Jurjev (Dorpat). Auf Grund der Aufnahme v. J. 1901 des Liv.-Estl. Bureau für Landeskultur, 1901.

38 EAA 2381.2.870. 1. Планъ расположеннаго въ 1й части города Юрьева собственнаго участка № 184 з(g) разбитаго на 10 участковъ для продажи, 1907.

H. Leppik müüs krundid hoonestamata[39], kuid jättis kolm krunti – Lepiku 2, 8 ja 10 – endale, hoonestas need ning müüs koos hoone(te)ga[40]. Tänava kruntimise plaanile on juba märgitud ka mõned uute krundiomanike nimed. Lepiku 5 hoone, mida on peetud H. Leppiku enda elamiseks[41], ehitas 1911. aastal valmis Henn Maide, kes oli kinnistu omandanud juba 1907. aastal. Algselt oli krundile kavandatud ka tänavaäärne kahekorruseline puitelamu[42], mis aga jäigi ehitamata. Veidi hiljem pikendati Lepiku tänavat veel kahe krundi võrra, kui tänased Lepiku 9 ja 14 eraldati 1909. aastal kõrvalkinnistust nr. 184k. Lepiku tänava kruntide moodustamisest ja hoonestamisest annab ülevaate tabel 1.

Krunt	**Krunt moodustati**	**Omandiõigus hoone(te)le kinnitati**	**Põhihoone**
Lepiku 1	13.10.1907	15.11.1908	ühekorruseline puitelamu, 1917 olemas lisaks kahekorruseline
Lepiku 2	20.11.1909	04.11.1910	kahekorruseline puitelamu
Lepiku 3	17.11.1907	15.11.1908	kahekorruseline puitelamu
Lepiku 4	29.07.1907	22.11.1908	kahekorruseline puitelamu
Lepiku 5	29.09.1907	12.11.1911	ühekorruseline puitelamu
Lepiku 6	29.09.1907	1911	kahekorruseline puitelamu
Lepiku 7	29.09.1907	1908	kahekorruseline puitelamu
Lepiku 8	23.08.1908	1908 ja 1911 vahel	kahekorruseline puitelamu
Lepiku 9	19.09.1909	1911	kahekorruseline puitelamu
Lepiku 10	31.10.1909	1909	kahekorruseline puitelamu
Lepiku 11	29.09.1907	1907	kahekorruseline puitelamu
Lepiku 12	19.09.1909	1911	kahekorruseline puitelamu

Tabel 1. Lepiku tänava kruntide moodustamine ja hoonestamine

Viimane Lepiku tänava ajalooline ehituskrunt, Lepiku 1A, oli osa suuremast krundist nr 189, mis kuulus Maarja kiriku eesti kogudusele ja millel

39 Plaani pealkirjaski kajastub, et kruntideks jagamine on tehtud müügi eesmärgil (для продажи).

40 Teedema, L. 2010b.

41 Talvistu, E. 1998. Supilinna üldplaneeringu muinsuskaitsealuste ja miljööpiirkondade käsitlus ja nõuded. Supilinna üldplaneeringu lisad 1998-2001. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

42 EAA 2623.1.147. 146-147. Projekt nr 74, kinnitatud 12.10.1907. Kättesaadav http://www.eha.ee/hooned/show_ehitis.php?ehitis_id=4675.

Ill. 1. Malev Toom. Lepiku tänav.

asus köstri elamu. 1937. aastal (projekt 1936) ehitati uuele krundile tänane kahekorruseline funktsionalistlik puitelamu[43].

Veel 1904. aasta plaanil[44] on kogu Piiri tänava paarisnumbritega pool märgitud rohumaaks (*Stadt-Wiese*), nagu ka Oa tänava ja jõe vaheline ala alates Kartuli tänavast. Allika tänava esimene säilinud majaprojekt krundile Allika 1 on aastast 1905[45], teised vanemad projektid on aastatest 1909 (Allika 2 ja 4) ja 1910 (Allika 6). Asukohaplaanil on Allika tänava kohta lihtsalt nimetus „kõrvaltänav" (переулокъ), mille kohta 1914. aasta Piiri 6 hoone projekti asukohaskeemis[46] on täpsustus, et tegemist on 4 sülla (сажени) laiuse[47] kõrvaltänavaga (tänapäeval on Allika tänava koridor 5 sülla laiune ehk 10,65 m). Nimi Allika (*Hallika*) ilmub alles 1921. aasta Tartu linnaplaanil[48].

Kokkuvõttes võib öelda, et tsaariaja lõpuks oli Supilinna tänavavõrk välja kujunenud. See on näide klassitsistlikust korrapärasest plaanist, mis on sobitatud isetekkinud tänavatega.

43 Teedema, L. 2012. Lepiku tänav sai nime Hendrik Leppikult. – Supilinna Tirin nr 10.

44 EAA 2623.1.2044, l 17. Uebersichts-Karte der Stadt Jurjew (Dorpat), 1904.

45 EAA 2623.1.145, l 132-133. Projekt nr 69, kinnitatud 3.12.1905. Kättesaadav http://www.eha.ee/hooned/show_ehitis.php?ehitis_id=4072.

46 EAA 2623.1.155, l 53. Projekt nr 17, kinnitatud 11.02.1914. Kättesaadav http://www.eha.ee/hooned/show_ehitis.php?ehitis_id=407.

47 Vene süld oli umbes 2,13 meetrit.

48 EAA 2072.9.756. Tartu linna ja ümbruse kaart, 1921.

Planeerimine ja areng 1920ndate keskpaigast tänapäevani

19. sajandi teisel poolel levisid Euroopas uued linnaehituslikud ideed, mis tõid esile tööstusrevolutsiooni ajal ehitatud töölislinnaosade puudused ning pakkusid välja viise nende kõrvaldamiseks. Nende ideede ühiseks eesmärgiks võib pidada agulite ebasanitaarsetest oludest lahtisaamist, mille saavutamiseks pakuti enamjaolt vanade linnaosade lammutamist või hoonestamata alale uue linna ehitamist. 20. sajandi algul jõudsid uued linnakujunduslikud ideed ka Eestisse. 1920ndatel laienes Tartu linn jõudsasti, sest linnaga liideti ümbritsevate mõisate – Tähtvere, Maarja, Tamme, Piiskopi, Ropka, Karlova, Anne, Jaama ja Raadi – maid. Endistele mõisapõldudele planeeriti uusi linnaosi, nagu Tammelinn, Karlova laiendus, Variku, Veeriku ja Tähtvere linnaosa, Ropka *aiandus linnaosa* jt. Olemasolevaid puitlinnaosi vaadeldi sageli kui rahvatervisele ohtlikke jäänukeid, mis tuleb ümber kujundada[49]. 1940ndatel avaldati arvamust, et agulite hävimine Teises maailmasõjas tuleb Tartule kasuks ning sõjas püsima jäänud 19. sajandi puitlinnaosad tuleks samuti lammutada[50]. Nii sõdadevahelisel ajal kui ka pärast sõda vaadati puitlinnaosade asendamisele kui paratamatusele, mis väljendus ka planeeringutes – enne Teist maailmasõda kavandati vaid parendusi, kuid pärast sõda juba kogu hoonestuse asendamist.

Konkreetsemalt plaaniti Supilinnas rajada uus tänav tänase Marja tänava pikendusel paiknevate treppide koridoris. Uus tänav on märgitud 1928. aastast pärinevas Tähtvere linnaosa planeeringus[51] – tegemist on J. Hurda tänava telje pikendusega üle tänase Fr. R. Kreutzwaldi tänava ja Laulupeo puiestee[52]. Joonisest võib aru saada, et kavas oli ehitada sõiduteega tänav. Tänavale jäi ette hoonestamata kinnistu Tähtvere 30, 32 (kinnistu nr 270), kus hooned olid 1913. aastal maha põlenud. 1937. aastast pärinevas krundi müügilepingus on mainitud, et Tartu linn soovib krundi osale rajada tänava ning vana omanik peab sealt ära koristama *puud, põõsad, kivid, vundamendi, kuuri ja pumbarauad*[53]. Tänavaehitusele oleks ette jäänud ka 1891. aastal ehitatud kahekorruseline

49 Kant, E. Tartu. Linn kui ümbrus ja organism. Tartu: [koguteos]. Tartu linna-uurimise toimkonna korraldatud ja toimetatud. Tartu, 1927, lk 297-299.

50 Tartu ülesehitamine: arvamusi 1941. aasta sügisest. – Akadeemia nr 7, 2011. Väljavõtted Postimehe artiklitest 1941. aastal pärast sõjasuve purustusi.

51 EAA 3781.1.203. 2. Tartu Tähtvere linnaosa ehitamiskava, 1928.

52 Täpsem oleks tõenäoliselt öelda, et J. Hurda tänava asukoht on määratud Marja tänava treppide järgi, mitte vastupidi.

53 Teedema, L. 2010b.

puitelamu Tähtvere 26[54]. 1930ndate esimese poole Tartu plaanil[55] on Marja tänava treppide tänavakoridor märgitud samuti Tähtvere 26 maja kohale.

1930ndate lõpus läbi viidud Emajõe kalda kindlustustööd on loetavad 1936. aasta alusplaanilt[56], kus vastupidiselt varasematele kaartidele jookseb Emajõe kallas sirgjooneliselt ning ära on näidatud kaldaäärne jalgtee.

Teise maailmasõja purustused olid Supilinnas väikesed – vähemal määral said kannatada Tähtvere 3, Tähtvere 5, Kroonuaia 30 ja Marja 11 (mis kõik taastati) ning Oa 30A ja 30B[57], kuid mürsutabamusi oli teisigi[58]. Täielikult põles maha Oa ja Kartuli tänava nurgahoone.

Sõja lõpus tehtud inventeerimiste ajal anti ülevaade ka veevarustuse ja kanalisatsiooni olukorrast[59]. Plaanilt selgub, et Supilinnas oli kuus arteesia kaevu – kruntidel Herne 42, Kartuli 3, 5, Oa 1, 3, 3A, Oa 11A, Oa 24, 24A ja Kroonuaia 70, 76 – ning kaks tähtsamat pumbakaevu Emajõe 12 krundil ja õlletehase alal. Suurem kanalisatsioonitoru, mis oli eelvooluks ka Tähtverele, jõudis Supilinna Tähtvere tänava lõpus, kulges piki Tähtvere tänavat Meloni tänavani, sealt alla Oa tänavani, piki Oa tänavat Marja tänavani ning Marja tänava koridoris jõkke. Teine suuremat ala teenindav toru oli Kroonuaia tänaval. Kohalikeks vajadusteks oli Kartuli tänaval toru, kuhu suubus Lepiku ja Herne tänava reovesi. Ülejäänud Supilinn oli kanaliseeritud kas betoon- või puittorudega, vaid üksikuil lõikudel ei olnud kanalisatsioonitorustikku. Keskne veevarustus on seevastu näidatud ainult Lepiku ja Kroonuaia tänaval ning Tähtvere tänava alguses kuni krundini Tähtvere 18A. Ülejäänud hooned said vett oma kaevust või allikast.

Juba Teise maailmasõja ajal ning vahetult pärast seda koostati suuri ülesehitus- ja ümberkujundusplaane. 1944. aasta lennukale Tartu linna planeerimise eelkavandile[60] on märgitud Herne tänava laiendamine puiesteeks ning Oa tänava nihutamine Herne tänavale lähemale selliselt, et Marja-Kauna lõigul moodustuks lai haljasala, mis suubub suursugusele *sporditsentrumile* (tänase spordipargi asukohas). Herne tänav on ühendatud uue otsetänavaga Jaani tänava otsa – see ettepanek on läbi jooksnud kõigist planeeringutest kuni 1970ndate lõpuni. Uus tänav oli kavandatud läbi Kroonuaia ja Laia tänava hoonestuse Rüütli tänava otsa. Emajõe ületamiseks on näidatud uue silla asukoht

54 EAA 2623.1.129. 11. Projekt nr 8, kinnitatud 4.02.1891. Kättesaadav http://www.eha.ee/hooned/show_ehitis.php?ehitis_id=3471; Teedema, L. 2010b.

55 EAA 2072.9.765. 3. Tartu linna plaan (hinnanguliselt 1934).

56 Eesti Arhitektuurimuuseum (EAM).171. Tartu linna plaan, 1936.

57 EAM.256. Tartu 1941.-1944. a sõjategevuse purustuste üldplaan, 1944.

58 EAM.147. Tartu linna plaan (sõjapurustused), 1941.

59 EAM.258. Tartu veevarustuse võrgu, puhtaveekaevude ja kanalisatsiooni võrgu skeem, 1944.

60 EAM.251. Tartu linna planeerimise eelkavand, 1944.

Tähtvere mõisa hoonetest vahetult põhja pool, ületades jõge tänase konnatiigi põhjapoolse otsa juures. Algselt kavandati suuri haljasalasid nii Supilinna taha laululava asukohta ning sellest jõe poole hoonestamata alale kui ka kogu Emajõe vasakkalda ulatuses[61]. Emajõe Supilinna-poolses küljes on jõe äärde näidatud tänavahaljastus, kuid Oa tänava ja jõe vahelised krundid on määratud hoonestada.

Vahetult pärast sõda koostatud planeerimisettepanek nägi ette uute tänavafrontide rajamist nii Herne ja Oa kui ka Marja tänavale[62] ning laululava-alusele luhale uhke spordikompleksi ehitamist. Herne tänav kavandati linna magistraaliks ning Marja tänav üheks peamiseks jalakäijate liikumisteeks[63]. Planeeringuid uuendati sõjajärgsel kümnendil pidevalt. Generaalplaani täiendati pärast 1944. aasta esimest eelkavandit 1945., 1947., 1951. ja 1954. aastal.

1956. aastal kooskõlastati ametlikult järjekordne generaalplaani lahendus[64], mis nägi jätkuvalt Supilinna peatänavana ette Herne tänavat, millega ristuks laiendatud Marja tänav. Suurematekс liiklusteedeks on määratud ka Kroonuaia, Tähtvere ja Oa tänav. Uus Emajõe sild on näidatud tänase konnatiigi põhjapoolse otsa lähenduses. Hoonestus on kavandatud kuni Marja tänavani 2- ja osaliselt 3-korruseline ning sealt edasi kuni 2-korruseline. Oa tänava ja jõe vaheline ala, sh Emajõe tänava hoonestusala on kavandatud haljasalaks. 1959. aasta plaanitäiendusel[65] on Marja ja Herne tänava ristmikule kavandatud monumentaalne, keskse haljasalaga kujundus, nagu ka Marja tänava treppide alumisse otsa. Marja tänava treppide kõrval on joonisel näidatud haljasala, mis kulgeb kvartali sees Veski tänava otsa juures Jakobi tänavale. Supilinna tagaotsa on endiselt joonistatud laululava, millega jõe pool liitub *kultuuri- ja puhkepark*, mis ulatub tänase Maaülikooli metsamaja parklani. Konnatiigi juurde kavandatud silla juurde jõe kaldal on plaanil näidatud restoran või kohvik. Jõe vasakkaldale, põlenud ujula asukohta (kus praegu asub lodjakoda) on kavandatud avaujula, kuid nagu jooniselt võib välja lugeda, on võimalik rajada supelrand ka

61 EAA 2072.9.784. 1. Tartu linna plaan, 1944 või 1945. (Ajalooarhiivis hinnatud aastale 1949, kuid see ei lähe kokku teiste samaaegsete plaanidega. Sama plaani kohaselt oli aastatel 1946-48 kavas uuendada (või uuendati) kanalisatsioon Oa, Piiri ja Lepiku tänaval, Tähtvere tänaval Marja ja Meloni tänava vahel ning Herne tänava lõpus alates Meloni tänavast).

62 EAM.237. Tartu linna planeerimise üldplaan, 1945.

63 EAM.243. Tartu transpordiskeem, 1945; Eesti Arhitektuurimuuseum EAM.242. Tartu linna generaalplaani transpordiskeem, 1948.

64 Tartu linna planeerimise ja hoonestamise projekt (projekti autor A. Soans). 1950-1956. Tallinn: Vabariiklik projekteerimise trust Estonprojekt. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

65 Tartu linna planeerimise projekt (generaalplaan) (projekti autor A. Soans). 1959. Tallinn: RPJ Estonprojekt. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

paremkaldale kavandatavast sillast ülesvoolu. Emajõe sauna hoone on planeeritud ainukesena Emajõe tänavast säilitada. Vahepeal heakskiidetud Tartu linna keskosa planeering[66] Supilinna ala nimetamisväärselt ei puudutanud.

Uus kogu linna, sh Supilinna hõlmav planeering[67] valmis 1963. aastal. Selleks ajaks oli arhitektuuris vahetult peale Stalini surma toimunud suunamuutus jõudnud ka linnaplaneerimisse. Kui stalinistlik planeerimine oli soosinud monumentaalsust, siis uus suund käsitles planeerimist kui teadust. Peamiseks ülesandeks sai linna efektiivne toimimine ja linlaste heaolu suurendamine kindlaid juhiseid järgides. Linna paremaks toimimiseks sooviti luua kiire ja mugav autotranspordivõrk, mille vajaduste kindlaksmääramine ning (tavaliselt ülepaisutatud) vajaduste rahuldamiseks ruumi reserveerimine kujunes linnaruumi loomisest olulisemaks[68]. Elamuehituses tõusis esiplaanile uute elamute püstitamine võimalikult suures mahus. Samamoodi sai tööstuses edukuse mõõdupuuks ettevõtete võimalikult suurena kavandamine ja väljaehitamine.

1963. aasta plaanil on Supilinna peamisteks tänavateks kavandatud Kroonuaia ja Oa tänav, esimese pikendusel on näidatud ka üle Emajõe viiv sild, mis pidi asendama toona seal paiknenud pontoonsilla. Uus Emajõe sild ja magistraaltee on plaanitud Supilinnast ülesvoolu, tänase Eesti Maaülikooli metsamaja parkla kanti. Teiste Supilinna tänavate kasutus on kavandatud väiksem. Emajõe tänaval on hoonestus kavandatud kuni majani Emajõe 10 (välja arvatud). Hoonete kõrguseks on määratud vaid 1 kuni 1,5 korrust. Otseselt mingeid suuri lammutusi näidatud ei ole, kuid kogu Supilinna hoonestuse seisund on hinnatud halvaks, välja arvatud mõned Emajõe tänava hooned. Sellest võib järeldada, et pigem soositi olemasoleva hoonestuse väljavahetamist.

Liikluslahendusi täiendati 1965. aasta Tartu generaalplaani korrektuuris[69], mis nägi ette Kroonuaia tänava viimise kesklinnast kaugemale, uude koridori ning tema kahetasandilise ristumise jõeäärse tänavaga. Uus liiklussõlm oleks hõlmanud Kroonuaia, Herne, Kartuli ja Emajõe tänava vahelisi kvartaleid peaaegu kogu ulatuses. Oa tänava koridori laiuseks kavandati 35 meetrit,

66 Tartu linna keskosa planeerimise ja hoonestamise projekt (projekti autor R.-L. Kivi). 1957. Tartu: Riiklik projekteerimise instituut „Estongiprogorstroi". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

67 Tartu linna generaalplaan (arhitektuurse osa autorid V. Solomatina ja H. Reissar). 1963. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

68 Võib isegi öelda, et linnaruumi lammutamine ning vabaplaneeringuga avara, piiramatu ruumitunde tekitamine oli teadlik ja tahtlik planeerimisviis.

69 Tartu linna generaalplaani põhijoonise korrektuur (projekti autor V. Solomatina). 1965. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

sh sõidutee jaoks 14 meetrit. 1966. aastal heakskiidetud kesklinna planeeringulahenduses[70] oli Kroonuaia-Oa-Emajõe ristmiku ruumivajadust tunduvalt vähendatud, kuid ristmik hõlmas ikka maa-ala kuni Emajõe saunani. Kroonuaia tänav oli seejuures endiselt uues, laias koridoris.

Positivismil rajanev modernistlik linnaplaneerimine, mis eeldas, et „teadusliku" planeerimise kaudu on võimalik jõuda maksimaalse efektiivsuse ja heaoluni, saavutas Tartus oma kõrgpunkti linna 1974. aasta generaalplaani[71] lahenduses. Selles planeeringus mainitakse esimest korda selleks ajaks ilmselt üldiselt kasutatavat Supilinna nime.[72] Supilinna suhtes oli planeeringulahendus eriti radikaalne, nähes ette täiesti uue hoonestuse ning suures osas uue tänavavõrgu. Säilitamisväärseks oli arvatud vaid Emajõe saun ning õlletehase hooned. Herne tänava asemele, sellest Tähtvere tänava poole kvartali keskele oli kavandatud uus tee, mis tegi Kauna tänaval tagasipöörde ning suundus Oa ja Herne tänava vaheliste kvartalite keskel uuesti linna poole. Kroonuaia tänav oli viidud tagasi lähemale ajaloolisele koridorile, kuid ette oli nähtud selle tugev laiendamine. Jõeäärsest kahetasandilisest ristmikust oli loobutud.

Hoonestusest olid Supilinna nihutatud Kroonuaia ja Oa tänava äärde kavandatud Tartu Riikliku Ülikooli õppehooned ning ülejäänud ossa 4- ja enamakorruselised elumajad. Üliõpilaste maja pidi tulema Jakobi mäele, Tähtvere ja Jakobi tänava vahele. Jõe äärde spordipargi alale oli ette nähtud Eesti Põllumajanduse Akadeemia staadion, sellest ülesvoolu supelrand. Emajõe ja Oa tänava vaheline ala oli kavandatud avalikuks haljasalaks, välja arvatud säilitatav Emajõe saun.

1978. aasta Tartu vanalinna muinsuskaitseala planeeringus[73] oli näidatud küll Kroonuaia tänava laiendus, kuid Herne tänav oli säilitatud oma ajaloolises asukohas. Planeeringu koostamise käigus oli hinnatud Kroonuaia tänava hoonestust, millest suurem osa arvati rahuldavaks, väiksem osa halvaks või väga halvaks. Sellest hoolimata tehti ettepanek lammutada kõik hooned peale viie kivihoone – Kesklinna kooli maja, endise vabrikuhoone Kroonuaia 76 ja elamute Kroonuaia 35, 37 ja 62. Ülikoolile oli reserveeritud Supilinnas ala

70 Tartu linna keskosa detailplaneerimine (projekti autor M. Palm). 1966. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

71 Tartu linna generaalplaan (projekti autorid M. Meelak, M. Port, R.-L. Kivi, O. Žemtšugov). 1974-1976. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

72 Planeeringu seletuskirjas lk 40: Kesklinna põhjaosas nn. „Supilinn" /…/.

73 Tartu vanalinna kaitsetsooni detailplaneerimise projekt (regenereerimisprojekt) (projekti autor R.-L. Kivi). 1978. Tallinn: Vabariiklik Restaureerimisvalitsus. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

mõlemal pool uuendatavat Kroonuaia tänavat Laiast tänavast kuni Marja tänavani, kuhu pidi tulema *rikkalik* haljastus ja mõned suuremad parklad.

Esimene planeering, milles tunnustati Supilinna ehituslikku väärtust, on 1986. aastal koostatud Supilinna rekonstrueerimise kontseptsioon[74], mis lähtub linnaosa tänavavõrgu säilitamisest, kuigi kehtiv generaalplaan nägi ette selle täielikku muutmist. *Arhitektuuri- ja miljööväärtuslikeks ansambliteks* on määratud Emajõe kaldapealne, Lepiku tänav ning Tähtvere tänava algus kuni Marja tänava treppideni (kaasa arvatud Tähtvere 31 ja Tähtvere 34, 36). Ülejäänud hoonestus on suuremas osas lubatud lammutada, kuid säilitatavaid elamuid on näidatud kõigil tänavatel. Hoonestuse hindamisel on tunnistatud kõlbmatuks hulk tänini püsti seisvaid hooneid, nt Lepiku 4 ja 7, Herne 11 ja 41, Tähtvere 27, 39 ja 57, Marja 10 ja 22 ning Piiri 18. Kõigi nimetatud hoonete kohta oli ka juba olemas *täitevkomitee otsus elamu avariiliseks või vähekõlblikuks tunnistamise kohta*. Samas on planeeringus näidatud ka terve rida rahuldavas või halvas seisundis hooneid, mis on tänaseks hävinud, nt Herne 45, Tähtvere 1, 10, 21, 40, 44, 64, 68, 70/72 ja 74, Jakobi 25 / Tähtvere 2, Kroonuaia 52 ja 74, Oa 4/6, Kartuli 8, Marja 12 ja 15, Meloni 1 ja 5 ning Piiri 20.

Suuremate uuendustena on kavandatud *kaubandus-teeninduskeskus* Herne ja Marja tänava ristmikule, kool Herne-Meloni-Oa-Marja kvartalisse, kaks lasteaeda Tähtvere-Meloni-Herne-Marja kvartalisse ning hoonetevaba haljasala õlletehase kõrvale mõlemale poole Tähtvere tänavat. Hoonestus oli kavandatud madalduvana: kesklinnalähedastes kvartalites 2-4-korruselised majad, laululavapoolses otsas 1-2-korruselised. Kuigi tänavaäärne ajalooline hoonestus oleks osaliselt säilinud, oleks need muudatused muutnud Supilinna väljanägemist tuntavalt.

Okupatsiooniaegseid planeeringuid viidi ellu väga vähesel määral – ehitati küll lauluväljak, kuid mingeid tänavavõrgu muutmisi ei toimunud. Siiski täideti tugevasti nii Oa tänava mullet kui ka Oa tänava ja jõe vahelist ala, kus paiknesid asfalditehase seadmed (Kartuli tänava ja Marja tänava pikenduse vahel), ning rajati puurkaev Meloni ja Piiri tänava pikenduse vahele. Samuti ei ehitatud Supilinna ühtegi suuremat ühiskondlikku, tööstus- ega eluhoonet. Elamuid püstitasid elanikud ise. Kavandatust valmis 1996. aastal, juba iseseisvuse ajal Kroonuaia sild. Planeeringute teostamist takistas tõenäoliselt mitu asjaolu, millest olulisimad olid rahapuudus, Supilinna ehitustehniliselt raske

74 Tartu Supilinna rekonstrueerimise kontseptsioon (projekti peaarhitekt K. Voolaid). 1986. Tallinn: Riiklik projekteerimise instituut „Eesti Projekt". Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

geoloogiline pinnas ja vajadus suuremate muudatuste teokstegemiseks elanikud ümber asustada[75].

Pärast iseseisvuse taastamist koostatud planeeringud on järk-järgult liikunud selle poole, et Supilinna üha rohkem säilitada. 1999. aastal kehtestatud Tartu üldplaneering[76] nägi Supilinnas suures osas ette senise olukorra säilimise, kuid ei seadnud sellekohast nõuet. Liiklusskeem oli lahendatud selliselt, et lisaks Kroonuaia tänava pikendusel asuvale sillale oli ette nähtud ka uus autosild teisele poole laululava üle konnatiigi otsa. Uus konnatiigi sild oli kesklinnaga ühendatud Herne ja Oa tänava kaudu, mille liikluskoormuse kasv oleks olnud märgatav. Marja tänava pikendusele üle Emajõe oli ette nähtud jalakäijate sild. Praegusele spordipargi alale, nagu ka Oa tänava ja Emajõe vahele Kartuli-Meloni lõigul, olid kavandatud uued elamualad.

1997. aastal algatati Supilinna kohta ka eraldi üldplaneeringu koostamine. Planeering[77] kehtestati 2001. aastal pärast põhjalikke vaidlusi[78], milles kokkulepet ei saavutatudki. Planeering lähtus küll seniste tänavate ja hoonestuse säilitamise võimaldamisest, kuid nägi ühtlasi ette Supilinna tugevat tihendamist uute tänavate ja hoonetega. Kokku kavandati kuus uut tänavat, mis oleks läbinud ajaloolisi kvartaleid. Uued tänavad oli kavas ääristada hoonetega ning ka olemasolevat hoonestust oli lubatud tublisti tihendada. Tihendamist põhjendati vajadusega suurendada hõredalt asustatud linnaosas elanike arvu. 2001. aasta Supilinna üldplaneering järgib iseenesest 19. sajandi traditsiooni rajada uued tänavad olemasolevatest kinnistutest läbimurdmisel, kuid tema elluviimine oleks muutnud paratamatult ka kogu linnaosa väljanägemist ning kasutusviisi. Samuti on oluline märkida, et selline lahendus leidis elanike tugevat vastuseisu, mida aga enamasti ei arvestatud.

2005. aastal kehtestatud tänaseks viimane Tartu linna üldplaneering[79] järgis üldiselt eelmisi planeeringuid, kuid ühe olulise vahega – valdav osa Supilinna alast kuulutati miljööväärtuslikuks ning seal kuulusid säilitamisele nii hooned, krundistruktuur, tänavakatted, haljastus kui ka kaug- ja sisevaated. Selline nõue tühistas õiguslikult ainult neli aastat varem kehtestatud Supilinna

75 Hess, D. Hiob, M. 2012. Preservation by Neglect in Soviet-Era Town Planning in Estonia (ilmumisel).

76 Tartu linna üldplaneering aastani 2012. 2005. Tartu: Tartu linnavalitsus. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

77 Supilinna linnaosa üldplaneering. 2001. Tartu: Tartu linnavalitsus. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

78 Hiob, M. Nutt, N. Nurme, S. De Luca, F. 2012. Rise from the Dead: from Slumming to Gentrification. – Transylvanian Review of Administrative Sciences, no. 36 E, lk 92-105.

79 Tartu linna üldplaneering. 2005. Tartu: Tartu linnavalitsus. Tartu linnavalitsuse linnaplaneerimise ja maakorralduse osakonna arhiiv.

üldplaneeringu uute tänavate rajamise ettepaneku. Sellele vaatamata on üks uus tänav (Selleri) pooleldi valmis ehitatud ja teine (Kõrvitsa) on läbipääsuna osaliselt kasutusel ning selle äärde on kerkinud ka kaks hoonet.

Vastuolu kahe sama liiki planeeringu vahel tingis lõpuks paratamatult uue Supilinna üldplaneeringu koostamise vajaduse, mille linnavolikogu algatas Supilinna teemaplaneeringu nime all 2007. aastal Supilinna Seltsi aasta varem tehtud ettepaneku peale. Majandussurutise tõttu ei leitud esialgu planeeringu koostamiseks võimalust, kuid tänaseks päevaks on heaks kiidetud teemaplaneeringu eskiislahendus[80], mille järgi määratakse suurem osa Supilinna hoonestusest, nagu ka kogu ajalooline tänavavõrk ja krundistruktuur säilitatavaks. Uutest tänavatest on loobutud, välja arvatud Selleri tänav, ühendus Herne ja Lepiku tänava vahel (Kõrvitsa tänava osa), ühendus Lepiku ja Marja tänava vahel (Lepiku tänava otsast) ning ühendus Oa ja Herne tänava vahel (läbi Oa 10B krundi). Kummalisel kombel ei ole eskiisis järgitud kehtiva 2005. aasta Tartu üldplaneeringu nõuet säilitada ajaloolised tänavakatted ning sõidutee katteks on määratud asfalt. Siiski on planeeringu eskiisi üldine eesmärk ajaloolise keskkonna võimalikult suures ulatuses säilitamine.

80 Supilinna linnaosa miljööväärtusega hoonestusala kaitse- ja kasutamistingimused ning linnaosa maa- ja veealade üldised kasutamise- ja ehitustingimused. 2012. Tartu: Tartu linnavalitsus. http://info.raad.tartu.ee/webaktid.nsf/web/viited/%C3%9CP-06-001

Kokkuvõte

Kokkuvõtvalt võib öelda, et Supilinna planeeringuline ajalugu on 18. sajandist kuni 21. sajandini Tartu kohta koostatud kaartidel ja planeeringutes hästi jälgitav. 17. sajandist pärinevad esimesed kaardid kajastavad vaid linna sarase piire, kuid hoonete kohta on andmeid minimaalselt. Samas kinnitavad need kaardid, et Supilinna näol on tegemist Tartu ühe vanima eeslinnaga Riia ja Ülejõe eeslinna kõrval. Supilinn on olnud valdavas osas (ligikaudu kuni Piiri tänava jooneni) Tartu linna piirides juba esimestel kättesaadavatel kaartidel, mis ulatuvad 17. sajandisse. Kogu Supilinna hoonestatud ala arvati Tartu linna koosseisu 1867. aastal ning tänase spordipargi ala liideti 1923. aastal.

Käesoleva artikli jaoks kasutati lisaks tavapärasele vaatlemisele ja võrdlemisele ajalooliste kaartide digitaalselt tänapäevasele alusplaanile asetamist. Selle meetodiga saab täpsustada mitmeid aspekte, mis kaartide tavalisel vaatlemisel võivad jääda segaseks. Supilinna osas on kolme ajaloolise kaardi digitaalsel võrdlemisel tänapäevasega kindlaks tehtud, et Tartu linna piir ei kulgenud 17. sajandi lõpus (ja ilmselt ka varem) erinevalt seni arvatust mitte piki Meloni tänavat, vaid asus tänase Piiri tänava koridoris.

Supilinnas on esindatud nii isetekkeline kui ka korrapäraselt kavandatud linnaehituslik struktuur. Linnaosa on hea näide kahe erineva linnaehituspraktika sümbioosist. Kuni 19. sajandi esimeste kümnenditeni, kui kujunesid välja Kroonuaia, Tähtvere, Emajõe ja Väike-Emajõe tänava koridor ning Oa ja Meloni tänava algus, toimus areng vajaduse kohaselt. Seoses Tartu linna elanikkonna kasvuga soovis linnavalitsus 19. sajandi algul Supilinna hõredalt hoonestatud ala tihendada. Selleks krunditi välja uued tänavad (Herne, Kartuli ja Marja ning Meloni tänava jõepoolne osa ja Oa tänava tagumine osa). Kuni 20. sajandini moodustati nimetatud tänavate äärde uusi krunte siinsete päruskruntide jaotamise või linna rohumaast uute kruntide loomise teel. Selle tulemusena kujunes välja Supilinnale iseloomulik krundistruktuur, milles pikad krundid ulatuvad kvartali sisemusse. Ühtlasi tihendati tugevasti tänavaäärset hoonestust, mis omakorda viis iseloomuliku hoonestusstruktuuri tekkimiseni – hoonestatud on tänavafrondid, mõnel puhul lisandub tänavaäärsele majale ka hoovimaja, harva kaks hoovimaja. Tänavaäärse hoone ja hoovimaja vahel on majandusõu, tagapool aga tarbeaed. Selline struktuur on olnud ka teistes Eesti ajaloolistes linnades, kuid on tänaseks ulatuslikumalt säilinud vaid Lihulas[81].

81 Hansar, L. 2010. Linnast muinsuskaitsealaks. Doktoritöö. Eesti Kunstiakadeemia restaureerimise ja muinsuskaitse osakond.

20. sajandi esimestel kümnenditel lisandusid Supilinna veel kaks uut tänavat (Lepiku ja Allika). Alates 1920ndatest kuni 1980ndateni tehti plaane Supilinna põhjalikuks uuendamiseks. Kuna neid plaane ellu ei viidud, säilis linnaosa valdavalt tsaariaegsel, eelmodernistlikul kujul. Sõdadevahelisel ajal lisandusid Marja tänava trepid ning Emajõe äärde ehitati kaldakindlustus. Hoonestust tihendati nii enne kui ka pärast Teist maailmasõda eramutega.

Viimasel veerandsajandil on toimunud Supilinna väärtuse hindamisel otsustav muutus. Kui veel 1986. aasta Supilinna rekonstrueerimise kontseptsioonis määrati säilitamisväärseks vaid Emajõe tänav, Lepiku tänav ja Tähtvere tänava algus, siis viimases, 2012. aastal vastu võetud Supilinna teemaplaneeringu eskiisis on säilitamisväärseks hinnatud valdav osa ajaloolisest hoonestusest, nagu ka tänavad ja krundistruktuur. Muutus väärtushinnangutes on toimunud järk-järgult ning on hästi vaadeldav kehtestatud planeeringulahenduste põhjal alates 1974. aasta Tartu generaalplaanist.

Viimastel kümnenditel on ehitatud mitukümmend uut maja – valdavalt kahe täiskorrusega kuni 10 korteriga korterelamud. Meloni ja Marja tänava vahele on pooleldi välja ehitatud uus Selleri tänav. Tänaseks päevaks on linnaosas välja kujunenud kooslus, kus domineerib siiski ajalooline pärand. Eks tulevane areng, mida peaks eelkõige suunama koostamisel olev Supilinna teemaplaneering, näitab, kas Supilinn suudab säilitada ajaloolise pärandi ja uuenduste vahel tasakaalu.

Mart Hiob (MSc), TTÜ Tartu Kolledži lektor ja Artes Terrae OÜ linnaplaneerija: „Olen sünnilt tartlane ja hingelt supilinlane. Pärast Norras ülikooli lõpetamist asusin 1997. aastal Tähtvere tänavale. Tegelen Supilinna uurimisega doktoriõpingute raames. Alates 2004. aastast olen olnud Supilinna Seltsi esimees."

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Development of Supilinn's street and plot structure – Supilinn on maps and plans between the 17th and 21st centuries

Mart Hiob

The article provides a thorough survey of the history of the planning street and plot structure of the Supilinn settlement based on the maps and plans compiled for Tartu between the 17th century and the present day. Historical maps are used to collect information using both the ordinary observation and comparison and digitally laying the old maps on today's plan. This method allows to specify a number of aspects that otherwise would have been ambiguous. In the case of Supilinn the digital comparison of three historical maps with modern one identified that the city limit of Tartu in the end of the 17th century (and probably earlier) run along Piiri Street, not along Meloni Street as assumed until now.

Entire built-up area of Supilinn was included in the city of Tartu as of 1867. Later, in 1923, the vacant un-built sports park area behind Supilinn was merged with it. The district's initial structure developed spontaneously. Until the first few decades of 19th century, when the corridors of Kroonuaia, Tähtvere, Emajõe and Väike-Emajõe Streets, and the beginning of Oa and Meloni Streets, came into existence, the development occurred primarily based on practical needs. In connection with the considerable growth of Tartu's population in the early 19th century, a need developed for the densification of Supilinn's sparse habitation. Initially, four new streets (Herne, Kartuli and Marja Streets, as well as the part end of Meloni Street by the river and the end of Oa Street) were delineated in Supilinn in the first decades of the 19th century. Until the 20th century, new lots were distributed on these streets by dividing hereditary lots or creating new lots from the city's meadow. In this way, Supilinn's characteristic structure of lots was created, where long narrow lots reach deep into the interior of the city blocks. The building along the streets was also densified, which resulted in the buildings being densely located along the streets with long allotment wedges behind them. Similar structures have also existed in other Estonian towns, but by today, they have survived, to any extent, only in Lihula.

In the first decades of the 20th century, two more streets – Lepiku and Allika – were established, in addition to those that already existed. From the 1920s until the 1980s, plans were made for the thorough renovation of Supilinn.

Since the plans were never realised, most of the district survived in its Tsarist-era, pre-Modernist form.

During the last quarter of a century, a fundamental change has occurred in the assessment of Supilinn's value. If in the vision for Supilinn's reconstruction, prepared in 1986, only Emajõe, Lepiku and Tähtvere Streets were designated as being worth preserving, then in the draft of the latest thematic planning for Supilinn, being compiled in 2012, the majority of the historical buildings, as well as the streets and the layout of the lots, have been deemed to be worth preserving. During the last decades one new small street has been established and tens of new houses built on existing plots. Still, the street and lot structure has not significantly changed and according to the latest planning proposal it will stay this way in the future.

8.2 Publication 2

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Preservation by Neglect in Soviet-Era Town Planning in Tartu, Estonia

Daniel Baldwin Hess[1] and Mart Hiob[2]

Abstract

In the former Soviet Union, traditional urban districts with pre–World War II housing were considered obsolete and the aim was to demolish them, but in practice they were frequently ignored, because efforts were focused on new housing production in order to address acute housing shortages. Inertial forces stymied plan implementation for older districts during a rich period of plan making while new residential districts were built at a fast pace on virgin land. This research analyzes more than a dozen written planning documents from various periods during the twentieth century for Tartu, Estonia, where, had mid-twentieth century town plans been implemented, entire districts of nineteenth-century and early twentieth-century wooden houses and apartment buildings would have been demolished. Findings suggest that several factors acted in concert to set the conditions for both neglect and preservation of such districts during the second half of the twentieth century that resulted in continuous occupancy of the dwellings and preserved the built form (and the social structure) of the district. These factors include a focus on building new housing and new districts rather than renovating older districts; a lack of resources to renovate older districts; and a lack of resources to implement plans. This synthesis of town planning in Estonia demonstrates how planning ideas have evolved throughout the twentieth century parallel to—but temporally delayed compared to—Western Europe and North America.

Keywords

town planning, Tartu, Estonia, wooden houses, Soviet union, neighborhood planning, preservation

Introduction

Most European centers, including the post-Socialist cities of the Former Soviet Union (FSU), possess a heterogeneous built environment that is the legacy of various political, economic, and social forces. In the FSU, traditional urban districts with pre–World War II housing were normally considered obsolete and the aim was to demolish them, but in practice they were often simply ignored

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because efforts were focused on new housing production in order to address acute housing shortages.[1] In Western European cities, however, comparable urban districts containing worker housing were also considered obsolete and often were, in fact, demolished because their proximity to the center made them ripe for redevelopment as sites for new housing and urban expansion.

Many former socialist cities possess a heterogeneous urban structure and neighborhood typology, even though socialist ideology supported homogeneity—in dwelling units, apartment buildings, and neighborhoods—and access to comparable services and infrastructure across districts. This phenomenon suggests less control than is normally assumed of socialist leadership, as it is commonly accepted that political systems with strong ideologies are impelled to leave an imprint on the built environment as a way of demonstrating societal control. For countries of the FSU, physical planning was a key mechanism for shaping the centrally planned economy and containing communist ideals.[2] Yet this imprint is strikingly absent from pre–World War II urban districts that appear untouched during the Soviet years.

This research offers an in-depth inquiry into the influence of town planning on continuity and change—due to inertia and other forces—in a small post-Socialist Baltic city and the existence of juxtaposed neighborhoods (i.e., modernist districts and early twentieth-century neighborhoods) and the "preservation" of neighborhoods with wooden housing that would have been demolished had Soviet-era plans for urban reconstruction been carried out. Town planning maps and documents are used to trace changes in town planning practice and action and to distinguish town plans that were and were not implemented in an effort to explain the reasons for inertia versus implementation.

Background and Literature

Various researchers have sought to explain urban spatial patterns inherited from state socialism,[3] including research about how Soviet-style planning shaped cities and regions[4] as well as research during the 1990s about urban dynamics during the early transition years.[5] The body of research, which focuses on, among other places, Latvia,[6] East Germany,[7] the Czech Republic,[8] and Estonia,[9] suggests that urbanization during state socialism possessed unique characteristics compared to western-style urbanization.[10]

Town Planning in the Soviet Union

In the FSU, the process of urbanization was guided by state priorities and, especially during the post–World War II decades, a pressing need to expand the housing supply.[11] The largest enterprises were planned from Moscow. The next and most important tier of decision making occurred at institutes in regional capitals (Tallinn, Riga, or Vilnius for the Baltic Republics). The third tier of decision making rested at the local level,[12] where town planning was oriented toward establishing the physical environment of a city, which occurred in accordance with (often unrealistic) development aims but may have been only loosely connected to the social fabric of cities.[13] In the Socialist state, unlike other systems, the state both owned and developed the land,[14] and a land ownership system that was unresponsive to market prices resulted in an "absence of incentives to recycle land."[15]

Housing in the FSU was a lesser concern compared to expansion of the military and heavy industry sectors. Housing that today is poor in quality[16] and provides modest per capita living space (compared to Europe and North America) is a remnant of wartime destruction, distortions caused by housing allocation during Soviet times, and poor conditions inherited from the Tsarist period.[17]

During the Soviet years, official policy required—in theory—razing older districts by demolishing antiquated housing and relocating residents usually to new, standardized housing built in new districts (adapted from Clarence Perry's neighborhood planning unit principle) and containing tower blocks inspired by Corbusian modernism.[18] The Soviet ideology supported state renovation of old

city cores of declared cultural value, but other older districts were seldom renovated, let alone maintained adequately. In addition, there was not, in the Soviet system, a tradition of residents maintaining housing units and buildings; detached homes were privately owned by residents but all apartment buildings were owned by the state or by cooperatives and state-controlled enterprises.[19] The land, including all plots, was officially owned by the state. Residents who were not owners were likely to contribute little to property maintenance. In this way, the Soviet system of housing provision was centrally planned and favored the construction of new housing over renovating old housing.

New Districts in the Townscape

Under state socialism, in Estonia and elsewhere, city centers and environs were often neglected while growth occurred on the outskirts.[20] The renovation of historic districts was burdensome and expensive for state authorities, and the infrastructural needs of such districts—which were oriented to support private dwellings—were inconsistent with the socialist vision of collectivity. Consequently, Soviet planners did not reserve resources for neighborhood renovation. In this way, detached dwellings (housing one or two families) and small two-story apartment buildings (with up to ten apartments) on individual plots of land—forming traditional pre–World War II urban residential districts—were viewed as inefficient and obsolete. Heritage protection could preserve a neighborhood, but without the designation, any district could be threatened by demolition—either piecemeal or wholesale.[21]

There is a general perception that the modernist movement that prevailed after the 1950s in the West also did so in Eastern Europe. In lieu of preservation of older residential districts, new housing was provided by Soviet authorities within massive new housing estates in economical apartments.[22] These estates, known as mikrorayon (or microdistricts), were planned and constructed by the offices of municipal administrations (following directives from Moscow)[23] using standardized designs and, beginning in the early 1960s, industrial prefabricated materials. The prefabricated reinforced concrete building models were difficult to modify, so that precisely the same building was erected in more than one district and more than one town and even across the Soviet Union, depending on the building types produced by local housing factories (known as combines). At the same time, there was bureaucratic pressure to operate the housing production system at full capacity, and potential locations for new standardized apartment buildings were always sought by state building companies.[24] The plans were generally formal and inflexible and difficult to change, modify, or adapt to local conditions or needs.

Mikrorayon introduced dramatic change to urbanization and were intended to provide temporary relief to address housing shortages; tower blocks within mikrorayon were to be replaced with permanent housing stock within a generation.[25] However, mikrorayon did not adequately address, in principle or in practice, the planning demands of "new suburbs" or "new satellite towns"[26] and the built form and the social environments they produced have been heavily criticized for standardized construction and insensitivity to local needs.[27] Within the districts, promised cultural and service establishments did not appear in adequate numbers,[28] nor did retail, schools, planned and designed greenspace, or outdoor play areas.[29]

Research Design

In this article, we seek to better understand the effects of central planning on the evolution of the built environment and town planning practice and outcomes. We use Tartu, Estonia, as our geographic area of inquiry. The research is motivated by the following research question: what specific factors explain the relatively preserved condition of the built environment in Tartu, Estonia, especially intact districts of historic wooden houses near city centers? We note, by way of

comparison, that similar early twentieth-century residential districts near city centers in Finland and Sweden were demolished.[30] For example, wooden houses were demolished in Finland from the 1950s through the 1970s in Kallio,[31] a central district of Helsinki[32] and in the center of Turku/Åbo.[33] In other cases, historic districts were reconstructed with modern dwellings replacing demolished early-nineteenth-century wooden buildings, which occurred in the Länsi-Pasila district of Helsinki.[34] Our inquiry thus helps to address a gap in research about intact historic districts in cities of the FSU that lack heritage protection. In this article, we explore how, in the shadow of great modernist housing estates, pockets of old neighborhoods were preserved authentically.

We examine in considerable detail the evolution of the urban context in Tartu, Estonia (population 100,000 in 2010), and one of its unique urban districts, Supilinn, throughout three distinct eras of the twentieth and twenty-first centuries. These include (1) the early decades of the twentieth century, when population growth and a building boom occurred,[35] (2) the latter half of the twentieth century, when Estonia operated under state socialism; and (3) after 1991 the reintroduction of independence and a market economy.[36] We focus particularly on the legacy of the forty-seven-year Soviet era (1944–1991), because after World War II, leadership of the Soviet Union managed and controlled the economy, profoundly shaping urbanization.[37] Urbanization during the Soviet era produced new spaces in cities such as Tartu, and it also left many districts untouched, even more untouched, we suspect, than would have occurred in the absence of state socialism.

We evaluate all principal general planning documents for Tartu and Supilinn produced during the twentieth century and recent years (including thirteen written planning documents and planning maps illustrating proposals); in this way, we enhance scholarship on the topic, as few studies about urbanization under state socialism have returned to original research material.[38] Prior to World War II, town planning efforts did not include existing districts like Supilinn; consequently, the first plan in the twentieth century discussed dates from 1944. The town planning documents we study are preserved in the Tartu City Government archives and the Estonian Museum of Architecture.

We organize the group of town plans into sequential phases and assess contemporaneous review of and commentary on these plans. The analysis includes detailed assessments of land use changes and proposals for reconstructing the districts. We also assess the outcomes of each successive town planning effort. Understanding the historical context that lead to the unique urban form of towns in Estonia today is helpful in generating recommendations for future district planning. That is, town planning (and especially a lack of implementation of plans) during Soviet times produced values, lifestyles, and practices that still endure.[39]

Context

Tartu, one of the oldest towns in Estonia and the Baltic States, is first mentioned in written sources in 1030 (see Figure 1). Supilinn, a residential district of Tartu, has a recorded history since the seventeenth century[40] and experienced a period of rapid growth a half century before World War I that coincides with a key period of urbanization in then Tsarist Estonia. Supilinn houses a modest number of early nineteenth-century residences in wooden buildings; however, the district grew in the last decades of the nineteenth century and early twentieth century when tenement houses were built quickly for industrial workers by gentry landowners as well as native Estonian entrepreneurs (handicraftsmen and women and other working-class groups) for profit maximization of rental units (see Figure 2[41]).[42]

Supilinn[43] is a residential district located between the city center and land that has never been built upon (where there is now an outdoor recreation area). Several street configurations exist in Supilinn: some streets were developed organically to follow natural contours of the land[44] and other streets were planned orthogonally to provide access to properties (see Figure 3).[45] Property boundaries date from the late eighteenth century (according to the earliest available maps).[46] During the

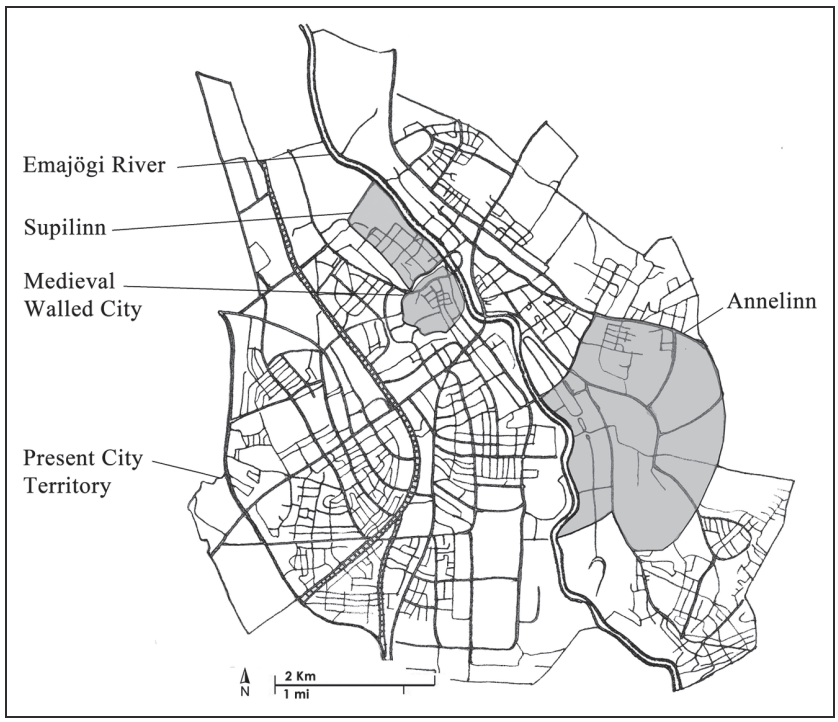

Figure 1. Study area map. *Source.* Created by the Authors and Elnaz Haj Abotalebi.

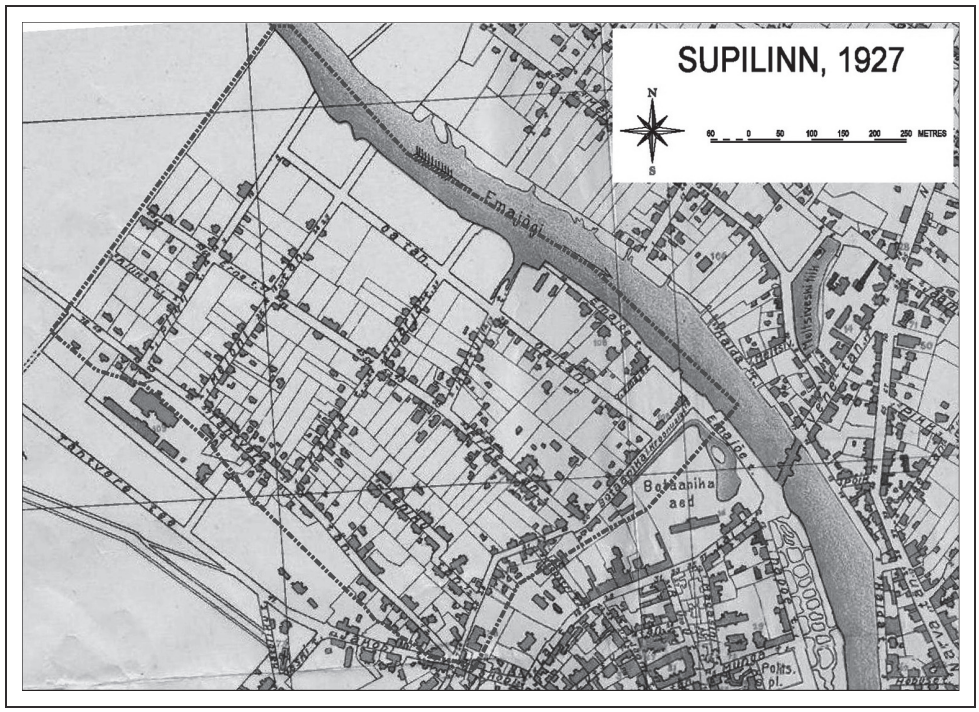

Figure 2. Map of Supilinn, 1927. *Source.* Reprinted from the original plan available from Tartu City Government, Estonia.

ensuing years, properties have continuously been subdivided; however, the historical configuration of individual properties still dominates: the shorter border fronts the street and the longer border stretches to the center of the city block.

Supilinn was spared in both World War I and II. In the interwar period of the Republic of Estonia, construction in Supilinn progressed slowly (approximately one building per year), a pace that continued throughout the Soviet occupation until 1991. Today, two-thirds of the buildings in Supilinn (not including sheds, garages, and other outbuildings) date from the premodernist period (ending in the late 1920s), 15 percent date from the early modernist period (late 1920s through late 1950s) and the remainder, 15 percent, date since the modern period (late 1950s to the present).[47] Supilinn has preserved relatively large properties (often 2,000 to 6,000 square meters) that were previously used for gardening; since domestic gardening has mostly disappeared, ample space is available for additional construction.

Residential parcels have always dominated land use in Supilinn. About three-quarters of the buildings are small, one- to two-story, sometimes with a third floor loft, with up to ten apartments per building. The remaining quarter of the buildings is detached single-family houses.[48] The buildings typify traditional wooden construction. In the nineteenth century, compulsory facade regulations enforced classical principles of symmetry and rhythm. See Figure 4.

From as early as the 1920s, there was a tendency to view districts of historic wooden houses as undistinguished and of little value.[49] Even when the Tartu city core (or "Old Town") became protected in 1973, wooden houses on its perimeter were considered valueless.[50] Toward the end of the Soviet occupation, it was viewed that wooden houses gave positive value to districts; this was reflected in interest in preserving wooden houses but only when new construction was more expensive.[51]

Analysis

In the next section, we organize a comprehensive sequence of written plans for Tartu in the twentieth and twenty-first centuries to demonstrate the evolution of town planning ideology that occurred in this small post-Soviet city. From the 1940s through the 1980s, town planning was carried out according to prevailing Soviet town planning practices. We note that metropolitan building patterns in urban physical environments and town planning ideology in Estonia show some similarities to norms of the western world, despite different political environments.[52] The sequence of plans is summarized in Table 1 and synthesized in considerable detail in the following section.

A succession of political environments in Estonia included the Tsarist period (1710 to 1918), the Republic of Estonia (1918 to 1940), the first Soviet occupation (1940 to 1941), the German occupation (1941 to 1944), the Soviet occupation (1944 to 1991), and the Republic of Estonia (1991 to present). Despite such profound governmental changes, we find surprising continuity in the creation and maintenance of the built environment. For example, Tartu city architect Arnold Matteus (1897–1986) held the office from 1926 to 1935 and from 1941 to 1960 through Estonian, German, and Soviet leadership in Estonia.[53]

During World War II, Tartu was twice at the frontline, first in 1941 when the Soviets retreated and then in 1944 when the Soviet army returned. Both occasions resulted in extensive destruction evidenced by large areas in the city center that remain empty. Fortunately, Supilinn was hit sparsely: fewer than ten buildings were destroyed.[54] Even while World War II still waged, a discussion about how to rebuild Tartu had begun. Some town planners saw reconstruction as a golden opportunity to organize a better city on the ashes of bombed blocks.[55] Others suggested the urgent dismantling of all unwanted districts including Supilinn.[56]

During the interwar period, town planning concentrated only on newly developing districts. Town planning efforts in Tartu started in earnest immediately after the German occupation was

Figure 3. View of Supilinn looking northward from the tower of St John's Church (*Jaani Kirik*), circa 1920. *Source.* Reprinted with permission from the Tartu City Museum, Estonia.

Figure 4. A private residence in Herne Street, 2010. *Source.* Mart Hiob.

Table 1. Evolution of Town Plans in Tartu, Estonia.

	Year	Title	Description	Outcome (affecting Supilinn)
Phase I	1945	General Conception of Planning of Tartu,[a] General Plan of Tartu City[b]	*Stalinist rebuilding.* Broaden two long (Herne and Oa) and two short (Marja and Kauna) streets with the rebuilding of street fronts (and demolition of older buildings). Two small central squares are planned (on Marja and Tähtvere Streets, and along the southern section of Herne Street). Outdoor sports complex planned north of Supilinn. Otherwise the streets are preserved in their historical locations and dimensions. There is a bridge planned 400-m north of Supilinn	The plan was not implemented–only the Song Festival Arena was constructed on the site of the planned outdoor sports complex
	1947 (updated 1951, 1954)	Development Plan of Tartu[c]	*Stalinist rebuilding*, similar to the 1945 plan. Marja Street is planned as a main pedestrian artery and Herne Street is planned as a key artery for motorized traffic	The plan was not implemented–only the Song Festival Arena was constructed The plan was not implemented–only
	1956 (updated 1959)	Planning and construction project of Tartu city[d]	*Stalinist rebuilding*, a development of the 1947 plan with radical suggestions for change. Demolish all existing structures and build a new residential area with similar street system, introducing great vistas and green areas on river banks. Other elements include a new school, a green corridor, and new two- and three-story buildings. In place of the outdoor sports complex the Song Festival Arena is planned. There is a bridge planned approximately 400 m north of Supilinn and in the update a pedestrian bridge closer to the center (at Kauna Street)	The plan was not implemented–only the Song Festival Arena, and extension of the brewery were constructed
	1963 (updated 1965)	General Plan of Tartu[e]	*Traditional rethinking.* This plan deemphasizes the Stalinist planning that was seen in the 1950s and introduces traditional neighborhood development with modernist elements to replace the demolition of all residential structures (previously justified by poor condition). A multilevel cross street is proposed by the river (at Oa and Kroonuaia intersection) to modernize the traffic network. Three new bridges across the Emajõgi River are planned—at Kroonuaia Street, about 800 m north of Supilinn, and for pedestrians (about 400 m north)	The plan was not implemented—only Kroonuaia Bridge was built in the 1990s
Phase II	1976	General Plan of Tartu[f]	*Soviet modernism.* This radical plan proposes to demolish all streets and residences and build new wide streets and mega-structures. Housing will be replaced with tower block buildings containing residences, Tartu University buildings, and administrative and governmental functions. Two streets (Tähtvere and Oa) are designated for pedestrian use only. One bridge is planned across the river (at Kroonuaia Street)	The plan was not implemented—only Kroonuaia Bridge was built in the 1990s, and the outdoor sports complex in the 2000s
	1978	Detailed plan of Tartu Old Town Protection Zone[g]	*Old town preservation.* Covers only blocks of Supilinn adjacent to the old town. All wooden houses in Supilinn are considered valueless and suitable for demolition. Kroonuaia Street is planned as a main traffic artery flanked by surface automobile parking	The plan was not implemented

(continued)

Table 1. (continued)

	Year	Title	Description	Outcome (affecting Supilinn)
Phase III	1986	Reconstruction conception of Supilinn[h]	*Modest preservation.* A hybrid plan, with elements of Soviet modernism and the modest introduction of preservation in three key areas—Lepiku Street, Emajõe Street, and the southern part of Tähtvere Street. Three main arteries were planned (Kroonuaia, Herne and Kroonuaia Streets) and widened with the demolition of all housing. A new bridge (at Kroonuaia Street) flanked with garages and surface parking was designed. The main street network was maintained and a selection of buildings in good condition was preserved in all streets. Areas closer to the city center were reserved for the university or other public buildings. New functions—including a school and two kindergartens—were introduced in the center of large city blocks (such as the blocks formed by Tähtvere-Meloni-Herne-Marja Streets and Herne-Meloni-Oa-Marja Streets). A shopping and service center was planned in the center of the area (at Herne and Marja Streets). The northern part of Tähtvere Street was meant for greenery to create a buffer zone for the brewery. River bank was reserved for green zone	The plan was not implemented—only Kroonuaia Bridge was built in the 1990s
Phase IV	1999	Comprehensive plan of 2012 of Tartu[i]	*Preservation permitted.* The plan does not include demolition nor does it provide protection of buildings. The first Tartu master plan after the end of the Soviet occupation does not include significant changes to the physical situation. Most existing functions and structures are preserved and new facilities are planned. The street network is preserved with two main arteries (Oa and Herne Streets). New residential blocks are planned to the north of Supilinn (on the site of today's outdoor sports complex) and between on the river bank. New bridges are planned ca 300 m north of Supilinn and for pedestrians at Marja Street. Four valuable urban areas throughout Tartu (not including Supilinn) are defined as locally protected	The plan was not implemented; however, in recent years, a number of new residential buildings have been erected in areas envisaged by this plan, especially along Oa Street
	2001	Comprehensive plan of Supilinn[j]	*Modest preservation.* The plan provides further development of the 1986 plan. Supilinn is considered a development area, where some old structures would be preserved. About half of the buildings are identified "worthy to preserve" but only the ones in the three zones designated in the1986 plan (and a few scattered elsewhere) are protected against demolition. All streets are maintained, and Oa Street is broadened following the demolition of most historic buildings. At the same time, numerous new structures are established within the historic city blocks. The size and capacity of new buildings is limited to three stories and ten apartments	Parts of two new streets (Selleri and Kõrvitsa) have been built. New housing is established on vacant lots on river bank

(continued)

Table 1. (continued)

	Year	Title	Description	Outcome (affecting Supilinn)
Phase IV	2005	Comprehensive Plan of Tartu[k]	*Nearly complete protection*. Most of the area is locally protected. A few blocks at the fringe are excluded from the protected zone, which is designed to ensure the preservation of unique 19th-century streetscapes (plot structure, street network, pavements, greenery, landscape elements, valuable views and historic buildings) and building characteristics (façade materials, gabled roofs and roofing materials)	The construction of new streets suggested in the comprehensive plan of Supilinn from 2001 is stopped. Building demolition is permitted if structures are deemed deteriorated beyond repair
	2007–2013	New comprehensive plan of Supilinn (under development)	*Complete protection.* Due to the conflict between the comprehensive plan of Supilinn of 2001 and Tartu comprehensive plan of 2005, and pressure from the neighborhood organization, the preparation of a new plan has started. Preliminary concepts suggest a total preservation of historical housing, street network, and unique valuable elements. Requirements for new buildings are stricter and favor building renovation over new construction	Criteria from the draft plan have been used when proceeding new detailed plans and building permits

[a]State project design institute Estonprojekt (author A. Soans), *Tartu linna keskrajooni punaste joonte projekt* (The project of street corridors of Tartu city center), Estonian architecture museum, item EAM 3.1.034, Tallinn, Estonia, 1945. [b]Architecture project design and planning center of Soviet Estonia (author P. Tarvas), *Tartu linna planeerimise üldplaan* (General plan of Tartu city), Estonian architecture museum, item EAM 3.1.237, Tallinn, Estonia, 1945. [c]State project design institute Estonprojekt (author A. Soans), *Tartu linna planeerimise ja hoonestamise projekt (generaalplaan)* (Project of planning and construction of Tartu city (general plan)), Estonian architecture museum, item EAM 3.1.523-526, Tallinn, Estonia, 1947. [d]State project design institute Estonprojekt (author A. Soans), *Tartu linna planeerimise ja hoonestamise projekt* (Project of planning and construction of Tartu city), Archives of Tartu city government, planning and land management department, Tallinn, Estonia, 1956; State project design institute Estonprojekt (author A. Soans), *Tartu linna planeerimise projekt* (Project of planning of Tartu city), Archives of Tartu city government, planning and land management department, Tallinn, Estonia, 1959. [e]State project design institute Eesti Projekt (authors of architectural sections V. Solomatina and H. Reissar), *Tartu generaalplaan* (General plan of Tartu city), Archives of Tartu city government, planning and land management department, Tallinn, Estonia, 1963. [f]State project design institute Eesti Projekt (authors of architectural sections M. Meelak, M. Port, O. Zhemtshugov, R. Kivi, *Tartu generaalplaan* (General plan of Tartu city), Archives of Tartu city government, planning and land management department, Tallinn, Estonia, 1976. [g]Kivi, Detailed plan of Tartu old town protection zone. [h]State project design institute Eesti Projekt (author K. Voolaid), *Tartu Supilinna rekonstrueerimise kontseptsioon* (Reconstruction conception of Supilinn in Tartu), Archives of Tartu city government, planning and land management department, Tallinn, Estonia, 1986. [i]Tartu City Council, *Tartu linna üldplaneering aastani 2012* (Comprehensive plan until 2012 of Tartu city), Act of Tartu city council no. 99, October 6, 1999. [j]Tartu City Council, *Supilinna linnaosa üldplaneering* (Comprehensive plan of Supilinn borough), Act of Tartu city council no. 88, October 18, 2001. [k]Tartu City Council. *Tartu linna üldplaneering* (Comprehensive plan of Tartu city), Act of Tartu city council no. 125, October 6, 2005.

exchanged for Soviet occupation in 1944. Since Tartu city architect Matteus remained in office during this political transition, many of the town planning ideas put forward during the years of Estonian Republic and German occupation survived.

Phase I: 1940s to 1960s

During an era of extensive reconstruction planning for war-ravaged cities in Europe, a conceptual town plan for Tartu was published in 1945 and updated three times during the following six years. Preliminary plans from December 1944[57] as well as later developments[58] and modifications display traits of Stalinist utopian reconstruction. The characteristic system of symmetry and vistas surrounding focal points at street intersections and emphasis on monumental public facilities (such as government buildings and recreation facilities) is visible throughout the plan. Significant physical changes were envisaged for Supilinn, even though the street network was generally maintained (unlike the 1944 plan where new streets were proposed). Northwest of Supilinn, a large outdoor sports complex was planned and major access roads to the city center were added.

A comprehensive plan for Tartu completed in 1956 was published both in Estonian and Russian and undertaken by *Estonprojekt*, one of three state-run project design institutes in Estonia, in cooperation with the local administration.[59] The plan calls for complete demolition of all buildings and roads in Supilinn and Stalinist reconstruction of the district, featuring large superblocks and broad streets. Three primary land uses (two-story buildings, occasionally three-story buildings, and one- to two-story buildings and green areas) for Supilinn are designated in a color-coded land use map. Two principal arterial streets meet at a key intersection in Supilinn at an appropriate place for a monument, providing rich opportunities for urban vistas. Adjacent to the district, a brewery, one of the chief industries in Tartu, was to be expanded, consuming space in Supilinn formerly occupied by residences. However, building detail is not shown. A green corridor is planned along the Emajõgi River adjacent to the botanical garden in the south, and recreational and sports facilities in the north of the district.

Three years later, in 1959, a revision of the plan was published, which provides greater detail about certain aspects of the 1956 plan.[60] The revision preserves a public bath building, proposes two bridge crossings (one for automobiles and one for pedestrians) north of Supilinn and specifies that the recreation area should include a ski jump tower, an amphitheater, and several restaurants. At the intersection of two planned main streets (Herne and Marja) a central monumental element is added (see Figure 5).

Almost twenty years after the first plan during the Soviet era, a new Tartu city general plan was undertaken in 1963.[61] This plan places lesser emphasis on Stalinist features, such as monumental squares at street intersections, that appeared a decade or two earlier. However, the 1963 plan possesses more traditional features than modernist features. Supilinn was planned for strictly residential use (see Figure 6). A technical review of the existing residential buildings throughout Supilinn concludes that most are in poor condition (on a three-level scale), and this assessment is used to propose the demolition of all residential structures. The plan further calls for the widening of selected streets, and buildings throughout the district were planned to be 1- to 1.5-story residential structures.[62]

Phase II: 1970s

In the late 1960s and early 1970s, modernist ideas inspired by Le Corbusier's proposals in Paris and elsewhere[63] become dominant in the Soviet Union. In Estonia, new suburban districts of large apartment blocks were planned in Tallinn (Mustamäe, Väike-Õismäe and Lasnamäe), Tartu (Annelinn), and other larger towns. The modernist approach required new kinds of urban infrastructural

Figure 5. The planning project of Tartu City (General Plan), 1959. *Source.* Reprinted from copies of the original plan available from Tartu City Government, Estonia.

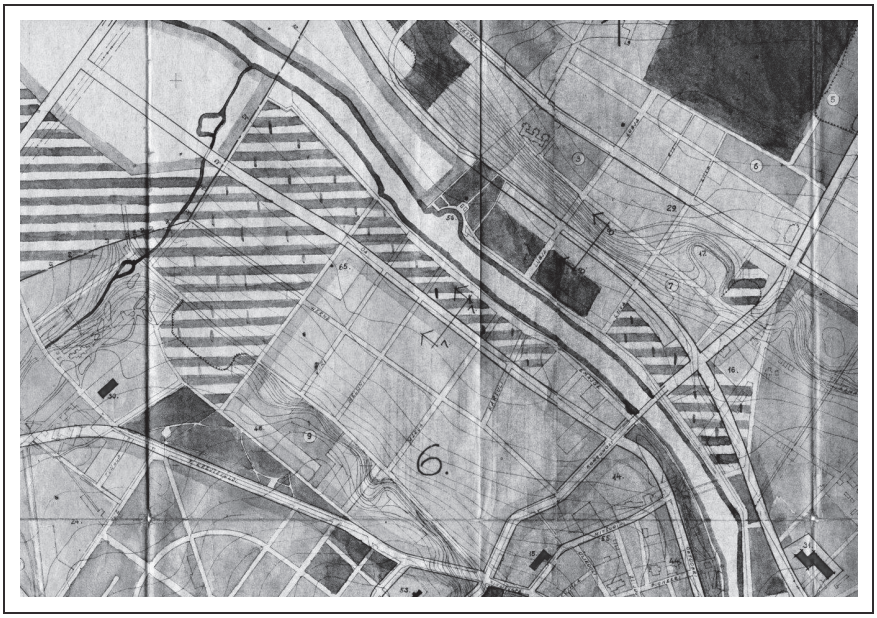

Figure 6. General plan of Tartu City, 1963. *Source.* Reprinted from copies of the original plan available from Tartu City Government, Estonia.

organization because streets were dissolved and towers were scattered across park-like settings. Residential areas were strictly separated from business and industry while roadway networks were designed to provide convenient automobile access.

The most radical development plan, the General Plan of Tartu, appeared in 1976 and called again for the demolition of all streets and residences in Supilinn, replacing them with new broad streets (some reserved exclusively for pedestrians)[64] and mega-structures (see Figure 7).[65] Supilinn would contain a mix of uses: approximately 40 percent of the land was reserved for housing (tower blocks at least four stories high[66]), 30 percent for university buildings, 25 percent for greenspace, and 5 percent for public rights-of-way. As in previous plans, the brewery is enlarged. The only building to be preserved is a public bath (in Emajõe Street). In addition, there is a planned stadium in the outdoor sports complex at the northern end of Supilinn.

Four years later, the Detailed Plan of Tartu Old Town[67] specifies the condition—and potential—for protection and renovation of historically valuable buildings and other structures in the historic core of Tartu. In the plan, all wooden houses in Supilinn are considered valueless and suitable for demolition, including houses within the protected zone. Estonian architect Mart Port echoed the sentiment of Soviet leadership about demolition of historic dwellings: "only after satisfactory solution of the housing problem will it be expedient to tackle the next job: the replacement of two- to three-story wooden houses, which are inferior in terms of architectural value, amortized and without amenities by modern buildings."[68]

Phase III: 1980s

By the early 1980s, nearly all low-cost undeveloped land within city boundaries suitable for new apartment blocks had been used in Estonia, and new locations for housing were needed, prompting proposals for the reconstruction of historic districts.[69] Echoing the years immediately following World War II, many people still lived in cramped quarters.[70]

The Conceptual Plan for the Reconstruction of Supilinn was completed in 1986, and this would be the last written plan before the disintegration of the Soviet Union.[71] Previously, the treatment of Supilinn had been part of larger comprehensive plans, but the 1986 planning effort suggests recognition of Supilinn as a distinct district demanding a dedicated planning exercise. The result is a hybrid plan, with elements of Soviet modernism and, in a departure from town planning in Estonia during the 1960s and 1970s, modest elements of preservation. This is the first plan since the 1940s in which Supilinn is not slated for entire demolition.

The plan calls for much demolition within Supilinn, however building preservation occurs in three key areas: a centrally located ensemble of historic wooden apartment buildings with unified townscape (Lepiku Street, see Figure 8), the riverfront on the north side,[72] and on the southern side (Tähtvere Street between the city center and Marja Street). These three areas are distinguished as an "architecturally valuable milieu to be preserved" according to contemporaneous town planning language. Apart from these three key areas, the wooden buildings in Supilinn are not considered valuable. Perhaps more importantly, the buildings are mostly deemed to be in poor condition, and so they are targeted for demolition.

New buildings proposed for the district in this plan did not include tower blocks; instead, smaller buildings would prevail, and they would include a shopping center (grocery, restaurant, laundry, post office, and household goods store), a community service center, kindergarten, and new buildings for university (or similar public use). City blocks were large and the center portion of city blocks (rear gardens of residential plots) would be developed with buildings such as schools and kindergartens. The main street (Herne) was to be completely demolished, and a new wider street was to be established.

Implementation Prior to 1991

Change of urban landscapes is a two-step process, first planned (to meet social, economic, and political demands of the day) and then executed (by way of implementation of plans). This study examines plan implementation and thus helps us to understand the mechanisms of urban development.

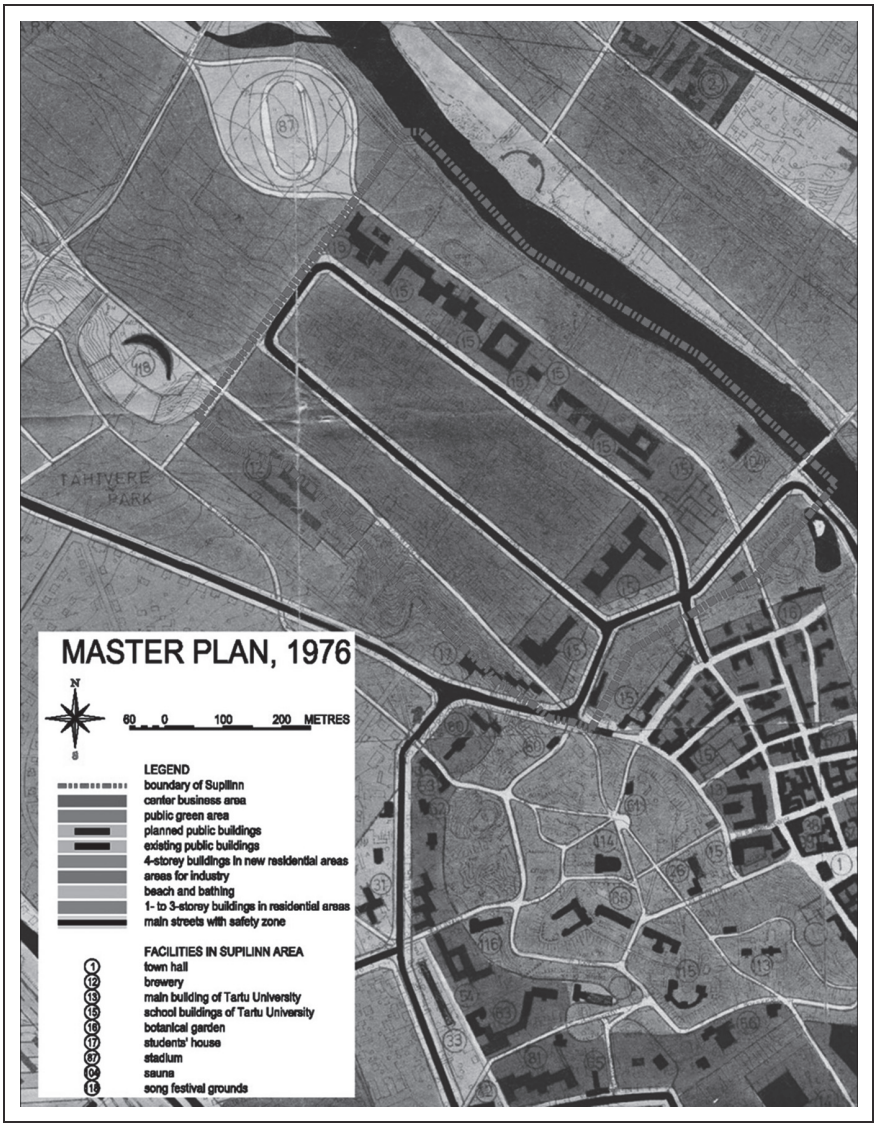

Figure 7. Zoning map of Supilinn and Tartu City Center (Proposed), 1976. *Source.* Reprinted from copies of the original plan available from Tartu City Government, Estonia.

During the 1950s, 1960s, and 1970s, city plans were officially held in secrecy and no public display was allowed. The official concern was that antigovernment forces—so-called public enemies and foreign agents—could use the plans for sabotage. A few glorified drawings of proposed building schemes were made available for public consumption. Planning documents, which included a large 1:10,000 scale color-coded land use map, technical infrastructure map, and other thematic maps and accompanying text, were shared freely among officials even though the copies were numbered and tracked. However, the *de facto* degree of secrecy was questionable since the plans were working documents needed in everyday decision making.[73] Military installations were not depicted on the plans and town officials had little knowledge about the intentions of the

Figure 8. Historic wooden houses with Art Nouveau Detailing on Lepiku street, 2010. *Source.* Daniel Baldwin Hess.

military. Town governments had little influence on military planning and therefore the areas under administration were simply excluded from ordinary development. Although military zones were restricted, citizens could visit.[74]

Ambition for urban reconstruction during the Soviet years outstripped available resources, and none of the plans reviewed in Table 1 was implemented in full (and few were implemented even in part). Investments in Supilinn during the Soviet era were minimal; for example, sewerage and water supply systems were reconstructed, some street alleys were planted, and two streets were paved with asphalt and others with gravel (which perhaps worsened street conditions because surfaces were previously cobblestone[75]).

The Soviet-era plans envisaged grand changes in urban structure. Similar to other realms of Soviet society, town plans were unrealistic and bordered on utopian. The utopian aspiration reached its peak in the 1976 plan, which laid out a complete revision of both housing and street networks according to new modernist principles in a manner that made little use of existing structures.[76] The plan firmly reflects modernist influences in the form and position of buildings. The Soviet system was dependent on central allocation of funds[77]; funds were scarce and in a second tier town like Tartu, they were seldom used for rebuilding existing structures that still possessed some—even minimal—practical value.

Similarly, the plan of Supilinn (1986) was not implemented.[78] However, a new attitude displayed in the plan toward selective preservation of certain areas and lesser emphasis on mega-development demonstrates a change in town planning approach and is propagated in town plans produced during the next decades.

Considering the many town planning exercises that addressed Supilinn, little was implemented prior to 1991. From the Soviet period, only the construction of the Song Festival Arena can be considered a major investment. If we look to other pre–World War I neighborhoods bordering the town center of Tartu (such as Karlova, Toometaguse, Kastani, Ujula, etc.) we find similar patterns, with

marginally higher levels of investment and thereby implementation of town building plans. Other residential districts in Tartu do not have natural boundaries as distinct as those enclosing Supilinn but generally they have higher building density. A demand for low-density development sites could have favored residential districts like Supilinn. In contrast, new neighborhoods established during the interwar period from 1920 to 1941 (for example, Tähtvere and Tammelinn) were generally not considered ripe for demolition. Instead, new buildings in established neighborhoods were added between existing structures—a practice of densifying using available land—or on the fringes.

In addition to a reluctance to demolish useable housing, geological conditions in Supilinn may explain a lack of large-scale land use change and reconstruction. It is difficult to construct buildings higher than two stories upon the ground in most parts of the district because a one- to eight-meter layer of peat and dirt rests in the ground upon a base of sand and sandstone. Construction costs were estimated to be expensive.[79] In addition, a high ground water level complicates building. Consequently, the foundations of historical buildings are constructed on floating wooden trunks resting in water (to avoid rotting).[80]

Similar geological conditions occur in the adjacent Tartu city historical core[81] where little development took place during Soviet times. Modern construction techniques use boring to reach sturdy earthen layers beneath peat or, for smaller buildings, use plate foundations; both methods are more expensive than a traditional linear base beneath bearing walls.[82] Therefore, it would have been cost prohibitive to build apartment blocks, given the geologic conditions in Supilinn.[83] In addition, construction of new blocks of apartments required equipment—including large cranes—that did not fit within the narrow lanes of Supilinn.

In other pre–World War I wooden neighborhoods in Tartu, where geological conditions were more favorable for construction, a few large block of houses were erected. Generally, the demolition of old wooden structures took place only in connection with infrastructural change. For example, in Karlova, a district built densely with wooden buildings, a number of historic structures were demolished to construct the infrastructure for a new highway bridge, and new tower blocks were squeezed into existing city blocks—where demolition had already occurred—adjacent to the bridge.

Phase IV: 1990s and 2000s

Following the reestablishment of Estonian independence in 1991, responsibility for town planning was assumed by the municipality of Tartu. Though new national laws helped to institutionalize planning practice, there was a general apathy during the 1990s toward town planning; the passiveness was a legacy from the Soviet-era secrecy surrounding planning that discouraged participation. The first planning and building law, enacted in 1995, established a new framework for planning based on democratic participation and public procedures.[84] In Tartu, new development and redevelopment occurring after 1991 at first adhered to plans from the Soviet years. The political transition produced hardship; there was little capital available for investment and much demand for maintenance. After the end of Soviet rule, preservation of heritage gained support[85] but Supilinn was not included in a list of valuable urban areas.

The first Tartu comprehensive plan since reestablishment of independence was undertaken in 1997 and adopted in 1999.[86] Four protected districts were included in the comprehensive plan, but instead of establishing new guidelines for preservation practice (including site selection), the plan referred simply to the previous acts. The comprehensive plan does not reference three valuable streets in Supilinn mentioned in the 1986 plan.

Supilinn was regarded as an ordinary residential area where the number of inhabitants was expected to increase approximately 30 percent, and the 1999 plan addressed densification and reconstruction.[87] The Soviet plan for a main traffic artery between Supilinn and the old town was abandoned along with widespread demolition.

The general attitude toward Supilinn was indifferent, which was typical of a then widespread disinterest in town planning. The district was not viewed as worthy of protection, but at the same time it also was not subject to radical or even modest plans for alteration. Following the restoration of Estonian Independence in 1991, private land ownership was reinstated, and properties confiscated by Soviet leaders were restituted to the original owners or their heirs. The municipality owned a small share of land—streets, municipal institutions, and modest reserves.[88] Local and national governments imposed as few restrictions as possible and at the same time had to newly reckon with the legal rights of private landowners.

The comprehensive plan of Tartu in 1999 addressed certain deficiencies in the district but did not propose clear alternatives for the future. The plan did not have lasting influence on Supilinn, due primarily to the unpopularity of the district as a residential area in the 1990s.[89] The infrastructure in Supilinn was below minimum acceptable standards with gravel-paved streets without sidewalks and deteriorated water and electricity supply and wastewater management.

Continuity of Townscapes

Due to its proximity to the old town, recreational areas, and the Emajõgi River, Supilinn was regarded among Tartu officials as having great potential as a redeveloped residential area. The reputation of the district was enhanced by its residents—people connected with the university, artists, and even the city architect at the time—and the city government responded by initiating a new plan for Supilinn in 1997.[90]

The comprehensive plan of Supilinn borough was adopted in 2001.[91] In the plan, a number of new streets were proposed for densification. A new residential area to the north of Supilinn was abandoned, where public use was proposed (similar to the 1976 general plan). Most buildings are designated as "worthy to preserve," but preservation is not explicitly required. The three districts described in the 1986 plan are designated as valuable built environments. These areas are to be preserved and reconstruction plans must be approved by city government. New buildings are limited to three stories in height and ten apartments per building.

In general, the plan does not view Supilinn as a valuable area. It recognizes that there are a few valuable streets and some buildings that should be protected, but the overall approach both permits and encourages large alterations. Supilinn is considered a rundown district requiring major intervention to become an attractive residential area. Densification is a key solution for attracting new services and upgrading infrastructure.

The restitution policy of in the 1990s created a new class of property owners. Most property owners were also residents and sought to improve properties in Supilinn.[92] The owners wanted to avoid radically altering the plot structure or adding new buildings because they both regarded it as harmful to their property and they valued the historic environment.[93] The 2001 plan was opposed by many residents who did not approve of densification of the district. The Supilinn Society, a neighborhood organization formed in 2001, strongly opposed new structures and proposed the invalidation of the plan.

The 1999 Comprehensive Plan of Tartu[94] possessed several widely acknowledged shortcomings and a new planning process for the city began in 2003. In 2002, a new national planning law was adopted, which allowed designation of local valuable built environment or "milieu" areas (*miljööväärtuslik hoonestusala* in Estonian). Supilinn was mostly included in a newly designated "milieu" area. For the first time Supilinn was recognized to be a valuable area as an ensemble of buildings, streets, and all elements of the built environment that had survived from the tsarist period.

The new comprehensive plan of Tartu (2005) supplanted components of the 2001 comprehensive plan of Supilinn,[95] especially new streets that would alter the original plot structure and street network. The Supilinn Society requested the initiation of a new comprehensive plan for Supilinn to overcome the conflicts between two existing plans. In 2007, a new district planning process was begun by the city

government[96] and the first draft was approved in 2012.[97] The plan is strongly oriented toward preserving structures (including housing, streets, and plot boundaries) dating from pre–World War II.

Inertia versus Implementation of Plans

Situating this study in Estonia allows us to consider continuity and change in a country that has been subjected to many ideological changes during the twentieth century. All major regime changes occurring in Estonia—in 1918, 1940, 1941, 1944, and *circa* 1991—were followed by promises from government leaders of change and implementation of new ideas. Throughout these eras, however, the power of the state reduced the likelihood that Estonians would reproduce built environments from the past. Under the political regime during state socialism, no constituency could demand renovation of Supilinn or any other neighborhood; now, however, most neighborhood residents strongly favor preservation.[98]

Although during the Soviet occupation there were no restrictions introduced by property ownership (all real estate belonged to the state), the socialist system did not prioritize improving living conditions for its citizens. Therefore, a lack of resources in the housing sector was widespread in an environment of acute housing shortages.

There is no doubt that forces of change were strong in cities of the FSU, and diminished or diminishing fiscal resources produced a lack of capacity for urban expansion and a policy to construct new housing on virgin land instead of renovating existing urban districts. The inertia of the built environment also played a role during the mid-twentieth century, as an acute housing shortage made it impossible to temporarily relocate residents while older districts such as Supilinn could be razed for new construction. Geological conditions in Supilinn deterred demolition and replacement because the construction of large steel and concrete towers (for residential or municipal use) favored at the time would have been too costly.

Conclusion

In the current article, we have focused on unintended consequences of implementation of Soviet-era town plans in Tartu, Estonia. The Soviet provision and allocation system produced a "shortage economy" and introduced irrational forces into the housing system.[99] A housing shortage meant that residences were continuously occupied and were not abandoned as properties might have been in an active market housing system, when "trickle-down" dwelling units assume bottom positions on the housing ladder for acquisition by other groups.[100] We conclude that, during the Soviet years, a housing shortage was a major source for inaction.[101] In most cases, dwellings received only essential maintenance and were not modernized when required. Old wooden housing areas exist in other Estonian cities (Pärnu, Tallinn, Rakvere, and Viljandi),[102] but few are so completely and authentically preserved as Supilinn.[103] After decades of limited choice during the Soviet era, there has now been, during the last decade, construction of detached homes on the periphery of cities that provide more housing options for those with sufficient means.[104]

An overview of town planning activity (which was largely unexceptional) and implementation (which was modest) from 1944 to the present sheds light on the ensemble of pre–World War I urbanism in Tartu and suggests that Supilinn was threatened with total demolition consistently until the 1980s, although a sequence of demolition plans was never carried out. In practice, change in the built environment usually takes place in marginal or incremental ways,[105] and complete demolition and reconstruction of Supilinn would have been radical. Soviet authorities in Estonia did not generally succeed in implementing modernist reconstruction plans within urban districts dominated by historical wooden buildings in the way that officials in nearby Nordic countries of Sweden, Finland, and Norway rebuilt comparable districts.

The preceding discussion addresses our research question and suggests key explanations for a failure to implement official written plans: a lack of resources for plan implementation; a shortage economy insured that Supilinn was continuously occupied and never abandoned or ruled obsolete; general disregard for historical wooden areas; and a focus on new housing and new districts. In Supilinn, difficult geological conditions also contributed to inaction. Since the entire district was designated for redevelopment, there was little interest in reconstruction and rebuilding even though there was plenty of space between existing buildings. As a result, the authenticity of the original urban space is preserved. Consequently, we argue that the legacy of written plans exerted an implicit rather than an explicit influence over local planning and development. Officials paid little attention to Supilinn, as it was a small district housing 3,000 people and large districts (such as new mikrorayons housing 10,000 or more people) were of greater concern. Tartu had experienced extensive destruction in World War II (about one-fifth of the city was demolished[106]), and Soviet-era reconstruction was focused on rebuilding damaged areas and thereby helped to spare preserved historical districts.

Wooden housing areas were viewed as a necessary evil of urban life until all Soviet citizens would receive new apartments in modern concrete buildings. That is, wooden districts were reconstructed only when they stood squarely in the way of greater development plans.[107] We find significant town planning activity in Tartu—with a major plan (and subsequent addenda and revision) produced at least every decade, consistent with a Soviet ambition to reorder cities and societies—yet virtually no implementation in existing neighborhoods for the reasons given above.

The evolution of town planning in Tartu demonstrates how planning ideology has changed and diffused throughout the twentieth century. Modernist reconstruction and city renewal were subject to heavy criticism in western countries in the 1960s and 1970s when Jane Jacobs' *The Death and Life of Great American Cities* (1961) was published and the iconic Pruitt-Igoe housing complex was demolished in St. Louis, Missouri.[108] However, Soviet town planning ideology did not abandon modernism before the disintegration of the political system in 1991. The Soviet system did not accommodate the democratic features of new town planning ideology like collaboration and public engagement.

After Stalinist architecture and town planning fell from favor, modernism seemed to offer Soviet authorities simple and clear solutions to immense housing shortages following World War II. In addition, well-respected Estonian architects[109] traveled to the west on state-sponsored trips. For example, *An Architect's Trip to England* in 1966,[110] which was widely read in Estonia, describes contemporaneous development in London from an architect's viewpoint, summarizing popular thoughts of the day about British town planning and the built environment. Such diffusion of knowledge from one country to another had an effect on architecture and town planning, although the effect may have been ideologically altered due to the status of Estonia as a Republic of the Soviet Union.

A notable change in town planning practice occurred between 2001 and 2005—significantly delayed compared to western Europe and the United States and more than ten years after Estonian independence in 1991—of moving in opposition to Soviet-era recommendations for the reconstruction of Supilinn. Consequently, current passion among many for preservation, and a vision of planning that simultaneously looks forward and backward in time, stands in stark contrast to the abstract modernist principles of the 1960s, 1970s, and 1980s that are vividly expressed in plans from those decades. At the same time, the image of Supilinn as a residential district has improved remarkably during the last decade.[111] Signs of gentrification[112] suggest that renewal is likely to preserve the material content of Supilinn while simultaneously threatening its social diversity. However, it is likely that, in the coming years, the Tartu city government will invest little capital in the district, and most improvements will be privately funded.[113] We argue that future plans for districts such as Supilinn, the larger cities in which they lie, and even metropolitan areas and regions, must be developed with an understanding of the underlying mechanisms that structured the geography of the built environment of cities before, during, and after state socialism.

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Notes

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35. The built form of Supilinn was largely determined by pre–World War I buildings, and later structures are more or less appropriate additions. Supilinn had several building periods during the nineteenth and twentieth centuries. The street pattern was established in the first quarter of nineteenth century. The construction of buildings accelerated after 1856 when a large plot of land in Supilinn was subdivided into smaller building plots. After land reform in Estonia in 1863, peasants were permitted to relocate from the countryside to cities and there was consequently new demand for housing when the population of Tartu enlarged. Further growth occurred after a railway linking Tallinn and St. Petersburg reached Tartu in 1876. The construction of Supilinn continued until World War I. During the Estonian Republic of 1918 to 1940, about twenty new buildings were added. Today, there are about 350 principal buildings (not including sheds and garages) in Supilinn, of which about 230 (or 66 percent) are from the Tsarist period (1710–1918); M. Hiob and N. Nutt, *Supilinna teemaplaneeringu muinsuskaitse eritingimused* (Conditions of cultural heritage protection in thematic plan of Supilinn), Artes Terrae Ltd. (on behalf of Tartu City Government), Tartu, Estonia, 2010.
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40. The outermost city blocks of Supilinn were included in the territory of Tartu town in 1844; M. Hiob *Planeeringuline kujunemine: Supilinn 17–21. sajandi linnakaartidel ja -plaanidel* (Development of Supilinn's street and plot structure–Supilinn on maps and plans between the seventeenth and twenty-first centuries) *Acta Architecturae Naturalis* 2 (2012).
41. In Figure 2, the Supilinn district boundary does not coincide fully with the commonly accepted neighborhood boundary. The Tartu city center, located to the southeast corner of Supilinn, is recognizable by its stone buildings marked with red color.
42. Nutt and Hiob, Conditions of Cultural Heritage Protection in Thematic Plan of Supilinn.
43. The name "Supilinn" came into common use in the mid-twentieth century and was later adopted as the official name of the neighborhood. The name Supilinn means "Soup Town" and derives from local street names—Herne (pea), Oa (bean), Kartuli (potato), Marja (berry), and Meloni (melon). Hiob and Nutt, *Supilinna teemaplaneeringu muinsuskaitse eritingimused.*
44. For example, Tähtvere Street aligns with the slope of the ancient bed of the Emajõgi River and Kroonuaia follows the Medieval city moat.
45. Two streets—Allika and Lepiku—were added in the first part of the 20th century and two smaller streets—Selleri and Kõrvitsa—were added during the last ten years. Hiob and Nutt, *Conditions of Cultural Heritage Protection in Thematic Plan of Supilinn.*
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48. Preem, *Tartu linna territoriaalne struktuur. Linna rajoneerimine linnaruumi struktuuri baasil* (The territorial structure of Tartu city: the division on the basis of urban space structure), Tartu linna arengu kompleksuurimise laboratoorium, Tartu, Estonia, 1986.
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50. R. Kivi, *Tartu vanalinna kaitsetsooni detailplaneerimise projekt (regenereerimisprojekt)* (Detailed plan of Tartu old town protection zone), National restoration board, archives of Tartu city government, planning and land management department, Tartu, Estonia, 1978.
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58. State project design institute Estonprojekt, The project of street corridors of Tartu city center (1945).
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61. State project design institute Eesti Projekt, General plan of Tartu city (1963).
62. In a 1965 update of the 1963 plan, there is a planned grade-separated interchange on the Supilinn side of Kroonuaia Bridge and both Oa and Kroonuaia streets are planned as large traffic arteries (with 14-meter driving lanes); State project design institute Eesti Projekt (author of architectural part V. Solomatina), *Tartu linna generaalplaani korrektuur* (Revision of general plan of Tartu city), Archives of Tartu city government, planning and land management department], Tallinn, Estonia, 1965.
63. Hall, *Cities of Tomorrow*.
64. In this plan, the entire city center is reserved for pedestrian traffic only, and Oa street is part of a 3.8-km central pedestrian axis that traverses the center and crosses the river to Annelinn.
65. State project design institute Eesti Projekt, General plan of Tartu city 1963; A focus through the 1980s on demolishing wooden houses is noted by Hausladen: "One striking feature of Soviet urban planning is the highly selective nature of preservationist policies. Although impressive gains have been made in restoring and preserving churches, palaces, and other important examples of Russian architecture, this movement has not been extended to single-family, wooden houses. The negative connotations of capitalism (single-family) and backwardness (wooden) that these structures elicit far outweigh their value as examples of Russian craftsmanship"; G. Hausladen, "Planning the Development of the Socialist City: The Case of Dubna New Town," *Geoforum* 18, no. 1 (1987): 103–15.
66. According to the Soviet design standards [known as *Stroitelnye Normy i Pravila* (in Russian, "building standards and rules") or SNIP], residential buildings had standardized lifespan, wooden houses had shorter lifespan, and therefore all older houses were not worthy of preservation by definition. It was even written in the plan that it is inevitable that houses built between 1901 and 1920 disappear from the housing sector within twenty years (by 1994). However, the plan recognizes that if the pace of new construction is slow, the old houses must be saved to meet housing demand.
67. R. Kivi, Detailed Plan of Tartu Old Town Protection Zone.
68. M. Port, *Arhitektuur Eesti NSV-s* (Architecture in the Estonian SSR) (Tallinn, Estonia: Perioodika, 1983): 9.
69. *Eesti NSV ülemnõukogu ehitus- ja kommunaalmajanduskomisjon* (Committee of building and communal economy of the Supreme council of Estonian Soviet Socialist Republic), Concerning the complex reconstruction of old residential neighborhoods, a draft of the decision, Tallinn, Estonia, 1987.
70. As an example of the shortage of residential space, by 1986, 3.9 percent of apartments in Tartu, and 8.9 percent of apartments in Supilinn, had shared kitchen and shared bath; Preem, The Territorial Structure of Tartu City.
71. State project design institute EestiProjekt, Reconstruction conception of Supilinn in Tartu (1986).
72. Emajõe Street was considered especially valuable, providing an intact example of riverbank commercial development separated from the river by both a street right-of-way and a narrow pedestrian greenway (similar developments elsewhere along the Emajõgi River which were considered distinctive to Tartu had been demolished during WWII bombings).
73. R. Mändmaa, Lecture at Tallinn University of Technology, Tartu College, December 8, 2010.
74. For example, amateur photographer, Leo Kunman, captured images of Soviet military aircrafts in the airbase in Tartu.
75. Report on the street construction in Tartu: Tartu VI. *Ülevaade linnavalitsuse tegevusest 1937/38. a* (Overview of activities of city government in 1937/38), Statistical bureau of Tartu city, *Postimees*, Tartu, Estonia, 1939.
76. State project design institute Eesti Projekt, General plan of Tartu city (1976).
77. Bruns, The memoirs and articles of chief architect of Tallinn city.
78. State project design institute Eesti Projekt, Reconstruction conception of Supilinn in Tartu (1986).
79. State project design institute Eesti Projekt, Reconstruction conception of Supilinn in Tartu (1986).

80. T. Keskküla, *Tartu vanalinn ehitati puitvundamentidele* (Tartu old town was built on wooden foundations), *Inseneeria* 30, no. 4 (2011).
81. For example, the foundation of the main building of Tartu University in the city center has similar vertical members; for smaller buildings in Supilinn, the foundation members are horizontal.
82. Tartu City Council, Comprehensive plan of Supilinn Borough.
83. State project design institute EestiProjekt, Reconstruction conception of Supilinn in Tartu (1986).
84. Ruoppila, Establishing a Market-oriented Urban Planning System After State-Socialism.
85. In 1995 and 1996, four districts in Tartu were declared locally protected areas: Tartu city government, Act of Tartu city government no. 9, April 6, 1995, urban protected district Tammelinn, Tartu, Estonia; Tartu city government, Act of Tartu city government no. 13, June 22, 1995, urban protected district Karlova, Tartu, Estonia; Tartu city government, Act of Tartu city government no. 17, November 9, 1995, urban protected district Toometaguse-Vaksali, Tartu, Estonia; Tartu city government, Act of Tartu city government no. 7, April 18, 1996, urban protected district Tähtvere, Tartu, Estonia. The protection acts had weak legal foundations (some acts were passed in early 1995 even before the planning and building law was enacted) and were mostly declarations of the municipality. Still, the municipality attempted to preserve the areas when issuing building permits.
86. Tartu City Council, Comprehensive plan until 2012 of Tartu city.
87. New development sites (including property for a kindergarten) were planned between Oa Street and the Emajõgi River and, north of Supilinn, the current site of the outdoor sports complex was identified. The existing small industrial zone from the Soviet-era, as well as the brewery, was preserved. Two streets—Herne and Oa—provided regional connections and a new bridge (approximately 300 meters north of Supilinn) was designated a main arterial. The remaining streets were planned for local use.
88. Ruoppila, Establishing a Market-oriented Urban Planning System After State-Socialism.
89. M. Hiob, P. Metspalu, Pre–WWII residential areas in post-socialist cities: comparing the extent of alterations in built environment of the historical residential neighborhoods in Tartu and Tallinn, Estonia, Presented at the fourth international workshop on post-communist urban geographies: space, culture, and transition in post-socialist cities, Bucharest, Romania, September 14–17, 2011.
90. State project design institute EestiProjekt, Reconstruction conception of Supilinn in Tartu (1986).
91. Tartu City Council, Comprehensive plan of Supilinn Borough.
92. According to official statistics (from www.stat.ee), the share of state-owned residential units in 1994 was 71 percent and dropped to 6 percent in 2000; the corresponding shares for private sector units were 29 percent and 94 percent.
93. Nutt and Hiob, Conditions of Cultural Heritage Protection in Thematic Plan of Supilinn.
94. Tartu City Council, Comprehensive plan until 2012 of Tartu city.
95. Tartu City Council, Comprehensive plan of Supilinn Borough; Tartu City Council. Comprehensive plan of Tartu city.
96. Tartu city government, Act of Tartu city government no. 225, May 24, 2007, Initiation of the thematic plan for valuable Supilinn borough to determine the protection and land use conditions to clarify and improve the general land use and building conditions of land and water areas, Tartu, Estonia, 2007.
97. In early 2010, the first phase of the project was commissioned, which includes a study of the historical formation of the district and an assessment of current conditions together with conceptual proposals for a new plan of Supilinn; the study articulates for the first time the unique values in Supilinn preserved from as far back as the Medieval Age; the first draft of the new plan follows, in principle, the propositions from the study; public displays of the plan will occur in 2012 and final approval of the plan is anticipated by the end of the year; the plan draft has already been used as a basis for consideration of new building permits and detailed plans; Hiob and Nutt, Conditions of Cultural Heritage Protection in Thematic Plan of Supilinn.
98. D. Hess, "Early 20th-century Tenement Buildings in Estonia: Building Blocks for Neighborhood Longevity," *Town Planning and Architecture*, 35, no. 2 (2011): 110–16.

99. J. Kornai, *The Socialist System: The Political Economy of Communism* (Oxford, UK: Clarendon, 1992). Zigurds Zile wrote in 1963 that "if experience is a guide, any resettlement program short of compulsory evacuation will encounter popular inertia and ingenious schemes devised to circumvent it." Z. Zile, "Programs and Problems of City Planning in the Soviet Union," *Washington U.L. Q.*19 (1963): 46.
100. In contrast, obsolete tenement districts in Western Europe and North America fell into disuse and were, in many cases, demolished; Hall, *Cities of Tomorrow*.
101. The housing allocation system, which was intended to reduce class distinctions, in fact produced and reproduced many inequities. J. Bater, *The Soviet City* (Beverly Hills: Sage, 1980); Szelényi, *Urban Inequalities Under State Socialism*; R. French, Changing Spatial Patterns in Soviet Cities—Planning or Pragmatism? *Urban Geography* 8, no. 4 (1987): 309–20; D. Hess, T. Tammaru, and K. Leetmaa, "Ethnic Difference in Housing in Post-Soviet Tartu, Estonia," *Cities: The International Journal of Urban Policy and Planning* 29 (2012): 327–33.
102. J. Bater, *The Soviet City*; R. French, *Plans, Pragmatism and People*; R. French, Changing Spatial Patterns in Soviet Cities—Planning or Pragmatism?; M. Lewin and G. Elliott, *The Soviet Century* (London, UK: Verso, 2005).
103. Karlova, the other large wooden area in Tartu, has also retained most its pre–WWI buildings, but streetscapes are altered by the addition of four- and five-story concrete buildings amid the historical milieu; Hess, Early 20th-century Tenement Buildings in Estonia.
104. N. Pichler-Milanovich, "The Role of Housing Policy in the Transformation Process of Central-east European Cities," *Urban Studies*, 31, no. 7 (1994): 1097–1115; Stanilov, Nine housing trends in central and eastern European cities during and after the period of transition; Tammaru, Suburban growth and suburbanization under central planning.
105. Dodgshon, *Society in Time and Space.*
106. Tartu City Government, General plan of the 1941–1944 war casualties.
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8.3 Publication 3

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SPATIAL PLANNING IN ESTONIA – FROM A SOCIALIST TO INCLUSIVE PERSPECTIVE

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Abstract

Spatial planning in Eastern Europe has gone through major changes during the years after the Soviet occupation ended around 1990. New planning standards were eagerly accepted but the practice was often carried out in a socialist manner. This article gives an overview of planning law and practice in Estonia during the transition period. The example presented is a district in Tartu, the second largest city of 100,000 inhabitants. The article analyses different master planning documents covering the whole district and compares both their process of compilation and their content to former Soviet era plans. The conclusion is that the transition from socialist to inclusive planning in Estonia has taken at least two decades, and the process is still not finished. This shows that the legal framework alone is not sufficient to transform planning practice – a new ideology has to be accepted by the specialist as well as the politicians and the general public.

Keywords: spatial planning, planning practice, Eastern Europe, transition, Supilinn.

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1. An overview of planning changes in Europe

The goal of the article is to exemplify the changes that have taken place in spatial planning thinking and practice in Estonia in the last quarter of a century using a suburb of Tartu as a case study. The authors looked both at the planning ideology revealed in planning documents and manuals, and in the conducting of planning processes by local municipality in the observed period. The authors have a deep insight into the background data as they have actively participated in these discussions over the last 10-15 years. The article starts with a general overview of theoretical spatial planning and how Estonia's position has changed since the end of Soviet occupation. Thereafter one concentrates on the case study to reveal deeper connections and influences.

Following the environmental and social crisis launched by the industrial revolution, European countries enforced social and building standards by mid-19th century (Benevolo, 1971). First attempts at systematic, more expansive urban planning were made in the second half of the 19th century in larger European cities (Paris, Vienna, Barcelona, etc.). Before in that period, towns were often designed (not necessarily planned) according to defensive and visual aspects only. However, modern systematic urban planning began at the beginning of the previous century. The need for more consistent and systematic urban planning was created by the desire to control, at least on some level, the fast expansion of cities that occurred due to rapid industrial development that, in turn, created the need for common technical networks and facilities to resolve social problems in overgrown city regions.

Until the 1960s architectural and technical plans were drawn mainly for cities and urban areas. From the 1960s onwards, regional planning has become increasingly common. In Western Europe, systematic planning of whole countries began in the 1980s. The first significant economic growth period after the Second World War occurred in the 1960s and brought along a radical change in ownership patterns. Owning real estate (i.e., your own house, a tract of land, or an apartment) became possible for more and more people. An increasing number of people and their control over their properties were directly influenced by planning. On the other hand planning theorists, most prominently Jane Jacobs (1993), argued that the genuinely valuable result of planning is possible only when residents are consulted in the process. Since the 1960s and 1970s it became a general requirement in the Western European legal system to make the plans accessible to the public. These processes caused changes in the essence of planning, the way planning was conducted, as well as, the legal side of planning (The European Regional/Spatial Planning Charter, 1983).

Urban planning was dominated by architecture and design during the 19th and early 20th centuries. In the middle of the 20th century the scientific approach, whose goal was to create structure-oriented efficient city-plans, became popular. This type of urban planning was done by specialists, and the role of local government representatives was modest. The general public usually did not have a say in planning (Lass, 2012). From the 1970s and 1980s the scope of planning has enlarged both in topics,

such as the addition of physical,social, economic, cultural and environmental aspects, and in public participation where all interest groups should be included. In the center of this kind of planning is the city as a complex, spatial and technical system, and the co-effect of the different components of the system.

This kind of interdisciplinary planning became known as spatial planning. The collaborative planning approach described by Patsy Healey (Healey, 1997) which built on the communicative planning theory of Jürgen Habermas (Healey, 2003) has become widely accepted in Europe both among theorists and in planning acts. Collaborative planning puts emphases on the planning process and information exchange among experts and concerned people. The collaborative planning approach seeks to include all interested parties in the planning procedures. In principle, all opinions should be taken into account equally and all proposals should be considered. Collaborative or inclusive planning supports social integration and helps to build more viable and resilient communities. The critics have claimed that collaborative planning is not as inclusive as theory and legal instruments suggest (Fainstein, 2010). The difficulties lie both in getting every concerned resident involved and weighing opposing opinions equally. The problem is divided into a question of technique – how to get the information to all necessary people, and a more practical question whether the planning process gains from the opinions of people who have no will to participate, yet the decisions influence their situation. More radical critics uphold that the inclusive planning approach, in a neoliberal society, does not benefit the poor as the aim is not a more fair society but simply the justification of unfair planning decisions (Miraftab, 2009). There is a disjunction between formal and substantive inclusion, which has to be dealt with to move toward an equal and fair planning practice.

Most of Eastern Europehas some experience with democracy before WWII, but spatial planning was not necessarily an acknowledged profession. Soviet totalitarianism attempted to manage all facets of the society. Contrary to Western discussions, the totalitarian Soviet controlled system preferred submission and tried to avoid participation, but the rise of democracy in late 1980s and early 1990s directly influenced the spatial planning field as a fully visible sector of the society.

2. Spatial planning acts and their implementation in contemporary Estonia

During the Soviet influence over Eastern Europe, socialist, top-down spatial planning practice prevailed. After the end of communism regime in the 1990s, new Western style planning standards were implemented all over Eastern Europe. Preparations for compiling the modern Planning and Building Act were made even before Estonia gained independence on August 20, 1991. The Planning and Building Act (PBA) came into effect on July 22, 1995 and remained in effect without any major changes for more than seven years. The need for changes in the act came from its implementation. The most radical change proposed was that planning issues and those related to engineering and building were divided into two separate acts. Separate acts for planning and building both came into effect on January 1, 2003.

Compiling plans in Estonia is currently regulated by the Planning Act. No. 2 of the Act states that a plan is a document created in the process of planning which consists of text and blueprints, which complement each other and form an integrated unit. There are four types of plans in Estonia: a national spatial plan, which is the state's spatial development strategy that sets the state's balanced spatial development goals and ways to achieve those goals; county plans, which describe the county's general prospective spatial development (there are 15 counties in Estonia), sets the conditions for the development of settlements and the locations of the main infrastructure facilities; comprehensive municipal plans, which set the main goals of the spatial development of a parish or a town and defines the general terms of land use and building conditions; and detailed plans, which set the definitive terms of land use and building conditions in built-up areas as well as in other areas and in cases where detailed plans are necessary.

In Estonia, the Constitution, the Local Government Organization Act, and the Planning Act all state that the local government has the final say on matters that deal with building and planning on their territory. In practice, the majority of planning documents are compiled in private bureaus and financed by real estate owners or developers, sometimes also by governmental organizations and municipal governments. The right to compile planning documents belongs to experts with higher education in the field of spatial planning, architecture or other relevant disciplines. Because of the building boom of 2005-2008 there was a sudden need for plans to apply for building permits, and plans were compiled by people with higher education in any field. Despite the fact that the act states that plans can be compiled by planners, no planners have been educated in Estonia. Planning has been taught together with architecture (urban design), landscape architecture and human geography (regional planning). In addition, there are several other fields that have a lot to do with planning, such as urbanistic (deals with urban studies) and real estate development.

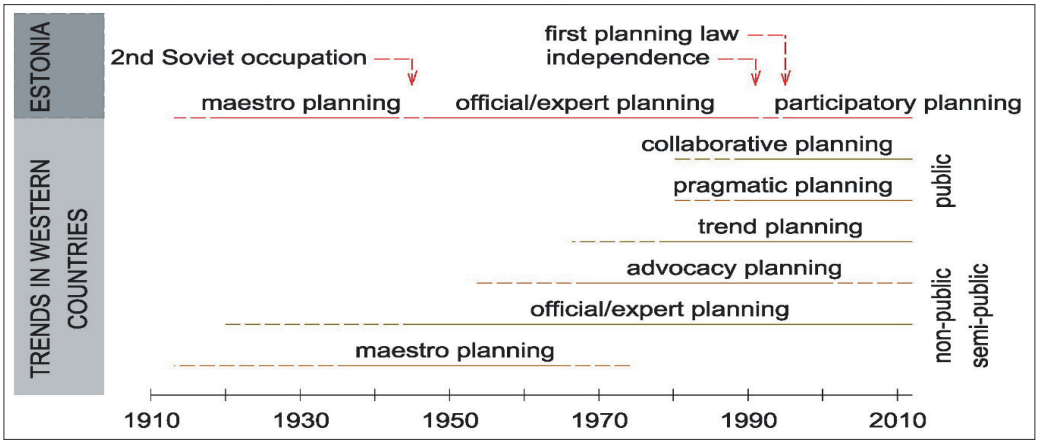


Figure 1: Planning strategies in Western countries compared to the developments in Estonia

Source: Virtanen *apud* Lass (2012)

During the years of the building boom, plans were also compiled by real estate administrators, land surveyors, and representatives of several other fields, who actually did not have the necessary qualifications. After the end of the building boom, the demand for plans has greatly decreased. To overcome the problem of incompetence of plan compilers, attempts have been made to create the profession of 'planning' (spatial planner), which would also be the starting ground for planning studies.

3. The role of civil society and opportunities for public participation in planning matters

In countries with European style planning cultures, a term, local government planning monopoly, is used to describe the jurisdiction, the rights and the obligations of the local government; this means that the local government has complete control over all issues of planning. The European Charter of Local Self-Government (Council of Europe, 1985) that was ratified by Estonia also emphasizes this fact; it states that the local government has complete control and exclusive rights within its area of authority (Charter article 4, section 4). Spatial planning of their own territory is the duty of the local government in Estonia and in all democratic European countries. While planning decisions are made, it is the duty of the local government to do the following: pay attention to the existing laws and state level planning documents and to all restrictions created by the laws, cooperate with the local community, with state institutions, with non-profit organizations, and with other people who are interested in the matter, and guarantee that various interests are all taken into account.

As such, local government planning monopoly means that only the local government has the right to make planning decisions on its territory. However, it also means that the local government is fully responsible for guaranteeing that the decisions are legal and legitimate. Since the local government and the municipal council are the chosen representatives of the local community, the local government planning monopoly, in the European sense, is actually the local community planning monopoly. This, in turn, means that the local government is obligated to fulfil the preferences of the local community in the process of making planning and building decisions, at the same time sustaining the rights of plot owners and developers.

This cannot be done without the local community actively taking part in the planning process. Local government often yields to the pressure of real estate owners, who often impose solutions that are unsuitable for the local community, in order to maximize their profits. This is usually the reason for planning conflicts. Often, the local government does not offer sufficient possibilities for the local community to actively and extensively take part in the planning process, and the decisions are made in spite of popular protests from the community.

In order for the planning process to be successful it is necessary that the local community, the local government, and the planner, all play their proper role. The local residents have the first-hand knowledge about the details in the planned area. Their experiential knowledge should be taken into account to create sustainable development options. In Estonia, it is often said that the local government does not have the

necessary specialists who could compile comprehensive plans, and therefore a consultant has to be hired. Often, this results in preparation of all planning documents by private companies. In theory, compiling plans and planning development should be an interdisciplinary team process lead by the local government with active local community participation. It is a process that requires cooperation and negotiating agreements, and even the most qualified expert cannot make effective locally sensitive decisions instead of the local government institutions and the local community. Estimating developments, motivating conclusions, and assessing the effects are necessary for public cooperation, which will result in planning decisions that will improve the local life while taking into account and further developing the environmental assets. The main message of the European Charter of Local Self-Government (Council of Europe, 1985) is summed up in the § 1 subsection 3 of the Planning Act, which states that spatial planning is democratic, it coordinates and integrates development plans of different areas, is functional, and is a process of planning long-term spatial development, which takes into account the long-term tendencies and demands of the development of the economic, social and cultural environment as well as the natural environment. In a situation where the role of local community and even of the municipality is reduced, this aim cannot be achieved.

4. Case study: Supilinn

The case study approach allows the authors to trace the planning and development patterns in a defined unique neighborhood over half a century of planning efforts, perspectives and practice. The next part of this paper focuses on the district of Supilinn. Supilinn, situated in Tartu city, is a central historical district that borders the medieval city center and the river Emajõgi. The Supilinn area belonged to Tartu during the medieval times but was not included in the boundaries of the fortified city. A few street trajectories date from medieval era but the orthogonal street network dominating today dates from the first decades of the 19th century. 70% of the buildings – one to two story small wooden apartment houses – are from 19th century and the first decades of 20th century, about 15% have been built in the period between 1930 and 1960 and the rest ever since (Hiob and Nutt, 2010; Hiob, 2012).

There are about 2000 inhabitants in Supilinn. The area is renowned for poor artists and students, but the majority have been working class people since the last decades of 19th century.

5. Planning market activation and its causes

The popularity of the Supilinn district has radically changed in comparison with the Soviet era. The area that was once considered a slum has now become a residential district that is known for its livable environment. The Soviet era plans (general plans), which ordered the demolition of the Supilinn district, were not put into action because of sheer neglect (Hess and Hiob, 2014). However, after Estonia gained independence in 1991 all the plans that have been approved have also been at least partially carried out. Before the Building and Planning Act came into force (in the 1991-

1995 period) 31 Tartu city planning projects were approved, mostly Soviet era plans reinforced, two of which dealt with city blocks in the Supilinn district or the whole area. After the Building and Planning Act came into force, 91 plans were approved in Tartu until 1999, again two concerning Supilinn (Tartu City Government, 1999). To plan the development of the Supilinn district as a whole a comprehensive plan was started in 1997 on the request of the city government, and it was approved in 2001 (Tartu City Council, 2001).

The need for new plans increased in Estonia and in Tartuat the first half of the 2000s (Figure 2). Due to the district's favorable location on the bank of the river, near the heart of the city, the value of the Supilinn district increased, and therefore, the district was considered attractive by real estate developers, which in turn created the pressure to build more (Nutt, Hioband Sulev, 2012).

The level of planning activity in Tartu was influenced by several factors. Firstly, because of the ownership reform (Principles of Ownership Reform Act, 1991) and the land restitution (Land Reform Act, 1991) of 1991, land was given back to its rightful owners and it now had private owners who had the right and often the desire to put the land in commercial circulation. Secondly, an important factor was also the real estate market that peaked during the real estate boom in 2002-2007 (Figure 2 and 3; the number of transactions was highest in 2006). Businessmen dealing with real estate were looking for favorably located building grounds near the city center, and properties with run-down buildings or empty lots were increasingly attractive. Of course, this was done in the hope of earning as much profit as possible, and therefore, they needed to develop as much sellable construction area as possible. As a result, both the building size and the building area density increased.

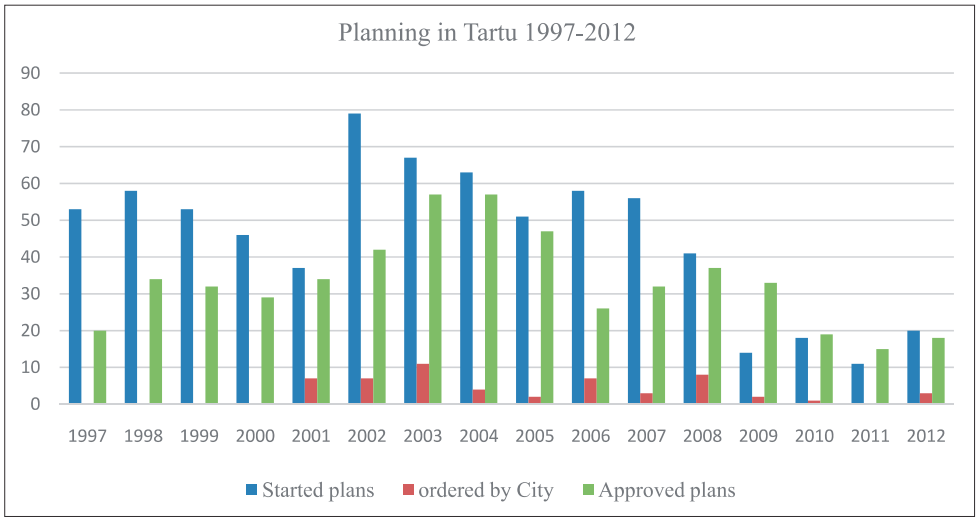


Figure 2: The volume of planning projects started and approved in Tartu city, Estonia in 1997-2012

Source: Tartu City Government, 2012

Figure 3: The volume of real estate purchases of private persons was highest in 2005-2008 in Estonia

Source: Lepik, 2008

The number of initiated planning processes reached its height in Tartu in 2002. In 2012,79 city planning processes had been initiated (Figure 2). Since the process of creating plans takes several months or even years, the largest number of plans came into effect in 2003-2004, with 57 planning projects during both years. The building boom peak was still a few years away, but the preparations for building had been made. Between 1991 and 2012, 27 completely new houses had been built in the Supilinn district (8.4% of the total number of the buildings). By now the real estate boom is over, due to the economic recession, and the pace of change has slowed down. Still, the developments of the boom-years left their mark. The detailed plans that have been accepted allow 41 more houses (12.7% of total number of the buildings) to be built (Figure 4).

The following section deals with chronological planning efforts that have taken place in the Supilinn district over half a century. These include Soviet era plans, the comprehensive plan from 1990s, and the current (thematic) plan under compilation. This analysis of planning documents, coupled with opinion surveys of residents conducted in 2004 (by Society of Supilinn), 2010 (by the authors) and 2011 (by Tartu City Government, Estonian Association of Spatial Planners and Society of Supilinn), provides a clear indication of changes in attitudes, perceptions and practice, as an exemplified model for the whole country.

Figure 4. Buildings in the Supilinn district, Tartu, Estonia: grey are buildings built before 1960s, black are buildings built between 1960s and 2010s, hatched are new buildings according to approved plans

Source: Hiob and Nutt, 2010

6. Soviet era general plans. Politics of development

Throughout the Soviet occupation, consistent yet inadequate attention was paid to the Supilinn district. Many plans and ideas were considered, but none materialized. A combination of lack of funding and low priorities worked to somehow protect the authentic and unique character of this area (Hess and Hiob, 2014).

Initial plans drawn up during the Soviet occupation called for the housing stock in Supilinn to be upgraded. Under the Stalinist regime after World War II, the Soviet town centers were rebuilt in grandiose style. In Supilinn, wide streets and new facades on the streets were proposed. In the 1950s new plans showed the demolition of all existing structures and building a new street arrangement. New functions like a school and green areas along with new 2- and 3-story buildings were planned.

The 1960s new, more realistic housing policy planned to preserve structures which did not need much renovation. However, in Supilinn most of the houses were considered in poor condition and slated for demolition. Multi-level streets were proposed as new traffic solutions which would have resulted in an even larger scale demolition. In 1970s the modernist approach suggested a new street network, one new loop street for main traffic and the rest for mostly pedestrian traffic (Figure 5). Historical housing was to be replaced by tower blocks in open landscape. In the next decade (1980s) a modest preservation was introduced in the plans. Three key areas in Supilinn were

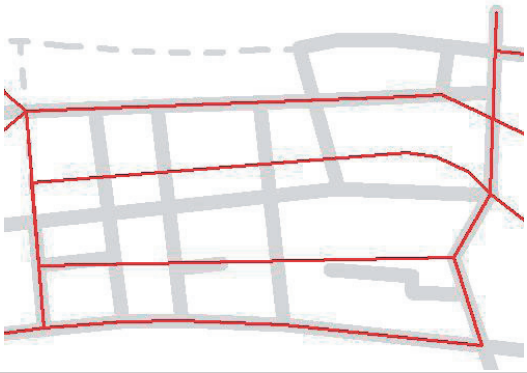
proposed as valuable and the street network was preserved, though widened, at the expense of houses. The area was to be designated mostly for residential use (Hess and Hiob, 2014).

All the plans over almost half a century called for the destruction of older residential homes and widening of streets. Fortunately, none of the plans were implemented, which is the reason why the unique character of Supilinn has been preserved. Through chaos and neglect, the 1990s see new beginnings and opportunities for Supilinn.

7. Supilinn district planning after gaining independence

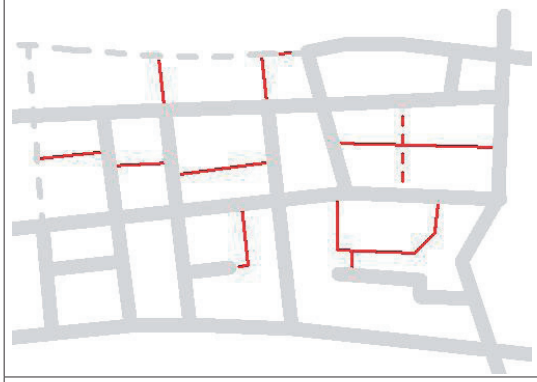
The Supilinn district comprehensive planning process was started in 1997, and it was approved in 2001 (Tartu City Council, 2001). The reasons for the planning project have been declared in a statement 'due to the ownership reform, during which building grounds and buildings became private property and changes were made to the statutory acts on land use and its restrictions, creating a general development concept for the district has become topical again'. The planning project was compiled at the request of Tartu city government by Siim and Põllumaa architects. The vision of those planners included significant changes in the structure of the area. Specifically, densification of the area and building-up the blocks by filling them up with houses was planned; this was done by dividing the big blocks into smaller ones,and by adding extra streets (Figure 5). The planning project was compiled without previously analyzing the city planning sufficiently. Many of the claims that the planners made have been proven false as a result of research. It has become evident that in most part the historical block division had been well preserved, which was something that the project compilers were unaware of. Back then, during the public discussions on the planning project, the residents were strongly opposed to the solution proposed by the local government, but their opinions were ignored.

Currently, there is increasingly more talk of inclusiveness in connection with planning. In 2011, the National Foundation of Civil Society funded ten projects that dealt with the question of inclusion, one of these focused on the Supilinn district (Society of Supilinn, Estonian Association of Spatial Planners, Tartu City Government, 2011-2012). The opinion poll that was carried out for the project in 2011 requested the residents of Supilinn to evaluate the efficiency of different ways of inclusion. They were also asked whether they thought that the local government was taking their opinions into account or not. The results of the opinion poll indicated that 32% of the respondents thought that the city government was not taking their opinions into account on issues concerning the Supilinn district, 28% thought that their opinions had been taken into account, while 40% had never expressed their opinion. Out of different ways to achieve inclusiveness, the local residents thought that the best results were achieved by taking part in opinion polls (93%), taking part in public discussions (81%), and notifying and stating their opinions via e-mail (80%). This was followed by taking part in invitation-only discussions (75%), notifying through newspapers



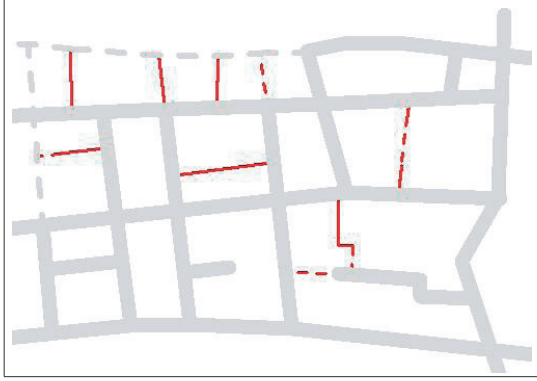
Zoning Map of Supilinn and Tartu City Centre (Proposed), 1974

According to the general plan, a completely new street network with new housing was proposed in Supilinn. Among preserved buildings were only the brewery and a public bath. The plan represents a period of totalitarian planning when the residents were not informed about the plans.



Supilinn district comprehensive plan, 2001

The planning solution proposed a significant densification of the street net and housing. The plan represents an intermediate period in planning when the residents were informed, but their opinions were not followed.



Supilinn district comprehensive plan, 2012

The planning proposal generally preserves the historical street net and housing. The plan represents a period of collaborative planning when the residents were informed and their opinions were followed in most cases.

In grey there are existing streets, with continuous line new motorized streets and with dashed line new pedestrian passages.

Figure 5: The planning solutions for the Supilinn district (Tartu, Estonia) during the last 40 years

(71%), notifying and stating their opinions by letter (68%), and notifying on the Supilinn message board (61%).

Carrying out opinion polls, which according to the residents provide the best results, requires the most resources and, in practice, this is generally not used. However, in Supilinn this has been done on several occasions (2004, 2010 and 2011) for various projects. Residents' answers to several questions surprised both the Tartu City

Government and the Estonian Association of Spatial Planners who were responsible for the 2011 poll together with the Society of Supilinn. One example of such case is the residents' strong residence based identity, as 96% considered themselves to be citizens of Supilinn. This fact shows that neither the planners nor the local government can sometimes guess the preferences of the local residents, and that it is wise to ask the local residents' opinion on questions concerning the values of the area and on both possible developments and conservation. In addition, after finding out the results, the planners and the local government should not impose their vision of the planning project in cases where great public benefit is not in conflict with local preferences (like when determining the placement of important social or infrastructural facilities). Instead, the planners should keep in mind that the possible developments of the planning project affect, first and foremost, the local residents not the planners or the local government officials.

Planning projects are important documents, which can influence the future living environment of all the residents of the district, and therefore, the importance of carrying out opinion polls should not be underestimated or dismissed because of the one-time expenses.

After the planning project that did not consider the residents' opinions was accepted in 2001, a local activists' group (Society of Supilinn) became active and in 2004 carried out an opinion poll which asked questions related to the planning project, such as, attitudes towards adding extra streets and densifying the building area (at the expense of big private green areas) (Society of Supilinn, 2004).

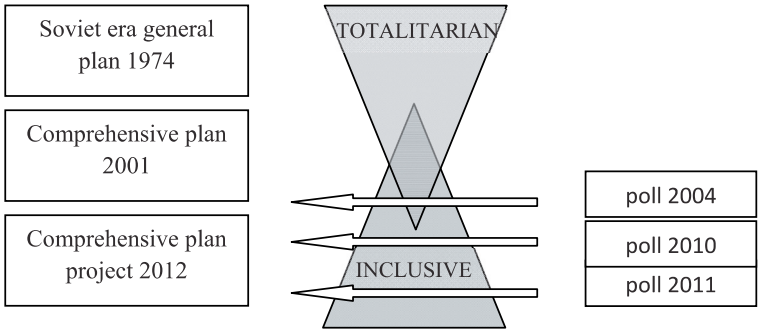


Figure 6: The increase of collaboration in planning processes exemplified by plans in the Supilinn district

The results of the 2004 opinion poll indicated that two thirds of the respondents were against adding new streets. This shows that the environments which are created through formal planning can be completely different than the living environments which are valued by the local residents (Nutt, Hiob and Kotval, forthcoming 2016). This is caused by the local governments and planners' lack of real interest in the planning area and occasionally because of their incompetence. The fact that the inclusion of the local residents is only formal or that their opinions are not taken into account has led to the destroying of the environment which is valued by the local residents.

Half of the respondents (50%) stated that they are unhappy with the plan that was accepted in 2001, and that they would like it to be annulled and that a new one would be compiled (Society of Supilinn, 2004).

If we compare Supilinn plans from different eras, we can see several significant changes. Table 1 shows the comparison of the changes of three different criteria that affect city space.

Table 1: The comparison of three planning documents

Criterion	Soviet era general plan The plan was compiled by experts	Comprehensive plan of 2001 The plan was compiled by experts without considering residents' opinions	Comprehensive plan project of 2013 The plan is compiled by city government, the solution is based on preceding research and preferences of the residents
Street network	Complete renewal of street network	Significant densification of street network	Preserve street network
Housing	Demolish all historical housing	Replacement and significant densification of housing	Preserve the historical housing as valuable, densification only within the existing structure
Plot structure	Rearrange the whole plot structure	Change plot structure to adopt the proposed densification	Preserve historical plot structure as valuable

Source: Archives of Tartu City Government

Table 1 shows the main difference between the two recent plans, which deal with the densifying of the area by adding streets inside the blocks. The opinion poll conducted by Estonian Association of Spatial Planners, Tartu City Government and Society of Supilinn that was carried out in 2011 indicated that 72% of the respondents thought that inner block streets should not be added. The planning project of 2001 made it possible to add seven extra streets (one of these has been built by now), but the new plan of 2014 (Tartu City Council, 2014) allows to add only one inner block street and accepts another one that has been partially completed. Another important difference between the two planning projects has to do with block structure. The planners who compiled the planning project of 2001 stated that the blocks had been created according to the ownership reform of 1991 in a chaotic manner, and that the block structure was not uniform with the building structure, and that the comprehensive plan will revise the existing block structure (Tartu City Council, 2001). That planning project was not preceded by thorough research of the area, and these statements have been proven false by now. Specifically, the research project that was carried out in 2010 analyzed the block structure origins, discovering that in most part the block structure had been preserved since the end of the 19th century (Hiob and Nutt, 2010) and represented a unique piece of 19th century neoclassic style of city planning in Estonia that has been lost in other cities. The planning project that was approved in 2014 states that the historical block structure has to be preserved.

However, the discussion which preferences of the residents to accept is still continuing. The opinion poll questionnaire of 2011 was created with the active participation of the city government. Nevertheless, in the meetings on the topic of implementing the results of the opinion poll, it turned out that the city government officials

do not think that the residents' opinion should be taken into account. For example, 60%of the respondents (Society of Supilinn, Estonian Association of Spatial Planners, Tartu City Government, 2011-2012; Nutt, 2012)stated that new buildings should be in wood construction. Another example was street pavement where the residents' preferences were ignored. The local community and the city government have to continue the discussions where to prefer characteristic but unusual solutions and where to implement standardized design and materials. Understanding all the issues requires extensive prior knowledge. Fulfilling their civil society roles can sometimes be challenging for the residents and often professional aid is needed.

Since the Society of Supilinn has actively and sometimes even aggressively intervened in Supilinn planning projects on a regular basis, arguing with the local government and stating their opinions in a professional manner (some members are experts in the field), the local government has been forced to listen to the residents' representatives. This has resulted in a significant breakthrough. The local government has shared some of its responsibility, which in practice means that all activity in the area has to be discussed with the residents' representatives. Despite the fact that the society has no veto power, better information flow between the city government and the residents is guaranteed. Moreover, this also offers opportunities to explain to the residents the politics of the government. The main role of the society has always been to provide explanations where needed, to both the local government and the local residents.

8. Conclusions and discussion

Looking at the development of planning, and in particular the Supilinn district of Tartu, we can see that the Soviet era totalitarian command economy style planning, according to which the entire area was subject to demolition, has gone through a significant change as a result of developments that have taken place in planning and in society. While the Soviet era plans (general plans) stated that the area should be demolished (at least in most part) after Estonia regained independence and the totalitarian regime was replaced by the democratic regime, planning became more transparent and appreciative of local assets. The development of the Supilinn district plans demonstrate the significant changes that have taken place in the democratic planning practice over the past twenty years in Estonia. The plans (2001) of a relatively young republic did not order total demolition but instead suggested substantial changes. In the last decade the democratic process has evolved and the opinions of the local residents are taken into account more and more.

Still, the practice of planning demonstrates the shortcomings of the inclusive planning theory. The two principal problems are: (1) how to reach all residents and know their opinions, and (2) to consider all opinions equally and fairly. In contemporary Estonian planning practice, the involvement of the public is generally poor. The public displays and public meetings on the planning documents that cover a whole municipality are not popular; in small municipalities of a few thousand inhabitants

there are seldom more than a dozen people who show some interest. In the case of Supilinn's planning procedure that ended with the 2001 planning document, the involvement of the public was relatively high as there were more than one hundred propositions made during the planning process. The second problem was demonstrated much more vividly. The opinions of all segments of the populations were not considered properly, and the decisions were made in spite of overwhelming protests. The protesters were not organized and the city government largely ignored the critics of densification. The expert consideration that the denser city would be more effective and hopefully livelier prevailed.

In the last decade the inclusive planning practices have spread rapidly. New neighborhood associations have emerged in Tartu, in the capital city Tallinn and elsewhere. The local people have become better aware of their rights and have started actively promoting their preferences. Still, the residents are in a difficult situation – on the one hand, the law offers an opportunity and states that they have the right to have a say in the planning of their living environment, but on the other hand, dealing with many of these issues may require special knowledge and the community members may not be competent enough. Since the residents cannot become planning experts, the training of spatial planners has to include knowledge how to listen, understand and meet the concerns of the residents, whether the concerns are grounded or not. One of the latest examples of successful grassroots activity is the redesigning of a main street in Tallinn historic district of Kalamaja where a parking lane was turned into a pedestrian area as a result of local initiatives.

The rise in neighborhood activities reflects the general dissatisfaction with the establishment. The large political parties have been criticized for their lack of contact with the grassroots. In local politics, the politicians have responded in recent years by avoiding unpopular decisions. The planning decisions have largely been based on expert opinions even in the situations where popular opinion is against it. There are cases where opinion polls cannot resolve spatial planning problems, but there have also been examples of ungrounded conflicts where experts know better how to improve the living conditions of the residents against their own will.

In conclusion, it can be said that over the past twenty years a significant change has taken place in the planning process, which is evident first and foremost in greater inclusion of local residents. However, this has happened mostly as a result of the constant and active pressure of the local community. The local residents know the local values best and can point out which ones are the most important for them. Together with the rise of grassroots activity the expert ideology in spatial planning has also shifted. The solutions that involve encouragement of pedestrian and bicycle traffic and restraint of motor vehicles have become popular in planning documents. Not many have yet been put into real life but the overall sentiment both among the experts and the political decision makers favors a pedestrian friendly approach.

The current article is one of the first to register and discuss the role of the public in post-Soviet Estonian planning. A study from 2004 on planning shift in Tallinn after

independence (Ruoppila, 2004) did not emphasize the role of the grassroots activity. The reason could be both the researcher's different angle, and the little influence of the public in that period. It remains to be seen whether the increased activity of grassroots activists will also be transferred into practical results how our common space is treated, to yield equal opportunities to all users or favor the privileged.

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8.4 Publication 4

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RISEN FROM THE DEAD: FROM SLUMMING TO GENTRIFICATION

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Abstract

Political tides are evident in most community development practices. Sometimes it hinders good planning while at other times it aides development, and sometimes the unintended consequences of politics preserve neighborhoods for a long time, allowing for a totally different development outcome. This article is a detailed case study of one such neighborhood. This neighborhood, known as Supilinn, in Tartu Estonia was a rundown area slated for total demolition during Soviet occupation. Due to the lack of finances and low priorities, the former communist regime abandoned the idea of demolition and left the neighborhood to deteriorate further. Two decades later, Supilinn is a bustling community where young and old, rich and poor, existing and new, all co-exist. A community left to die has resurrected itself through bottom up planning and citizen initiatives to become one of the preferred places to live, so much so that the neighborhood now faces the threat of gentrification with social displacement and complete renewal. The authors, all active members in this neighborhood, have lived and worked there for a while. They tell the story of many such transformations across the landscape through the lens of one case study.

Keywords: Estonia, gentrification, urban revitalization, post-socialist, historical wooden architecture, cultural value, social diversity.

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1. Place in space

Tartu is one of the oldest towns in the Baltic States and Estonia. It was first mentioned in written sources in 1030. Tartu was the center of a city-state in medieval times; it was the semi-independent Bishopric of Dorpat. The medieval town was captured many times during wars from 1558 to 1704 and was totally demolished by the Russian army during the Great Northern War (1700-1721). The first known map (from 1681) depicting the administrative borders of Tartu presents almost all of Supilinn within Tartu and bordering the medieval walled town centre (Estonian Historical Archives, 1729). The outermost city blocks of Supilinn were laid by Tartu town government in 1844.

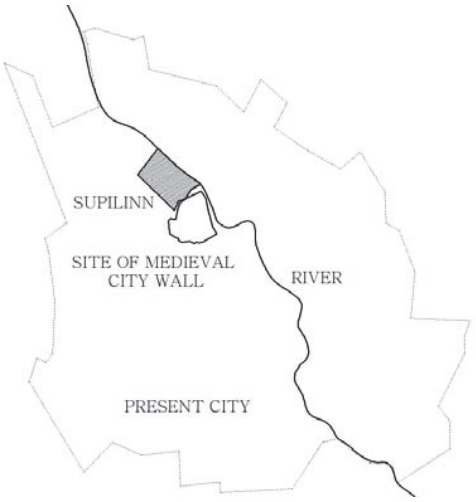

Figure 1: Supilinn located next to the city center of Tartu, directly behind the previous city wall

The crossing of a north-south land route and a west-east water route (the river Emajõgi) conferred a very good position for Tartu as a fortified trading post. Since Supilinn was outside the fortified center, it suffered each time Tartu was under siege (see Figure 1). The continuous re-building history of Supilinn dates back to the first half of the 18th century. More intensive construction periods are visible in the late-19th and early-20th centuries. The majority of buildings are from the period 1870 to 1914. The housing area constructed by the people (see Figure 2), includes small apartment buildings dating from before the Soviet occupation of Estonia and detached houses built during the occupation.

Figure 2: View of Supilinn
Source: Nutt (2010)

The layout of the streets originates in the first part of the 19th century. There are different types of street configurations in Supilinn: some are developed organically following the landscape forms (for example, Tähtvere street follows the slope of the ancient bed of the Emajõgi River and Kroonuaia street follows the Medieval city moat) and other streets were traditionally planned (for example, Herne, Marja, and Kartuli). Property boundaries are visible from the earliest maps from the late 18th century (Estonian Historical Archives, 1792).

During the following years, properties have continuously been subdivided, but the historical layout of properties is still prevalent. This mean that the shorter side fronts the street and the longer one stretches to the center of the quarter.

Supilinn survived in both, World War I and World War II. Between the wars, during the period of the Republic of Estonia, construction in Supilinn continued in a slow motion – about one building per year. That tempo continued throughout the Soviet times until 1991.

Supilinn did not broaden from its boundaries. The border from the north is a landscape (recreation park in the present time), which has never built upon, and there are no residences planned upstream along the river.

Various building regulations have influenced the impression of the region today. One of the first was the 1776 act of the government of the province of Livonia, where in addition to the stone houses in the town center the rules were laid for the construction of wooden houses in the suburbs (Teedema, 2010). Later, in the 20th century, the area was considered valueless, and no effort was made to upgrade building conditions in the neighborhood.

Due to the lack of planning and centrally guided construction, order and disarrangement/ entropy remains in clear contrast in Supilinn making the city experience infinite (Maiste, 2010). The buildings, which were built during the period of Tsarist Russia, dominate in the area; of the buildings that survived until our time more than 70% were built before the 1930s (the period of pre-modernism). It is hard to find an equally well preserved, uniform urban environment from the same time period in all of Estonia. The houses built during the Republic of Estonia, approximately 15% of all buildings, add some additional spice. Almost the same amount of buildings were constructed during the Soviet period. Approximately 70% of buildings in Supilinn are more than 100 years old and they are close to the city center.

Tabel 1: Numbers of buildings by decade

Residential building construction period	**Number of main buildings**
Buildings constructed until 1930 (representing the Russian Empire period)	230
Buildings constructed between 1930 and 1950s (representing the Estonian interwar republic period)	50
Buildings constructed after 1960 (representing the Soviet period and the independent Estonian republic from 1991)	50
Total	**330**

Source: Hiob and Nutt (2010)

Also, architectural renovation and reconstruction of buildings impact the general picture of the district. If we look at the Tsarist building stock separately, then the buildings with authentically preserved or little refurbished count for more than 80%; the other 20% from the Tsarist period are widely modified. The older buildings are located closer to the center, while the modified buildings are spread throughout the district.

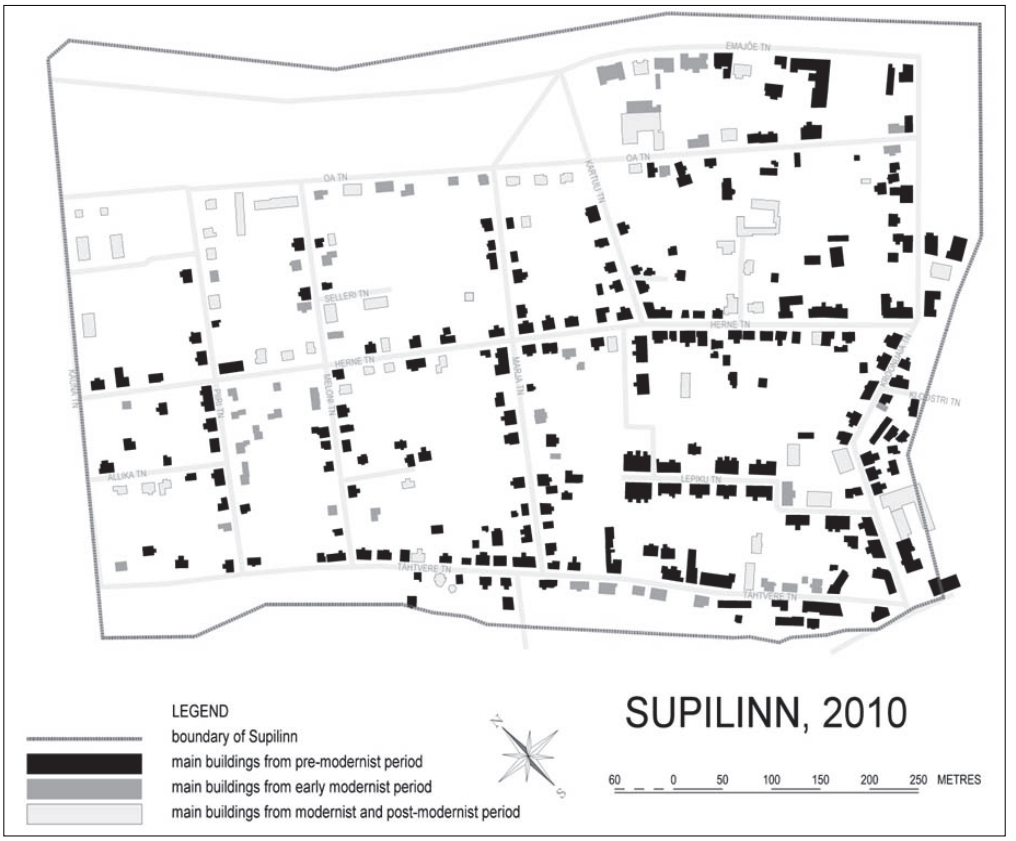

Figure 3: Map of Supilinn, 2010. Three construction periods are represented in Supilinn – pre-modernist 1800-1927, early modernist 1928-1955, and modernist and post-modernist 1956-2010
Source: Hiob and Nutt, 2010

Table 2: Renovation permits

The historical and architectural value of main buildings	Number of main buildings
Very valuable/well preserved pre-modern building	97
Valuable/not changed notably pre-modern building	90
Less valuable/notably spoiled pre-modern building	43
Total Tsarist period buildings	**230**

Source: Hiob and Nutt, 2010

The dominating land use in Supilinn has always been a residential one. About three-quarters of the buildings are small, with fewer than 10 flats per apartment building. The remaining quarter of the buildings represents detached single-family houses (Preem, 1986).

The traditional wooden construction is the typical building of Supilinn. In the 19th century, compulsory facade regulations were inspired by classical principals of symmetry and rhythm. The main construction material is timber covered with boards.

There are usually high gable roofs, windows with vertical proportions, and occasional simple decorations. The buildings in Supilinn are modest, but the variety of one- and two-story buildings produces a more unique environment than Karlova, another wooden neighborhood in Tartu.

Figure 4: An apartment building at 33 Tähtvere Street. This building possess typical features of wooden houses in Supilinn, including two stories with small apartments (one room flat with integrated kitchen), simple symmetrical façade, gable roof, wooden cladding and traditional proportions on windows (with shutter) and doors.
Source: Nutt, 2010

Figure 5: A small house at 34 Emajõe 3. This building possess typical features of wooden houses in Supilinn, including one story with rooms on loft, symmetrical façade, gable roof, wooden cladding and traditional proportions on windows.
Source: Nutt, 2010

The years of independence in the first half of the 20th century were of great importance both to the development of Tartu and Supilinn. The construction of marvelous buildings for high-income urban citizens was evident, in Tartu generally. In the same time, the appearance of modernist architecture degraded the value of buildings in Supilinn, because the old wooden housing were considered less valuable and as a result the neighborhoods' reputation suffered.

During the Soviet occupation this disparaging attitude prevailed, which led to the decline of the district. Supilinn was characterized as a deteriorated district, where the outcasts (and poor people) live and designated for demolition.

2. Politics of development

Throughout the Soviet occupation, consistent yet inadequate attention was paid to the Supilinn district. Many plans and ideas were considered, but none materialized. A combination of lack of funding and low priorities worked to protect the authentic and unique character of this area; in essence, the lack of action proved highly beneficial almost a century later.

During the Soviet occupation, when apartment houses with central heating emerged in the Tartu's Annelinn district it was not especially popular to live in Supilinn's houses with no amenities. Initial plans drawn up during the Soviet occupation called for the housing stock in Supilinn to be upgraded.

Under the Stalinist regime after World War II the Soviet towns were rebuilt in grandiose style. In Supilinn wide streets and new facades on the streets were proposed.

In the 1950s new plans (Soans, 1956; updated Soans, 1959) promoted the demolition of all existing structures and building a new street arrangement with the central square on main crossing. Also new functions like a school and green areas along with new 2 - and 3 - story buildings were introduced.

In the 1960s with new, more realistic housing policy, the plans preserved the structures which did not need much renovation (Solomatina and Reissar, 1963; Solomatina, 1965). However, in Supilinn most of the houses were considered in poor condition and suitable for demolition. A new traffic solution with multi-level streets was proposed which would mean large demolitions of existing housing.

In the next decade, during the 1970s, the modernist approach introduced radical changes to be carried out – the street network was to be redesigned with one new loop street for motorized traffic and the rest was designated for pedestrian traffic only. The closest street to the town center was planned as a main traffic road fringed by parking areas. Traditional housing was to be replaced by housing tower blocks in open landscape. The new function in addition to residential use implied the administrative buildings for Tartu State University and government. The Old Town Preservation Plan (Kivi, 1978) valued only masonry buildings and accordingly all wooden houses were assigned for dismantling.

The 1980s saw a modest preservation introduced in the plans (Voolaid, 1986). Three key areas in Supilinn were proposed as valuable and the street network was preserved, although the street corridors were widened with the demolition of houses. Selected houses were conserved in all streets and new facilities were placed inside large city blocks. The area was to be designated mostly for the residential use with public functions closer to the city center.

As it can be noted, all the plans, going back almost half a century, called for the destruction of older residential homes and widening of streets. The fruition of any of the above plans would have destroyed Supilinn's unique character. However, none of the above mentioned plans were ever realized. Thus, at the end of Soviet occupation, Supilinn remained a small district, located close to the city center where the Tsarist time urban design principles were authentically preserved. So through chaos and neglect, the 1990s saw new beginnings and opportunities for Supilinn.

3. The people of Supilinn: then and now

In the middle of the 18th century the plot owners in Supilinn were mainly the city government or prosperous citizens, clergy and nobles. Plots were widely used as gardens and for grazing animals. Lot owners themselves generally did not live locally. Renters, particularly non-German, ordinary people and craftsmen lived in the neighborhood. At the end of 18th century a large number of the land owners were considered of ordinary decent. According to the 1793 census there were about 100 men (women and children not included) in Supilinn, most of who were Estonians (Teedema, 2010). In 1807 there were about 250 inhabitants in total (Teedema, 2010), many of whom were artisans and other craftsmen.

In the second half of the 19th century construction escalated in Supilinn and the population increased. Closer to the center there were people of higher social position owning the most valuable plots, as evidenced by the fact that in the 1880s many local enterprises and shops (Teedema, 2010) were built and some of the first telephone connections in Tartu were in Supilinn (Teedema, 2010).

The social composition of Supilinn has always been heterogeneous. An availability of low-cost apartments meant that the district has always been popular among low-income people, including students and artists. Historically, higher-income households were located closer to the town centre, along Emajõe, Tähtvere and Kroonuaia Streets. Today, about 2,000 people live within the historical borders of Supilinn (Tartu City Government, 2008a).

The gender-specific composition of the Supilinn habitants is very similar to other parts of the city of Tartu (slightly more women (54%) than men (46%), but the age-specific composition differs distinctively from other districts. Comparing other districts with Supilinn, there are more children (aged 0-6; 3,8% more than the average of Tartu) and youngsters (aged 7-18; 3,5 % more than the average of Tartu) and less elderly people (over 65; 7,5% less than average of Tartu) (Tartu City Government, 2010). Looking at the trends over the past five years, there has been a steady trend of population rejuvenation.

The reputation of Supilinn started to improve. According to a city survey, Supilinn was considered unsuitable for urban residences by 60% of the population in 1998. This changed dramatically within a decade. In 2008 only 25% of the population of the city of Tartu was of the same opinion (Tartu City Government, 2008b). New concerns that the neighborhood was slowly gentrifying were being voiced. Furthermore this trend of gentrification was also visible in other areas such as the physical environment and values of current residents. The neighborhood was growing again, but this time it was outsiders moving in. Some because they were curious about the neighborhood character, others because they could see themselves as preservationists, and still others who just wanted a cheaper place to live. While the physical morphology was still intact, the occupants were different and diverse. There was need for a bottom up, know your neighbors, create a common sense of values, type of movement. The citizens were restless and the timing was right.

4. The creation of Supilinn festival and Supilinn society

One of the earliest activities of this bottom-up movement was to organize a street festival known as 'Supilinn Days'. The initiators were mostly artists inspired by the idea of an alternative scene (Supilinna Society, 2011a). 'Supilinn Days' became identified with the neighborhood spirit, because it all started with that festival that brought together people that appreciated the unique character of Supilinn for the first time. Residents were becoming more aware of the physical values and the need to protect it as a special place. Within weeks, involved citizens organized themselves to form a neighborhood group which came to be known as the Supilinn Selts. Certainly, the festival and the society have raised a sense of belonging. The creative people who saw a challenge in

organizing an avant-garde festival acted very vocally, attractively and interestingly. In Supilinn, the artists were supported by intellectuals and professionals who took organizational responsibility to provide sustainability and long term commitment to place.

Today it is hard to imagine that only a few decades ago the only possible future for Supilinn was demolition (Soans, 1956; Soans, 1959). Supilinn is now the only district in Tartu, with an up to date comprehensive development plan. Supilinn stands out from other districts of the city due to its strong civic minded society where people are willing and able to talk and discuss their living environment. Supilinna Selts, a volunteer based neighborhood organization consisting of the residents of Supilinn and its suporters, has brought about enough visibility and pressure to Tartu city government to amend the then current (Tartu Linnavolikogu, 2001) comprehensive/ master plan for the Supilinn district because they felt that it lacked sufficient conservation and protection terms for buildings, including density and floor area ratios (Tartu Linnavolikogu, 2007). So in 2007, Tartu City Government initiated a new thematic planning project for the protection and use of Supilinn district's building areas and specification for the district's general requirements land use. This new planning project consisted of exhaustive analyses of the area and opinion polls (Hiob and Nutt, 2010) which were carried out for the first time. These efforts continue today with additional opinion surveys and revised regulations (Supilinn Society, 2011b).

A survey conducted in 2006 for the project called 'Supilinn promotion/ development plan/ program' (Supilinna Society, 2006) drew out the following values and perceptions for the neighborhood:

- Historic settlement pattern with preserved plot boundaries; original buildings; street corridors with street-space and a preserved proportion of green areas and water elements.
- A historic, well-preserved, unique wooden district in Tartu, characterized by its simplicity and moderately designed environment;
- Sustainable and holistic way of life attributed to the natural character of the neighborhood and its genuine, friendly people;
- Strong sense of belonging within the neighborhood. People consider themselves to be 'citizens of Supilinn'; and
- A sense of social diversity and tolerance within the existing population;

These values were reiterated in a recent survey conducted in 2010, organized as part of the 'Analysis of spatial formation/ development in Supilinn' and from proposals for compiling the thematic plan project (Hiob and Nutt, 2010). The most frequent positive associations and values were 'natural setting' (simple life/ natural life or close to nature) followed by 'proximity to city center' (7 minutes of walking from the middle of Supilinn to Raekoja plats, the main square) and the 'historic character or milieu' were considered as important value along with 'integrity' and 'the sense of community'. This was in accordance with the 2006 survey.

The Supilinn Society, representing its population, is the first of its kind in Estonia. It has set a good example for creating similar neighborhood organizations in Tartu as well as in other towns in Estonia. According to the statute, the aim of the Supilinn Society is to preserve the character of the neighborhood and improve the living environment for its inhabitants. In addition to collecting and archiving the historical data and unique information related to the district, the Society is able to act as the intermediary between residents, and decisive bodies as well as the wider public. The Society also aims to bring about cohesion within neighborhood residents by fostering community building through social activities such as the yearly Festival of Supilinn and the publication of the society's newspaper – Supilinna Tirin (Tureen of the Soup Town). The new challenge is preserving the character for future generations. As seen in the population survey mentioned earlier, one of the biggest concerns is protecting the neighborhood from increasing pressures of gentrification.

5. Understanding gentrification

In urbanism literature the changing process of deprived neighborhoods into a popular and prosperous district is most often called gentrification. The term gentrification was invented by German-born British sociologist Ruth Glass in the 1960s (Grifith, 1996; Atkinson, 2004; Brouillette, 2009). Its role in urban processes' causes and consequences has been debated ever since. The term was applied to the phenomenon of upper middle class households purchasing properties in rundown working class neighborhoods of London like Islington. Glass considered the changes to be negative for the original residents who were squeezed out. Generally, gentrification was not perceived as a threat in the beginning but the threat was the flight of white middle class and disinvestment in town centers (Grifith, 1996; Betancur, 2002). Gentrification may completely change the character of a neighborhood in a short time transforming it from a neglected, rundown district to a trendy, upscale representation of middle class wealth and success (Grifith, 1996). Many authors have emphasized both positive and negative sides of gentrification (Caulfield, 1989; Smith, 1986; Lees, 2000; Atkinson, 2004 etc.).

Gentrification has been linked to public policy interventions to reduce the process of urban decline even though research evidence suggests that gentrification has been a largely negative process driven by capital accumulation and resulting in the breaking-up and displacement of poorer communities (Anderson *et al*., 2005; Atkinson, 2004). Neil Smith even suggests that gentrified areas are combat zones where new middle class pushes out working class people by force (Lees, 2000). The well documented negative sides are: original residents' displacement, loss of affordable housing and consequent homelessness accompanied by community conflict and eviction (Atkinson, 2000; 2004). Residents resisting the changes in the neighborhood frequently clash with the supporters of the gentrification, mostly private real estate development companies and government (Betancur, 2002). Most radical authors consider gentrification as a form of the criminalization of homelessness (Amster, 2003).

On the positive side, the rehabilitation of the physical fabric of the housing is mentioned as well as the change of image of a neighborhood associated with renewal

and further investment. Altered preconceptions about the social ecology of an area such as the deconcentration of poverty or relative increase in the social mix may also occur (Atkinson, 2004). The official policies often aim to this change of image even though it does generally not benefit the current residents who are mostly displaced. Sometimes gentrification helps to avoid demolition of a historical district as new residents put value on the environment as it is (Männik, 2008). In addition, increased property values, and thereby larger tax revenues and wider span of local services have been mentioned as positive sides of gentrification (Atkinson, 2004). Gentrification has also been conceived as a growth strategy that supposedly improves places by removing problem people and land uses and replacing them with better ones (Niedt, 2006). The improvement of the tax base has been claimed to be the satisfactory reason to encourage and even implement gentrification as a strategy of neighborhood change. According to John J. Betancur, collaboration between government and the private sector should steer gentrification as a strategy against emigration of white ethnics, disinvestment and restructuring (Betancur, 2002).

The controversy of gentrification may be exemplified by so-called positional paradoxes: many new, young, and professional residents are very concerned about gentrification in the neighborhood; yet new, young, professional residents are a major cause of gentrification, and the older residents who are most affected by gentrification are encouraged by the new, young residents and the energy they bring to the neighborhood (Koschmann and Laster, 2011). One, often underestimated, result of gentrification is the change of the identity of a place. Place attachment and belonging to a community are essential criteria of wellbeing for many people (Corcoran, 2002). In the gentrification process the identity is often changed to being unrecognizable, sometimes helped along by unprofessional planners who do not acknowledge the context enough (Kotval, 2005). The need to maintain places as stable, secure and unique entities is one of the main topics discussed in the current paper. Both physical and sociocultural aspects of the place have to be considered. The best way for building social capital and preserving community coherence is by community participation in the decision making processes that concern the future of the neighborhood (Crawford *et al*., 2008).

The Supilinn Society understands these pressures and phenomena. They strive hard for community participation and cohesiveness. The new residents, for the most part, are embracing the idea of preservation and a minimalistic lifestyle. While signs and concerns for gentrification are evident, the Society is working actively to stop the displacement of residents and promote a common set of values. What differentiates Supilinn Selts and other societies is that the lifestyle in Supilinn has been especially embraced. It is not a question of collecting credits by being active in the Society, but a choice of lifestyle. Membership consists of people who are not living in Supilinn, but who care about preservation and this unique community character. The president of the Republic of Estonia is also a member and he is very active supporter of the concept of civil society. The residents and the Society see a constant need to concentrate on urban planning topics, since Supilinn faces continuing building pressure, despite the economic downturn.

6. In summary

So this is the story of Supilinn, the neighborhood that would not be destroyed. Its history spans centuries, its building have survived several booms and busts, its people are resilient and planning (or the lack of it) has preserved a unique neighborhood. A district, that barely survived, has been preserved, protected and enhanced as a livable community. While history shaped its physical morphology, the people gave it character and life. Supilinn exists today due to the perseverance and commitment of its residents.

Supilinna Selts, and the community behind it, has not only limited the tide of demolition but encouraged responsible renovation. It has aided in building community character and recognition through educational and cultural activities; it played a steadfast role, even when it had no official authority or power, in bringing the citizens´ concerns to the decision making bodies. The society has been actively committed for 10 years in community building and preservation. It has finally been recognized as an official neighborhood organization by the local government.

While still completely voluntary, the society has grown in membership and activities and is seen as a catalytic force within the neighborhood.

The community, with a fairly well preserved milieu of buildings is diverse in its demographic makeup. While its popularity as a place to live is steadily rising, efforts to stop displacement are underway. Neighbors know each other, they watch out for each other, and help each other in need. While this is certainly not a place that stands still anymore, people are more aware of their environment and able to voice their likes and dislikes. For example, the new buildings (post 2005) primarily built on speculation by development companies were not in accordance with the community character. This speared the local residents, through the Society, to convince the local government of the need for more restrictive planning and building regulations. While none of this came easy and it took a long time, local government has initiated a new comprehensive plan for the district and the residents are active players in the process. It is the only district in Tartu that has an on-going planning process, initiated for the second time since the 1990s.

Time and maturity also brings new concerns and threats. Supilinn is now an attractive neighborhood. Concerns about the 'newer' residents and their values are being voiced. Older residents and everyday people don't necessarily understand the planning process or the limitations of volunteer activity. They are starting to feel disconnected from the Society and its new professional standing. There is a feeling that too much is happening too soon and there is a desire to slow down and go back to the grass roots movement of community building through joint activities. The fear of gentrification and tipping the balance is real. Real estate prices have risen considerable, it is one of the few areas of the city where development is still ongoing and speculation still occurs. While change is inevitable, will the citizens of Supilinn succeed in protecting its historic character over the next decade? Ongoing opinion polls, and activities supported by the Society indicate that values haven't changed. People still embrace the village lifestyle, there is no apparent desire to pave roads or add street lights. Perhaps, if these values get coded

into building regulations, Supilinn will attract people with similar values. Constant education and citizen involvement will be needed to get to that point. The need to be inclusive and bring along a diverse group of people, to foster community spirit and to build local capacity are things that the Society will need to pay attention to, as it looks to the future. Ongoing activities will need to be balanced. Research on programs and regulations geared toward preservation will need to be balanced with continuing opinion polls that include both old and new residents. Community events such as Supilinn Days will become more important to building community spirit and awareness.

While these are the trials and tribulations of one small neighborhood in Estonia, it encapsulates a multi-faceted story. It raises many questions, some of them rhetoric while others practical. Is planning always desired? Is it advantageous to follow every fad or new idea regardless of context? Who do we need to plan for and how do we incorporate local values? Does culture and history play any role in our contemporary settlement patterns? Can a small group of concerned citizens change the course of history? Can we truly embrace a minimalistic, sustainable lifestyle in a world dominated by consumption? While we might not have concise or definitive answers, one thing is certain. Advocacy plays a major role in planning and community development. Organizational development and capacity building, especially in terms of place and space, play an important role. This case study is a testimony for the tenacity in time and commitment of people.

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8.5 Publication 5

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GENTRIFICATION IN A POST-SOCIALIST TOWN: THE CASE OF THE SUPILINN DISTRICT, TARTU, ESTONIA

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Abstract

This article deals with the changes that have taken place in the Supilinn district in Tartu, Estonia due to the gentrification process. The gentrification process affects the cultural, social, economic, and physical environment of the area. People have been interested in this topic since the 1960s. Nowadays, there is also reason to discuss this issue in the context of Estonia and of the Supilinn district. Studying and understanding the processes that take place in the living environment, provides an opportunity to be more aware about them and to influence the development of these processes. This article provides an analysis of the conditions necessary for gentrification in the Supilinn district, describes the process of gentrification, and tries to assess the current developmental stage of the gentrification process.

Cities are shaped by their people. Every area has a unique look that is shaped not only by the physical environment, but also by the principles, values, and wishes of its residents. Local residents influence the image of the mental and the physical space of the area. What changes has the development of the Supilinn district caused in the population of the area, and how have the residents, in turn, changed the district?

Keywords: Estonia, gentrification, urban revitalization, post-socialist, historical wooden architecture, cultural value, social diversity, Supilinn.

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1. Understanding gentrification

In the urbanism literature the changing process of deprived neighborhoods into a popular and prosperous district is most often called gentrification. Its role in urban processes, causes and consequences has been debated since 1960s when sociologist Ruth Glass invented the term (Grifith, 1996; Atkinson, 2004; Brouillette, 2009). The term was applied to the phenomenon of upper middle class households purchasing properties in rundown working class neighborhoods. Gentrification may completely change the character of a neighborhood in a short time, transforming it from a neglected district to a trendy, upscale neighborhood (Grifith, 1996).

Research evidence suggests that gentrification has been a largely negative process resulting in the breaking-up and displacement of poorer communities (Anderson *et al*., 2005; Atkinson, 2004). Other negative aspects are original residents' displacement, loss of affordable housing and consequent homelessness (Atkinson, 2000; 2004). Supporters of gentrification often clash with residents resisting change. Supporters are mostly private real estate development companies and government (Betancur, 2002).

On the positive side, the rehabilitation of the physical fabric of the housing is mentioned as well as the change of image of a neighborhood associated with renewal and further investment (Atkinson, 2004). Sometimes gentrification helps to avoid demolition of a historical district as new residents value the existing environment (Männik, 2008). In addition, increased property values, and thereby larger tax revenues and wider span of local services are seen as positive effects of gentrification (Atkinson, 2004).

There is some controversy in gentrification: many new, young and professional residents are very concerned about gentrification in the neighborhood; yet new, young professional residents are a major cause of gentrification, and the older residents who are most affected by gentrification are encouraged by the new, young residents and the energy they bring to the neighborhood (Koschmann and Laster, 2011). Often an underestimated result of gentrification is the change of the identity of a place. In the gentrification process the identity is often changed to the unrecognizable. Sometimes this is caused by unprofessional planners who do not know the neighborhood and its context enough (Kotval, 2005). The need to maintain place as a stable, secure and unique entity is one of the main topics discussed in this paper. Both physical and sociocultural aspects of the place have to be considered. The best way for building social capital and preserving community coherence is by community participation in decision making process (Crawford *et al*., 2008).

While gentrification is perhaps better understood in the Western world, it is not a common phenomenon in post-Soviet countries. In Estonia, it is a relatively new development, and policy makers are not necessarily ready to deal with the unintended consequences. One small neighborhood in Tartu, the educational center of Estonia, is a classic case of this phenomenon. The neighborhood is called Supilinn, literally translated to 'Soup Town'.

This neighborhood makes for a good case study for two reasons. Firstly, it is a changing neighborhood that is feeling the pressures of growth and gentrification. Sec-

ondly, it is one of the first neighborhoods to form an organized neighborhood association, again a relatively new organizational structure in Estonia. Due to its professional leadership and neighborhood based membership, the Supilinn neighborhood society understands the pressures and phenomena of gentrification. They strive hard for community participation and cohesiveness. While signs and concerns for gentrification are evident, the Society is working actively to stem the displacement of residents and promote a common set of values. What differentiates Supilinn Selts and other societies is that the lifestyle in Supilinn has been especially embraced. Non-residents are also included as members because they care about preserving this unique community character. The president of the Republic of Estonia is also a member and he is a very active supporter of the concept of civil society. The residents and the Society see a constant need to concentrate on urban planning topics, since Supilinn faces continuing building pressure, despite the economic downturn.

2. Supilinn district case study *'I Live Here'*

In addition to the physical conditions, the people who live there also play an important role in studying the gentrification process, and therefore, since the socioeconomic status of the people who live or used to live in the area affects the area and the developments that take place there, observations have to be made about both the people who contributed to the development of the area, and about those who currently live in the area.

Most of the Supilinn district has been part of Tartu city at least from 17th century (Hiob, 2012). Lea Teedema (Teedema, 2010), who has thoroughly studied the residents of the Supilinn district in the 18th and 19th centuries, has stated that in the mid-18th century landowners in the Supilinn district were mostly city government members, wealthy citizens, clerics or nobles. Land plots were mostly used for gardening and grazing. The owners of the land plots usually did not live there, instead, the renters did, and they were mostly non-German common people and craftsmen. During the 18th century land owners changed and by the end of the 18th century most of the landowners were commoners. The population record of 1793 indicates that about 100 male persons were counted in the Supilinn district, and most of them were working class Estonians. In 1807 most of the counted 250 residents were craftsmen and other workers. In the second half of the 19th century more buildings were added to the Supilinn district and the number of the residents grew, especially around 1860, and also during the 1870s to 1890s. The first all-Russian population census (1897) provides an overview of the professions of the area's residents (Berendsen and Maiste, 1999). The residents were still mostly commoners, workers, industrial workers, and servants. There were also many students and a few factory owners, professors of the university, and other elite members (Berendsen and Maiste, 2012).

Therefore, in the 19th century it was an area of residents who were mostly commoners and had affordable cheap apartments. People with similar social background constituted the majority of the population also during the 20th century. Most of the

historical buildings of the area that have been preserved until today can be dated back to the second half of the 19th century and the first decades of the 20th century. The most common building type of that time was a two-story wooden tenement house with one or two central staircases. Most of the buildings were constructed in the 1870s to 1890s, and also at the beginning of the second decade of the 20th century (Siilivask, 2012).

The plans after World War I and especially since World War II, during the Soviet occupation (1944-1991), stated that the area should be demolished either partly or completely, and that a new modern district should be built in its place. The extent of demolition varied according to different plans. Luckily, these developments did not take place, and, therefore, there is little need to discuss these plans or their causes in connection with this topic. However, we can remark here that, because of the status as a renewable area, no major investments were made in existing infrastructure and housing.

In Estonia people started to pay attention to gentrification at the end of the 1990s. Those research projects dealt with the gentrification of Tallinn's old town, the Kadriorg district, and some other districts (Kurist, 2004). Previously, two studies have been completed on gentrification in the Supilinn district (Männik, 2003). It has been five years since the last Supilinn district project was compiled (Männik, 2008). When we look back at the processes that took place in the Supilinn district, we can see that the gentrification process has constantly developed (Nutt *et al.*, 2012), and it is still a topic that needs to be discussed. So far, mostly observations have been carried out (external visual observations were carried out in order to assess the state of the house restoration process[1]), and, in the case of the Supilinn district, also in-depth interviewing was used. This particular article is based on the results of in-depth interviews and a structured questionnaire (Supilinn Society, 2011); these were carried out in 2011, and they allow evaluating the course and the current state of the gentrification process in the Supilinn district.

The survey of 2011 was conducted within the project called 'Using Participatory Planning Methods in the Supilinn Thematic Plan' by Supilinn Society, Estonian Planners' Association and Tartu City Government, and it was financed by National Foundation of Civil Society (KÜSK). The survey covered all residents in the Supilinn district. There were distributed 1,152 questionnaires on paper (two in every mailbox with possibility to ask for additional exemplars). There were ca. 1,250 adult residents in Supilinn according to official data. The number of returned questionnaires was 286; the youngest respondent was 16 years old and the oldest 85 years old. The majority of the respondents were between 25 and 45 years old, 59% were female and 41% male. A little more than half of the respondents had children in their household. The proportion of respondents with higher education was extraordinary high, 64%. The retired persons made up 7% and students 9%. Respondents were distributed evenly over the Supilinn district; there were respondents from all streets.

1 Property restoration is one of the indicators of gentrification.

The Supilinn district (Hiob and Nutt, 2010), which was once a slum area and was ordered to be demolished forty years ago, has now become a highly regarded residential area where housing prices compete with the city center (Kruuse, 2012). However, the lack of investments combined with continuous residency has had a significant effect on the gentrification process; the group of run-down, cheap houses was perfect for the gentrification process to start. Most of the contemporary area layout can be dated back to the period that preceded the demolition plans. The basic spatial development consisting almost exclusively of wooden houses took place from the 18th century until the second and the third decade of the 20th century, it was temporarily in almost a frozen state in the middle of the 20th century, and later new construction layers were added (Siilivask, 2012) making up about a quarter of the total number of the buildings (Hiob and Nutt, 2010). Among those layers are also the Soviet era buildings. Unfortunately, the few buildings from the earlier period (some 8.5%) have been demolished over the years. Nowadays, the valid planning documents give the plot owners the right to construct new buildings that would constitute 12.8% (Hiob and Nutt, 2010) of the total housing stock.

Since the demolition plans were not put into action people continued to live in the area, and, in addition to the local (permanent) residents, people whose financial situation prohibited them from having a place in one of the nicer neighborhoods moved to the cheap apartments of the Supilinn district. In addition to them, the district also housed petty criminals, homeless people without a regular income, and other disadvantaged persons. The unpopular area of 1970s and 1980s had in the last decades of Soviet era until the middle of 1990s an influx of the so-called pioneers (in the context of gentrification), and their arrival had a significant influence on the area. First wave of gentrification (starting) consisted of students, musicians, poets, and artists who chose to live in the cheap and comfortless, but authentic and human scale living quarters. The members of the first wave were not numerous, but they were well-known people. While the area was run-down and considered unsafe, it was also located near the city center and the real estate prices were low.

The creative movers regarded the Supilinn area as perfect place to express their wish for alternative lifestyle and artistic projects.

> *Already at the end of the Soviet period we dreamt about making a festival in Supilinn. It seemed as an Avant-Garde idea not realized anywhere else in Estonia before.*[2]

The example of the pioneers was followed by young low income families with children who looked for reasonably priced housing. Considering the general unpopularity of the area (in 1998 over 60% of the residents of Tartu thought that the Supilinn district was unsuitable for living (Tartu City Government, 1998)), it is likely that most of the people who arrived in the district in the mid-1990s chose the area because of their financial limitations (Supilinn Society, 2011), while the renewed reputation cre-

2 Toomas Kalve, photograph; interview by Aliis Liin in 2011.

ated by the pioneers made the district acceptable as a living space. As one of the residents put it:

> *Having moved from a stone house to a wooden house, there is a big difference between them that needs to be mentioned. It is an economic choice not a conscious one* (Supilinn Society, 2011).

There has been a constant growth in the popularity of the district. While a research project carried out in 2003 found that 50% of the respondents (citizens of Tartu) considered the Supilinn district to be an unsuitable living area, in 2008 only 25% of the respondents thought the same (Tartu City Government). Naturally, more newcomers regarded the attractiveness of the area as an important reason in the choice of living, as the real estate still had inexpensive prices:

> *It was a conscious choice, as the city center was the destination and the Supilinn district was my first preference so I would not depend on my car* (Supilinn Society, 2011).
>
> *You can live in the city center but be surrounded by greenery* (Supilinn Society, 2011).
>
> *Supilinn has a good living environment and it is well located* (Supilinn Society, 2011).
>
> *It was my dream apartment-in terms of price and quality, location, a nice street; strategically well located, the city center, the river, the wild-uncivilized greenery* (Supilinn Society, 2011).

Together these newcomers are considered as the second wave of gentrification (from the middle of 1990s until the middle of 2000s). The creative first wave and the young active newcomers had similar values, and, therefore, the conditions were perfect for working together. This cooperation resulted in the creation of the area's neighborhood society organization (Supilinn Society in 2002). The most active members of the society were those who have moved recently to the Supilinn district (the second wave) and wanted to preserve those values that had made them appreciate the area.

> *I go there and I know that the people from there are different, those who purposely go there are like me, the run-down thing intrigues* (Supilinn Society, 2011).
>
> *The peaceful natural environment, there were no disturbing developments, the social environment, peaceful because it is not a central traffic area* (Supilinn Society, 2011).

People with similar values quickly found common ground, came together, and began cooperating for their worldview in a more organized manner (Hiob and Nutt, 2012). Some quicker and more visible changes started to take place in the appearance of the streets at the end of the 1990s when the real estate market became more active due to the real estate restitution. The rightful owners regained their plots and houses, and since they did not live there, they sold them to interested persons or companies dealing with real estate. At the end of the 1990s about one hundred land plots had

private owners (Tartu City Government, 1998); however, in three years the number of land plots in private ownership doubled (in 2003, 225 land plots were privatized (Nutt and Hiob, 2012)). This created an economic situation that favored the further progress of gentrification due to the fact that low-priced real estate was available near the city center.

The economic boom, which reached its peak in the mid-2000s (2005-2008), sped up the changes that were taking place in the area. Banks placed cheap loans and a general renovating and building frenzy broke loose. Real estate companies benefited from building new houses and then selling them for as much profit as possible. From 1991 till 2012, 27 new houses were built in the Supilinn district, which made up 8.4% of the total number of the area's buildings (Hiob and Nutt, 2012). In addition to new houses, the real estate companies renovated also a number of old houses.

The number of detailed plans that were approved shows that there was a demand to build more. Since 1999, 36 detailed plans for Supilinn have been created. During the economic boom when real estate businessmen were active in the area, Supilinn Society had to become increasingly more involved in the hope of preserving the things it valued. As a result of increasing pressure applied by the real estate developers, changes started to take place in the Supilinn district. The run-down slum where one could take a shortcut through a hole in the fence to the local shop was regulated and fixed up. The unused wastelands characteristic to the district were increasingly turned into asphalt covered parking lots.

From the middle of 2000s these changes attracted new residents with different attitudes into the area – the third wave of gentrification arrived. Together with new people came different values that were evident in locked front doors and remote controlled gates. Old sheds and washing kitchens that had fallen out of use were considered unnecessary and demolished. The third wave of gentrifiers wished to reshape the area according to their desires and needs in sharp contrast with the previous newcomers who valued the area as it was.

Hence, it is not surprising that conflicts arose between the two groups with different values. The earlier residents, who had moved to the area because they appreciated the casual milieu, suddenly found themselves opposed to the new wave of residents who would rather see their neighborhood squeaky clean than casually unkempt. Previously Supilinn Society had been opposed to the city government decisions, but now, because of the arrival of the third wave, there was also an internal opposition. Supilinn Society advocated for slowing down the gentrification process by preferring cobble stone paving of the streets instead of smooth asphalt, promoting restrictions on new houses, and opposing new streets that would divide up city blocks. Despite the fact that in 2001, ignoring the residents' strong opposition of that time, the city government approved a Supilinn district general plan that promoted radical densification of housing by splitting up city blocks with new streets, Supilinn Society has managed to win popular support both among the residents and in city government for a more restricted development plan.

3. The current state of the gentrification process

We can conclude that in the Supilinn district, the necessary preconditions for the gentrification process to start and to develop further has existed and still exist. Supilinn was an old wooden house district that was in a relatively poor state, but favorably located in relation to the city of Tartu; it was right next to the city center, but also bordering to the countryside along the river Emajõgi. It was a district where the difference between real estate prices was noticeable, and the population was made up of poorer people, and a contingent of the creative occupations and university students, but little by little residents with different values started to arrive. Today, Supilinn is a highly valued residential area, and now the third wave of gentrifiers has arrived.

> *There used to be more rentals, rockers, bohemians, students; today there is the rich crowd* (Supilinn Society, 2011).

In order to get a better understanding of the current residents of the Supilinn district, their wishes and their vision for the future, two opinion polls were carried out among the residents over the last couple of years – in 2010 (Hiob and Nutt, 2010) and 2011 (Supilinn Society, 2011). In the current article we use the results of the last survey from 2011.

The results of the opinion poll indicated that the residents highly value the living environment of the area. Almost all the residents of Supilinn (99% of the respondents[3]) like living in the Supilinn district, and most of the respondents (86%) would like to continue living in Supilinn during the next decade (Supilinn Society, 2011). However, even more surprisingly the residents show a strong sense of regional identity. 96% as

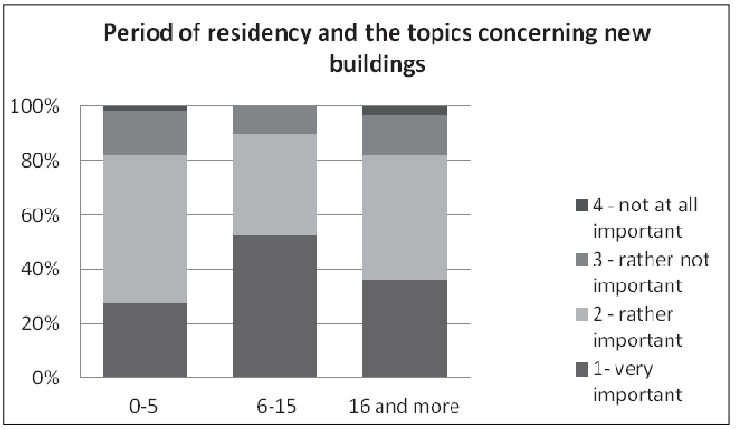

Figure 1: Answers to the question: How important are for you topics concerning new buildings?
Source: Opinion Poll in the 'Using Participatory Planning Methods in the Supilinn Thematic Plan', 2011

3 Yes, I definitely like (80%); I quite like (19%).

of all respondents[4] identified themselves as citizens of Supilinn. This shows that the residents, no matter how long they have been living in the area, consider it to be their own. The area was highly liked by the long-time residents as well as by those who had just moved there; nevertheless, in regard to several issues their values turned out to be quite different.

The gentrification tendency is most clear when the respondents evaluate their financial situation – 40% of the people who moved to the area up to 15 years ago considered their financial position very good and good, and only 20% of those who lived there for 16 years or more rated it very good and good.

The differences between different newcomers appear when asking about the future development of the district. In this case, the second wave of gentrifiers (who moved into the area approximately in the period 1995-2005) distinguishes themselves as most concerned with the outlook of new buildings – more than half declared the appearance of new buildings as very important, while only a third of the longer-term residents and a quarter of the newer residents had the same opinion. The second wave is the only group where at least half of the people are satisfied with the pace of changes as they have taken place in last decades, and they are against faster changes, while older and newer residents are less opposed to faster changes.

The arrival of the third wave is indicated by the fact that the financial security of the latest newcomers is the highest – about 50% of the respondents who have recently moved to the area (in the last year) claim that their family's financial situation is very good or good.

Another tendency detected in the survey is that residents of the old houses (built until 1940) value higher the existing historical milieu and favor changes that respect the traditional ways. Residents of the old buildings consider the integration of the new buildings into the environment more important than the residents of the new buildings. Using traditional wooden constructions is considered to be important by 60% of all the respondents. However, when making observations about the opinions of the residents of the new and the old buildings separately, we can see that less than 40% of the residents of the new buildings are in favor of using full wooden constructions, but 70% of the residents of the old buildings consider it important. Here we see also a connection with different gentrifiers as three quarters of the second wave people have chosen to live in older houses, while 60% of the longer-term and newer residents live in older houses.

On the other hand, building new houses is more favored by people who themselves live in new houses. 70% of them think that new houses could be built in the Supilinn district, unlike the residents of older (built before 1940) buildings. Out of them, only a bit more than 40% are in favor of building new houses and more than 15% of them are definitely against that kind of development. There is also an important dif-

4 To some extent, I feel like a citizen of Supilinn (33%); I definitely feel like a citizen of Supilinn (64%).

ference in their attitudes towards the pace of change. Residents of the new buildings (built in 2001 or later) are in favor of faster changes (more than 30% of the respondents wish that changes would take place faster than before); however, residents of the old buildings (built before 1918) are more in favor of slower changes (30% of the respondents wish that changes would take place more slowly than before). Social interaction with other residents of Supilinn also has to do with the type of house a person lives in. Residents of the new buildings interact less than the residents of the old houses. As expected, this trend is also evident in the context of the time period a person has lived in the area – people who have lived there longer interact more.

Here we see that building new houses is a self-strengthening development that would result in arriving of people who prefer larger alterations. Therefore, the protection of old houses is important not only for the built up environment but also for the social composition of the neighborhood.

The different values of residents arrived in different periods is also exemplified in the answers to a question like 'Do children play in the streets?' – more than a third of people who arrived in the Supilinn district between 1995 and 2005 agree completely with that claim, while less than a quarter of more recent newcomers and a little more than 20% of most experienced residents agreed. The second wave people notice better the social and communal activities as playing children in the streets appears to be. There is a difference between the old and the new residents in general in the context of using street space. Fewer new residents (70%) think that it is acceptable for children to play in the streets, but most of the residents (85%) who moved there a long time ago think that the children should use the streets for playing.

The current stage of the gentrification process can also be evaluated on the basis of age-specific makeup of the area. The gender makeup of the area is similar to the rest of the city of Tartu – a few more women live in the area (54%) in comparison with men (46%). However, the age structure of the area's population differs from the age structure of the total population of Estonia and the city of Tartu. In comparison with other districts of Tartu, there are more small children in Supilinn (children aged 0-6; 3.8 % more than Tartu average) and less elderly people (7.2% are at least 65 years old; that is 7.5% less than the Tartu city average (Tartu City Government)). This is also approximately 17% (Statistics Estonia) lower in comparison with the average of the total population of Estonia. When looking at the population's age structure change over the past five years, it can be said that the population has become younger (Figure 2 and Figure 3) (Tartu City Government); this indicates that gentrification is progressing.

It can be concluded that in the Supilinn district three distinct groups of gentrifiers exist. The results of the opinion poll indicate the arrival of the third wave. The survey shows that the people who have moved to the area over the past few years have a different vision for the area and its future than the earlier residents (original inhabitants as well as the first and the second wave).

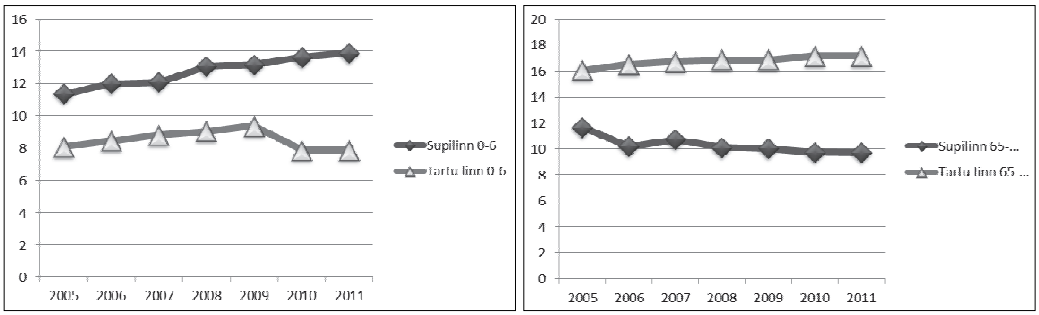

Figure 2 and **Figure 3**: Population's age structure in the Supilinn district and in the city of Tartu in 2005-2011

Source: Annual Statistical Overview of Tartu from 2005 through 2011

4. Summary

When we look at the aspects that contribute to gentrification in the Supilinn district, we see financial interests, which are evident in the differences between the potential and actual real estate prices and consumer interests, which are evident in the popularity of the Supilinn district as a residential area. There are plots that are located close to the city center and are potentially worth much more than their current prices, and people are interested in moving to the area. Investing in the area near the city center is financially rewarding because of the difference in real estate prices. Therefore, the conditions necessary for the gentrification process continue to exist in the Supilinn district.

There are two possible patterns of further development. The first possibility is that gentrification process is carried out at its full extent – the social and architectural multiplicity will be replaced by a homogenous, affluent population and new modern expensive housing and well developed streets. After a while, the district will become again less attractive as its charm and its reputation as a highly appreciated elite district will deteriorate. As the real estate prices will decline, the population will be replaced by residents with lower incomes and lower social status. Only the people, who, because of their financial situation, cannot afford anything but inexpensive dwellings, will move into the unpopular area. When taking into account the experiences elsewhere, the following developments could, after a while, lead to a new beginning of the gentrification process.

The second opportunity is that the gentrification process is inhibited, and social and cultural diversity is preserved. There are several possibilities for promoting the second scenario. The most obvious ones are to avoid demolishing old houses, there among sheds, and to minimize the new constructions. Moreover, all changes in the environment should take place as smoothly as possible to let the residents get used to the alternations, and thereby not to spoil their familiar surroundings. For preserving the traditional milieu the new constructions should be subordinated to the old ones – the new houses should be smaller in size, follow the old houses' form, and painted in modest colors, as well as the street pavement should use the traditional materials like cobble stone.

In addition to purely construction restrictions, there are also other possibilities to promote social diversity. There should be apartments for families with different needs – single people, couples and couples with children, households with car as well as without car, expensive and non-expensive, for self-owning and for rental etc. City government may keep the social diversity in the district by owning apartments for social housing for disadvantaged people. If all the named measures are consciously taken, it is possible that the social and architectural mix will be preserved in the Supilinn district for coming decades and possibly longer.

In other parts of the world, gentrification began in the 1960s, but in Estonia it started in the last decades of Soviet occupation that ended in 1991. In the areas that were advantageously located near the city center and had inexpensive run-down buildings, the conditions were set for gentrification to occur. The real estate boom, which resulted from the country's economic development, also had an enhancing effect on this process. In many districts in Estonia (Supilinn, Karlova, Kalamaja, Uus Maailm, Rääma, Kassisaba, and Pelgulinn) the necessary economic conditions for gentrification existed. Gentrification causes the intensity of land use to increase (plots are split and new houses are built), and run-down areas are fixed up, and these can be seen as positive effects. However, since there is a flip side to every coin, too much reorganization can significantly alter the milieu, and the valued environment may practically disappear.

Investments that are made in areas with valuable milieus are often seen as positive, since they help to save the cultural heritage from destruction. However, modification that borders destruction is actually inevitable, because total renovation is also a form of destruction. A positive effect is the raised awareness among the residents. This becomes evident as more frequently old, original windows are restored, and wooden rather than plastic windows are installed. The improved financial situation of the residents makes it possible to use high-quality wood, instead of cheap plastic. On the other hand, a good financial situation also allows one to replace things that actually do not need replacing when making repairs. Moreover, a good financial situation also creates the need for more amenities and conveniences such as more parking spaces and street paving, for better traffic conditions. The negative effects are evident in the architecture of the new buildings. The new houses are not adapted to the area, they are characterless, and are not connected to the Supilinn district.

This case study, while set in Estonia, is not unique to the country. Many post-Soviet countries and even other countries where real estate prices have skyrocketed in the last decade, face similar circumstances. While the speculators and real estate developers stand to make significant profits, the existing area residents tend to lose their cohesive settlement. Too often, the existing infrastructure, such as roads, water and sewer capacity, cannot keep up with the accelerated rate of growth. Old, comfortable values and habits are destroyed as new development forces changes in infrastructure and development patterns. The pioneers, who settled in the neighborhood due to necessity and affordability, and made great efforts to make the area livable and characteristic to

their own values and community preferences, see the influx of new generations who appreciate the cohesiveness and value. This phase is in fact necessarily to breathe life into old places. However, sheer speculation and development based on proximity to areas of greater market demand could destroy the value of these special places. This case study highlights two major lessons for other similar communities. The first is to understand, acknowledge and prepare to notice gentrification and change as it is happening in the area. There is much that can be done before the neighborhood is changed beyond recognition. The second is the value of neighborhood organization and participation. The area residents need to come together as a unified voice to avoid piecemeal changes to development patterns and community values. This unified voice, or neighborhood association, has the power to change development policy at a higher level. Furthermore, a unified neighborhood that understands its values, is able to articulate them and create solutions to maintain and enhance them are seen as proactive players. When community character and values are at stake, market forces alone should not determine the future.

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8.6 Publication 6

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Supilinn, Tartu—The Lively Vernacular Against Urban Renewal: A Lefebvrean Critique

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Abstract

In today's highly technical and rapidly changing world, the topic of people-friendly living has become increasingly acute. Therefore, great attention is paid to create new spaces (and transform unpleasant ones). In this race to create new spaces, however, vernacular sites that are already people friendly have been forgotten or they are taken for granted. This article explores a neighborhood, which has evolved into a valuable living environment after hundreds of years of development characterized by weak planning and design. Current efforts to regenerate the area may actually ruin the valuable vernacular environment. The authors have worked with this historic area for over 10 years and are familiar with the people and environments in depth. This longitudinal research allows one to observe and compare many different aspects of urban development (urban analysis, people's values, adopted spatial plans, etc.) to provide insights to the question of what characterizes the lively city.

Keywords

Estonia, community activity, gentrification, urban revitalization, urban planning, social diversity

Introduction

The notion of liveable cities is by no means a new topic of discussion, yet most current literature emphasizes measurable indicators and tangible physical elements of planning and design. It almost seems easier to quantify the elements of liveable space rather than some abstract notion of topophilia or social integration. The authors of this article contend that physical amenities and strong design are not enough to create truly liveable spaces. The simple truth is that people use and create liveable space. If one removes human interaction from the equation, space has no meaning. It is the use of space, embodied by culture, heritage, and collective attitude that make spaces and places different. Imagine, for example, a street: The streetscape and nature of the street changes dramatically from place to place. Even a neighborhood street in a typical subdivision in the United States is different than one in South America or Estonia. The street could serve a simple utilitarian function of transporting people and vehicles in and out of homes, where

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efficient movement has the highest priority. On the other hand, the street could also function as an extension of the living room, acting as a space where children play and neighbors congregate for a movie screening. In this version of the public street, the role of the automobile is secondary to the community.

The notion of liveability being messy or chaotic from the outside is not a new phenomenon. Authors such as Jacobs, Lynch, Yi-Fu Tuan, Tafuri, and Ganz have written extensively about the importance of place and the connection between people and space. Social interactions and cultural values play a significant role in contributing to liveability. Therefore, while measurable indicators of liveability are cited often in current literature and perhaps provide a simpler, more logical understanding of space, the authors believe that further analysis is necessary. The authors will expand on this notion through the case of Supilinn, a long-standing neighborhood in Tartu, Estonia.

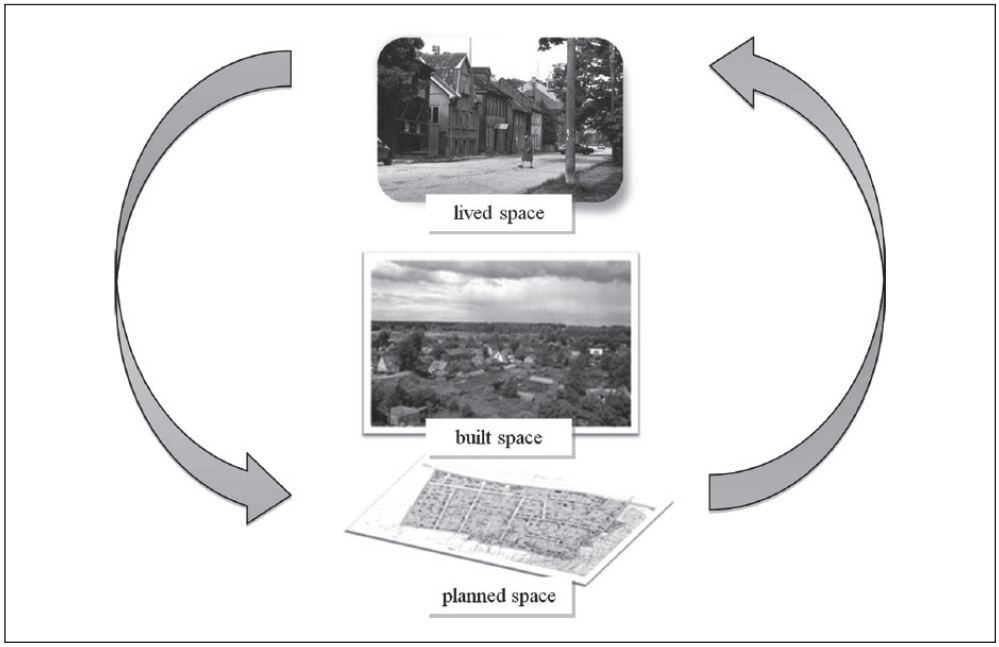
Today, Supilinn is considered one of the most attractive areas in Tartu to invest. Real estate prices in this neighborhood have risen at a rate second only to the central business district. Ironically, however, only 30 years ago, this neighborhood was considered a slum. With minimal planning involved in its growth along with continued neglect from developers, the area faced threat of demolition. Yet these conditions slowly came to play an unintended role in garnering support for preservation of the area. Characterized by narrow, unpaved roads, integrated courtyards, and small wooden homes facing the street, along with eclectic forms of refurbishment as a result of small-scale renovations through the years, these features gave the neighborhood its unique identity. Are these defining features proving to attract a new generation of residents eager to share in this historic area, or are these newcomers trying to impose more order and refinement to the neighborhood? This article aims to explore these issues in the context of Supilinn and its many public spaces.

Theoretical Roots

"Cities—like books—can be read," claimed Richard Rogers in his forward to Jan Gehl's book Cities for People (Gehl, 2010, p. 9)). It is not enough to read, the next step is understanding. The hardest is to plan the future in a way that is based on read material and the comprehension of the material. The topic of living space is broad, spreading in all directions and combining a composite network. Existing space can simultaneously be historical, social, physical, cultural, phenomenological, semiotic, and so on. How to take all these aspects into account and which one to emphasize over others, are the questions proposed to all scientists dealing with urban space.

The article stems from the approach of 20th-century French social scientist Henri Lefebvre and his contributions to the theory of urban space. His most influential work is considered to be "La Production de l'Espace," first published in 1974 (Lefebvre, 1991), which other authors (e.g., Soja, 1995, 2002) have developed further. As a social scientist, Lefebvre viewed urban space primarily as the opportunity for social interactions in the physical environment; moreover, the level of social interactions makes up the key criteria in determining the quality of space. In his view, a society incapable of creating functional urban space will not reach its potential as a community.

Since the Athens Charter of 1933, modernist planning principals have emphasized large-scale construction to bring the material welfare to ordinary people (Alexander, 2002). The well-known ideologist of modernism, Le Corbusier, argued that towns should be built using human rationality, and that self-grown structures prevalent in European towns since Roman times should be avoided (Fishman, 1977). The idea to promote public interests at the expense of capitalist profit was welcomed as democratic and humane. Even though the basic modernist forms were derived from human measures (Curtis, 1986), the implementation ignored simple rules of human behavior. Emphasis on health and safety issues involving fresh air, sunlight, and private space ignored



Graphic 1. Conceptual triad after Lefebvre in Supilinn, Tartu city, Estonia.
Source: Graphic courtesy Author.
Note. The values existing in lived space should be sustained through the representations of space (planning documents) to ensure that the produced space retains the possibility to become lived space.

the fundamental needs that humans have as social beings to establish interactions with their built and natural environments. This search for an ideal balance that would combine the capacities of industrialized construction with the creation of high-quality living spaces has not succeeded.

After World War II, large living quarters were built to house citizens of middle and lower income. The practice soon met heavy criticism from both scientists and civilians, one of the most prominent being Jane Jacobs. Critics focused on the lack of creativity within the structures built according to the principals of the Athens Charter. The large lots of block structures do little in promoting human interactions or bolstering a sense of community. Still, modernist urban planning has been hard to change even in progressive countries such as Norway (Sahl, 2012).

The French philosopher Henri Lefebvre, refused to see space as a binary of perceived or planned space that is then conceived and produced as built space. According to him, in a capitalist society, space is planned, produced, and formed by human activities (Lefebvre, 1991). Spatial insights do not factor on the conception and production of physical space alone but thrive on nonphysical elements brought to bear by using, experiencing, and living in the space. The third dimension that brings space to life is of crucial value. In Lefebvre's theory, there are three integral spatial parts, a so-called conceptual trialectics (Graphic 1; Jauhiainen, 2005), that include the components of perceived spatial practices (the production and reproduction of spatial relations between objects and products, in short, "built space"), space of representations (a plan or sketch depicting what space should look like "conceived space"), and representational spaces ("lived spaces or evolved as users fashion it). Lefebvre's conceptualization of space allows one to argue for the importance of vernacular architecture and the liveliness of urban areas that have evolved over time against the inanimate qualities created through rational planning approaches.

Spatial practices are carried out in everyday life in the physical environment where we conduct our social interactions. Spatial practices are most often taken for granted, such as the

visual space of the consumer who treats space as a means to carry out everyday tasks (Haamer, 2008). The second level is the representations of space, such as planning documents and project designs, along with more abstract ideas that contribute to the development of physical space. These representations always involve political ideology, power, and specific knowledge connected with the representations (Merrifield, 2000). In spatial projects, experts force the everyday environment and spatial experiences into the abstract specialist's plans using standardized spatial terminology and discourse. Many people are under the influence of these ideas but only a few have the full opportunity and capability to participate in the production of the representations of space. This is not a lively level—it is standardized and static (Lefebvre, 1991). The third level of representational spaces refers to spaces lived directly through the associated images and symbols of inhabitants (Lefebvre, 1991). These spaces are lively, connected with life experience, coded and noncoded and nonverbal symbols (Haamer, 2008). This is the dominant but simultaneously passive experience of space that the imagination tries to alter and improve (Lefebvre, 1991). This level is created through personification and is characteristic of artists, writers, and scientists who contemplate their surroundings while searching for feelings, meanings, and symbols. This level is also characterized by a thoughtful, sensitive people, who have created for themselves, a world full of significance is continuously evolving or under refinement (Haamer, 2008).

Geographer and spatial planner Edward William Soja has modified Lefebvre's concept by calling the material and empirical room for FirstSpace that is developed through abstract and ideological imaginary SecondSpace. The third level is at the same time real and imaginary ThirdSpace where the crucial role is played by symbols, signs, and meanings (Soja, 2002).

Representational spaces are the basis for pleasant environments where people prefer to live and spend their time. We may conclude that the quality of living spaces for individual inhabitants is determined by the quality of social relations that lead to the meaningful personification of the space. The social relations, in turn, are influenced by the material environment that again in today's society is largely determined by planning.

In measuring the quality of the living space, it remains vital to include the opinion of the inhabitants or primary users. We may identify qualities of the space by exploring a specific location and determining a number of so-called soft indicators that the primary users name as important for their quality assessment. These indicators are both physical and social or a combination of social use of physical space. The indicators used here are place-specific, but some may be transferable and for general use. The mentioned indicators may be used as important data when creating new living spaces or attempting to improve an existing area.

Research Method

The research district of Supilinn is located in the city of Tartu, Estonia (Figure 1). Supilinn is a central historic district that borders the medieval city center and the river Emajõgi. Supilinn belonged to Tartu in medieval times but was not included in the fortified city boundaries. A few streets date from the medieval era but the orthogonal street network that dominates today dates from the first decade of the 19th century. Seventy percent of the buildings—one- to two-story small wooden apartment houses—are from the 19th century and the first decades of the 20th century, with about 15% built in the period between 1930 and 1960 and the remainder constructed since then (Hiob & Nutt, 2010).

About 2,000 inhabitants reside in Supilinn. The neighborhood is known for its student residents and local artists, but the majority of the area has consisted of working-class people since the final decades of the 19th century. Occasionally, affluent families have also resided in Supilinn (Teedema, 2010). During the Soviet occupation from 1940 to 1941 and 1944 to 1991, the area was viewed as outdated and eventually slated for demolition, yet these plans were never carried

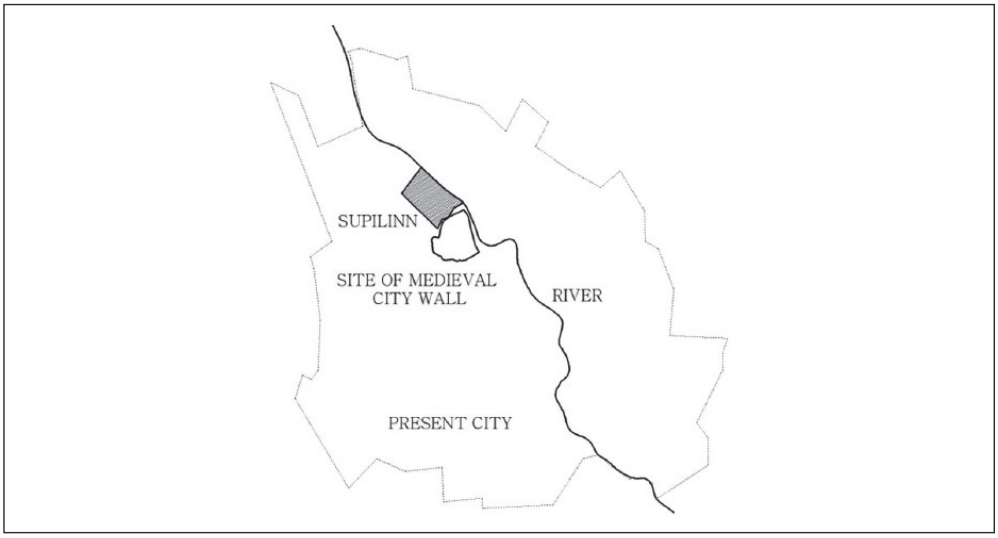


Figure 1. Location of Supilinn district in Tartu City, Estonia.
Source. Image courtesy Hiob and Nutt (2012).

out. In recent decades, the area has gained popularity as a central historic district while developing a strong neighborhood community (Hiob, Nutt, Nurme, & De Luca, 2012).

From 2010 to 2012, a number of research projects were carried out to obtain data about both the social and physical environment of Supilinn while gaining clarity on the residents' values. This article concentrates on determining which characteristics not commonly mentioned in literature are important in promoting social comfort and enhancing the quality of life in urban spaces, so that these concerns may be included when assessing the existing urban environment, introducing improvements, and planning new residential areas. The primary source for these data involves 11 qualitative, in-depth interviews of selected residents familiar with the neighborhood study area. The interviewees were selected to form a diverse range of ages, gender, education, and professional background, and were conducted by an impartial sociologist in June 2011. The support for the identified values was validated through a popular survey that was sent to all households in two exemplars in November 2011.

The 2011 survey was conducted within the project titled "Using Participatory Planning Methods in the Supilinn Thematic Plan" by Supilinn Society, Estonian Planners' Association and Tartu City Government, and financed by the National Foundation of Civil Society. The survey was distributed to all residents in the Supilinn district, for a total of 1,152 paper questionnaires (two in every mailbox with possibility to ask for additional exemplars). There were approximately 1,250 adult residents in Supilinn according to official data. A total of 286 questionnaires were returned, with the youngest respondent 16 years old and the oldest, 85 years old. The majority of respondents were between 25 and 45 years old, 59% were female and 41%, male. Over half of the respondents represented households with children. The proportion of respondents with higher education (64%) was extraordinary high. Seven percent responses were from retired persons, with 9% from students. Respondents were distributed evenly from all streets within the Supilinn district.

Findings

The results of the poll illustrated that in general, local residents considered Supilinn a pleasant neighborhood with a very high living quality. The interviewees cited specific aspects that they

Table 1. Comparison of Features in Historical and New Environments.

Features of historical environment	New, developed environment
Polyfunctional courtyards where different activities take place	Courtyards are mostly parking lots with little activity or social interaction
The gardens are not fenced in a prohibitive way—the gardens attract a feeling of openness	Secure fences and locked gardens
It is possible to enter in courtyards for enjoyment and curiosity	The private plots are labelled—parking place by the window, fence around, automatic gate, etc.
In apartment houses' courtyards, all households have to work together and take into account the neighbor's necessities	Individual division of courtyards, everybody has his or her own space, parking lot, and gate remote
The houses open directly to the street, you step from doorway straight to the street	The doors are locked, some houses are drawn back from the street line
Diverse environment, full of details	Monotone surfaces, lack of details
Environment with houses, fences, etc., have their defects and damages	Environment with straight lines and clear boundaries, diligently maintained
Unpaved streets with little space for cars	Paved streets and broad driving lanes
Versatile image	Monotonous image
Streets are for all—children play, dogs run about, people promenade, cars and cyclists drive	Streets are primarily for cars
Structured, split up, creek-like courtyards	Empty devoid courtyards
Inside city blocks and by the river bank, there are large wastelands open to everybody that children use for play	All plots have owners who surround their property with fence
Social diversity, there are people from various social groups in the same house	Social uniformity, there are people with similar social background in the same house
Homes are a bit messy	Homes are neat and clean
Design in human scale of low and narrow houses, narrow streets	Disproportionally wide houses and wide streets
Open, friendly people who gladly converse and spend time in public space	Reserved people who keep to their own business and not interesting in utilizing public space

enjoyed within the historical setting of Supilinn and identified recent and pending developments that may threaten these existing values. A selection of resident comments and values are presented in Table 1.

The historic vernacular environments appear to be in clear contrast with newer modern developments. The residents' attitudes measured in the poll appeared to favor the characteristics of the historical environment with its characteristics over the new. The case was most clear in obvious deteriorative factors of the living quality like the increase in motorized traffic (opposed by 99% of the respondents). At the same time, high value was attributed to not equally self-evident aspects like social diversity (valued as important by 75%) and large empty spaces inside the city blocks (valued by 91%). People also strongly opposed modern buildings in relation to the historical ones—84% said that new buildings should be designed in relation to the already-present vernacular styles, and only 10% preferred modern buildings. Overall, 47% did not approve of any new buildings and 45% agreed with a slow renewal of the urban environment instead of abrupt changes.

This discussion leads to some clear distinctions between the vernacular architecture and newer forms of development in this small neighborhood that can be easily transferred to similar areas. We present these indicators by contrasting factors, with photographs from the neighborhood to keep our analyses practical and grounded.

Figure 2. Homely century-old houses from the 19th century (left) and a stark new house from 2010.
Source. Image courtesy Nutt (2010, 2012).

Old Versus New

One might assume that older neighborhoods with specific defining features, along with factors such as nostalgia and topophilia, play a role in making people remember these spaces more fondly. In this way, the perceived space then becomes more valuable than the physical space. Older, longtime residents often remember "the good old days" of a simpler way of life when they were younger and healthier. Others may recall the hardships of life and have associated memories not nearly as pleasant, viewing the area as a place to be forgotten and left behind. Alternatively, the "lived in" character, or the notion of a known place, might be more comforting than an unknown, foreign place. The survey in Supilinn indicated that the people most satisfied with their district were those who had resided there for 2 to 8 years (82% answered they enjoyed their neighborhood) and 18 years or more (90%). Clearly, people who had in Supilinn less than 2 years were less content (73%) as well as those who have lived there between 9 and 17 years (69%). We may assume then, that the oldest residents seemed the most content, along with the newcomers that had settled in and had time to adopt the values of the neighborhood (lived there for at least 2 years). One possibility for negative responses from the group that had resided in Supilinn between 9 and 17 years might involve financial factors that forced the citizens into the area, instead of by their own choice. Supilinn had one of the lowest real estate prices in Tartu up to a decade ago (Nutt, Hiob, & Nurme, 2012).

As different generations and different residents perceive space in their own ways, the decisions regarding the choice of older, vernacular styles over new, modern designs becomes a matter of personal preference (Figure 2).

Order Versus Chaos

Another major distinction can be drawn between urban space that has evolved over time and those spaces planned with a particular function in mind. Older neighborhoods grew slowly and out of necessity. Renovations and modifications happened gradually over time as money became available and the need for repair grew evident. As such, these older neighborhoods contain a vernacular, cluttered, and chaotic feel to them, while newer spaces created with different functions in mind may seem more orderly and planned.

As recently as a few decades ago, Supilinn was considered to be a desolate neighborhood designated for demolition. Today, while much of that image of the worn, tired, and disordered district still exists, it is embraced wholeheartedly by the residents. The lack of obligation to keep the lawn neatly trimmed or the house freshly painted allows for freedom in behavior, use of clothes, and in social interactions. Somehow, one can tell the difference between ignorance and

Figure 3. The winding line of old buildings and fences (left) compared with the precise layouts of new houses, fences, and even street stones.
Source. Image courtesy Nutt (2005, 2012).

Figure 4. The tilted sheds and laundry hanging in the old courtyards evoke a more natural, personal feeling (left) compared with linear designs and paved parking lots of new plots.
Source. Image courtesy Nutt (2010, 2012).

disregard on one side and the absence of unnecessary, decorative efforts on the other. Limited maintenance can be good as long as it does not threaten the usability and long-term survival of urban structures or detract from local aesthetics.

One of Supilinn's virtues is the limited order that appears on the city block level, down to small architectural details and even social behavior. While there are restrictions on density, site lines, and building heights, there remains much freedom within the building envelope. The historical houses feature few straight angles, the fences are tilted or skewed and many gardens appear wild and unused. On the contrary, the new houses constructed in stone (and covered with wooden boards) feature standardized measurements and sharp edges, with plots that have clear functional distinction and smooth renovated streets (Figure 3).

The use of courtyards and gardens signifies one of the greatest differences between old and new spaces. Older yards have no clear parameters, undefined without the presence of fences, curbs, or hedges. These lively spaces feature various activities, with laundry hanging out to dry (Figure 4), pumpkins growing in gardens, cats running on shed roofs, and children climbing trees. In contrast, boundaries of newer yards are well defined and clearly marked—walking paths are laid in stone, playgrounds are confined within low fences, and parking areas are bordered by stone curbs. These new yards are not as suitable for informal social interactions, with even their areas reserved specifically for outdoor barbecue gatherings seeming forced.

Figure 5. The old houses lay in direct contact with the public space—stepping out of the house puts you in the public scene (left). New houses are drawn back from the street line.
Source. Image courtesy Nutt (2001, 2012).

While the functionality of these new developments have merit, the untamed, evolving nature of the old spaces are both functional and perhaps more naturally desired by residents.

Public Versus Private Orientation

According to 19th-century city planning principals used during the formation of Supilinn's main streets, houses were to be constructed on the street line (Figure 5).[1] In addition, a front door opening would always face the street, establishing direct contact between the public space and homes that encourages community interaction. Inversely, new houses are often set back from the traditional building line, creating a buffer zone between homes and the street that alienates residents from public street life.

Our survey of Supilinn residents reinforced how this informal use of space also directly influences attitudes regarding neighborliness and public acceptance. People tend to feel safe and confident that their neighbors have their "eyes on the street," encouraging residents to interact with each other and not remain behind locked doors and barred gates. A familiarity grows among neighbors as children play together on the street outside their homes. In contrast, the new residential areas feature automated gates and electronic locks on outer doors that secure residents into private, encapsulated living.

Another notable aspect of Supilinn involves the perception of expansive, underutilized open spaces. These areas are found both within city blocks and along the river banks. Longtime residents and those who appreciate the historic value of the neighborhood tend to view these areas as opportunities for creative, multipurpose uses. These spaces are also utilized by children as adventurous playgrounds, by others as places for relaxation and meditation, and by the neighborhood as a whole in organizing collective activities and street fairs. In this sense, these open spaces are seen by residents as a blessing and opportunity for community engagement. At the same time, outsiders look on these areas as wastelands, dangerous to children, and magnets for the unruly and homeless. They see these areas lacking in order and planning, and have trouble grasping the significance of this changing, volatile open space, viewing only orderly, controlled public space as valuable (Figure 6).

Simple Versus Sophistication

Traditional Supilinn houses feature simple design and modest decorations. The facades follow a symmetrical distribution of windows and doors. Since the houses are relatively small—two full

Figure 6. The street space between old houses is an ideal place for public events featuring exhibitions and street food vendors (left). This private space does not appear welcoming to outsiders.
Source. Image courtesy Nutt (2006, 2001).

Figure 7. An old house with simple symmetrical classic form (left) and a new residential building with sophisticated form and style.
Source. Image courtesy Nutt (2010).

stories and not more than 30 meters in length—and there are no identical houses, the uniformity of single houses is not boring for the environment. On the contrary, the simple solutions yield a feeling of safety and balance the overall versatile image.

New houses often showcase attractive, modern designs that try deliberately to differ from historical buildings by the addition of extravagant features (Figure 7).

Motorized Versus Pedestrian Dominance

Visibility of children serves as an indicator for the level of use of an outdoor space. One will find children constantly playing in both the yards of old houses and in the public streets (Figure 8). Yards of newer homes, many of which function primarily as parking lots, feature very little recreational activity. Traditionally, cobblestone was used in paving driving lanes of the streets, while brick or natural stone plates were used for pedestrian walkways. Cobblestone pavement discouraged high speeds and dense traffic on streets and suited the traditional look of historic homes. Newer methods of asphalt and concrete stone paving, however, favor motorized transport and discourage public use of the streets. This need for modern, functional elements such as paved streets detracts from the informal social interaction and use of perceived space. The focus on motorized transport over pedestrian use further isolates people from the streets and their neighborhood community.

Figure 8. The children are playing in motorized traffic lanes (left). Even the courtyards of the new plots are used primarily for motorized traffic and parking.
Source. Image courtesy Nutt (2012).

Conclusion

Good planning practice should produce living spaces that are not represented just by physical objects and spaces between them but appreciate the evolution of that space as users modify and adapt the space to everyday life and liveability. Spatial insights not only correspond to the first and second level of Lefebvre's conceptual trialectics—spatial practices and representation of spaces—but also eventually become representational spaces that possess greater significance for their everyday users. The discussion between liveliness versus banality are perhaps better understood by referring to broader works such as Rob Shields (1998) that link Lefebrve's work on space to his other important concepts of everyday life. Planning successful new living spaces while improving and maintaining already existing public spaces requires vast knowledge and experience. There are examples of great achievements, yet not all newly created spaces achieve the label of truly "lived space." There are indications that certain structure of residential buildings (including the position of different buildings, their height, and number of apartments) either encourages or hinders the creation of meaningful social living space (Haamer, 2007).

Successful living space is not necessarily always planned—these spaces may evolve as a result of unintended consequences. Supilinn provides a good example, with its large unused spaces that may appear to outsiders as wastelands but are actively used by residents and viewed as valuable assets. These lots serve as playgrounds for children, public meeting places for residents, and community spaces for larger activities such as concerts and festivals. People often do not use places in the intended or planned manner. Streets may transform into extended living rooms and playgrounds rather than access roads, while vacant plots give rise to community gardens. In this sense strong living space is created by local residents and community interactions instead of rigid criteria determined by outsiders, although this may not always coincide with the vision of the local government. Observing the various ways people use space serves as an essential component to the creation of successful living space. Obtaining the opinions and desires of the people becomes critical, especially when attempting to improve existing neighborhoods; otherwise, the danger exists of destroying an already well-functioning and thriving community.

The regulatory criteria used in planning documents do not always guarantee successful living spaces. In some cases, unnecessary regulations, particularly those that relate to aesthetics and design standards, act as an obstacle for impromptu social networking that can evoke creative uses of space. Strong living spaces are created only through their use by the community, as some spaces that may appear well designed will inevitably grow cold and sterile if not utilized by residents. Public spaces that may appear messy or chaotic come alive because of the people and their activities. People watching can be a wonderful pastime where one perceives their surroundings

to be inviting and comfortable even if no amenities actually exist. While the need for health and safety remains apparent, sometimes, regulations such as parking standards and setback distances interfere with the optimal use of space. Too often, officials are more concerned with the quantitative indicators of physical space rather than the qualitative interactions of actual people within the space.

While there continues to be much discussion within planning and design professions regarding liveable cities and places for people, there remains a need to truly understand the basic needs of people and how they function in space. Imagined space or the perception of space is often confused with reality. Areas such as Supilinn keep evolving and thriving despite efforts to clear them away.

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Note

1. Siilivask, M. (2006). *Tartu arhitektuur 1830-1918. Historitsism ja juugend* (Architecture of Tartu in 1830-1918. Historicism and Art Nouveau). Rahvusarhiiv (National Archives).

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8.7 Curriculum Vitae

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8.7.3 Institution and position

Period	Description
2005–...	Tallinn University of Technology, Tartu College of TUT, Lecturer (0,50)
01.04.2004–...	Artes Terrae LLC, Managing director (1,00)
16.04.2003–31.03.2004	Hendrikson & KO LLC, Head of engineering department (1,00)
01.05.1999–15.04.2003	K&H Ltd., Spatial planner, project manager (1,00)

8.7.4 Education

Period	Description
2007–...	Tallinn University of Technology, Ph.D. (part-time)
1998	Swiss Federal Institute of Technology Zurich, master thesis
1993–1999	Norwegian University of Science and Technology, M.Sc.

8.7.5 R&D related managerial and administrative work

Period	Description
2003–...	Estonian Landscape Architects' Union, founding member, previous member of board

2002–...	Estonian Association of Spatial Planners, founding member
2010–2012	Member of the working group for the Professional Standard of Landscape Architect
2008–2012	Member of the working group for the Professional Standard of Spatial Planner

8.7.6 Creative work

Continuous work with planning documents and planning related research since 1999.

8.7.7 Additional career information

In the years 2005-2007 TUT Tartu College was called Institute of Sustainable Technology

8.7.8 Academic degrees

Mart Hiob, Master's Degree, 1999, (sup) Bjørn Røe; Terje Kalsaas, sivilingeniør (civil engineer), Norwegian University of Science and Technology. Title of the master thesis: Transport and Land Use Planning in Switzerland.

8.7.9 Field of research

FIELD OF RESEARCH: 4. Natural Sciences and Engineering; 4.15. Construction and Municipal Engineering; CERCS SPECIALTY: T260 Physical planning; SPECIALITY: Spatial planning

8.7.10 Supervised dissertations

1. Kristel Liblik, Master's Degree, 2016, (sup) Mart Hiob; Heiki Kalberg, Jalgratturile ohtlike ristmike liikluskorraldus: analüüs ja lahendused.

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2. Liisi Preedin, Master's Degree, 2016, (sup) Mart Hiob, Külade ajaloolise asustusstruktuuri ning sellest tuleneva maakasutuse ja hoonestuse hindamine Põlvamaa näitel. (The assessment of historical rural settlement structures and its consequential land use and buildings on the basis of Põlva county.), Tallinn University of Technology Tartu College of TUT.

3. Gerly Toomeoja, Master's Degree, 2015, (sup) Jiri Tintera; Mart Hiob, Mahajäetud alade rohestamine kahanevates linnades – Valga linna rohestamise strateegia (Regenerating brownfields by creating greenspace in shrinking cities – The case of Valga city, Estonia), Tallinn University of Technology Tartu College of TUT, Department of Environmental Protection.

4. Johanna Rosenthal, Master's Degree, 2015, (sup) Mart Hiob, Lõhe planeeringute teooria ja praktika vahel Tartu vallas kehtestatud detailplaneeringute näitel (The gap between theory and practice in spatial planning, Example of approved detailed plans in Tartu rural municipality), Tallinn University of Technology Tartu College of TUT.

5. Egle Heero, Master's Degree, 2015, (sup) Mart Hiob, Avalikkuse kaasamise ulatus planeeringute koostamisel: suuliste ettepanekutega arvestamine Rail Balticu maakonnaplaneeringutes (The extent of public involvement in spatial planning: the consideration of oral proposals in the county plans of Rail Baltic project), Tallinn University of Technology Tartu College of TUT.

6. Kätlina Veltmann, Master's Degree, 2015, (sup) Mart Hiob; Rasmus Kask, Eesti planeerimismetodoloogia analüüs Tallinna, Tartu ja Pärnu avaliku ruumi uuringute näitel (Estonia Planning Methodology Analysis: Examples of public space for research projects in Tallinn, Tartu and Pärnu), Tallinn University of Technology Tartu College of TUT.

7. Paula Helm, Master's Degree, 2013, (sup) Mart Hiob; Toomas Liivamägi, Linnaosa gentrifikatsioon ja selle esmane tuvastamine läbi teiseste andmete analüüs Karlova näitel (Gentrification of local district and its initial identification based on secondary data analysis: case-study of Karlova), Tallinn University of Technology, Tartu College.

8. Olga Beloglazova, Master's Degree, 2012, (sup) Nele Nutt; Mart Hiob, Ehitusliku miljööväärtuse käsitlemine maapiirkonnas Värska valla näitel (Die Behandlung erhaltenswerter Bebauungsgebiete auf dem Land am Beispiel des Kreises Värska), Tallinn University of Technology.
9. Margit Välja, Master's Degree, 2012, (sup) Mart Hiob; Kaili Põder, Kogukondlike suhete sõltuvus elukeskkonna kvaliteedist väljaehitatud uuselamualadel (The Dependency Between Neighbourhood Relations and the Living Environment's Quality within New Residential Areas), Tallinn University of Technology, Tartu College.
10. Kreete Mägi, Master's Degree, 2012, (sup) Mart Hiob; Zenia Kotval, The Research Study of Human Dimension in Lasnamäe Large-Scale Housing Estate in Tallinn, Estonia, Tallinn University of Technology Tartu College of TUT.
11. Kaarel Lääne, Master's Degree, 2012, (sup) Mart Hiob, Maantee väärtuslikkuse hindamine: liikleja vaatenurk (Assessment of road value: Drivers viewpont), Tallinn University of Technology, Tartu College.
12. Mari Mets, Master's Degree, 2010, (sup) Mart Hiob, Harrastusspordiradade kavandamine linnaruumis Tartu linna näitel (Planning Amateur Sports Routes in Urban Space. A Case Study in Tartu), Tallinn University of Technology, Tartu College.

8.7.11 Publications

1. Nutt, Nele, Hiob, Mart, Kotval, Zenia (2016). Supilinn, Tartu – The Lively Vernacular Against Urban Renewal: A Lefebvrean Critique. Space and Culture, 1−13.
2. Hiob, Mart; Nutt, Nele (2016). Spatial Planning in Estonia – From a Socialist to Inclusive Perspective. Transylvanian Review of Administrative Sciences, 63−79.
3. Hess, Daniel Baldwin; Hiob, Mart (2014). Preservation by Neglect in Soviet-Era Town Planning in Tartu, Estonia. Journal of Planning History, 1, 24−49, 1538513213512254.
4. Nutt, N., Hiob, M., Nurme, S., & Kotval, Z. (2014). Restoring manor parks: exploring and specifying original design and character through

the study of dendrologous plants in Estonian historical manor parks. Baltic Forestry, 19 (2), 280−288.

5. Sulev Nurme, Zenia Kotval, Nele Nutt, Mart Hiob, Sirle Salmistu (2014). Baroque manorial cores and the landscape. Journal of Cultural Heritage Management and Sustainable Development, 4 (2), 166−183.
6. Nutt, Nele; Nurme, Sulev; Hiob, Mart; Salmistu, Sirle; Kotval, Zenia. (2013). Restoring manor parks: exploring and specifying original design and character through the study of dendrologous plants in Estonian historical manor park. Baltic Forestry, 19 (2), 280−288.
7. Nutt, Nele; Hiob, Mart; Nurme, Sulev; Salmistu, Sirle. (2013). Gentrification in a Post-Socialist Town: The Case of the Supilinn District, Tartu, Estonia. Transylvanian Review of Administrative Sciences, 109−123.
8. Nurme, Sulev; Kotval, Zenia; Nutt, Nele; Hiob, Mart; Salmistu, Sirle (2013). Baroque manorial cores and the landscape. Journal of Cultural Heritage Management and Sustainable Development, 00 [forthcoming].
9. Hansar, Lilian; Hiob, Mart; Karine, Kadi; Maiste, Juhan; Mark, Ülar; Paulus, Ave; Pärdi, Heiki; Tiidemann, Jaan; Tomps, Fredi; Välja, Leele (2013). Lahemaa külaarhitektuurist (Rural architecture in Lahemaa National Park). Jagodin, Karen (Toim.). Lahemaa külaarhitektuurist (44). Solnessi Arhitektuurikirjastus.
10. Kalberg, Heiki; Nutt, Nele; Nurme, Sulev; Hiob, Mart. (2013). Simple, but therefore clever idea - an effective dendrological inventory process for landscape architecture and design projects. In: Peer reviewed proceedings of digital landscape architecture 2013 : at Anhalt University of Applied Sciences: 14th International Conference on Information Technologies in Landscape Architecture. Ed. Buhmann, Ervin; Ervin, Stephen M.; Pietsch, Matthias. Berlin: Wichmann, 48−54.
11. Nutt, Nele; Hiob, Mart. (2013). Lahemaa maastik (Landscape in Lahemaa National Park). Muinsuskaitse aastaraamat 2012 (64−66). National Heritage Board.
12. Hiob, Mart; Nutt, Nele; Nurme, Sulev; De Luca, Francesco. (2012). Risen from the Dead. From Slumming to Gentrification. Transylvanian Review of Administrative Sciences, 92−105.

13. Hiob, Mart (2012). Planeeringuline kujunemine. Supilinn 17.-21. sajandi linnakaartidel ja -plaanidel (Development of Supilinn's Street and Plot Structure – Supilinn on Maps and Plans Between the 17th and 21st Centuries). Acta Architecturae Naturalis, 2, 51−76.

14. Nurme, Sulev; Nutt, Nele; Hiob, Mart; Hess, Daniel Baldwin (2012). Talking ruins: The legacy of baroque garden design in Manor Parks of Estonia. In: Landscape Archaeology between Art and Science: LAC2010: First International Landscape Archaeology Conference, Amsterdam. Amsterdam University Press, 115−125.

15. Nutt, Nele; Hiob, Mart; Salmistu, Sirle; Marques, Bruno (2012). Lahemaa rahvuspargi muutuvad maastikud (Changing landscapes of Lahemaa National Park). 49th IFLA World Congress - Landscapes in Transition - South Africa / Cape Town.

16. Maiste, Juhan; Nutt, Nele; Hiob, Mart. (2011). Lahemaa kui ikoon (Lahemaa National Park as an icon). Eesti Loodus, 5, 78−81.

17. Nurme, Sulev; Nutt, Nele; Hiob, Mart. (2010). Estonian Baroque park – talking ruins. 1st Landscape Archaeology Conference: LAC2010 in 26th to 28th January 2010 at VU University Amsterdam, the Netherlands.

18. Hiob, Mart (2009). Park linnas ja linn pargis (Park in the city and city in the park). Mart Külvik, Juhan Maiste (Eds.). Park on paradiis looduses ja kunstis (Park is paradise in art and nature). Tartu: Estonian University of Life Sciences, 256−263.

19. Nurme, S.; Nutt, N., Hiob, M. (2009). Baroque park in Estonia. Landscape & Ruins planning and design for the regeneration of derelict places. 23rd to 26th September 2009, Genova.

20. Hiob, Mart; Nutt, Nele (2008). Urban Sprawl in Estonia (EU). ACSP-AESOP Forth Joint Congress, Chicago, USA, 6th to 11th July 2008.

8.7.12 Language competence/skills (fluent, average, basic skills)

Language	Level
Estonian	mother tongue
Norwegian	fluent in speech, reading and writing
English	fluent in speech, reading and writing
Russian	average in speech and reading
French	average in reading

8.7.13 Special courses

Period	Educational or other organisation
2004-2005	Main course in building conservation. Estonian Academy of Arts, Faculty of Conservation

8.8 Elulookirjeldus

8.8.1 Üldandmed

Eesnimi	Mart
Perenimi	Hiob
Sünniaeg	4.04.1975

8.8.2 Isiku kontaktandmed

Telefon	501 4767
E-post	mart.hiob@ttu.ee

8.8.3 Töökohad ja ametid

Periood	Kirjeldus
2005–...	Tallinna Tehnikaülikool, TTÜ Tartu Kolledž, Lektor (0,50)
01.04.2004–...	Artes Terrae OÜ, Tegevjuht (1,00)
16.04.2003–31.03.2004	OÜ Hendrikson & KO, Inseneriosakonna juhataja (1,00)
01.05.1999–15.04.2003	AS K&H, Ruumiliste planeeringute koostaja, projektijuht (1,00)

8.8.4 Haridustee

Periood	Kirjeldus
2007–...	Tallinna Tehnikaülikool, PhD (osalise koormusega)
1998	Zürichi Tehnikaülikool (ETHZ), diplomitöö
1993–1999	Norra Tehnikaülikool (NTNU), MSc

8.8.5 Teadusorganisatsiooniline ja -administratiivne tegevus

Periood	Kirjeldus
2003–...	Eesti Maastikuarhitektide Liit, asutajaliige, endine juhatuse liige
2002–...	Eesti Planeerijate Ühing, asutajaliige
2010–2012	Maastikuarhitekti kutsestandardi väljatöötamise töörühma liige
2008–2012	Ruumilise keskkonna planeerija kutsestandardi väljatöötamise töörühma liige

8.8.6 Loometöö

Järjepidev planeeringute ja planeerimisalaste uurimuste koostamine alates 1999. aastast.

8.8.7 Teaduskraadid

Mart Hiob, magistrikraad, 1999, (juh) Bjørn Røe; Terje Kalsaas, sivilingeniør (ehitusinsener), Norra Tehnikaülikool Trondheimis. Magistritöö teema: Transport and Land Use Planning in Switzerland.

8.8.8 Teadustöö põhisuunad

VALDKOND: 4. Loodusteadused ja tehnika; 4.15. Ehitus- ja kommunaaltehnika; CERCS ERIALA: T260 Territoriaalne planeerimine; PÕHISUUND: Ruumiline planeerimine

8.8.9 Juhendatud väitekirjad

1. Kristel Liblik, magistrikraad, 2016, (juh) Mart Hiob; Heiki Kalberg, Jalgratturile ohtlike ristmike liikluskorraldus: analüüs ja lahendused. Valitud näited Tartu linnas, Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

2. Liisi Preedin, magistrikraad, 2016, (juh) Mart Hiob, Külade ajaloolise asustusstruktuuri ning sellest tuleneva maakasutuse ja hoonestuse hindamine Põlvamaa näitel., Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

3. Gerly Toomeoja, magistrikraad, 2015, (juh) Jiri Tintera; Mart Hiob, Mahajäetud alade rohestamine kahanevates linnades – Valga linna rohestamise strateegia, Tallinna Tehnikaülikool, TTÜ Tartu Kolledž, Keskkonnakaitse õppetool.

4. Johanna Rosenthal, magistrikraad, 2015, (juh) Mart Hiob, Lõhe planeeringute teooria ja praktika vahel Tartu vallas kehtestatud detailplaneeringute näitel, Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

5. Egle Heero, magistrikraad, 2015, (juh) Mart Hiob, Avalikkuse kaasamise ulatus planeeringute koostamisel: suuliste ettepanekutega arvestamine Rail Balticu maakonnaplaneeringutes, Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

6. Kätlina Veltmann, magistrikraad, 2015, (juh) Mart Hiob; Rasmus Kask, Eesti planeerimismetodoloogia analüüs Tallinna, Tartu ja Pärnu avaliku ruumi uuringute näitel, Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

7. Paula Helm, magistrikraad, 2013, (juh) Mart Hiob; Toomas Liivamägi, Linnaosa gentrifikatsioon ja selle esmane tuvastamine läbi teiseste andmete analüüs Karlova näitel, Tallinna Tehnikaülikooli Tartu Kolledž.

8. Olga Beloglazova, magistrikraad, 2012, (juh) Nele Nutt; Mart Hiob, Ehitusliku miljööväärtuse käsitlemine maapiirkonnas Värska valla näitel, Tallinna Tehnikaülikool.

9. Margit Välja, magistrikraad, 2012, (juh) Mart Hiob; Kaili Põder, Kogukondlike suhete sõltuvus elukeskkonna kvaliteedist väljaehitatud uuselamualadel, Tallinna Tehnikaülikooli Tartu Kolledž.

10. Kreete Mägi, magistrikraad, 2012, (juh) Mart Hiob; Zenia Kotval, The Research Study of Human Dimension in Lasnamäe Large-Scale Housing Estate in Tallinn, Estonia (Inimmõõde paneelelamute piirkonnas Tallinna Lasnamäe linnaosa näitel), Tallinna Tehnikaülikool, TTÜ Tartu Kolledž.

11. Kaarel Lääne, magistrikraad, 2012, (juh) Mart Hiob, Maantee väärtuslikkuse hindamine: liikleja vaatenurk, Tallinna Tehnikaülikooli Tartu Kolledž.

12. Mari Mets, magistrikraad, 2010, (juh) Mart Hiob, Harrastusspordiradade kavandamine linnaruumis Tartu linna näitel, Tallinna Tehnikaülikooli Tartu Kolledž.

8.8.10 Publikatsioonid

1. Nutt, Nele, Hiob, Mart, Kotval, Zenia (2016). Supilinn, Tartu – The Lively Vernacular Against Urban Renewal: A Lefebvrean Critique. Space and Culture, 1−13.

2. Hiob, Mart; Nutt, Nele (2016). Spatial Planning in Estonia – From a Socialist to Inclusive Perspective. Transylvanian Review of Administrative Sciences, 63−79.

3. Hess, Daniel Baldwin; Hiob, Mart (2014). Preservation by Neglect in Soviet-Era Town Planning in Tartu, Estonia. Journal of Planning History, 1, 24−49, 1538513213512254.

4. Nutt, N., Hiob, M., Nurme, S., & Kotval, Z. (2014). Restoring manor parks: exploring and specifying original design and character through the study of dendrologous plants in Estonian historical manor parks. Baltic Forestry, 19 (2), 280−288.

5. Sulev Nurme, Zenia Kotval, Nele Nutt, Mart Hiob, Sirle Salmistu (2014). Baroque manorial cores and the landscape. Journal of Cultural Heritage Management and Sustainable Development, 4 (2), 166−183.

6. Nutt, Nele; Nurme, Sulev; Hiob, Mart; Salmistu, Sirle; Kotval, Zenia. (2013). Restoring manor parks: exploring and specifying original design and character through the study of dendrologous plants in Estonian historical manor park. Baltic Forestry, 19 (2), 280−288.

7. Nutt, Nele; Hiob, Mart; Nurme, Sulev; Salmistu, Sirle. (2013). Gentrification in a Post-Socialist Town: The Case of the Supilinn District, Tartu, Estonia. Transylvanian Review of Administrative Sciences, 109−123.

8. Nurme, Sulev; Kotval, Zenia; Nutt, Nele; Hiob, Mart; Salmistu, Sirle (2013). Baroque manorial cores and the landscape. Journal of Cultural Heritage Management and Sustainable Development, 00 [ilmumas].

9. Hansar, Lilian; Hiob, Mart; Karine, Kadi; Maiste, Juhan; Mark, Ülar; Paulus, Ave; Pärdi, Heiki; Tiidemann, Jaan; Tomps, Fredi; Välja, Leele (2013). Lahemaa külaarhitektuurist. Jagodin, Karen (Toim.). Lahemaa külaarhitektuurist (44). Solnessi Arhitektuurikirjastus.

10. Kalberg, Heiki; Nutt, Nele; Nurme, Sulev; Hiob, Mart. (2013). Simple, but therefore clever idea - an effective dendrological inventory process for landscape architecture and design projects. In: Peer reviewed proceedings of digital landscape architecture 2013 : at Anhalt University of Applied Sciences: 14th International Conference on Information Technologies in Landscape Architecture. Ed. Buhmann, Ervin; Ervin, Stephen M.; Pietsch, Matthias. Berlin: Wichmann, 48−54.

11. Nutt, Nele; Hiob, Mart. (2013). Lahemaa maastik. Muinsuskaitse aastaraamat 2012 (64−66). Muinsuskaitseamet.

12. Hiob, Mart; Nutt, Nele; Nurme, Sulev; De Luca, Francesco. (2012). Risen from the Dead. From Slumming to Gentrification. Transylvanian Review of Administrative Sciences, 92−105.

13. Hiob, Mart (2012). Planeeringuline kujunemine. Supilinn 17.-21. sajandi linnakaartidel ja -plaanidel. Acta Architecturae Naturalis, 2, 51−76.

14. Nurme, Sulev; Nutt, Nele; Hiob, Mart; Hess, Daniel Baldwin (2012). Talking ruins: The legacy of baroque garden design in Manor Parks of Estonia. In: Landscape Archaeology between Art and Science: LAC2010: First International Landscape Archaeology Conference, Amsterdam. Amsterdam University Press, 115−125.

15. Nutt, Nele; Hiob, Mart; Salmistu, Sirle; Marques, Bruno (2012). Lahemaa rahvuspargi muutuvad maastikud. 49th IFLA World Congress - Landscapes in Transition - South Africa / Cape Town.

16. Maiste, Juhan; Nutt, Nele; Hiob, Mart. (2011). Lahemaa kui ikoon. Eesti Loodus, 5, 78−81.

17. Nurme, Sulev; Nutt, Nele; Hiob, Mart. (2010). Estonian Baroque park – talking ruins. 1st Landscape Archaeology Conference: LAC2010 in 26th to 28th January 2010 at VU University Amsterdam, the Netherlands.

18. Hiob, Mart (2009). Park linnas ja linn pargis. Mart Külvik, Juhan Maiste (Toim.). Park on paradiis looduses ja kunstis (256−263). Tartu: Eesti Maaülikool.

19. Nurme, S.; Nutt, N., Hiob, M. (2009). Baroque park in Estonia. Landscape&Ruins planning and design for the regeneration of derelict places. 23rd-26th september 2009, Genova.

20. Hiob, Mart; Nutt, Nele (2008). Urban Sprawl in Estonia (EU). ACSP-AESOP Forth Joint Congress, Chicagos, USA, 6. kuni 11. juulil 2008. a.

8.8.11 Keelteoskus (alg-, kesk- või kõrgtase)

Keel	Tase
Eesti	emakeel
Norra	kõrgtase kõnes, lugemisel ja kirjutamisel
Inglise	kõrgtase kõnes, lugemisel ja kirjutamisel
Vene	kesktase kõnes ja lugemisel
Prantsuse	kesktase lugemisel

8.8.12 Täiendusõpe

Õppimise aeg	Täiendusõppe korraldaja nimetus
2004-2005	Restaureerimise põhikursus Eesti Kunstiakadeemia restaureerimiskoolis

DISSERTATIONS DEFENDED AT
TALLINN UNIVERSITY OF TECHNOLOGY ON
CIVIL ENGINEERING

1. **Heino Mölder**. Cycle of Investigations to Improve the Efficiency and Reliability of Activated Sludge Process in Sewage Treatment Plants. 1992.

2. **Stellian Grabko**. Structure and Properties of Oil-Shale Portland Cement Concrete. 1993.

3. **Kent Arvidsson**. Analysis of Interacting Systems of Shear Walls, Coupled Shear Walls and Frames in Multi-Storey Buildings. 1996.

4. **Andrus Aavik**. Methodical Basis for the Evaluation of Pavement Structural Strength in Estonian Pavement Management System (EPMS). 2003.

5. **Priit Vilba**. Unstiffened Welded Thin-Walled Metal Girder under Uniform Loading. 2003.

6. **Irene Lill.** Evaluation of Labour Management Strategies in Construction. 2004.

7. **Juhan Idnurm**. Discrete Analysis of Cable-Supported Bridges. 2004.

8. **Arvo Iital**. Monitoring of Surface Water Quality in Small Agricultural Watersheds. Methodology and Optimization of monitoring Network. 2005.

9. **Liis Sipelgas**. Application of Satellite Data for Monitoring the Marine Environment. 2006.

10. **Ott Koppel**. Infrastruktuuri arvestus vertikaalselt integreeritud raudtee-ettevõtja korral: hinnakujunduse aspekt (Eesti peamise raudtee-ettevõtja näitel). 2006.

11. **Targo Kalamees**. Hygrothermal Criteria for Design and Simulation of Buildings. 2006.

12. **Raido Puust**. Probabilistic Leak Detection in Pipe Networks Using the SCEM-UA Algorithm. 2007.

13. **Sergei Zub**. Combined Treatment of Sulfate-Rich Molasses Wastewater from Yeast Industry. Technology Optimization. 2007.

14. **Alvina Reihan**. Analysis of Long-Term River Runoff Trends and Climate Change Impact on Water Resources in Estonia. 2008.

15. **Ain Valdmann**. On the Coastal Zone Management of the City of Tallinn under Natural and Anthropogenic Pressure. 2008.

16. **Ira Didenkulova**. Long Wave Dynamics in the Coastal Zone. 2008.

17. **Alvar Toode**. DHW Consumption, Consumption Profiles and Their Influence on Dimensioning of a District Heating Network. 2008.

18. **Annely Kuu**. Biological Diversity of Agricultural Soils in Estonia. 2008.

19. **Andres Tolli**. Hiina konteinerveod läbi Eesti Venemaale ja Hiinasse tagasisaadetavate tühjade konteinerite arvu vähendamise võimalused. 2008.

20. **Heiki Onton**. Investigation of the Causes of Deterioration of Old Reinforced Concrete Constructions and Possibilities of Their Restoration. 2008.

21. **Harri Moora**. Life Cycle Assessment as a Decision Support Tool for System optimisation – the Case of Waste Management in Estonia. 2009.

22. **Andres Kask**. Lithohydrodynamic Processes in the Tallinn Bay Area. 2009.

23. **Loreta Kelpšaitė**. Changing Properties of Wind Waves and Vessel Wakes on the Eastern Coast of the Baltic Sea. 2009.

24. **Dmitry Kurennoy.** Analysis of the Properties of Fast Ferry Wakes in the Context of Coastal Management. 2009.

25. **Egon Kivi**. Structural Behavior of Cable-Stayed Suspension Bridge Structure. 2009.

26. **Madis Ratassepp**. Wave Scattering at Discontinuities in Plates and Pipes. 2010.

27. **Tiia Pedusaar**. Management of Lake Ülemiste, a Drinking Water Reservoir. 2010.

28. **Karin Pachel**. Water Resources, Sustainable Use and Integrated Management in Estonia. 2010.

29. **Andrus Räämet**. Spatio-Temporal Variability of the Baltic Sea Wave Fields. 2010.

30. **Alar Just**. Structural Fire Design of Timber Frame Assemblies Insulated by Glass Wool and Covered by Gypsum Plasterboards. 2010.

31. **Toomas Liiv**. Experimental Analysis of Boundary Layer Dynamics in Plunging Breaking Wave. 2011.

32. **Martti Kiisa**. Discrete Analysis of Single-Pylon Suspension Bridges. 2011.

33. **Ivar Annus**. Development of Accelerating Pipe Flow Starting from Rest. 2011.

34. **Emlyn D. Q. Witt**. Risk Transfer and Construction Project Delivery Efficiency – Implications for Public Private Partnerships. 2012.

35. **Oxana Kurkina**. Nonlinear Dynamics of Internal Gravity Waves in Shallow Seas. 2012.

36. **Allan Hani**. Investigation of Energy Efficiency in Buildings and HVAC Systems. 2012.

37. **Tiina Hain**. Characteristics of Portland Cements for Sulfate and Weather Resistant Concrete. 2012.

38. **Dmitri Loginov**. Autonomous Design Systems (ADS) in HVAC Field. Synergetics-Based Approach. 2012.

39. **Kati Kõrbe Kaare**. Performance Measurement for the Road Network: Conceptual Approach and Technologies for Estonia. 2013.

40. **Viktoria Voronova**. Assessment of Environmental Impacts of Landfilling and Alternatives for Management of Municipal Solid Waste. 2013.

41. **Joonas Vaabel**. Hydraulic Power Capacity of Water Supply Systems. 2013.

42. **Inga Zaitseva-Pärnaste**. Wave Climate and its Decadal Changes in the Baltic Sea Derived from Visual Observations. 2013.

43. **Bert Viikmäe**. Optimising Fairways in the Gulf of Finland Using Patterns of Surface Currents. 2014.

44. **Raili Niine**. Population Equivalence Based Discharge Criteria of Wastewater Treatment Plants in Estonia. 2014.

45. **Marika Eik**. Orientation of Short Steel Fibers in Cocrete. Measuring and Modelling. 2014.

46. **Maija Viška**. Sediment Transport Patterns Along the Eastern Coasts of the Baltic Sea. 2014.

47. **Jana Põldnurk**. Integrated Economic and Environmental Impact Assessment and Optimisation of the Municipal Waste Management Model in Rural Area by Case of Harju County Municipalities in Estonia. 2014.

48. **Nicole Delpeche-Ellmann**. Circulation Patterns in the Gulf of Finland Applied to Environmental Management of Marine Protected Areas. 2014.

49. **Andrea Giudici**. Quantification of Spontaneous Current-Induced Patch Formation in the Marine Surface Layer. 2015.

50. **Tiina Nuuter**. Comparison of Housing Market Sustainability in European Countries Based on Multiple Criteria Assessment. 2015.

51. **Erkki Seinre**. Quantification of Environmental and Economic Impacts in Building Sustainability Assessment. 2015.

52. **Artem Rodin**. Propagation and Run-up of Nonlinear Solitary Surface Waves in Shallow Seas and Coastal Areas. 2015.

53. **Kaspar Lasn**. Evaluation of Stiffness and Damage of Laminar Composites. 2015.

54. **Margus Koor**. Water Distribution System Modelling and Pumping Optimization Based on Real Network of Tallinn. 2015.

55. **Mikk Maivel**. Heating System Efficiency Aspects in Low-Energy Residential Buildings. 2015.

56. **Kalle Kuusk**. Integrated Cost-Optimal Renovation of Apartment Buildings toward Nearly Zero-Energy Buildings. 2015.

57. **Endrik Arumägi**. Renovation of Historic Wooden Apartment Buildings. 2015.

58. **Tarvo Niine**. New Approach to Logistics Education with Emphasis to Engineering Competences. 2015.

59. **Martin Thalfeldt**. Total Economy of Energy-Efficient Office Building Facades in a Cold Climate. 2016.