



The Past, Present, and Future of a Post-Soviet Panel Housing District: the Case of Annelinn, Tartu, Estonia

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CONTENT

INTRODUCTION	3
1. INVERTARISATON OF KNOWLEDGE ON LARGE HOUSING ESTATES	5
1.1. Literature review	5
1.1.1. The golden era of housing estates in West and East and their fall	5
1.1.1.1. The experience of Western and Northern Europe	5
1.1.1.2. The experience of East Central Europe and the former Soviet Union	10
1.1.2. Panel housing districts and post-socialist urban change	14
1.2. Case study area: the city of Tartu and Annelinn-Jaamamõisa district.....	20
2. ANALYTICAL PART	29
2.1. Data and methods used in the analysis	29
2.1.1. Structure of the analysis.....	29
2.1.2. Individual-level data of 2000 and 2011 Censuses	29
2.1.3. Neighbourhood types used in the analysis – the results of clustering	30
2.1.4. Desk research and the critical analysis of the planning process	31
2.2. Socio-demographic changes, residential mobility and construction activities	33
2.2.1. Population changes in Annelinn-Jaamamõisa and in the Tartu Urban Region between 2000–2011.....	33
2.2.1.1. Population decline	33
2.2.1.2. Changes in ethnic composition of population.....	34
2.2.1.3. Changes in age composition of population.....	35
2.2.1.4. Changes in educational composition of population	38
2.2.1.5. Changes in occupational composition of population.....	39
2.2.2. Dynamics in housing construction in Tartu urban region and Annelinn-Jaamamõisa.....	41
2.2.3. Residential mobility related to Annelinn-Jaamamõisa.....	43
2.3. Planning approaches applied in Annelinn-Jaamamõisa	46
2.3.1. Initial planning approaches in the socialist period.....	46
2.3.2. Postsocialist period and new planning principles related to Annelinn	51
2.3.2.1. Neglect of housing estates in the first postsocialist decades.....	51
2.3.2.2. Municipal initiatives	54
2.3.2.3. Professional urbanists as a powerful interested party	57
2.3.2.4. A nascent local activism taking the lead in organizing local life	60
CONCLUSIONS AND DISCUSSION	64
POLICY RECOMMENDATIONS.....	68
DISSEMINATION ACTIVITIES.....	77
REFERENCES	83

INTRODUCTION

Large housing estates, once greatly praised modernist response to post-WWII housing shortage, are today among the main target areas of urban policies across Europe. Being increasingly a segment of urban housing stock affordable for low-income households these areas have become stigmatized in Western and Northern Europe, but recently also in formerly socialist European countries, even when most of urban residents of the latter region still live in these neighbourhoods and often no alternatives exist for young households, elderly and also for middle-class households.

Our research zooms in on a typical large housing estate area in Central and Eastern Europe — Annelinn-Jaamamõisa in the post-Soviet city Tartu (Estonia). The majority of the population of Tartu live also today in high-rise residential buildings built in the years when Estonia was one of the fifteen Soviet republics (1940–1991). Almost one third of the urban population lives in our case study district Annelinn-Jaamamõisa (29.366 inhabitants according to last Census 2011), the largest compact housing estate area of the city. Annelinn and Jaamamõisa are usually treated as separate urban districts. In this research we consider 2 completed and 1 unfinished former *mikrorayons* (typical planned self-contained neighbourhoods in socialist large housing estates) of Annelinn and an adjacent smaller neighbourhood with military background Jaamamõisa as one compact district that share local double-language social infrastructure and also have similar urban image for outsiders.

The aim of our research project is

- (1) *to understand the recent socio-demographic and physical changes in Annelinn-Jaamamõisa,*
- (2) *to compare these changes with the recent developments in other neighbourhoods of Tartu and in its suburban settlements,*
- (3) *to compare the development of Annelinn-Jaamamõisa with the trajectories of large housing estates elsewhere in Europe,*
- (4) *to understand how the planning approaches applied for large housing estates have transformed from the late Soviet period onward until today,*

(5) to show which new planning initiatives have been successful in Annelinn-Jaamamõisa and to discuss to what extent these experiments are worth for wider application in former socialist cities, but also elsewhere in Europe.

We conducted our research in two stages. First we used individual-level databases of two last Censuses (2000 and 2011) that allowed us to observe residential moves between urban and suburban neighbourhoods and to analyse which socio-demographic changes and developments in construction activities have occurred in different types of districts. In addition, regular annual statistics is used to the extent the quality of administrative datasets allow to draw reliable analyses. These results, showing the trajectories of different neighbourhoods in Tartu Urban Region, including the developments in Annelinn-Jaamamõisa, were discussed in several articles, seminars and meetings with public and local stakeholders. As the second stage, we analyzed the planning approaches applied to Annelinn-Jaamamõisa and other large housing estates in Estonia in the late socialist period, early transition years and recently. This stage comprised desk research, e.g. working with several historical materials as well as elaborating contemporary planning documents and initiatives related to large housing estate districts. This was complemented by key expert interviews with architects, urban experts and city officials who have recently committed their activities on modernist housing areas. During the interviews the conclusions made earlier in this projects (about the socio-demographic and physical changes in Annelinn-Jaamamõisa) were discussed and reflected.

Based on these analyses and discussions held with stakeholders during the interactive research project we have elaborated policy recommendations for urban planners dealing with large housing estates today. The recent urban planning experiments in Annelinn-Jaamamõisa, in Tartu, Estonia certainly serve as best practice examples on how formerly top-down planned large housing estates could be handled today in planning to avoid the stigmatization and degradation of these urban areas.

1. INVENTARISATION OF KNOWLEDGE ON LARGE HOUSING ESTATES

1.1. Literature review

1.1.1. The golden era of housing estates in West and East and their fall

1.1.1.1. The experience of Western and Northern Europe

All over Europe urban policies are today struggling with the post Second World War large housing estates. In Western and Northern European cities these urban areas were built approximately between 1945 and 1975 (Dekker & van Kempen 2004). In formerly socialist Central and Eastern Europe prefabricated panel blocks were a prevalent housing type of socialist housing construction programmes since the late 1950s or 1960s until the end of socialist regime in 1989/1991. As the physical appearance of housing estates in West and East is similar, this may sometimes prompt opinions that the policies in connection with these areas should be analogous as well. Still, the institutional logic concerning how they became the hot spots of urban policies has been considerably different. To understand better the current policy and planning issues related to large housing estates in Europe, we first give an overview on how these residential districts were built and how their role in the housing market has changed in the course of the time in former ‘non-socialist’ Europe (the usual benchmark for postsocialist urban studies).

Roughly until the 1990s the inner city residential districts originating from industrialisation-led fast urban growth in the 19th century were still seen as the most problematic urban areas in many European cities (Musterd & van Kempen 2007). However, the shift in residential preferences towards living in areas with a historical milieu close to urban centres as well as generous public urban renewal programmes soon led to status upgrade and gentrification of inner city neighbourhoods (Musterd & van Kempen 2007). The housing areas built after WWII were designed according to the progressive ideas of modernist architects (Le Corbusier, Walter Gropius, Max Taut, Oskar Hansen, and others) (Musterd & van Kempen 2007; Dekker & van Kempen 2004; van Beckhoven & van Kempen 2006) and their initial public image was positive. Spacious landscaped green public areas were supposed to guarantee the qualities that

the inner city residential quarters had failed to offer. Millions of apartments built across Europe (Musterd & van Kempen 2007) (e.g. the Swedish Million Programme) were expected to solve cost-effectively the post-War problem of urban housing shortage and to offer affordable decent housing for middle-class urban families.

Contrary to the foreseen bright future, large housing estates lost their attractiveness in Western and Northern Europe soon after their completion (Musterd & van Kempen 2007; Dekker et al. 2011; Dekker & van Kempen 2004). Demolishing the high-rise blocks in Pruitt-Igoe, St. Louis, Missouri in 1972 symbolically denotes the beginning of the fall of modernist architecture. The benefits of housing estates that once seemed attractive on plans (especially in comparison with historical residential areas of that time) did not function well in real life situations. Completely new social realities unfolded in European urban societies that were not expected by planners and architects.

Firstly, the welfare level in Western and Northern European countries increased in post-War decades extremely rapidly. People started to admire more spacious dwellings and to prefer human-scale neighbourhoods with less anonymity and more personal privacy. When extensive public housing provision was seen as a reasonable housing policy tool in the postwar years, the fast economic growth and increase in households' purchasing power soon enabled many households to move to owner-occupied homes in more attractive urban districts. Most of the Western and Northern European countries experienced fast suburbanisation already in the 1960s and 1970s (van den Berg 1982), and, in addition, 1980s and 1990s are often referred to as the decades of reurbanisation or gentrification that favored older inner city districts (Champion 2001). Thus, the initial target group — middle class households — had other alternatives than social housing in large housing estates. As expected, first of all higher income-groups were able to decide for prestigious suburban or gentrified urban neighbourhoods, and low-income households did not have other alternatives than to accept living in publicly funded large housing estates (Dekker et al. 2011). This selective population turnover gradually started to contribute to social degradation of social housing areas in Western and Northern European cities.

Secondly, a noteworthy additional dimension that accelerated social degradation of large housing estates was the fact that many European countries became the

destinations of international migration from the third countries. Since the 1960s different waves of economic migrants, asylum seekers and refugees from various countries of origin have ethnically diversified European urban population, especially in larger cities. In many countries the arriving immigrants were accommodated in social housing districts, and therefore first of all these urban areas became the arenas where different cultures, values and life styles met. This changed both the subjective reputation of large housing estates as well as their objective position among other urban areas as regards the socioeconomic status of residents living there. This is so, because immediately after arrival immigrant population, as a rule, has difficulties in creating contacts with host societies and in fully integrating into local labor market. Being more dependent on welfare policies, including living in social housing, makes immigrants the most vulnerable social group in these cities. Unfortunately, often these disadvantages are inherited from one generation to another, and social and cultural distances are therefore cemented rather than softened over time (Taylor 1998). The social reality of Western and Northern European cities today is that large housing estates form the most disadvantaged segment of urban housing stock (van Beckhoven & van Kempen 2006) affordable for low-income groups, and in cities that are segregated both according to the lines of household incomes as well as residents' ethnic backgrounds, these two types of segregation tend to overlap. In some Swedish, Dutch and UK housing estate neighbourhoods the immigrant population even constitutes the (Musterd & van Kempen 2007; Dekker et al. 2011) majority of local residents. We may conclude that purely architectural idealized visions were not able to predict the fast economic growth and accompanying private investments into housing neither the influences of the fast ethnic diversification of European cities.

The question how to address the aggravating social situation in housing estates has been in political as well as in research agendas for decades. The tools applied vary from demolition of blocks (cf. Dekker et al. 2011) in the worst condition until softer forms of area-policies addressing local communities. Demolition has been sometimes the solution when the blocks with extremely bad quality finally start to remain vacant, or also as a tool to eliminate the 'failed' segment of housing and to substitute it with a better and more up to date housing environment. In general, demolition has been justified in cases where there is really a structural oversupply of certain type of housing (Musterd & van Kempen 2007). Also, it requires large public investments for building

new social houses elsewhere in cities that in the context of contemporary austerity policies in European cities is ever more complicated. Besides, the relocation of residents, that inevitably accompanies with the demolition, has been criticized because it tends to ‘destroy’ existing social networks and community ties. For this reason, recent urban policies rather aim to be sensitive and to address existing local communities, e.g. to enhance local social cohesion, to build social networks and to activate local communities to improve local living conditions and services (cf. van Beckhoven & van Kempen 2006). Recent policies also aim to diversify tenure structure by increasing the share of owner-occupied housing in these districts. It is expected that this favours the feelings of local attachment and adds motivation to take care of one’s immediate residential environment.

In fact, the normative ‘social mix’ is among the most disputed concepts in recent urban policies. It has been sometimes considered as a lifebelt to combat extreme segregation in European cities — when sharing the common space (neighbourhood) and being exposed to a variety of people, social and cultural distances among contemporary diverse urban population groups are supposed to become milder. Also, abundant research evolves around the phenomenon of ‘neighbourhood effect’. Indeed, some evidence is available that low-status residential environment and opportunities to create only own-group contacts (low income people, other immigrants, etc.) tend to determine people’s opportunities (professional career, income, family career, etc.) in their later life. There is however no consensus where are the critical levels of social mix, which mix favours inter-group communications and which mix becomes an obstacle to social cohesion and, instead, creates confrontations. Social cohesion tends to be stronger within the group (e.g. via ties with compatriots or people with similar cultural backgrounds and lifestyles) (cf. van Beckhoven & van Kempen 2006). At the same time, certain level of mix (in residential neighbourhoods or elsewhere during people’s daily activity spaces) is necessary to enable encounter with those who are different. All in all, it should be emphasized that after the decades-long experiments no consensus exists which are the most efficient urban policies to avoid further degradation of large housing estates (Taylor 1998).

There is, however, some consensus in two questions. Firstly, the research on who lives in large housing estates and on their residential satisfaction confirms that the emotional

calls to tear down the housing estates as ‘architectural fails’ and ‘hot spots of social problems’ are exaggerated. On the contrary, the large housing estates play a valuable role in urban housing market (Musterd & van Kempen 2007; Dekker et al. 2011) by offering affordable housing for those who cannot afford living in other more expensive districts, who appreciate residential stability, or who search for a place where to start their housing career. The research results of Dekker et al. (2011) show that people who live in owner-occupied flats are more satisfied in living in housing estate districts, confirming that the efforts for diversification the tenure structure indeed help to strengthen local attachment. Also, the people in renovated and better maintained buildings show higher levels of satisfaction, meaning that providing decent housing for groups with relatively lower household incomes is still expected today (*ibid.*). Also, older people who in general are in the age when changing their place of residents is naturally less frequent (they are more attached to their accustomed surroundings) would rather choose for residential stability (*ibid.*). Younger households may use housing estates as a ‘springboard’ at the beginning of their housing career (*ibid.*). To conclude, large housing estates are a necessary segment of housing markets for certain population groups also today and the need to improve the quality of life in these districts is obvious.

Secondly, there is rich evidence that subjective stigmatization, first of all from outside the housing estate districts, contributes to the (re)production of above-described social realities (Musterd & van Kempen 2007; Glasze et al. 2012; Kearns et al. 2013). Some authors even complain for ‘lazy and irresponsible journalism’ that tends to make large housing estates responsible for nation-wide problems like being an immigrant society with no good solutions for integration (Kearns *et al.* 2013, 594; cf. Glasze et al. 2012). Such ongoing stigmatization may worsen the quality of life of those living in social housing units, both psychologically (Kearns et al. 2013, 580) as well as by worsening the reputation of large housing estate areas and so indirectly encouraging selective in- and out-migration. Taylor (1998) calls for ‘building up confidence both in and outside the estate’ to avoid that prejudices and stereotypes amplify and reproduce segregation in cities.

We now turn our geographical focus to formerly socialist countries. To be able to address the planning problems in postsocialist large housing estates, including in

Annelinn-Jaamamõisa (Tartu, Estonia), it is necessary to understand their specificity compared to their Western and Northern European counterparts.

1.1.1.2. The experience of East Central Europe and the former Soviet Union

The most important difference between the former capitalist and socialist European cities as regards the housing sector is the proportion of residential units built in modernist housing estates compared to the rest of urban housing stock (Temelová et al. 2011; Szafrańska 2013). The best illustration is the comparison of the share of dwellings in large housing estates in two parts of Germany, in former BRD and GDR: every fourth person in former eastern Germany lived in a housing estate apartment by the end of socialist period, whereas only every sixteenth persons from former Western Germany resided in similar type of dwelling (Kabisch and Grossman, 2013). Depending on the city, the share of dwellings in large housing estates in East Central Europe is between 20 and 40 per cent (Temelová et al. 2011; Szafrańska 2013); in former Soviet republics this proportion was much higher, e.g. over 60 per cent in Baltic capitals, and even more in completely new industrial cities of the Soviet Union.

Although the large-scale housing construction programmes started somewhat later in former Eastern block it became a prevalent form of urban housing construction here. Private investments were limited, only immediately after the war, in the context of urgent housing need and before extensive public housing programmes were launched, private housing construction was favoured. Also, in the end of 1980s, when despite enormous efforts the tempo of public housing provision still remained insufficient compared to the speed of population growth in cities, private housing construction became again more accepted. In the former Soviet Union in the end of the 1950s and in other socialist countries of East Central Europe somewhat later, large public housing programmes were initiated with the aim to guarantee decent housing for growing urban population. Initial brick technology and smaller groups of buildings located as infills in cities (e.g. socalled *hrustchovkas*) were soon substituted with prefabricated panel houses and carefully master-planned large housing estates to build cost-effectively and in large quantities.

Both practical considerations as well as ideological motives were behind these large investments into housing. First, since Eastern Europe and the territories of former Soviet Union were previously only moderately industrialized, the target of centrally planned economies was to promote economic development through industrial growth. Understandably, in the context of East-West confrontation this was complemented with the emphasis on defence sector and respective investments into military industries. Industrial plants were placed in major cities where considerable amount of workforce was already present and to new arising urban agglomerations, e.g. in mining regions. Secondly, the ideological aim was to provide equal housing conditions for all households to avoid inequalities and segregation in urban space. Standardized housing construction was supposed to be an ideal tool for achieving these aims of equality as well.

These idealistic targets were never fully achieved. Housing construction volumes always lagged behind the growth of industrial workforce in cities and, therefore, a sharp housing shortage existed throughout the socialist period (Buckley & Gurenko 1998; Renaud 1992). People waited in housing queues for many years, even decades. Having or not having the access to modern apartment itself became a source of housing inequality. Although ideologically all households needed housing, those who were ‘better connected’ to the ruling class of socialist regime or who worked in ‘priority sectors’ of centrally planned economy, had better opportunities in housing allocation system. In many formerly socialist cities unskilled workers and people with lower educational levels did not have access to urban housing and they often lived in the rural surroundings of the major cities in self-built housing not subsidized by state. Better educated, including nomenclature and those in administrative positions, were however able to ‘navigate’ in housing allocation arrangements and normally received better apartments (cf. Bodnár & Böröcz 1998; Tammaru & Leetmaa 2007).

The most remarkable characteristic of the socialist housing sector was however the huge role of socialist enterprises in housing allocation process. All units of the socialist economy depended on centrally planned resources (e.g. raw materials, workforce). All plants, mines, etc. had their production plans and the competition between state enterprises occurred in being able to negotiate more input (resources) for their company from the central planners. Yet, the resources are always limited, especially in the

centrally planned industrial country, where the aim is to promote industrial growth, and the resource allocation system inevitably needs to favour certain economic sectors (Kornai 1992). In socialist economy typically the defence sector and the heavy industry was favoured to other economic activities. This also led to unequal opportunities of the enterprises to provide remuneration to their workers. The salary differences were not remarkable, but the services and other bonuses that the enterprises were able to offer in addition fed the inequalities. For example, large priority enterprises internalized housing construction tasks and those people working in priority enterprises (and priority economic sectors) had better access to newly-built housing (Gentile 2003; Genile & Sjöberg 2006; Morton 1980). These powerful enterprises were also able to have a say in urban planning. For example, military bases cut off some parts of the cities from public access (cf. Jauhiainen 1997) and housing for military personnel was built closeby of military bases; other powerful enterprises were able to choose better locations for their housing projects (centrality in the city, environmental conditions, transport connections with the rest of the city, etc.). These ‘system errors’ in fact worked against the ideological and practical aims to provide decent and equal housing for everyone.

All in all, socialist urban residential landscape was still relatively less differentiated compared to other (capitalist) European cities as regards the socioeconomic status of the people living in different urban districts. For example, despite the ‘priority mechanisms’ the central housing allocation system was still able to prioritize families with children in need of larger dwellings. In addition, the mobility rates were in general low. People who once received the apartment rather settled there permanently and did not change their place of residence often. It is sometimes said that in a typical socialist city the aging process took place *in situ* (Temelová & Slezáková 2014; Szafrańska 2014). This also created age differences between the housing estate districts within cities—the average age of the population was higher in those housing estates that were erected earlier and lower in those built in the end of the socialist years. To some extent, this ‘generation effect’ is recognizable also today.

In former Soviet cities, while compared to other cities in postsocialist East Central Europe outside the Soviet Union, a noteworthy aspect of residential differentiation is related to immigration and distribution of the immigrant population between urban

districts. Altogether 25 million Russians lived in former 14 republics of the Soviet Union (outside the Russian Federation) after the collapse of the Union (Poppe and Hagendoorn 2001; cf. Harris 1993; Kaiser 1995). In Estonia mostly Russian-speaking immigrants arrived in the period after the WWII, 1944–1991 (Kulu & Tammaru 2003) (in republics that were parts of the Union before the war also immigration started earlier). Estonia experienced fast industrial growth and was a strategic military outpost for the Soviet regime at that period. Immediately after the war new administrative functions and military sector contributed to the immigration the most. Throughout the Soviet period, however, the immigration was led by the need of additional industrial workforce. Since immigrant population needed housing immediately after arrival and as they also mostly worked in the priority sectors, they were also the priority group when it came to the distribution of new apartments (Kulu 2003; Hess et al. 2012; Leetmaa et al. 2015). As a result, remarkable ethnic segregation developed in cities that at the same time were socioeconomically rather undifferentiated (Gentile & Tammaru 2006). While compared to ethnic diversification of the Western and Northern European cities, immigrant population in former Soviet republics did not live in the most disadvantaged neighbourhood of cities (Hess et al. 2012). *Vice versa*, being the priority group, they, compared to the host population in destination republics, enjoyed better access to large housing estate apartments that was a highly valued housing segment in the context of socialist housing shortage (Šuška & Stasíková 2013).

Planning large housing estates was one of the professional challenges for socialist urban planners. Although the political context was different, modernist ideas prevailed also among architects and planners in socialist countries. Large housing estates were in most cases planned according to the *mikrorayon* principles meaning that smaller groups of houses constituted a self-contained neighbourhood with necessary daily facilities (schools, kindergartens, shops, services, leisure facilities) nearby. Classically the proximity of green areas and nature belonged to the amenities of housing estates as they were mostly built to the peripheries of former built-up areas. Many initial planning projects also contained nice visions of internal pedestrian paths that enabled to walk within the estate, e.g. for children to go to schools without crossing major transport axes and to make local leisure and recreation facilities easily accessible. The estates were supposed to be connected with the city centre and locations of jobs via good public transport to enable separation of industrial and residential urban functions.

The pathological characteristics of large housing estates in socialist countries were, however, delay in providing social and transport infrastructure to the already erected housing units, as well as ignoring the planners' architectural visions in the process of realization of the plans. The urgent need to accommodate growing population shifted investments to new construction sites without completion of the surroundings and infrastructure related to former housing quarters. For this reason, many housing estates remained unfinished when compared to initial planning projects, i.e. the ideal visions were systematically ignored. These decisions determined the quality of particular large housing estates and have also impacts until today because after the collapse of the socialist system even less public money has been available to finish the planned infrastructure in housing estates (Kovács & Herfert 2012). A classical example could be drawn from Petržalka housing estate in Bratislava, Slovakia (Šuška & Stasíková 2013). This area, one of the biggest housing estates in East Central Europe, was carefully planned through preparatory studies and architectural competition. The plan was to build an exemplary settlement with self-contained micro-areas communicating organically with the greenery of the riverbank of Danube. However, the construction started already before the evaluation of tender and instead of a carefully planned settlement an inconsistent and poorly organised housing estate (sic! One of the biggest in Europe) was erected. The absence of a central axis and a core made it also difficult to find good public transport solutions and the district is therefore excluded, albeit still functionally dependent, from the jobs and services in Bratislava. Such poor implementation of the good visions characterizes many large housing estates in postsocialist cities.

1.1.2. Panel housing districts and post-socialist urban change

In most of the formerly socialist countries after political turn flats in large housing estates were privatized to sitting tenants (Sargsyan 2013; Szafrańska 2013; Soaita 2012; Kährik 2000). An exception was former Eastern Germany where the housing estate apartments remained in public hands. Huge investments flowed into these areas in the

1990s through the Urban Restructuring East programme (Kabisch & Grossmann 2013). In the housing estates of other countries mostly full market-situation was reached sooner or later, depending on the speed of privatization in each country. In parallel, restitution of pre-WWII housing and land to former owners was launched in older housing areas (Temelová & Slezáková 2014). While restitution took relatively more time—ownership disputes sometimes lasted and in some countries (e.g. Czech Republic) rent control was kept longer—socialist-era apartments were in hands of individual home-owners in most of the post-socialist countries already by the year 2000. Privatization was supposed to motivate people to invest into their homes (Temelová et al. 2011; Soaita 2012) (note that also in Western countries the recent trend is to increase the proportion of homeowners in social housing areas), and, needless to say, no public money was available in the early transition years to keep public funding on housing at the level of the late socialist period. The formerly subsidized maintenance and renovation costs were now put in shoulders of inhabitants (Sargsyan 2013; Szafrańska 2013) and therefore the incomplete infrastructure often remained unfinished for decades.

In the beginning of the 1990s many scholars predicted a gloomy future for the housing areas built in socialist years. It was warned that social degradation of large housing estates is inevitable (Szelenyi 1996; Enyedi 1998) and that these districts will follow the path of their analogues in Western cities. Withdrawal of public subsidies as well as new alternatives in the housing market (Brade t al. 2009) were expected to make large housing estates relatively less attractive. These processes, however, did not occur, or at least not as fast as predicted. Evidence from many countries has confirmed that at least by the end of the first transition decade, by the year 2000, large housing estates were still socially stable and the social mix inherited from the socialist housing policies continued to characterize these areas (Temelová & Slezáková 2014; Sargsyan 2013). Though, the aging of population was clearly observable (Temelová & Slezáková 2014; Szafrańska 2014; Brade at al. 2009). This was so because already before the system change people tended to become old in the apartments where they once moved in and low mobility rates continued in the 1990s in many countries. Kährik and Tammaru (2010) analysed the in- and out-migration to and from large housing estates in Tallinn, the capital of Estonia. They found that in the 1990s no considerable differences existed between the probabilities of population sub-groups in moving to large housing estates,

however, Estonians and people with higher education now left housing estates more frequently.

Still, the process of slow social degradation (Kährik & Tammaru 2010) is ongoing because many new alternative housing environments are available on the market today: suburban single-family homes, opportunities to rebuild socialist-era summer homes to a permanent residence, new contemporary apartment houses in smaller more human-scale neighbourhoods, different forms of gated communities, inner city gentrifying neighbourhoods, etc. Inevitably these more prestigious housing environments are first of all accessible to more affluent households (Tammaru et al 2009; Leetmaa et al 2012; Brade et al. 2009; Kovács & Herfert 2012; Badyna & Golubchikov 2005; Kok & Kovács 1999; Leetmaa et al. 2009). In spite of these trends the consensus exists that large housing estates play an irreplaceable role in housing market till today and also, in the long run (Temelová et al. 2011). Kovacs and Herfert (2012) argue that although ‘these areas will never be the top segment of the housing markets’ of postsocialist cities, it will very probably remain a comfortable and an accepted choice (Temelová & Slezáková 2014; Sargsyan 2013; Kovács & Herfert 2012; Brade et al. 2009; Herfert et al. 2013) for the stable population already living there (i.e. elderly) and it could serve as a natural springboard for young households at the beginning of their housing career. For these reasons, the demolition of housing estates in socialist cities cannot be foreseen—it is too large segment of the total housing market (Szafrańska 2013). Also, even when alternatives gradually emerge to the market, the current tempo of suburbanisation and inner city redevelopments have still not been fast enough to replace the aging socialist housing stock.

The studies demonstrate that no uniform development tracks could be expected in all postsocialist housing estates. Temelová et al. (2011) distinguish three alternative trajectories for Czech housing estates — (1) stable, (2) at the crossroad, and (3) those where the social degradation is unavoidable — whereas the differences in trajectories may exist on regional scale, within the city and even within a single housing estate. The regions that have experienced economic growth and in-migration from the rest of the country, primarily the capital cities, mostly have tight housing markets and the demand for housing estate apartments also has remained high there (*ibid.*; Šuška & Stasíková 2013). At the same time in shrinking regions, e.g. the regions with declining industry,

it has been increasingly difficult to keep housing estates attractive. Within cities some housing estates are older than others; this determines the age structure of their population and people's motivation and resources to invest into condition of their blocks. The former socialist housing policies, and especially the unfinished infrastructure, also has impact on the quality of life in those areas today, e.g. some are continually disconnected from other parts of the city, in few cases ideal plans were implemented and in others not, etc. Within a larger housing area the track of a *mikrorayon*, or a block, may depend on the inherited composition of its inhabitants: when a socialist-era enterprise that once distributed apartments in this block was able to adjust well to new market condition, it might be that also its workers adjusted to the labour market better and were now able to take care of their building too. Very much depended also how successfully was a block able to reorganize its housing management (Soaita 2012). Namely the apartment associations now became responsible for organizing maintenance of buildings and the success of an association depended on the skills and capacities of new leaders. Altogether, all these variations in development trajectories also require somewhat different interventions today.

Remarkable geographical differences between the countries have been demonstrated by Herfert et al. (2013) who compare the image of five housing estates in five cities: Leipzig, Budapest, Vilnius, Sofia, and St. Petersburg. They demonstrated, analogously to what was found in Western European cities, that bad reputation of large housing estates is rather created from outside, by those people who do not live in these districts themselves and probably are also not at all familiar with the qualities of local residential environment (cf. Temelová & Slezáková 2014). Interestingly, the problems with stigmatization are more serious in those cities where the public interventions (including investments in the postsocialist period) have been more intensive, namely in former Eastern Germany. This illustrates how complex the stigmatization issue is (cf. Kearns et al. 2013). There is evidence also from Western Europe, showing that defining certain areas publicly as the 'problem areas' and the targets of urban renewal policies (e.g. so-called Urban Sensitive Zones in Paris: Sari 2012) *per se* feeds negative public opinion. Herfert et al. (2013) demonstrate that the image of large housing estates depends on the peculiarities of housing markets of respective cities. In Sofia and St. Petersburg where new alternative residential choices have emerged to the market more slowly and the metropolitan housing market is rather tight, also the image created by outsiders has

remained stable. In Vilnius and Budapest, where today a lot of new choices in suburbia and inner city are available, the contrast between the reputation of housing estates among local people and residents living in other urban districts is sharper. The extremely negative outside image in Leipzig could also be explained by shrinking urban population (Kabisch & Grossmann 2013) and high rate of vacancies across the whole city that enables people to be more flexible in their choices. A long-term study on residential satisfaction in Leipzig Grünau, however, has proved that the systematic investments made in the 1990s to reorganize urban space (incl. demolishing some buildings) in East German large housing estates have increased the level of internal satisfaction of local population with living environment despite the negative outside image (Kabisch & Grossmann 2013; Kovács & Herfert 2012).

With the exception of Germany, as a rule, postsocialist decades have witnessed ignoring the housing stock built in the socialist years (Kovács & Herfert 2012). The infrastructure that was once built has now gradually become shabby and the unfinished infrastructure projects were also not completed in the postsocialist years. A planning vacuum existed (Szafrańska 2013). In the context of early transition years old costly modernist planning principles lost their credibility not only because they carried a sign of ‘socialism’ but also as limited public expenditures were available to realize old plans or to make any kind of improvements in these districts. The initial expectations that new owners and apartment associations are able to take full responsibility of urban renewal in these housing areas did not become true. The buildings are relatively old by today, owners have been able to finance minimal maintenance costs like new security doors, repairing roofs, adding insulation, replacing old plumbing, etc. (Sargsyan 2013). Special funding agencies have been initiated in some countries (e.g. KredEx Credit Insurance Ltd. in Estonia) that offer loans and mediate minimum state support for renovation activities. However, no capacity existed to reformulate the former comprehensive planning principles nor to invest into reorganizing abundant public spaces between the blocks. In fact, nobody had money (Temelová et al. 2011): people and housing associations were able to undertake only smaller renovation activities, the municipal costs for social housing were very limited anyway, and no governmental programmes existed to purposefully renew these housing areas (Sargsyan 2013; Szafrańska 2013; Kovács & Herfert 2012; Soaita 2012).

Somewhat more resources became available after most of the postsocialist European countries joined EU in 2004 (cf. Szafrańska 2014), but also these interventions are today rather in preparatory phases. The confusion in housing management and market-led urban planning also brought along some ineffective solutions (Šuška & Stasíková 2013). In some countries self-organized and uncoordinated building activities occurred (Soaita 2012): closing balconies to extend one's apartments, rebuilding activities in individual apartments without proper construction projects, etc. In Estonian cities confusion existed during the privatization process; some apartment associations privatized huge plots around their house and were later not able (and not interested) to take care (cf. Szafrańska 2013) of these 'public' areas; other associations, however, privatized only some meters around their walls and have no tools today to landscape the surroundings of the buildings. Many public and semi-public areas remained without direct care for many years. At the same time, growth in number of private cars caused the need to take more space for parking lots (Sargsyan 2013); this was mostly done at the expense of greenery and recreation spaces, and also often in an unplanned way.

As the districts of large housing estates have been socially relatively stable and the housing shortage inherited from the socialist period still existed, also some densification took place (Šuška & Stasíková 2013; Sargsyan 2013; Szafrańska 2013). Vacant plots were sold to private investors to build new apartment houses. Although this helped to avoid social degradation of housing estates (new apartments target somewhat more affluent residents) in some cases densification violated former spatial plans like greenery closeby the buildings and eliminated the opportunity to realize former spatial plans in the future when public sector funding may become more generous. Also, general changes in urban spatial structure, e.g. building shopping malls outside the cities along the main arterial roads (cf. Šuška & Stasíková 2013), changed the chances of former shops and services embedded in *mikrorayons* to survive. The facilities in a walkable distance were often closed and people living in housing estates became more and more dependent on car transport, again increasing the pressure for more parking spaces.

All in all, due to the ongoing selective in- and out-migration and the lack of clear spatial plans as well as public programmes addressing large housing estates, we are today witnessing slow social and physical degradation of these urban districts (Kovács &

Herfert 2012). Few studies on the segregation processes in the 2000s have already proved that sociospatial differences in postsocialist cities are increasing (Tammaru et al. 2015a). Moreover, in former Soviet cities the dimensions of ethnic and socioeconomic segregation have started to overlap (Leetmaa et al. 2015; Tammaru et al. 2015b). Large housing estates are not ‘slums’ as was predicted for 25 years, but they certainly gradually loose their status as comfortable and prestigious residential neighbourhoods and this trend inevitably calls for planning and policy interventions suitable into contemporary conditions.

1.2. Case study area: the city of Tartu and Annelinn-Jaamamõisa district

We now introduce the city of Tartu in Estonia and our case study district Annelinn-Jaamamõisa, a typical large housing estate in a postsocialist medium sized city. We present some historical background information on how the city has developed and general population trends to clarify the socio-demographic and economic context of the ongoing urban change.

With almost thousand-years history Tartu has historically been the largest administrative and economic centre in South Estonia. In 1632 Swedish king Gustav II Adolf founded the university here. Except the periods when the university has been closed in times of wars, the university town status has made the city internationally known. The economic role of the city changed in the middle of the 20th century, when the socialist industrialization (1944–1991) started. This was accompanied by the fast urban growth in all Estonian cities, also Tartu experienced fast population growth (Tammaru 2001; Kulu 2003, 899). In comparison to the extremely fast growing capital city Tallinn and northeast Estonian industrial agglomeration, the growth of Tartu, the second largest city of the country, was modest (Leetmaa 2008, 63): the population of Tartu doubled in the Soviet years (from 59,000 before the WWII to 113,000 in the end of the Soviet period). Several large industrial enterprises with the orientation to the Soviet market were established here. In addition, after the WWII a Soviet military airport was based at the outskirts of the city and therefore the city became a ‘closed town’ for foreigners (Kulu 2003; cf. Gentile 2004, 266).

The development of new economic spheres and military activities encouraged immigration from other parts of the Soviet Union (Marksoo 1980, 251-252; Kulu 2003, 900). As mentioned above, immigrant population arriving to former Soviet republics were mainly Russians, but also ethnic groups originating from other Soviet republics (Ukrainians, Belarusians, etc.). As Russian language was the dominant communication language, or so-called *lingua franca*, in the Soviet Union, the cities in former Soviet republics often inherited large and culturally relatively homogeneous Russian-speaking minority population¹. While Tartu was almost mono-ethnic in the middle of the 20th century, by the end of the Soviet period (according to the Census 1989) the proportion of Russian-speaking minorities in the city had reached to 27 percent. Thus, the fast urban growth in the Soviet years was related to ethnic diversification of the city.

Population growth brought along the expansion of housing construction. Approximately half of the city's housing stock was destroyed in the WWII (Marksoo 1980, 292). While restoration works and private housing construction dominated in the years immediately after the War, since the end of the 1950s state launched public housing construction programs. At the beginning, smaller groups of or single 5-storey brick-houses were built close to the centre (so-called *hruchovkas*) to the areas damaged in the bombing of the war. To satisfy growing needs for housing, industrialized panel building technology was soon introduced, the construction volumes multiplied and shifted to the vacant areas in the eastern periphery of the city.

Annelinn as the largest compact housing estate district in the city was supposed to consist of 4 perspective *mikrorayons* (2 of which were finished and the 3rd was started just before the Soviet regime collapsed) supported by well-planned public spaces and recreation areas as well as necessary services and social infrastructure. The planning history of Jaamamõisa subdistrict was less organized (Mällo 1995). This quarter was built for military personnel. Urban planning authorities did not have any influence on the design of the area neither on its connections with the rest of the city. Jaamamõisa blocks have always been somewhat isolated from the rest of the city and without supporting local social infrastructure it depended on the adjacent services in Annelinn. Also the housing and construction quality was extremely poor because military forces

¹ Ukrainian and Belarusian ethnic minorities also mostly declare Russian language as their mother tongue.

and not professional construction organization organized the construction process. Besides Annelinn-Jaamamõisa, other smaller-scale panel housing estates (Ropka, FI, Veeriku) or separate single apartment blocks were constructed in other parts of the town following similar construction principles.

While compared to biggest socialist housing estates (e.g. compared to the districts with 100.000 and more inhabitants in larger cities, e.g. Petržalka in Bratislava, Lasnamäe in Tallinn, etc.), Annelinn-Jaamamõisa with its 29.263 inhabitants represents a rather cosy residential district with mostly 5- and few higher apartment buildings surrounded by lots of greenery and recreation areas. Altogether, in the city of Tartu the proportion of people living in Soviet-era apartment blocks, built since the end of 1950s until the early 1990s, when last projects were finished, is approximately 2/3. This proportion is higher than in most of the medium-sized cities in former socialist countries outside the former Soviet Union and of course considerably higher than in classical Western and Northern European cities with the same size and position in urban hierarchy. The population of Annelinn-Jaamamõisa constitutes almost 1/3 of the total urban population. Some images of Annelinn-Jaamamõisa district are presented I figures 1 and 2.



. Annelinn – mostly 5-storey blocks
of houses organized as *mikrorayons*.
Photo: K. Leetmaa



Figure 2. In *mikrorayons* of the late Soviet period also higher 9-storey buildings were built.
Photo: K. Leetmaa

At the same time, pre-War residential areas close to the city centre, for example smaller apartment houses in residential districts with wooden architecture (Supilinn, Karlova), remained untouched from Soviet housing construction programs (Hess & Hiob 2014). Typically to the pre-War residential districts also elsewhere in socialist Central and Eastern Europe this type of districts suffered from the lack of housing investments and public subsidies and had extremely bad reputation compared to new modernist housing areas. In fact, they were often assigned to be demolished, but the extreme housing shortage never gave a real opportunity for that.

Being an important military and industrial town in former Soviet Union, Tartu became a dual-ethnic city and the district of Annelinn-Jaamamõisa therefore represents a classical mixed-ethnic neighbourhood in a post-Soviet city. As Soviet immigrants needed apartments immediately after arrival, they were proportionally more accommodated into the districts where new modern housing was predominant. Figure 3 shows the share of ethnic minorities by neighbourhoods of Tartu in 2011. Although the residential mobility has somewhat reshaped the ethnic patterns of the city within postsocialist decades, ethnic segregation that occurs today still mostly reflects the landscape inherited from the Soviet period. The share of minorities is the highest in the large housing estate area Annelinn-Jaamamõisa and also in the northern city (close to the former military base). There are no ethnic enclaves where the minority population is a dominant group. Annelinn however accommodates more than a half of the Russian-speaking population of the city (compared to a less than a quarter of Estonian-speakers living in Tartu).

In the Soviet period the Russian-speakers' ethnic resources and infrastructure (own-group cultural environment, familiar language environment, clubs, etc.) emerged and was built mainly here. Typical to a former Soviet city, a double-language educational infrastructure was established in Tartu. Immigrant population and their descendants who moved to the city in the Soviet period had the opportunity to send their children into Russian-speaking schools and kindergartens. Double-language educational tracks exist in Estonian educational system until today; on the one hand it offers the opportunity to communicate in own-culture environment, on the other hand, as school years tend to structure strongly the personal networks that people use later during their lives, it today favours the reproduction of parallel lifeworlds of ethnic groups.

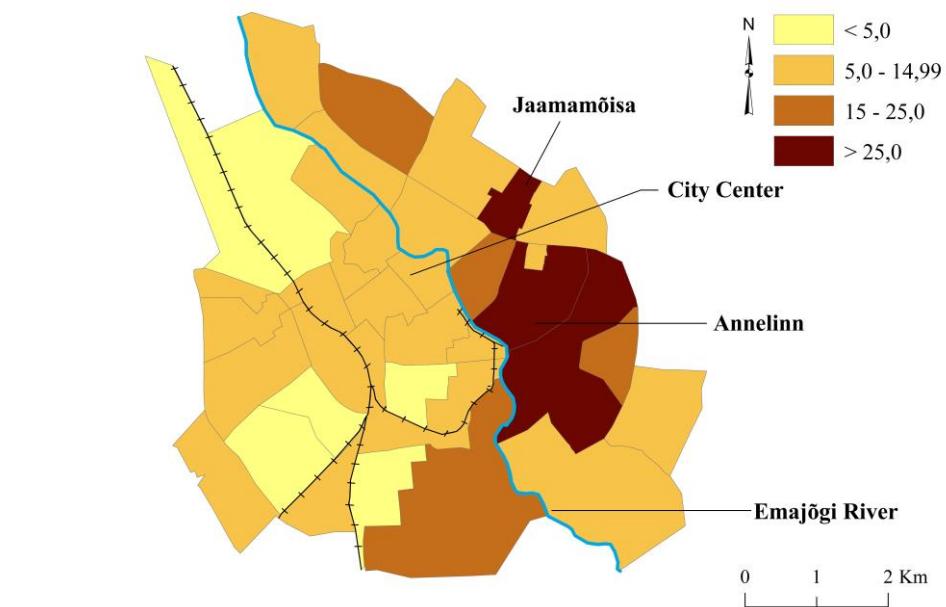


Figure 3. Percentage of Russian-speaking ethnic minorities by planning districts in Tartu, 2011.
Source: Census 2011.

As regards the ethnic context of the city the most important change in the postsocialist period has been the return migration of Russian-speaking population in the early 1990s, when part of the immigrant population left the country in the years of political turbulences. This included the military personnel and their families, but as the future of the reindependent states after the collapse of the Union was rather unclear, also many other families decided to return. The population loss of Tartu was remarkable, from 113,000 in 1989 to 101,000 in 2000, the main component of change being out-migration in the first half of the 1990s. As a result, the share of Russian-speaking minorities in the city also fell from 27 percent in 1989 to 19 in 2000. Compared to other cities of

Estonia where Russian-speaking minority groups form larger share of the population (in the capital city Tallinn more than 40 percent and in northeast industrial agglomeration they are the majority), in Tartu ethnic minority population has assimilated relatively well: e.g. in 2011 2/3 of Russian-speaking minorities in Tartu, compared to 1/2 in Tallinn, were able to speak Estonian in everyday situations. In the course of the time the share of Russian-speakers has declined through intermarriages, closer connections with the host society and generation change. According to 2011 census only 17 per cent of people in Tartu claimed to have Russian-language as their mother tongue.

Despite the unprecedented housing construction volumes housing shortage was still an acute problem in Tartu in the end of the Soviet period. Therefore the population decline of the early 1990s did not leave visible and problematic vacancies to urban housing stock (Leetmaa et al. 2009). Some families formerly sharing the apartment with more than one generation now rather had the opportunity to have their separate dwellings. In parallel to the gradual increase in wealth, people started slowly to improve their housing conditions. In general, the 1990s was a period when fast changes in society and uncertainty due to the structural changes in economy caused extremely low mobility rates. People rather applied DIY (do it yourself) strategies to improve their housing conditions *in situ*. Residential mobility within the city and urban region started to increase in the end of the 1990s (Leetmaa et al. 2015). The literature on residential mobility and residential segregation in Central and Eastern European cities mostly agrees that spatial transformations occurred with some delay compared to institutional transformations and changes in labour market (Sýkora & Bouzarovski 2012) and therefore the 2000s probably illustrate better (than the 1990s) how the urban space started to adjust to new societal order. When the evidence from the 1990s still confirmed the social stability of the housing estates (Kährik and Tammaru 2010), we assume that the remarkable changes started to occur in the 2000s. For this reason, we have focused on the changes since the 2000s also in our empirical analysis in next sections.

The future demographic and economic development in the city of Tartu very probably takes place in the context of shrinkage. The population of Tartu reached its peak in 1990 with 114.000 inhabitants. The last Soviet troops left the country in 1994, after this

abrupt population decline the number of residents has been slowly continued the trend of decline to 97.332 as of the 1st of January, 2015. When negative external migration balance contributed to decline in the early 1990s, today the city has a negative balance of internal migration (tabel 2).

Table 2. Migration balance of the city of Tartu in the period 2000–2011.

	In-migration (to Tartu)	Out-migration (from Tartu)	Net migration
Suburban ring	3915	8451	-4536
Tallinn	2794	5830	-3036
The rest of Estonia	15556	7805	7751
Other countries	639	2448	-1809
Total	22904	24534	-1630

Sources: Census 2000 and 2011

The city loses the population to sprawling new suburban settlements. Functionally these new settlements are daily interacting with the city, but administratively they are located in a neighbouring municipalities, causing also decreasing tax revenues to the city of Tartu. Some of the suburban settlements are areas with newly built single-family homes, a quite frequent trend is also adjusting former summer homes to year-round inhabitable houses (Nuga et al 2015), but more and more also smaller contemporary apartment houses are built behind the city border. Tartu loses population to the economically more attractive capital city and also the net external migration is negative. The latter influences the whole country, since the salaries of skilled and unskilled workers are higher in neighbouring Nordic countries. In recent years through the internationalization of the higher education institutions in the city the number of foreign students has increased, but also here the internationalization of the universities of the capital city tends to be faster (Tammaru et al. 2015). The negative net migration has been somewhat balanced at the expense of surrounding Southern Estonia counties. The universities, vocational schools and gymnasiums in Tartu attract students from this catchment area and being a regional centre the city is also the preferred destination for employment migrants from the mostly shrinking rural South Estonia. The recent population prognoses (Leetmaa & Väiko 2015; Tammaru et al. 2015) however predict that the latter source of the current relative population stability of Tartu will soon fall off (the number of the population groups in young age has dramatically decreased in South Estonian counties) and it will be therefore increasingly difficult for Tartu to cope with further population decline.

As a university town, Tartu is a city of young people (figure 5). The former analyses, however, have proved that the in-migration to Tartu due to its role in the country's higher education landscape is a 'zero-sum game' (Tammaru et al 2015c): as many young people as the city attracts (to acquire their education here) it also loses some years later due to the lack of opportunities for highly educated persons in local labour market. The future population development of the city depends on the ability to compete in the market of higher education in Estonia and increasingly also world-wide as well as on the capacity of urban economy to avoid graduated people leaving the city in the beginning of their employment career.

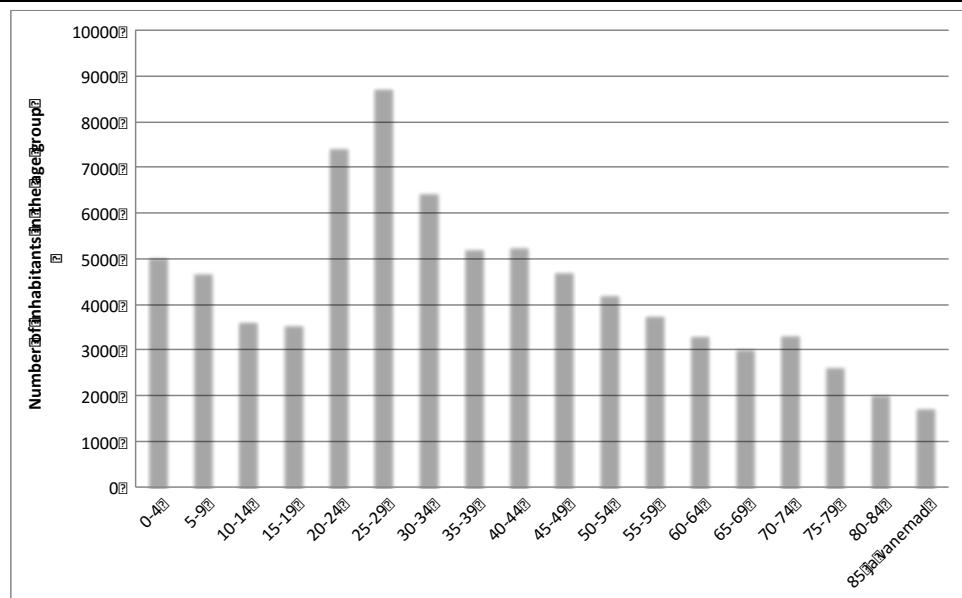


Figure 5. Age composition of the population of Tartu in 2015.

Source: Estonian Statistical Office.

The natural population development (figure 6) also determines the population development, but in case of Tartu it is strongly related to the migration balance. The rate of natural increase declined sharply in parallel to economic recession of the early transition years and recovered slowly by the beginning of the 2000s. The sharp changes in the natural population development reflect the changing demographic behaviour in general. Namely, the so-called second demographic transition occurred, for example the average childbearing age had increased and in combination of economical uncertainties some families postponed the age of having their babies. Later, in the 2000s, the social benefits for families (e.g. the mother's salary) also contributed to higher birth rates. In

case of Tartu the migration and natural population development trends interact: the children that are born here often leave the city together with their young parents who wish to improve their labour market position.

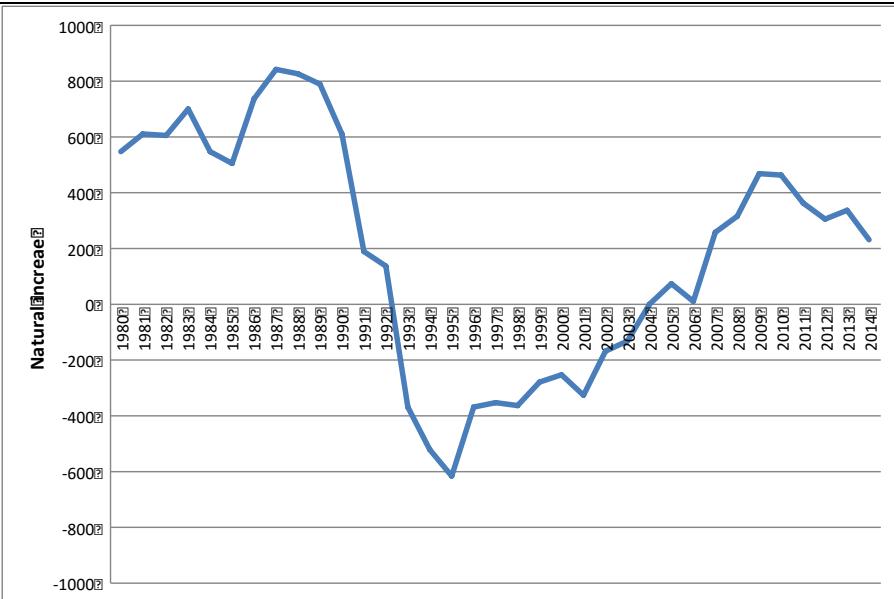


Figure 6. Natural population increase in Tartu county (approximately the Tartu Urban Region) in late Soviet period and in the postsocialist decades. Source: Estonian Statistical Office.

We may conclude that the decisive factors for Tartu to ensure a stable population development is its ability to offer attractive living and working environment to young population groups with a relatively higher educational level and for those who are at the age of choosing a place to spend their university years. During last decades the character of the city of Tartu has changed from a late-Soviet industrial and military town to a culturally alive university town with growing IT and creative industry sectors. In the 2000s and later remarkable public and private investments have been made into city centre and its public spaces. The University of Tartu and other higher education institutions have remarkably improved their learning and research environment. Many urban residential districts have experienced or are currently witnessing gentrification, included gentrification via studentification. In urban rental market small apartments are in high demand. We presume that this also stabilizes somewhat the housing estate areas that are mostly witnessing aging process in the postsocialist cities, especially those parts of Annelinn-Jaamamõisa district that are located closer to the city centre.

Next we will give an overview of the methods, data and materials used in analytical part of this research project.

2. ANALYTICAL PART

2.1. Data and methods used in the analysis

2.1.1. Structure of the analysis

The analytical part of our analysis consists of two subchapters. First (2.2.) we analyse socio-demographic changes in Annelinn-Jaamamõisa and compare these changes with the recent developments in other types of urban districts of the city of Tartu in its suburban area. In addition, we analyse the dynamics in housing construction and residential mobility and the way how it has influenced the population composition of the Annelinn-Jaamamõisa district. In the second subchapter (2.3.) we give an overview of the planning approaches applied in large housing estate districts since the period the areas were established in the Soviet period until today. As regards the contemporary planning, our case study district Annelinn-Jaamamõisa serves here as a best practice example, many lessons learned here could potentially be applied more widely in other similar urban areas.

2.1.2. Individual-level data of 2000 and 2011 Censuses

We analyse population changes in Annelinn-Jaamamõisa based on anonymous 2000 and 2011 census data. Two census databases (2000 and 2011) are linked on individual level. We have a broad picture of the population and housing situation at two points in time and the longitudinal design of the database allows us to follow the same individuals over the inter-census period (where each person lived in both years and where he/she has moved). This also enables to analyse the socio-demographic changes in all neighbourhoods of Tartu Urban Region (the city and the suburban ring of Tartu: Figure 8) and the residential mobility between the neighbourhoods in the period 2000 and 2011. Special attention is on the district of Annelinn-Jaamamõisa. Tartu Urban

Region (TUR) is here defined as the municipalities around Tartu from where at least 30 percent of the working population commuted daily to the city in 2011. In some cases we also use annual population statistics but due to the shortfalls in administrative registration practices the quality of annual statistics is always not sufficient.

2.1.3. Neighbourhood types used in the analysis – the results of clustering

We also divided Tartu into different neighbourhood types and for that purpose we used cluster analysis. Cluster analysis is a method which aims to classify a sample of subjects (or objects) on the basis of a set of measured variables into a number of different groups such that similar subjects are placed in the same group (Cornish 2007).

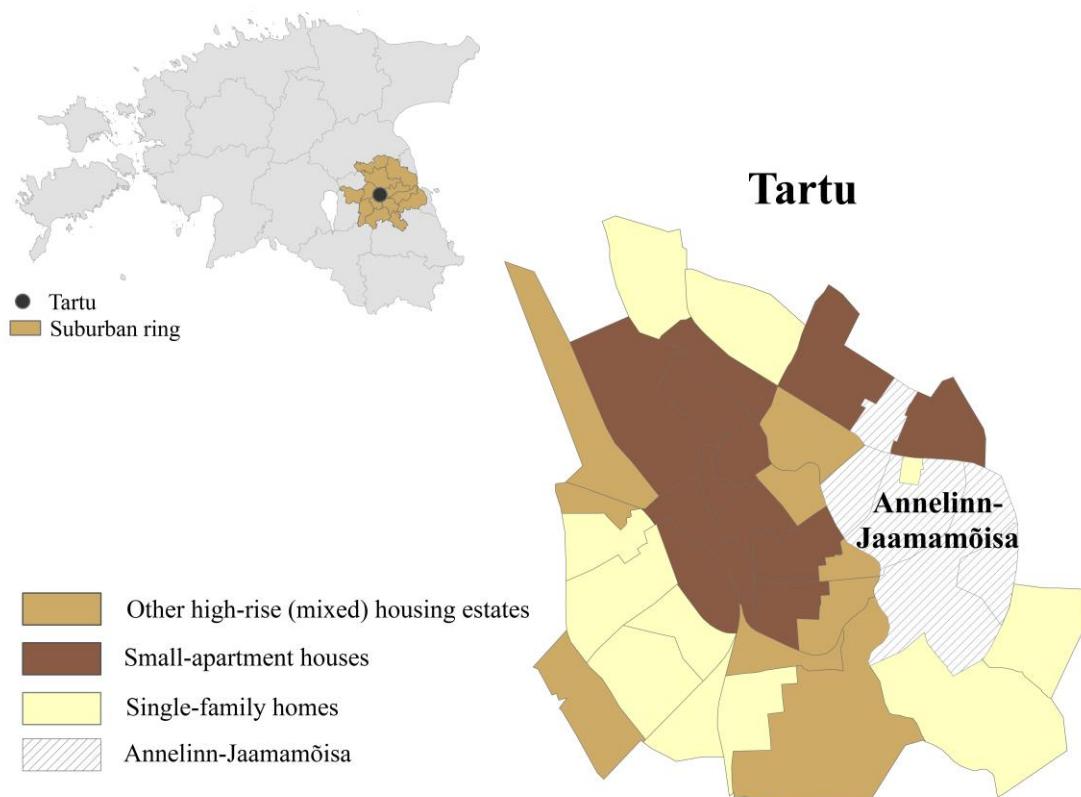


Figure 8. Tartu urban region and different types of neighbourhoods in Tartu

To distinguish the variation in neighborhoods (in 2011), K-means cluster analysis were used to classify 39 Tartu neighbourhoods into homogeneous neighborhood types on the basis of similarities and dissimilarities in the values of different variables which usually determine why people move to certain urban districts. These variables covered the

following aspects: spatial environment (the size of the dwelling, the age of the dwelling and the type of the dwelling), ethno-cultural environment (share of Russian-speakers in the neighbourhood), socio-economic characteristics (share of unemployed people, share of people with higher education, share of people with high occupational status) and demographic variables (household size, mean age of people).

An examination of the results of the analysis revealed three clusters to be optimal for our further steps of analysis. The neighbourhood type (cluster 1) is characterized mainly by people's high socio-economic status and older buildings (high share of pre-war houses, mostly smaller wooden apartment houses). The second type of neighbourhoods (cluster 2) is characterized by high-share of Russian-speakers, dwellings mainly built between 1945–1990 (high share of high-rise housing) and lower socio-economic status among the inhabitants (compared to other neighbourhood types). The third neighbourhood type (cluster 3) is characterized by bigger households, higher socio-economic status and more spacious dwellings. We named these different neighbourhood types by the most visible characteristic—type of housing: cluster 1 to a neighbourhood type of 'small-apartment houses', cluster 2 to 'other high-rise (mixed) housing estates' and cluster 3 to 'single-family homes' (see Figure 3). In addition to these three urban clusters we added the 'suburban ring' as the fourth type of neighbourhood (cluster 4) to our further analyses.

Our case study district Annelinn-Jaamamõisa belongs to the neighbourhood type of high-rise housing estates. However, since the focus of this study is on Annelinn-Jaamamõisa, we observe the Annelinn-Jaamamõisa district and other high-rise housing estate areas in the city separately.

2.1.4. Desk research and the critical analysis of the planning process

In the second analytical subchapter we show how the modernist planning principles and socialist housing policies interacted in the Soviet years, how the complete withdrawal of the public sector left these areas into the fluctuations of the market forces in the 1990s, and how two decades later, under the fear of ghettoization, public sector and professional architects and urban planners are again discovering these districts. We use

various information sources for this analysis. As a first step, we carried out desk research. Using the principles of discourse analysis we worked with historical planning documents, with the writings and essays written and published by or about Soviet-era urban planners, and with writings of contemporary urbanists who are critically looking back to the socialist period. To analyse contemporary planning initiatives we use the process analysis principles. This means that we have also personally been involved into the recent discussions on the future of free-plan residential districts (large housing estates) in Estonia and in Tartu. We have collected the materials and notes from different events within last 5 years and in this report we systematized this information to critically estimate how the planning principles have changed over time. To confirm our generalizations, we have carried out 13 expert interviews with policy makers in Tartu, professional urban experts and activists influencing the policy making and planning process in Annelinn-Jaamamõisa and other large housing estates in Estonia, and with local community activists related to Annelinn-Jaamamõisa. In this report we use more directly four expert interviews: with the current Chief City Architect of the City of Tartu; with the coordinator of the vision competition “Public and activity spaces of Annelinn” (2014-15); with one of the leading architects in Estonia who has organized a series of seminars “Stone City Forums” in 2011 and who has been involved in many other actions and discussions related to the planning of housing estates; and with an urban activist who has recently initiated many events to encourage citizens’ participation in the largest housing estate area of Estonia, Lasnamäe in Tallinn. Other interviews as well as discussions during meetings and seminars with local planners and urbanists supported the research process, also the publications for international and Estonian audiences became reflected and discussed by the local planning community. As such the interactive research process also turned out to be a learning process – many reflections improved our interpretations and helped to compile the policy recommendations.

2.2. Socio-demographic changes, residential mobility and construction activities

2.2.1. Population changes in Annelinn-Jaamamõisa and in the Tartu Urban Region between 2000–2011

2.2.1.1. Population decline

According to 2000 and 2011 censuses, the population of Tartu Urban Region (TUR) increased from 135.671 in 2000 to 138.254 in 2011 (Table 3). At the same time the population of the city of Tartu has declined by 3663 people (almost 4 percent) between 2000 and 2011. As mentioned earlier, the population decline in Tartu mainly relates to the negative migration balance (the natural population increase of Tartu has been positive since 2003 (Tartu Development Plan 2011). When we observe the population trends in different neighbourhood types (classification created as a result of cluster analysis) in the city, we can see that the population decline has been the biggest in our case study district Annelinn-Jaamamõisa (by more than 4000 people or 12 percent). Many factors in combination have contributed to this decline: aging, shifts in residential preferences, decreasing household size and also the nature of Annelinn-Jaamamõisa district as a springboard for younger households who tend to spend only short period of their lives here (e.g. as students in rental apartments, or as young households in the beginning of their housing career). There was also a slight decline in population in the neighbourhood type of small-apartment houses, and small increase occurred in the neighbourhood type of high-rise (mixed) housing estates (other smaller housing estate districts in the city). Somewhat bigger increase in population numbers took place in the urban single-family home district (by more than 500 people, 3 percent), and the suburban ring experienced the fastest growth — 18 percent. Thus, in the context of the urban region and different residential environments that it contains, Annelinn-Jaamamõisa is clearly the declining type of district. The urban households tend to decline and people's preferences more and more shift from high-rise apartment houses to suburban low-rise and green environment, or to other today more popular less dense (with wooden smaller apartment houses or single-family houses) urban neighbourhoods.

Table 3. Population change in Tartu Urban Region by neighbourhood types

	2000	2011	Change	Change, %
Tartu urban region	135 671	138 254	2 583	1,9

Suburban ring	34 516	40 731	6 215	18,0
Tartu	101 155	97 492	-3663	-3,6
...Annelinn-Jaamamõisa	33 405	29 366	-4039	-12,1
...Other high-rise (mixed) housing estates	21 702	21 777	75	0,3
...Small-apartment houses	26 843	26 597	-246	-0,9
...Single-family homes	19 205	19 752	547	2,8

2.2.1.2. Changes in ethnic composition of population

As regards the population change in TUR by mother tongue (Table 4), the number of Estonian-speakers has increased between 2000 and 2011. This absolute increase occurs only in suburban ring and within the city also the number of Estonian-speakers has decreased (by 1026 persons). In relative terms, however, the percentage of Estonian-speakers has increased in city. The absolute numbers of Russian-speakers and people with other mother tongues have decreased in TUR in general and also in the city of Tartu, but slightly more Russian-speakers live in the suburban area in 2011 compared to the year 2000. Still the growth of suburban population is more related with Estonian suburbanizers. In sum, Tartu Urban Region in general and also the city of Tartu have become more Estonian between 2000 and 2011. As mentioned earlier, this seems to be a natural process, since no considerable new immigration has occurred since the beginning of the 1990s and the well-established Russian-speaking minority has developed contacts with Estonians: a generation change gradually occurs, people become intermarried, some families decide to spend their kids to Estonian schools, this also causes change in people's ethnic identity and the choice of everyday language.

Table 4. Population change in Tartu urban region by mother tongue

	Tartu Urban region	%	Suburban ring	%	Tartu	%
2000						
Estonian-speakers	111 677	83	31 783	92,4	79 894	79,3
Russian-speakers	21 067	15	2225	6,5	18 842	18,7
Other	2365	2	394	1,1	1971	2,0
2011						
Estonian-speakers	112 825	84,1	33 957	92,5	78 868	81,0
Russian-speakers	19 260	14,4	2500	6,8	16 760	17,2

Other	2015	1,5	266	0,7	1749	1,8
<i>*missing values excluded (mother tongue unknown)</i>						

Focusing now more on different neighbourhood types within the city (Figure 9), we can see that almost 30 percent of Estonian-speakers live in small-apartment houses in both census years. The share of Estonians living in other high-rise (mixed) housing estates or in single-family homes have increased slightly, whereas the share of Estonian-speakers who live in Annelinn-Jaamamõisa has decreased (for 4 percent points). At the same time, when more than a half of Russian-speakers living in Tartu reside in Annelinn-Jaamamõisa in 2000, in 2011 they concentrate even more into this largest housing estate area of the city. Thus, while the urban region and the city itself turn more Estonian, the district of Annelinn-Jaamamõisa turns more Russians. We can assume that Russian-speakers prefer to stay or to move to Annelinn-Jaamamõisa district because there they can enjoy their own-language social networks and educational infrastructure. Thus, although socio-culturally clearly two groups clearly become closer, spatially the groups with Russian mother tongue tend to segregate. Still, in 2011, compared to the year 2000, Russian-speakers also slightly more live in single-family homes and slightly less in all other apartment housing (or mixed) districts.

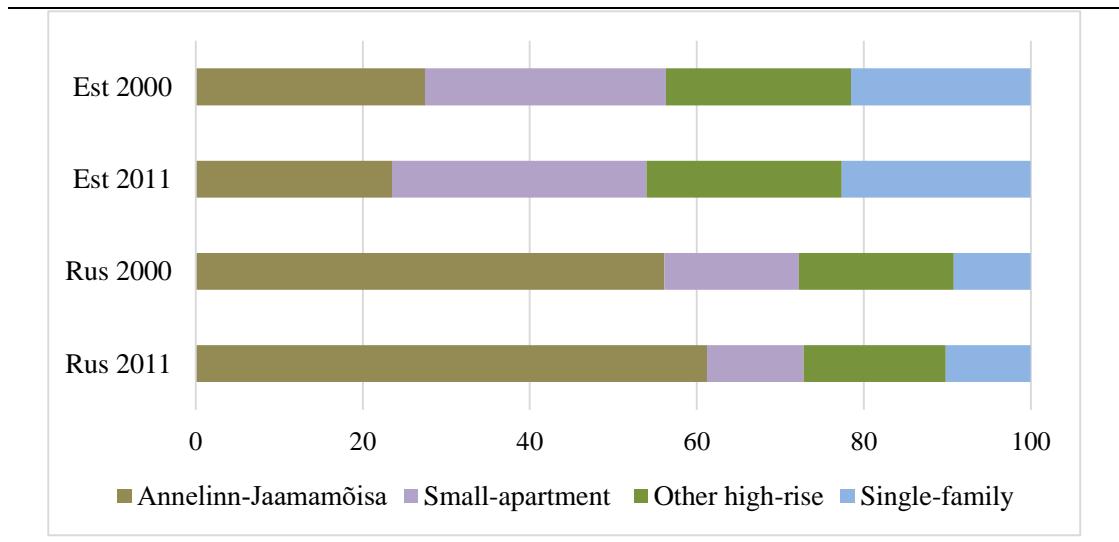


Figure 9. The share of Russian (Rus)- and Estonian (Est)-speakers in the neighbourhood types of the city of Tartu in 2000 and 2011. Source: 2000 and 2011 Censuses.

2.2.1.3. Changes in age composition of population

Clear changes have occurred in the age composition of the observed neighbourhood types. The mean age of the residents of Tartu has increased slightly between 2000 and

2011, from 37 to 38 years (Figure 10). It has also increased in most of the observed neighbourhood types, but the increase is most remarkable in Annelinn-Jaamamõisa (by 3,2 years). However, it is not the case in all neighbourhood types. The mean age has decreased in the neighbourhoods of small-apartment houses (from 37,6 to 35,6), and in suburbs. This reflects the ongoing aging of urban population; only gentrifying inner city districts and suburban areas outside the city become younger. Interestingly also single-family home districts within the city (many of them built in Soviet years) are aging. This is so probably because these single-family home areas are relatively expensive for middle-class families compared to suburban new houses.

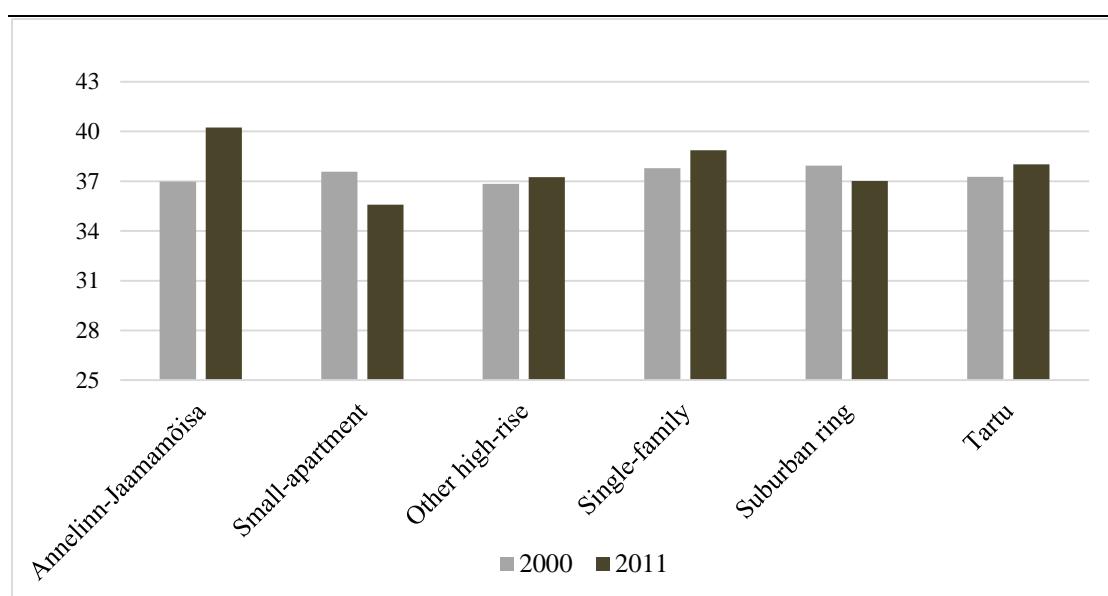
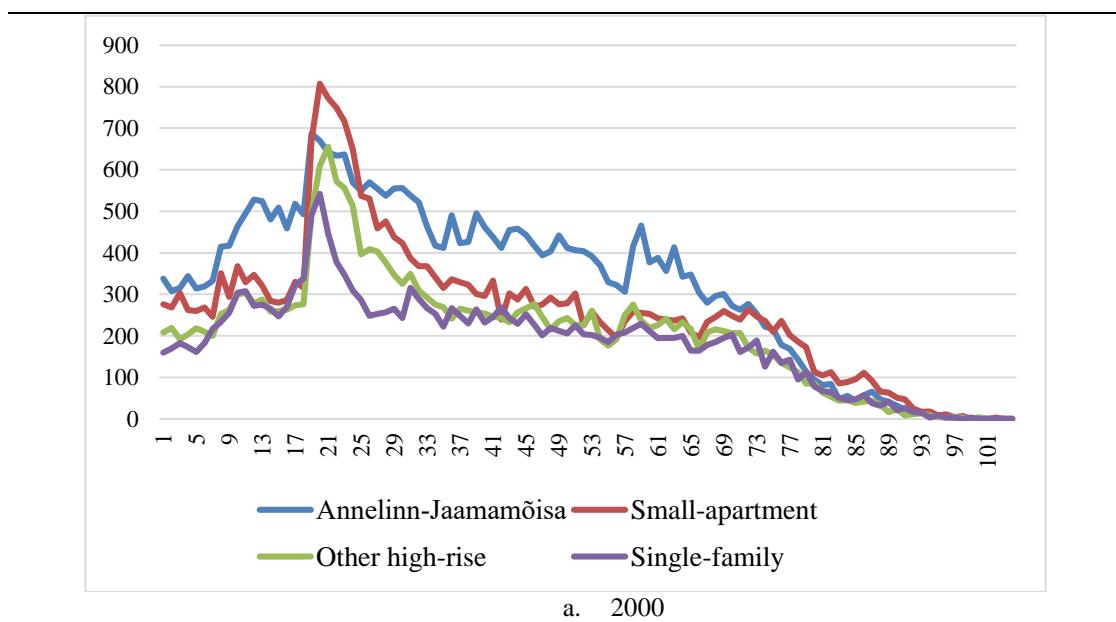


Figure 10. Mean population age in the neighbourhood types of the Tartu Urban Region, in 2000 and 2011. Source: 2000 and 2011 Censuses.

Figure 11 provides a more detailed overview of the age distribution in different neighbourhood types within the city. The number of school age children has declined considerably in Annelinn-Jaamamõisa in the 2000s (Figure 9a and 9b). The same could be said for people in family ages, they have either become older or moved out from the district. In 2000, when the societal changes only started to become printed into urban space, the number of families with school age children was still considerable in Annelinn-Jaamamõisa. A rather diverse and stable age structure characterized the age composition of Annelinn-Jaamamõisa then. The selective in- and out-migration has changed the population composition since. Besides aging process the process of studentification has influenced the population composition recently —students

searching affordable rental apartments and young households entering the housing market choose to live here for a short period. It seems that other smaller housing estate areas in the city suffer less from similar aging tendencies, but they also seem to be attractive for students and young households. While studentification seems to be a general trend in Tartu as the university city, inner city gentrification districts seem to attract recently also younger households with small children. As was already mentioned, the population of single family home districts within the city border is also relatively old; the preferences towards new single family homes probably rather move to new suburban settlements, as the plots within the city are considerably more expensive and a generation who had the opportunity to build their single-family homes in the Soviet period still lives there. As regards Annelinn-Jaamamõisa the future seems to be a stable neighbourhood for elderly who do not want to move out from their accustomed environment paralleled with high turnover of students and young households who use the district as a springboard for further housing career. This is in accordance with the trends elsewhere in Central and Eastern European cities (Kovacs and Herfert 2012) where the housing estates seem to be an irreplaceable segment of urban housing markets in the foreseeable future.



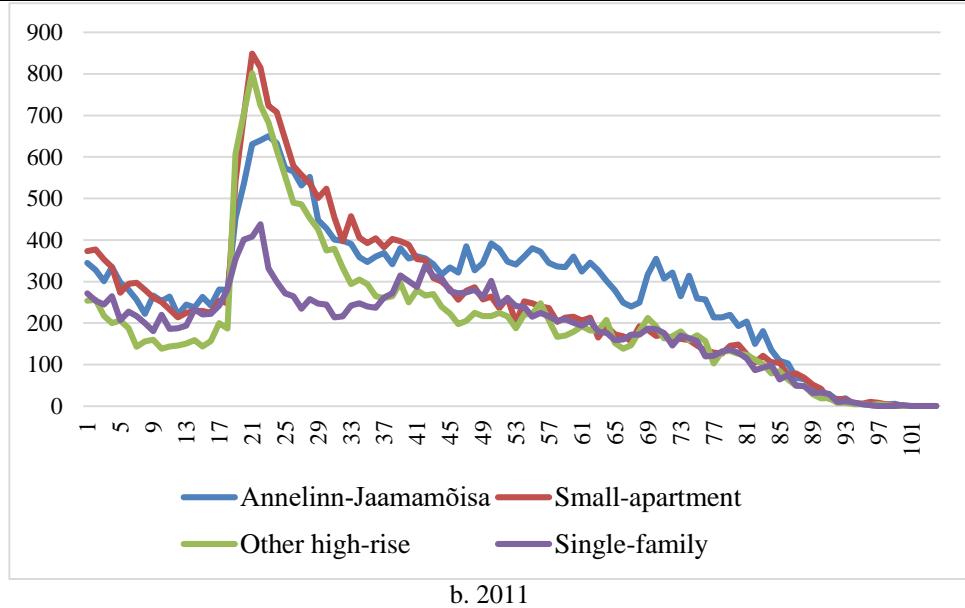


Figure 11. Age distribution of population in the neighbourhood types of Tartu, in 2000 and 2011.

Source: 2000 and 2011 Censuses.

2.2.1.4. Changes in educational composition of population

Figure 12 reflects the ‘professionalization’ (universalization of higher education) process that has taken place in Estonia in general. The proportion of people with higher education has increased in all neighbourhood types of Tartu Urban Region. In suburban ring the proportion of university educated people was the lowest in the end of the socialist period. This was so in most of the socialist cities, because professionals as a rule were able to ‘navigate’ well in socialist apartment distribution systems and they therefore mostly lived within the cities. Still in 2000, only 9 percents of inhabitants in suburban neighbourhoods were with higher education. This increased very fast to 17 percent by the year 2011, but despite intensive suburbanisation it still remained lower than in urban neighbourhoods (Figure 10).

Within the city the increase was the fastest in the neighbourhood type of small-apartment houses and the slowest in Annelinn-Jaamamõisa. In the end of the socialist period and also still in 2000 the educational composition of Annelinn-Jaamamõisa was similar to that of other neighbourhood types. Partly this could be explained with the aging process taking place in the district, as the professionalization rather characterizes younger age groups who tend to prefer other neighbourhoods today. The ongoing

residential mobility however contributes to the socioeconomic degradation of this district. The process is slow and it would be exaggerated to talk about extreme social decline, but the direction of the process is clear and probably irreversible. In 2011, the differences in educational composition of neighbourhoods' population are already remarkable.

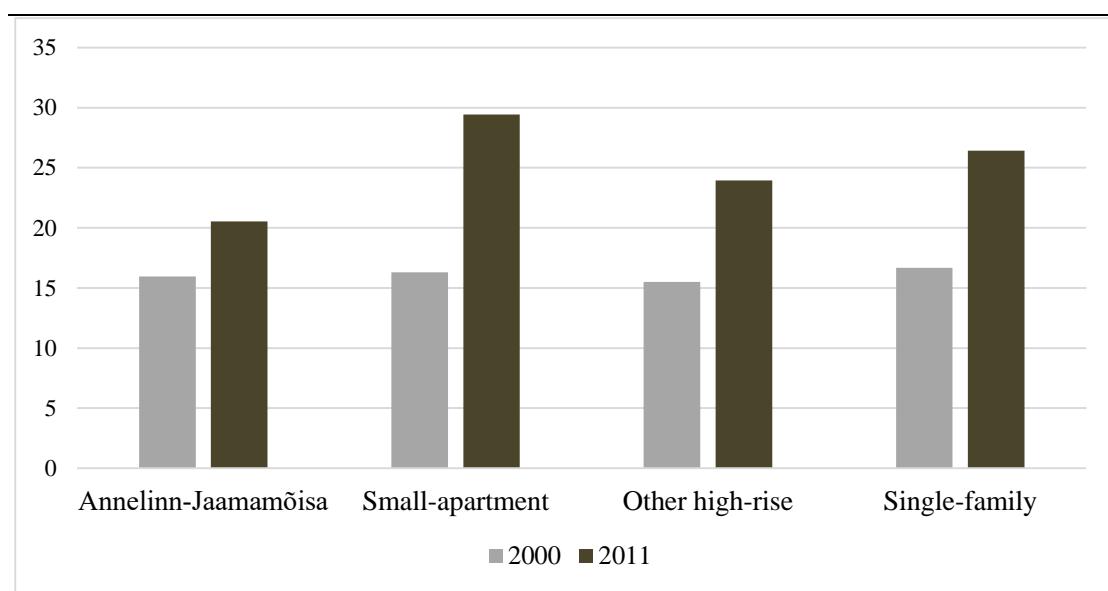


Figure 12. The share of people with higher level of education in the neighbourhood types of Tartu, in 2000 and 2011. Source: 2000 and 2011 Censuses.

2.2.1.5. Changes in occupational composition of population

To study changes in the occupational composition over time we use occupational pyramids (based on the categories of ISCO-88: International Standard Classification of Occupations) (see also Marcinczak et al 2015). These pyramids also show the ongoing 'professionalisation' process that has taken place in the whole region (Figure 13a and 13b), in Tartu (Figure 13c and 13d) and somewhat less also in Annelinn-Jaamamõisa (Figure 13e and 13f) between 2000 and 2011. Although the expansion of the 'professionals' category has been the most visible, we can see also the shrinkage of the 'low-status' group (ISCO 5-9 plus unemployed). However, while the changes during the decade in Annelinn-Jaamamõisa are compared to the changes in urban region and in the city of Tartu in the same period, we can see that the share of 'high occupations' (ISCO 1-2) became considerably lower and the share of 'low occupations' higher there.

In 2000 the shape of occupational pyramids of the TUR, Tartu and Annelinn-Jaamamõisa were quite identical. By 2011, the occupational composition of Annelinn-Jaamamõisa was very different from the rest of the city and region already. Therefore, during 2000-2011 low-status groups get more over-represented in our case study district and this process confirms the slow trend of social decline.

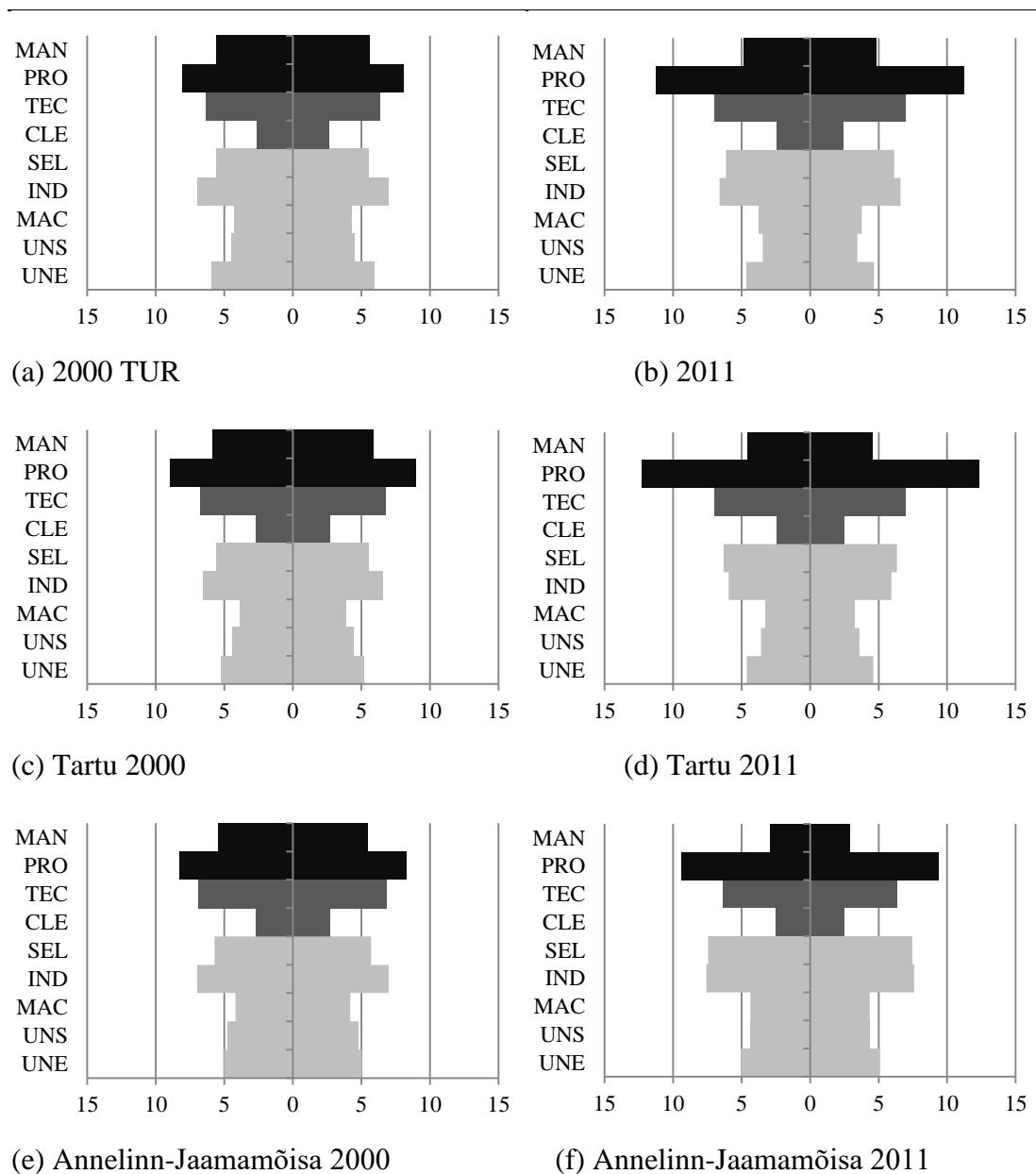


Figure 13. Occupational pyramids for ISCO occupational groups and unemployed in 2000 and 2011 in Tartu Urban Region, in the city of Tartu and in the Annelinn-Jaamamõisa district. Source: 2000 and 2011 Censuses.

Note: MAN – managers, PRO – professionals, TEC – technicians and associate professionals, CLE – clerical support workers, SEL – service and sales workers, IND – craft and related trades workers, MAC – plant and machine operators, and assemblers, UNS – elementary occupations, and UNE - unemployed

2.2.2. Dynamics in housing construction in Tartu urban region and Annelinn-Jaamamõisa

Today, 25 years after the collapse of the Soviet regime, the housing stock of the city still mostly reflects the residential landscape that emerged during the years of fast urban growth 1944–1991. Most of the people in Tartu still live in dwellings built in the Soviet period (Figure 14). Only in the cluster of neighbourhoods with predominantly small apartment houses the proportion of pre-War housing is today higher than socialist-era dwellings. The district of Annelinn-Jaamamõisa is characterized almost exclusively by high-rise apartment blocks built in the Soviet period and almost 90 percent of people in Annelinn-Jaamamõisa today live in those dwellings. The city has experienced modest infill development after Soviet period and so has Annelinn-Jaamamõisa. This has brought also small segment of newer apartment houses to few free plots in the district for people who do not want to leave but prefer newer apartments.

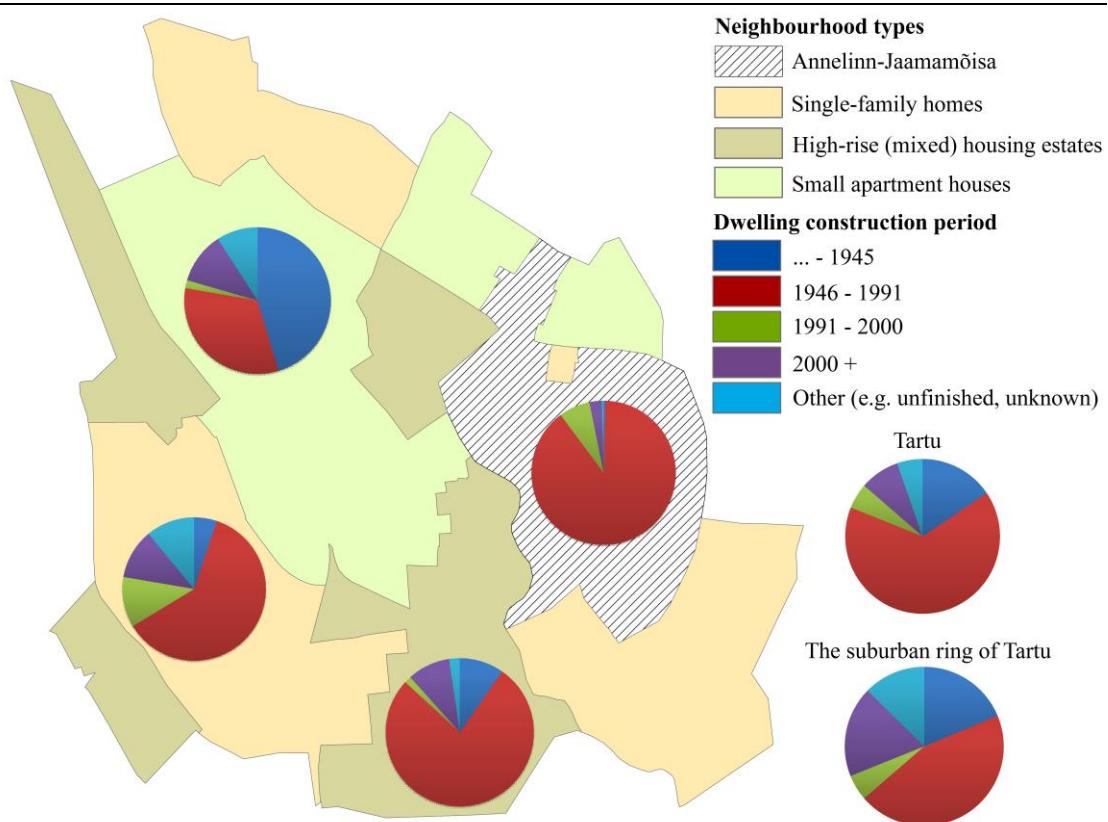


Figure 14. Proportion of residents by the age of their building in the neighbourhood types of Tartu and in the suburban ring. Source: 2000 and 2011 Censuses.

In the formerly mostly agricultural areas around the city suburban detached housing construction has been active (mainly in the 2000s); also other neighbourhood types within the city have experienced more construction activities in the 2000s than Annelinn-Jaamamõisa. Thus, other clusters of neighbourhoods are gradually experiencing renewal process, but in large housing estate districts, especially in Annelinn-Jaamamõisa, the housing stock becomes older.

It also appears (Figure 15) that almost 85 percent of dwellings built in the city of Tartu in 1990s were built in two neighbourhood clusters — Annelinn-Jaamamõisa and single-family home areas. In Annelinn-Jaamamõisa the housing construction was still relatively intensive because many of the formerly started blocks of houses were finished and registered in the building register only in the early 1990s. In the end of the first transition decade already suburbanisation into single-family homes started in two forms: building a new house or renovating one's former summer home (not meant for permanent living in the Soviet period). In the 2000s the situation changed; 41 percent of new dwellings were now built in the neighbourhood type of small-apartment houses and 28 percent in the high-rise (mixed) housing estates district. This refers to the trend of densification of urban space (new projects were added as infills). Annelinn-Jaamamõisa district experienced much less intensive housing construction in the 2000s than in earlier decades. New apartment houses were built only in some vacant plots within the former unfinished mikrorayon or as the extensions of the district (only 11 percent of all dwellings built in the city in the 2000s). Although this somewhat improved socio-economic composition of the district, it also occupied free green areas around the housing estate that were formerly planned for recreation purposes.

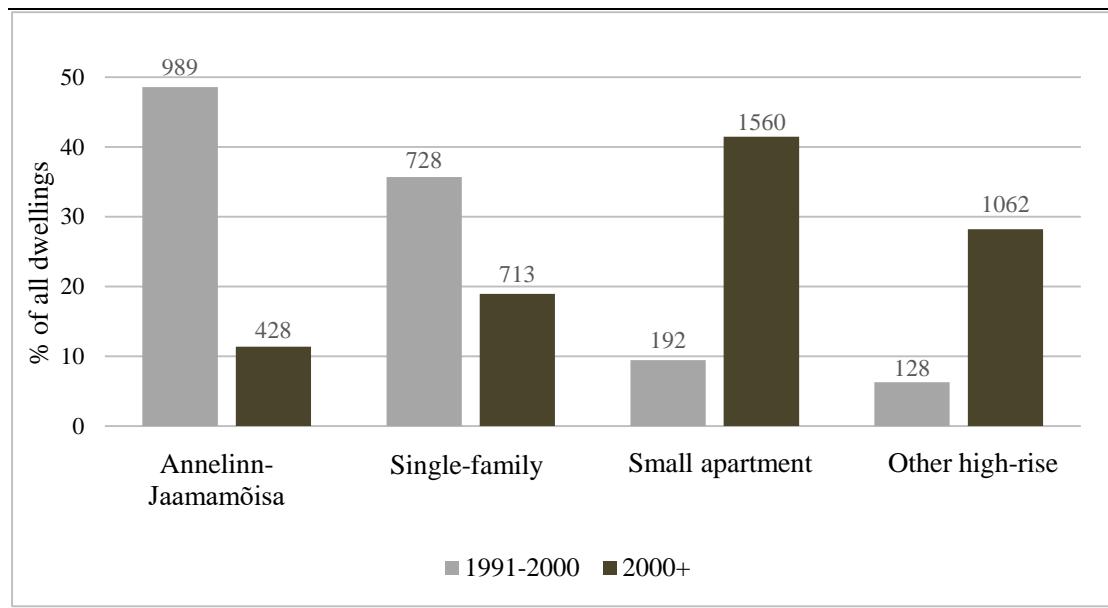


Figure 15. The share and the number of dwellings built in different neighbourhood types of Tartu in 1990-2000 and after 2000. Source: 2000 and 2011 Censuses.

We conclude that a renewal of the urban residential environments is much more active in all other neighbourhood classes than in the Annelinn-Jaamamõisa district. Annelinn was a new district by the early 1990s. Also the socio-demographic composition was stable and diverse then. Later, however, the residential preferences have been changing considerably and people also have realistic economic opportunities today to realize their preferences. The main competitors for Annelinn-Jaamamõisa are suburban areas and the class of neighbourhoods with smaller and more cosy apartment houses within the city but increasingly also behind the city border.

2.2.3. Residential mobility related to Annelinn-Jaamamõisa

The more detailed analysis of residential mobility and migration directions confirm that the prevailing migration trend is directed towards the suburban ring from all classes of neighbourhoods in Tartu (Table 5). In addition, the urban districts of small-apartment houses, high-rise (mixed) housing estates and single-family homes also grow as a result of migration and residential mobility. At the same time, the population of the district of Annelinn-Jaamamõisa decreases a lot (net migration -2585) as a result of people moving.

Annelinn-Jaamamõisa mainly loses its population to suburban ring of Tartu and to the neighbourhood type of single-family homes located within the city. This again shows the nature of Annelinn-Jaamamõisa as a springboard district for young households in the beginning of their housing career (while creating families, they need more spacious dwellings and tend to leave). Annelinn-Jaamamõisa gains population only from other high-rise (mixed) housing estates district and from the rest of Estonia (students coming to Tartu). The housing stock of Annelinn-Jaamamõisa is quite similar to the district of other high rise housing estates (mixed), but still, many people prefer Annelinn-Jaamamõisa. This might be so because some subdistricts of it are located very close to the city centre and are therefore attractive for young people (e.g. students coming from other regions of the country who prefer to stay close to university buildings and facilities), but also as Russian-speakers prefer to move close to the own-culture environment and infrastructure.

Table 5. Migration flows between Tartu neighbourhood types, Tartu suburban ring and the rest of Estonia, 2000-2011. Sources: 2000 and 2011 Censuses

	To Annelinn- Jaama- mõisa	To small- apartment	To other high-rise	To single- family	To suburban ring	To rest of Estonia
From Annelinn-Jaamamõisa		318	-335	1060	1917	-375
From small-apartment	-318		-85	380	1060	-1952
From other high-rise	335	85		367	976	-2688
From single-family	-1060	-380	-367		586	316
From suburban ring	-1917	-1060	-976	-586		-792
From rest of Estonia	375	1952	2688	-316	792	
Net migration	-2585	915	925	905	5331	-5491

Table 6. Migration directions of Estonian- speakers between Tartu neighbourhood types, Tartu suburban ring and the rest of Estonia, 2000-2011. Sources: 2000 and 2011 Censuses

	To Annelinn- Jaama- mõisa	To small- apartment	To other high-rise	To single- family	To suburban ring	To rest of Estonia
From Annelinn-Jaamamõisa		558	5	952	1544	-617
From small-apartment	-558		-108	332	934	-2032
From other high-rise	-5	108		304	874	-2510
From single-family	-952	-332	-304		552	229
From suburban ring	-1544	-934	-874	-552		-775
From rest of Estonia	617	2032	2510	-229	775	
Net migration	-2442	1432	1229	807	4679	-5705

Table 7. Migration directions of Russian-speakers between Tartu neighbourhood types, Tartu suburban ring and the rest of Estonia, 2000-2011. Sources: 2000 and 2011 Censuses

	To Annelinn-	To small- apartment	To other high-rise	To single- family	To suburban ring	To rest of Estonia

	Jaama-mõisa					
From Annelinn-Jaamamõisa	0	-219	-321	103	356	245
From small-apartment	219	0	30	40	111	66
From other high-rise	321	-30	0	53	91	-188
From single-family	-103	-40	-53	0	25	76
From suburban ring	-356	-111	-91	-25	0	-22
From rest of Estonia	-245	-66	188	-76	22	0
Net migration	-164	-466	-247	95	605	177

Table 8. Migration directions of people with higher level of education between Tartu neighbourhood types, Tartu suburban ring and the rest of Estonia, 2000-2011. Sources: 2000 and 2011 Censuses

	To Annelinn-Jaama-mõisa	To small-apartment	To other high-rise	To single-family	To suburban ring	To rest of Estonia
From Annelinn-Jaamamõisa	0	180	78	333	356	354
From small-apartment	-180	0	-109	68	167	133
From other high-rise	-78	109	0	160	226	177
From single-family	-333	-68	-160	0	113	116
From suburban ring	-356	-167	-226	-113	0	-20
From rest of Estonia	-354	-133	-177	-116	20	0
Net migration	-1301	-79	-594	332	882	760

The suburban ring is the main migration destination both for Estonian- and Russian-speakers (Table 6, Table 7) living in Tartu, whereas Annelinn-Jaamamõisa is the main donor-district. The migration of Estonian-speakers is also directed to other neighbourhood types within Tartu, and Annelinn-Jaamamõisa loses gradually its Estonian-speaking population. In addition to the suburban ring, Russian-speakers also move more to the neighbourhood type of urban single-family homes and also to other regions of Estonia. However, when we focus on the residential mobility of Russian-speakers inside Tartu, then we can see that Annelinn-Jaamamõisa gains population from other neighbourhood types except from the neighbourhood of single-family houses. Thus, compared to Estonian-speakers, more Russian-speakers move towards Annelinn-Jaamamõisa and we can say that residential mobility contributes of making the district more Russian.

As expected, the main migration destination of people with higher level of education is the suburban ring of Tartu (Table 8). They also move to the rest of Estonia, mostly because Tartu is not able to offer enough high-qualification jobs to people who graduate here, and also to the most expensive neighbourhood type of single-family homes within the city. Annelinn-Jaamamõisa loses the people with higher level of education the most (net migration -1301), which again confirms that residential mobility contributes to the

gradual socioeconomic degradation of Annelinn-Jaamamõisa, even when the situation today is still stable.

Our analysis allows to conclude that the neighbourhoods started to change fastly in the 2000s when residential mobility intensified considerably. The economic crisis in the late 2000s brought some corrections to these trends, but the shortage of contemporary housing and increase in households' incomes are currently further encouraging selective in- and out-migration from Annelinn-Jaamamõisa. We now turn to planning approaches and urban policies applied in Annelinn-Jaamamõisa in different historical periods, to understand to what extent public policies could intervene into the ongoing but slow social decline.

2.3. Planning approaches applied in Annelinn-Jaamamõisa

2.3.1. Initial planning approaches in the socialist period

Planning history of the two subdistricts — Annelinn and Jaamamõisa — of our case study area is somewhat different. Jaamamõisa subdistrict (17 five-storey blocks of flats) was built by military forces since the 1970s until the early 1990s (Mällo 1995). City administration and urban planners did not have a considerable influence on how this subdistrict was organized and designed. Annelinn, however, as many other socialist large housing estates, is carefully planned by the best architects of that time. Tartu had already experienced first experiments of socialist high-rise architecture in the 1960s as infills close to the city centre on areas with severe war damages. Yet, the intensive population growth called for a more extensive solution. Establishing new larger master planned residential areas was the trend of the era in many cities experiencing fast industrialization / militarization and population increase.

The competition to plan Annelinn was launched in 1969. The first general plan (master plan) was compiled by the year 1971 according to the vision of the architects Malle Meelak and Mart Port who won the II prize. Their team had played a key role in many other major planning projects in Estonian cities in 1960s and 1970s. For example, they participated already in the process of planning Mustamäe urban district (1968), the first larger housing estate area in Tallinn. Among their other major contributions to

modernist residential architecture is Väike-Õismäe (1968–78, Tallinn) housing estate area (a unique large housing estate area planned around a circular avenue), Keldrimäe (1970, Tallinn) in the middle of historical housing area, II and III *mikrorayon* of Lasnamäe (1972–78, Tallinn), Paalalinna and Männimäe (1972–76, Viljandi). With this portfolio they were the leading architects of the time and brought many progressive planning ideas to Tartu as well. Many contemporary architects argue that compared to other similar district, the master plan of Annelinn is among the best solutions of the time (e.g. Interview with Chief City Architect T. Arjus, 2015).

Initially, in the general plan of Meelak and Port (1971) 4 *mikrorayons* were planned in Annelinn. The most important spatial features were the separation of motorized transport from pedestrian roads (see the figure 16a). The larger streets were supposed to be outside of the immediate residential environment, only three streets on north-southbound axis were planned for cars to enable access to *mikrorayons*. In the middle of the district a larger west-eastbound pedestrian axis connected all *mikrorayons*. Three smaller pedestrian rays (in the middle of the *mikrorayons* between the car streets) crossed the axis and were directed to the waterfront where a large community park with public buildings and facilities was planned. In the initial plan these pedestrian rays were supposed to continue with pedestrian bridges to enable crossing the larger street safely and ensure a good access from housing area to the greenery and community facilities by the river. Schools, kindergartens and shops, and other facilities that people needed to visit daily, were planned closer to the houses, within *mikrorayons*. Children were supposed to have an opportunity to walk to schools without crossing major roads. According to union-wide rules, *per capita* norms were applied on how many school and kindergarten places, square metres for shopping, tables in restaurants and canteens, square meters of recreational facilities had to be built in the *mikrorayon* or nearby. For many facilities a maximum catchment radius was determined. This all had to contribute to a walkable and self-contained residential district with all the necessary daily social infrastructure nearby the homes.

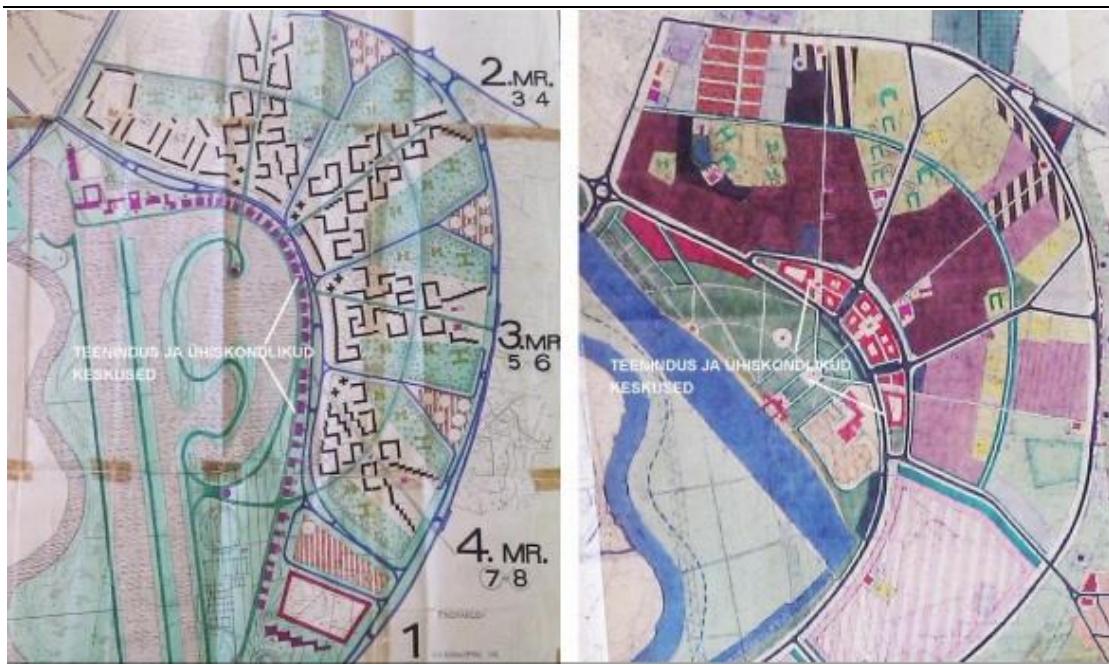


Figure 16a. The 1971 General Plan of Annelinn (M. Meelak and M. Port)

Figure 16b. The 1988 Correction of the General Plan of Annelinn (T. Nigul).

Despite the ideal visions, deviations occurred in realization of the initial general plan quite from the beginning. As in many other socialist housing estates infrastructure lagged behind the housing construction tempo and therefore the planned quality of self-contained neighbourhood was often not reached. Also in Annelinn not all housing construction plans were realized — the generous socialist housing policy came to an end and no more public money was available for further construction activities in the 1990s. *Mikrorayons* 1 and 2 were mostly finished, but only some apartment blocks in *mikrorayon* 3 were completed. Building of *mikrorayon* 4 was never started. In order to avoid unfinished character of residential subdistricts, the housing construction was initially supposed to follow certain stages: in each *mikrorayon* the 5-storey buildings in southern parts, closer to the waterfront and planned community park, had to be finished first; in the second stage, higher buildings had to be built on the other (Northern) side of the central pedestrian axis of the district. In the northern part buildings, even up to 12 storeys, were allowed (this was maximum and still in accordance with the limits set by the nearby military airport) and a few, up to 16 storey houses, were planned to the southern part to create a certain visual landmark-like quality. While the 5-storey buildings were mostly completed in *mikrorayons* 1 and 2, the 9-storey buildings were realized only partly and higher buildings were not built at all. Theoretically, the diversity created through the height of the houses, with the ascending line from the

waterfront in the south to the north had to emphasize the natural location in a river valley. The Housing Programme in 1988, however, suspended the height aspirations, and instead, lower apartment houses were preferred in realization projects. This somewhat helped to avoid unhuman spatial scales in Annelinn that makes the district more liveable today. The Chief City Architect T. Arjus confirms this in the interview as follows:

“When I moved to Tartu I already had the basis for comparison as I had previously lived in Lasnamäe [the largest housing estate in Tallinn]. Therefore, for me Annelinn was a desirable environment: the scope was perceptible in human scale, it is one of the best free planned areas. You almost cannot regard it as a free planned area because it is very regular and the way it is structured with light traffic rays is very unique in the Estonian context. It is a very modern plan in the sense that a strong emphasis is on local movement: promenading and pedestrians, and cyclists. It is an innovative project in the sense.” (interview with the Chief City Architect of Tartu, T. Arjus, 2015)

The construction of infrastructure and recreational facilities seriously lagged behind the plans. In 1988 an official correction was made to the general plan of Meelak and Port (1971). One of the main reasons for corrections in the initial general plan was to adjust real construction plans with the financial capacity of the state and also understandably to react on changing societal conditions. Now the parking issue was already in the agenda, although nobody was still able to predict the tempo of the increase in personal cars within next decades. The plan to build pedestrian bridges leading to the communal green area along the Anne channel were now cancelled. Instead, simple road crossings regulated by the traffic lights were now projected. The public facilities that initially had to be located close to the communal park were now shifted back closer to the housing areas, other side of the main street. As many former norms were not reached, the plans were substantially cut in connection with service facilities (cinema, sauna, etc.). Also, the green areas between the blocks found rather simple and cheap solutions compared to the modernist idealist visions.

Besides several reductions of the infrastructure investments, fortunately the schools and kindergartens were finished in those *mikrorayons* that were completed. The proximity of schools and childcare are today still among the most valued residential qualities in Annelinn. Typically to a post-Soviet city a double-language educational infrastructure was established in Annelinn, this kept and still keeps the Russian-speaking population attached to the district. In general, it could be said that the unfinished nature became

both, a fortune and misfortune for the district. The experiences in other housing estates, for example Lasnamäe as the largest housing estate in Tallinn and in Estonia, has proved that high-rise architecture feeds alienation and that more dense *mikrorayons* tend lose their quality of a familiar neighbourhood. At the same time the completion of the community park close to the channel in south, and planned pedestrian rays and bridges, would have increased the spatial quality considerably. Experts (e.g interviews with Chief City Architect T. Arjus, 2015, and with Architect T. Paaver, 2015) also refer to the unfinished nature of the newer parts of Annelinn, where the 3rd *mikrorayon* was not finished and the 4th was totally cancelled. For many years these further parts of Annelinn were with poorer infrastructure and also the connections with the rest of the city were not the best.

Jaamamõisa subdistrict, merged in this analysis with larger housing estate area Annelinn, was built for military workers. Again, urban planners and the city administration of the Soviet period could not substantially intervene into the planning process. Initially lower buildings were built in north of the city for military officers and other military personnel; later when the demand for housing increased, Jaamamõisa high-rise district was erected. This part of Jaamamõisa was dependent from the social infrastructure of Annelinn (e.g. Russian-language schools and kindergartens) and also today Jaamamõisa high-rise area could be considered as the 5th northern *mikrorayon* with somewhat different planning history and identity. As regards the residential preferences, Jaamamõisa has long been a less desired neighbourhood compared to Annelinn even for Russian-speakers. Also today the image of first more finished *mikrorayons* in Annelinn is better and sometimes people even do not dare to call these older parts of Annelinn (relatively close to the city centre) as “Annelinn”, saying that “the true Annelinn is there in the back” (referring to the higher and denser unfinished *mikrorayons*).

We now turn to the housing policies and planning principles in the postsocialist period to understand to what extent former planning principles survived and how the system change in the society and economy started to adjust the space in our case study district.

2.3.2. Postsocialist period and new planning principles related to Annelinn

2.3.2.1. Neglect of housing estates in the first postsocialist decades

The 1990s brought along a significant change in formerly state-led housing policies in all postsocialist countries. Under the socialist system public tenancy was a preferred tenure type (Kährik 2000). The idea behind the extensive housing construction programmes was to provide residence for all households according to their needs and to avoid that income differences produce housing inequalities. Although this idealistic aim was never fully achieved and the queues for a new apartment lasted until the end of the socialist regime, most of the socialist urban population were public tenants. Apartments were not only distributed for free, but the maintenance of buildings and the surrounding areas was organized by public money as well. A specific form of ownership was cooperative housing that combined private and public money; the share of cooperative urban housing varied by countries, in Estonian cities fully public housing was prevalent in housing estate districts.

In the 1990s, most of the postsocialist countries launched privatisation reforms (in Estonia in 1991). The speed of the privatisation varied by countries, in Estonia the vast majority of urban housing was in private hands by the end of the 1990s already. The ideological and rational reasoning behind the full privatization was to motivate owners to invest into housing — the last socialist decades proved that the state was not the best owner. Two parallel privatization principles were applied. People living in the dwellings built in socialist years, sitting former public tenants, were given the opportunity to privatize their homes almost for free. This applied to all tenants in large housing estates. The segment of older urban housing (appr. 10 percent) was restituted to its pre-war owners and for a certain period rent regulation was set up to avoid displacement of people living in these houses.

As for the large housing estates, privatization brought along a totally new housing maintenance model — public money was totally withdrawn from the housing sector and an unprecedented financial burden was now put on the shoulders of apartment owners. The role of the state in housing policy was only to support owners with legislative framework, for example, to set the rules to establish obligatory apartment association in order to organize commonly renovation activities and maintenance in

multi-apartment buildings and to take care of the land around buildings. The financial capacity of housing associations, however, was limited. The buildings were already at an age when some renewal was needed. Sometimes also the initial building quality was not the best. Apartment associations were initially able to collect owners' money only for unavoidable repair works. In the 2000s somewhat larger renovation activities were already undertaken: renovating balconies using the same type for the whole building, insulating walls to achieve energy efficiency, replacing old plumbing systems, installing security doors for staircases, etc. The government started to develop financial tools (loan guarantees, financial endowments through a specific funding agency KredEx) to support larger renovation activities in large apartment houses only in the end of the 2000s. In these conditions apartment houses received only minimal investments during first two postsocialist decades.

The situation was not better in planning affairs. A confusion existed in the privatization period of how large plots the buildings should have; some housing associations privatized only some square metres around the walls of their building, others privatized larger plots. This was also not organized and clearly agreed upon who should take care (cut the lawn, clean the waste, etc.) of these surfaces. The apartment associations often did not have financial tools to take too big obligations, some plots between the buildings were still "unreformed state land", and therefore, the municipalities did not take direct responsibility for these plots also. The situation where the "housing privatism" ended with the front door on top of staircases developed, and accordingly the condition of public spaces (greenery, recreation and sport facilities, playgrounds) between the houses and in the yards worsened. Landscaping the surroundings of the houses and building the infrastructure was typically delayed already in the socialist years, thus, zero-investment and disorder of early transition worsened the situation even more.

Partly this ignoring was related to the general societal context. Until the mid-1990s economic recession and fast economic restructuring of the former Soviet-oriented economy caused the reductions in household incomes and general feelings of uncertainty. People were therefore not yet ready to make plans with a longer perspective. However, if the time went on and the first urgent investments into the building were already made, a certain shift of interests on the areas around the house have been visible:

"The apartment associations themselves have taken up the renovation of the houses: it's still on the agenda for the citizens. It is noticeable that the houses that already have been renovated raise the mental quality of the district. And we can see that once the residents have renovated their house they turn their focus on surrounding space as well.

(interview with the Chief City Architect of Tartu, T. Arjus, 2015)

Understandably, no efforts were made for more elaborate up-to-date planning solutions regarding these housing districts that formerly were the flagships of architectural innovations. Old master plans were unfeasible because the funding sources disappeared but also because these solutions were morally obsolete (characterized "socialist/Soviet" ideals). Space in and around the housing estates were reorganized according to the rules of market economy now both consciously and unconsciously. The number of cars increased rapidly and surpassed all projections made in the end of the socialist period, thus, the parking in the yards of the apartment buildings became a vast problem. In a car-oriented city new shopping malls and many other services were located at the edges of the city and along the major roads, causing service and shop closures within the *mikrorayons* in walkable distance for inhabitants.

We may conclude that two first postsocialist decades witnessed a neglect of housing estate districts. None of the parties — people, associations, municipalities — had the resources to intervene substantially and therefore market forces dominated. At the same time, and especially since the 2000s, other alternative residential choices, e.g. in older inner city districts and in suburbs, became more attractive. A classical discrepancy of inside- and outside-image occurred: people who lived in Annelinn-Jaamamõisa mostly valued their neighbourhood highly, those living elsewhere rather considered it as the worst neighbourhood in the city (Tartu and tartlased, 2008; 2013). In this situation also at the municipal level no visions existed whether and how housing estate districts should be developed further. The problems started to accumulate in the 2000s, in the 1990s the districts were still physically relatively new, even when unfinished. The pressure and the signals that the living environment of the housing estates should be considered as a high priority initially became from the public, especially from the side of urban professionals (architects and other urbanists), who argued that the segment of urban housing stock that accommodates a majority of urban population should not be ignored in urban policies.

2.3.2.2. Municipal initiatives

New ambitions in relation to spatial planning solutions for housing estate districts as well as the willingness to take larger public responsibility for improving residential qualities emerged in the 2010s in Estonia and also in Tartu. First, it was understood that ‘the full market experiment’ (Tammaru et al 2015) in housing sector worsens the position of housing estates remarkably. Second, it became clear that an organizational gap exists regarding who has to take care of large public areas between the residential buildings in housing estate districts. And third, if in other more attractive neighbourhoods local activism already had emerged and several citizens’ associations started to be involved in neighbourhood improvement activities, in housing estates the passivity of local inhabitants was the reality. Local inhabitants here were more accustomed to, that public actors decide for them. Step by step the understanding developed that municipalities need to take more action in these districts.

In Tartu the first major contemporary planning effort was initiating a thematic master plan “Parking principles for free-plan neighbourhoods” in 2011 (adopted in 2014). The projections for car-ownership had doubled since the end of the 1980s. The task of the thematic master plan was to set common principles for housing associations how to build new parking houses, and to extend existing and establish new parking lots in a way that saves the greenery, recreation areas and playgrounds, and enables street caretaking during snow season. The proposals also included relatively simple design solutions how to reorganize existing asphalt squares so that more cars can park on the same surface, without the need to reduce greenery. The current financial capacity of the city government does not enable building parking houses with public money; this is not also prescribed in the long-term budgetary strategy of the city. However, common principles elaborated by planners and architects facilitate considerably reorganizing the public spaces between the buildings in order to ease the parking pressure.

The 2000s also denote the beginning of many smaller public initiatives (also subsidies to housing associations) to improve living conditions in Annelinn-Jaamamõisa. When applied for, the city brings new sand to children’s playgrounds every spring. The city has given the opportunity to apartment associations to apply for so-called asphalt-support (a small financial bonus to reorganize their parking lots around residential

buildings), financial support for building closed garbage houses or underground waste containers as well as for building outside parking houses for bikes. Interestingly the capacity of housing associations to use these subsidies has initially been rather weak, probably because even smaller investments acquire a financial contribution from the inhabitants. For example, many apartment associations have used the asphalt-support, and more and more associations have undertaken the construction of garbage houses or underground containers, but no applications have been made for bike houses so far, although architects have designed a set of sketches for these facilities. This very probably reflects a relatively limited investment capacity of apartment owners until today, but also that mentally homeowners in apartment areas still consider the public areas as collective space where they do not dare to leave their belongings (like bicycles).

Also some larger public expenditures and investments have been made recently. Since the 2014 the city has taken the responsibility for the maintenance of large public green areas between the buildings in Annelinn-Jaamamõisa (formerly unreformed state land and without direct care). Two new large public children playgrounds have been built, in 2014 to Annelinn and in 2015 to Jaamamõisa. Investments to improve the green areas in the districts (e.g. riverbank recreation area, the beach of Anne channel) have been made, including the new pedestrian/biking routes. Larger investments in educational infrastructure (a new kindergarten in Jaamamõisa, gradual renovation of school buildings and the youth centre) and renovating sport facilities (e.g. football stadium) help to save the most important quality of the housing estates — adjacent infrastructure in a walkable distance. Gradually the city intends to renew street lighting, by replacing old lamps with new and energy-efficient led-lamps. Recently the city has applied financial support from the Estonian Centre of Environmental Investments to replace all old street-lamps, if this application will be financed the street lightening system in Annelinn will be totally renewed. Also some larger road construction projects, where the local sources and European financial support was combined, are worth mentioning. The unfinished more remote *mikrorayons* of Annelinn were rather poorly connected to the city after their construction. The first parts of the ring road around Tartu have been built in 2010s, which connect Annelinn better to recent suburban supermarkets, service and recreation facilities and provide also the access to workplaces there. Besides, Annelinn has always been very well connected to the city centre and other parts of the city by public transport. In this sector, the City Government has always kept a relatively

high level of the service quality compared to some other less connected districts of the city.

The investments into buildings were mostly left to the shoulders of inhabitants, i.e. apartment associations. Initially, in the 1990s and 2000s, the contributions collected from apartment owners allowed to make only small urgent renovation activities. Later, since 2010, a special funding agency KredEx started to offer favourable loans and guarantees for apartment associations to support changing the buildings more energy efficient. Many associations also in Annelinn have used these opportunities and made major renovations (insulation, ventilation, etc.). These funding schemes in combination with municipal investments and attention to public areas between the housing blocks, support each other because both the quality of buildings and public areas around them are improved. This also enhances the reputation of the area and helps to build confidence among local residents that their contributions to housing improvements are worth.

Currently another interesting experiment is ongoing in Tartu in the inner-city *hruschkovka* districts (first socialist-era mass housing construction experiments as inner-fills close to the city centres). The city of Tartu participates in an European research and innovation project under Horizon 2020 SmartEnCity <http://smartencity.eu/>), that includes full renovation of approximately half of inner-city *hruschkovkas* (appr 22 buildings). This is the first time larger public investments are made directly to renovate Soviet-era apartment houses in Estonia. Although the project does not include buildings in Annelinn, the process of how to energy-efficiently renovate this housing stock will be a valuable lesson for Tartu and other cities in Europe.

While compared to other urban districts, Annelinn-Jaamamõisa were somewhat ignored in urban investments in the 1990s and 2000s, however, the public responsibility has become more visible recently. We believe that partly this is related to the growth in overall welfare level and the “thickness” of public sector, and partly also with the lack of ideas how to intervene into the unfinished infrastructure of socialist-era housing estates in the 1990s. As the architect, T. Paaver specified (interview with the Architect, T. Paaver, 2015), Annelinn, even when unfinished, was also a new district by the beginning of the 1990s, and the real deterioration of public areas indeed more urgently

started to become a problem later when houses and public areas had experienced only minimal maintenance for two decades.

2.3.2.3. Professional urbanists as a powerful interested party

An alarm that large housing estates need more public interventions has clearly become from the voices of professional urbanists (architects, landscape architects, urban geographers, etc.). In many cases, the active urbanists and architects, who have turned their attention and activities to housing estate areas recently, have lived a certain period of their lives (e.g. childhood) in large housing estate areas (remind that most of the households, incl. elite, enjoyed living in modernist apartment buildings in the socialist period) and therefore, even when not living there today, they are both professionally and emotionally motivated to offer contemporary solutions to these residential environments. City Architect explains this emerging professional interest as follows:

“Those who have dealt with [panel housing estates], in Tallinn as well as in Tartu, they have some sort of weird relation to those places, a little bit confusing even. These areas provide a challenge of some sort because they do not fit in this „cute“ category like Karlova or Supilinn [cosy inner city wooden housing districts] which they can not be bothered to deal with anymore. So they turn to bigger and more complex challenges. And this works as the idea is to understand the past creation and environment in today’s context and how today’s citizen could better relate to it.” (interview with the Chief City Architect of Tartu, T. Arjus, 2015)

In the condition of relative passivity of local inhabitants in the housing estate districts (compared to the tidal wave of creating neighbourhood associations in gentrifying inner city districts) this interest group has also expressed the view that special activities are needed to enhance neighbourhood activism in large housing estate areas. In 2011, the Estonian Centre of Architecture, organized a series of seminars “Stone-City Forums” (including in Tartu; Architect T. Paaver, interviewed by us, was one of the initiators of this series of seminars). Expert input was combined with discussion groups consisting of professionals and local active citizens. The main topics covered were: how to keep the good qualities of housing estates and create the new qualities evaluated today; how to develop cooperation between architects and local inhabitants; how to favour neighbourhood activism that is lower than in other neighbourhood types in cities; how to improve public spaces around the houses; etc. The results and presentations were made available on the centre’s webpage, to enable further discussion.

Probably the most influential recent initiative, a competition for new visions of Annelinn (“Public and activity space of Annelinn”) was organized in 2014-2015 (the follow-up activities continued in 2016) in close cooperation of Tartu City Government and the Estonian Association of Architects (also one of the authors Kadri Leetmaa of this report was an invited jury member). The competition aimed to deal first of all with public spaces owned by the city, where the city could legally intervene with small but efficient investments in the nearer future, for example to create outside activities and improve pedestrian areas to create and improve places of encounter for local people. Altogether 19 visions were submitted to the competition, 3 of which (“Anne garden city”, “Delta”, “Fresh air”) were chosen for further elaboration of real solutions that the municipality could put into practice.

For example, the vision “*Anne garden city*” proposed to emphasise gardening activities within and around the district. They considered gardening as an activity that bridges the distances between different population groups (incl. different ethnic groups) and helps to create personalized “islands” instead of currently prevalent “collective” space outside the front doors of the buildings; when participating personally in creating public or semi-public space people feel more attached with their neighbourhood. Another vision, “*Delta*”, turned more attention to the network of pedestrian tracks and roads, for example they proposed to follow and to improve the self-inflicted tracks that people probably need to feel themselves comfortable in the neighbourhood. Also, they proposed to turn the yards between the blocks more private to create a semi-public zones in otherwise fully public surroundings. The third masterpiece, “*Fresh air*”, emphasised the opportunities to add outside activity spaces into the public areas for all seasons and times and for different population groups. Several activity pockets were proposed, they also recommended to play with landscape levels and small constructions (like stages, exhibition frames, to use walls for outside cinema, etc.) to bring human scale to the landscape and to add some landmarks. These winners’ visions, but also many other proposals mainly dealt with pedestrian axis and rays that existed already in the initial general plan of the 1971. When socialist-era architectural visions turned attention to large scales, the contemporary visions tended to rather break large open areas to more personalized and distinguished smaller zones and attempted to create a human-scale landscape. Many visions also offered solutions of how to activate local

inhabitants and to encourage them to participate in changing their living environment. All proposed architectural visions are available on webpage collecting interesting materials on the district (<https://annelinnaportaal.wordpress.com/visioonikonkursi-tood-ja-zurii-lopp-protokoll/>).

The experts we interviewed were also members of the jury of the vision competition. They argued that it was also the purpose of the city in this competition to play more with the public space that is somewhat more further away (e.g. pedestrian axis and rays) from the staircase doors of the houses. Very probably in the future people themselves also start to take initiative how to shape half-private spaces closer to the buildings, but today still no clarity exists how it should be done (“some people want benches close to the buildings where to chat with co-residents, others do no, because they want to avoid alcoholics to gather in these places” (interview with the Chief City Architect of Tartu, T. Arjus, 2015)). The expert agreed that it is indeed a complicated task to plan interventions to these types of urban districts. First, because large spatial forms were under attention in the socialist period and there indeed were also financial resources available then to build at least the majority what was shown on plans; but second, because no clarity exists whether people want to see more private or half-private spaces close to their doors and in the yards or they accept fully public areas everywhere. The city and the architects were on the position that there is a need to wait and see, to what extent the local community takes the initiative here.

The after-competition activities included discussions held in local meeting places and with local active inhabitants and other interested groups in the city (local library, Anne Youth Centre, Tartu Nature House). An discussion event organized by Estonian Centre of Architecture for urban professionals and activists in Tartu, an exhibition of the vision posters in several places of the city (incl. local library and shopping mall), and an extensive coverage of the results of the competition on a webpage that collects the material related to Annelinn. It could be said that the whole process of the vision competition not only produced new ideas of how to develop the district for the city government, besides this, it brought together many active local people, incl. people who had spent their childhood in this environment, organizations and citizens' associations specialized in some narrow activity fields but whose activity at least partly also takes place in Annelinn, and also many professional urbanists. As a result, a good

organisational network and consensual platform was created for the common activities in the future.

The ideas collected from the vision competition will be also used in the investment plans of the Tartu City Government. In 2016-2017 a new bicycles and walking road that follows the pedestrian axis will be constructed using the financial support of European Funds allocated to Estonian urban regions. The new road light traffic axis will be projected taking into account the ideas that the winners of the vision competitions proposed and that we elaborated in several follow-up meetings.

2.3.2.4. A nascent local activism taking the lead in organizing local life

We have indeed witnessed a revival wave of local activism during recent years. Again, it partly originates directly from Annelinn-Jaamamõisa, and partly from people who are living elsewhere but who connect themselves with this district. We will bring examples of some more colourful events within recent years. First a quote from the Tartu City Architect that illustrates the city's attitude regarding local activism and the role of the city:

"At the same time we have felt that initiatives, e.g. like community gardening, cannot come from the city government — come establish a garden and take care of it! It has to be local initiative for it to be right and successful." Why? "Annelinn is very top-down developed district but you can see that the public space surrounding the buildings does not work like it was intended. It requires this human-scale like approach which can only come bottom-up. You have to start with it yourself, plant the seed yourself to have a real connection with it. The city can only incite the idea. And this is somewhat that we are doing already [referring to Annelinn Vision competition]" (interview with the Chief City Architect of Tartu, T. Arjus, 2015)

A good example of similar bottom-up approaches indeed exist. An NGO Tartu Organic Garden has a general purpose to promote urban gardening. Their two larger garden areas are today located close to Annelinn-Jaamamõisa district. People living in apartments and who would like to have access to a green garden and grow their own food are their target groups. In fact, inhabitants living in large housing estates have always had a special relation to gardening activities. In many countries summer or weekend homes belonged to urban life styles – people spending their week in urban apartments often enjoyed ‘green activities’ and more space in their summerhome plots. In 2015, the NGO took an initiative to establish a small community garden plot in the

middle of a pedestrian axis in Annelinn. In a special event held during the Annelinn Festival in May 2015, they invited local inhabitants to plant their own plant to this small flower/vegetable-bed. Initially the city officials were sceptical about who are going to take care of the garden during the summer. In fact, the plot became a beloved meeting place for local residents, even if the officials were initially afraid that this beauty will not last in such a crowded spot (figure 17a and 17b).



Figure 17a. Mini-garden in the middle of a pedestrian axis, May 2015
(Source: Annelinnaportaal)



Figure 17b. Mini-garden in the middle of a pedestrian axis, August 2015
(Source: Annelinnaportaal)

Another interesting example, is a group of young urbanists in Tartu who are organizing an urban festival UIT with the aim to invite people to discover new and old places in the city through performances, installations, walking tours, concerts and other inspiring activities. Their activities address the city as a whole, not only large housing estates, but some of their undertakings are worth mentioning. In August 2013 they organized a light installations in an apartment house of Annelinn by asking people to put on lights in certain rooms and to darken other rooms so that the illuminated windows constitute a text “UIT” (the name of the festival, figure 18). It included communication with the people in this house, many local inhabitants enjoyed the spectacle and enjoyed the attention also themselves. During other festivals other activities have been organized, for example a tour with memories of the people who as teenagers spent their “wild 1990s” in Annelinn.



Figure 18. Light installation during UIT festival, 2013
(Source: Annelinnaportaal)

In spring 2014 first time Annelinn Festival was organized by active citizens and organisations in the district, similar event were held in 2015 and 2016. Many cultural events (e.g. screening outside cinema in a school yard) and educational tours introducing interesting places nearby and local nature (e.g. tour to explore bats) took place; the festival aimed to strengthen community feelings in the district.

In parallel to recent local and professional initiatives a webpage was initiated and kept continually up-to-date. Besides the information on upcoming events the web environment gives an overview of the planning history of Annelinn, to raise awareness of the local history among local inhabitants. Some posts even take people into longer history of the site by presenting the stories and memories from the pre-socialist period (about an old manor or an ancient settlement place). A columns with opinion articles and memoirs of people related to the area, links to fiction and poetry using Annelinn as the source of inspiration also contributes to the creation of common local identity.

Thus, there are signs that slowly, and with the support of municipality and experts professionally interested in the fortune of modernist architecture and urban planning, a specific form of community activism develops and contributes to organizing local life. The most recent initiative (November 2011) is the establishment of the Annelinn Neighbourhood Association with the aims to participate in local planning discussions, to improve local living environment and to strengthen local identity. This shows that the concerns that the housing estate districts are not physically and socially fruitful surface for community activism might be somewhat exaggerated. Experts believe that

a greater public involvement and the stimulus from the professional urbanists and urban activists may mobilize local community also here. When typically two parties participate in urban planning in other districts – local inhabitants and enterprises on the one and public sector on the other hand, the third party in large housing estates is supposed to be the group of different urban experts who are able to work together with other groups and activate the otherwise passive discussions.

It also seems that the recent social emphasis in planning Annelinn-Jaamamõisa today has a potential to respond to the call of Taylor (1998) for ‘building up confidence both in and outside the estate’. Indeed, as we explained, both in Western and Northern Europe and in postsocialist Central and Eastern Europe, and also in Tartu, stigmatization is the greatest danger to the stability of these residential areas. The activities practiced recently in Tartu help both to build up confidence among the local population, at the same time breaking stereotypes created by outsiders. Events taking place in Annelinn enable local people to leave private spaces and meet others in their neighbourhood, but it also attracts people from outside to walk here and to develop more truthful and positive images of the area. The interviewed architect T. Paaver commented the opportunities for community activism in large housing estate areas as follows:

"There cannot be a neighbourhood association in Annelinna in this classical sense. Maybe because Annelinn is differently fitted spatially compared to wooden housing areas. There are similar interests present, for example, in this flat and in that flat. But maybe we cannot hope for house communities or neighbourhood communities. People have spatially settled differently. Then again it is a difficult question, I don't know, I think nobody actually knows. Neighbourhood association-ism is something that derives from within, you cannot exactly promote it, like – do something! This activity should come bottom-up." (interview with the Architect T. Paaver, 2015)

The main lesson learned from our analysis is that large housing estates in postsocialist cities are an irreplaceable segment of urban housing stock. After two decades of neglect it is again acknowledged that true planning solutions are needed for these areas which still today are home districts for the majority of people in postsocialist cities. Further ignorance, in interaction with stigmatization, could indeed lead to ghettoisation of socialist-era housing areas, feared by some urban researchers in the 1990s. A purposeful intervention and the acceptance that public sector needs to return to these areas after two decades of “market experiment” could, however, ensure that for many decades the

housing estates will serve as comfortable living environment for some population groups.

CONCLUSIONS AND DISCUSSION

Highlighting the main results of the survey we first argue that very probably there will indeed occur several trajectories of postsocialist large housing estates in the future (as was projected also by Temelová et al. 2011). We know that also not all pre-WWII inner city areas have equally experienced gentrification in the recent decades in European cities. In the same way, the certain selection will probably occur among the housing estates. The question is which factors determine this selection: what contributes to a successful transformation and which factor rather cause further degradation of housing estates, as was predicted by some scholars in the beginning of the 1990s (Szelényi 1996).

The question is also to what extent these trajectories could be influenced by contemporary urban policies and to what extent it is a path-dependent process or influenced by planning and policy decisions made earlier in the history. The historical factors could for example be the quality of the initial general plan and to what extent the latter was followed in real construction activities. The case of Annelinn-Jaamamõisa illustrates that the unfinished nature of large housing estates, so typical to many urban districts in Central and Eastern Europe, could be both an advantage and disadvantage. For example, not finishing the plans for highest housing projects foreseen in the initial master plan of Annelinn helped to avoid excessive density in the district and makes it also today more human-scale and acceptable. On the other hand, typically delayed infrastructure was never completed because the political system changed in 1991 and the planned but postponed investments were cancelled; this means also that the desired quality of neighbourhoods equipped with all necessary services were never achieved. The period when the particular housing estate was constructed and which occupational groups received its apartments initially, may also influence who live there today and how well they have succeeded to organize renovation and maintenance activities. The attractiveness of the housing estate may also be related with its location in the city, e.g. whether it locates close to the centre or is rather isolated in an urban periphery, some housing estates are better connected to recreational amenities and greenery, etc. Yet, the revival of urban policies in Annelinn-Jaamamõisa in recent years gives some hope

that also contemporary smart and well-considered interventions have a remarkable role in these futures.

Socio-demographic trends that we detected in Annelinn-Jaamamõisa tend to be similar to the tendencies found elsewhere in postsocialist European cities. For example, large housing estates face a fast aging process. In fact, as due to the housing shortage and central housing allocation system, the residential mobility was low under the socialist regime, this was already observable in the 1970s and 1980s: people tended to stay lifelong in the apartments they once received and therefore the housing quarters aged together with their residents. In the postsocialist period a gradual increase in mobility levels contributed to this process. Namely, certain groups started to leave the housing estates, or when not directly leaving, if they searched for a new residential environment and a new dwelling, Annelinn-Jaamaõisa and other housing estate areas were not the first choice for them anymore, as it was in the Soviet years. Many other alternative and more attractive destinations were now preferred, for example, new suburban single-family homes, renovated former summer homes, renovated apartments in historical pre-WWII housing areas, new apartments located as infills or extensions of urban fabric, etc. First of all people in family age who previously enjoyed housing estate apartments with modern facilities developed other ideals now. We also saw that these people were more frequently with a higher educational level and worked in well-payed occupations.

What is striking, is the fact that the socio-demographic changes gained momentum in the 2000s. The 1990s, although the major societal, economic and institutional changes occurred then, were still a period when people made relatively few relocation decisions, mostly because the general welfare level did not offer many resources for that. In the 2000s, both the demand side tightened (many people needed to carry out a change because they had postponed their residential decisions and also as they now had more financial means to realize their preferences), but also the powerful actors on the supply side, real estate developers and financial sector, started to offer many ready-made and comfortable solutions (e.g. keys-in-hand projects and favourable mortgages).

Regarding the ongoing aging process, Annelinn-Jaamamõisa is a classical postsocialist housing estate; a greater or lesser extent, this characterizes the majority of similar districts in Central and Eastern Europe. What is specific in Annelinn-Jaamamõisa, and

might be also the case in other housing estates in similar cities, is the inflow of young people, who spend a relatively short period of their lives here in their twenties. This flow includes students searching affordable rental dwellings for the period they study in Tartu. Later they move on, e.g. leave the city for other more attractive cities, or move to more family-friendly district in suburbs and increasingly also to the relatively greener and human-scale gentrification districts. Besides them, many other young families, who are in the beginning of their housing career are searching their first homes after leaving parental homes, often land here. Haase et al. (2012) call them “transitory urbanites” and consider as a valuable group who could “cure” the demographic problems in cities. We argue that these two groups — a stable older population and a more dynamic group of young households — should be considered as two main target groups to whom the new planning solutions should be oriented.

What makes Annelinn-Jaamamõisa district, and other housing estates in many post-Soviet cities, distinct, is its cultural/ethnic heterogeneity. In cities of the former Soviet Union, both the native population as well as Russian-speaking immigrant population were accommodated here. Until today these districts have inherited this double-language environment. From the perspective of integration process, we could consider these areas as the place where Estonians and Russian-speakers develop contacts that potentially could lessen social distance between two ethnolinguistic groups in the country. It is, however, somewhat problematic that these areas simultaneously turn more Russian and are also losing the population with higher socio-economic status. Traditionally, in the Soviet period, the remarkable ethnic segregation did not overlap with socioeconomic segregation patterns, because the latter was indeed only modest in all socialist countries. This is, however, increasingly the case today and this means that post-Soviet housing estates may become similar to their counterparts in Western and Northern Europe where the socio-economic deprivation follows ethnic lines. This is the trend that the planning solutions should certainly take into account in the future in this part of former postsocialist Europe. We agree with Kovács & Herfert (2012) who argue that ‘these areas will never be the top segment of the housing markets’ of postsocialist cities, it will, however, very probably remain an accepted choice for the stable population already living there (i.e. elderly) and it could serve as a natural springboard for young households. Our position is that cultural and social policies should be combined to create this future also in a multicultural urban environment.

We also learned that these residential environments certainly need more public intervention than other types of neighbourhoods in postsocialist cities. First, the housing estate areas have been established as a result of powerful state-led policies and the full market-experiment of the 1990s and 2000s has not been successful: the re-learning from a public sector managed housing area to an area with active community involvement did not occur. The housing areas were planned as free-plan districts, the private space and responsibility ended with the front door of a staircase, the rest was rather a collective space that an anonymous society had to take care of. We saw that during the period of neglect by public policies (the 1990s and the 2000s) the readiness to extend one's responsibility spatially did not extend remarkably. Obligatory apartment associations only gradually started to be involved in organizing maintenance of the space around the buildings, they rather took the role only in the activities to renovate the buildings and to organize parking that became an urgent issue. We witnessed that in parallel to the society becoming richer, public sector "returned" to housing estate areas with its investments and planning ambitions. We also argue that this is an inevitable choice in all cities if the quality and the reputation of large housing estates is to be saved and improved.

The process of how the public attention recovered is also remarkable. It seems that the community of professional urbanists (architects, urban planners, landscape architects, geographers, urban sociologists, etc.) played a key role here. It might be that this is a hidden redemption attempt. The urban planners of the socialist period were those who designed the socialist cities — the modernist master planned housing estate areas were erected with the best expectations to build a city for people. The reality that came out, however, was not so rosy. We saw that today many professionals have set themselves a mission "to correct" the errors of modernist planning and to find ways how to reorganize this already created space which inevitably is a part of contemporary urban fabric. The case of Estonia and Tartu allow to claim that these urban professionals have indeed succeeded to awaken public sector attention as well as community activism related to these areas. We could even say that they are on the way to balance the negative outside reputation of these areas (among those who are not living here) and the relatively positive image of insiders (of people who do live here) by communicating

clearly the positive qualities of the housing estates that should be preserved and developed in the further planning activities.

Last but not least, the urban policies that during many decades have been implemented in the housing estates of Northern and Western European cities, only indirectly inform us which housing policies should be avoided and which of them could serve as good examples. The societal context is completely different. Compared to rather expensive interventions known from these cities (even when the recent austerity measures have downscaled the expenditures on urban policies), postsocialist cities make only first timid steps in becoming more involved in these areas. We argue that in some way this reservation is needed to avoid responding former planning failures with new ones.

POLICY RECOMMENDATIONS

Most importantly our research confirms that not only historical path-dependency but also contemporary urban planning practices do have an impact on which trajectories the housing estate areas follow in the future. The results of our research project and the reflections received during the dissemination activities from different stakeholders allow us to compile a list of policy recommendations.

- (1) Large housing estate districts naturally require more public intervention compared to other types of urban neighbourhoods in former socialist European countries.

Target group: municipal-level urban planners and housing policy initiators; budget planning authorities in different governmental levels; state-level housing policy agencies.

Our first conclusion is that large housing estates intrinsically need relatively bigger public sector support than the municipal and national housing policies have been able to offer in formerly socialist European cities in the 1990s and 2000s. Even compared to the contemporary austerity policies elsewhere in the ‘old’ Europe, the role of public sector in Central and Eastern European cities is extremely modest. At the same time, it is important to respect that socialist large housing estates were originally established in the context of powerful socialist public housing policies, and expectations of how these areas should be managed do not change overnight.

The residents here, even when partly replaced with new groups by today, learn relatively slowly how to take responsibility to improve their residential environment, but the notion that someone else takes responsibility will probably not disappear in the near future. *Based on the experience of Annelinn-Jaamamõisa we have seen that after the period of neglect, the public sector has ‘returned’ to these urban neighbourhoods both with its investments and planning ambitions. In addition to municipal investments into public space and infrastructure, governmental housing policies today also offer favourable funding schemes to improve the quality of buildings, but the rate of housing renewal is still rather slow.*

- (2) Small interventions should be preferred to gradually experiment which spatial changes will be welcomed by local inhabitants.

Target group: municipal-level urban planners, local inhabitants and community activists.

As financial resources are clearly more limited today compared to the socialist period (when generous budgetary allocations allowed investing into building large architectural forms) a small-intervention approach should be preferred today. Small investments into children’s playgrounds and minor improvements of public spaces (pedestrian tracks, meeting places outside, etc.) help to improve the image of the district and build confidence in local residents that their area is not totally neglected by municipal investments. At the same time small interventions allow experimentation. Nobody knows exactly which new designs of public spaces between housing blocks will be accepted and welcomed by the residents. Smaller investments enable municipalities to make adjustments later with limited costs. *In Annelinn-Jaamamõisa municipal urban planners and other interested urban experts have successfully tested their ideas about how to improve and enrich the space around the buildings. Interestingly, their proposals have been actively discussed among local inhabitants and community activists, and in general the expert opinion is welcomed.*

- (3) The interventions should be sensitive towards the nature of different privacy levels of spaces in the area. For example, the interventions should carefully touch the boundaries of public, semi-public and private spaces.

Target group: municipal-level urban planners, involved urban experts, local inhabitants and community activists.

Even when local residents and their apartment associations have not been too active in taking care of spaces immediately surrounding their houses, it is a good idea not to hurry in taking full public responsibility of (semi-)public and private spaces in the area. Municipal interventions could rather address public areas and facilities somewhat further away from the buildings. This improves the local quality of life and also reassures the residents that their own investments are made in the environment that in general improves. In any case it is important to keep in mind that public and private investments should interplay to achieve better results in the district. It is important to build an internal confidence among local inhabitants that their investments are not made in a desert that is neglected by public bodies. *This has especially been the position expressed by urban experts and municipal-level urban planners in Tartu. There is no model anywhere in the world which is the ideal balance between public and private (or semi-public) spaces in large housing estates. The urban experts in Tartu expect that when the public spaces are improved, local inhabitants will also, step by step, take greater responsibility in spaces within and near the residential buildings; there is no need to be there before the more natural local initiatives.*

- (4) Architecturally there is a need to complement former large scales with human-scale landscapes and design elements.

Target group: municipal-level urban planners, involved urban experts, local inhabitants and community activists.

When master plans created initially emphasized large scales (often not visible for people), e.g. the height of buildings growing from the riverside towards North in Annelinn following the shape of the river valley, today the architects and other urbanists emphasize the need to bring human-scale landscapes into the design of public spaces. Since people need meeting places and unique recognizable spaces, public spaces should not be monotonous and undistinguishable. Interestingly, the gardening activities (personal efforts put into design of residential environment, edibility of berries, fruits and vegetables cultivated, etc.) seem to have a great potential to personalize the otherwise emotionally distant public spaces. *Municipal planners, architects, landscape architects and other experts involved into Annelinn vision competition have consciously focused their attention on human-scale landscapes and design. This has made the proposed interventions financially*

feasible, i.e. the city plans to invest into improving the central pedestrian axis, as a result of the competition. Also, the tempo of spatial changes allows profound discussions about what is suitable locally. In addition, human-scale interventions are executable for local activists' groups. In Annelinn-Jaamamõisa an NGO that promotes urban gardening has made direct efforts to bring gardening activities into the public space.

- (5) Although the old socialist-era master plans are both morally out of date and no longer in line with public investment capacities, large housing estate districts still need to be master planned today.

Target group: municipal-level urban planners, involved urban experts, state level urban policy makers.

During the last decades some former green recreational areas or spaces reserved for (delayed) infrastructural objects have already been used for new housing projects or shopping malls. Although it partly corrects the former problem of unfinished infrastructure and renews local housing stock, it also uses free recreational spaces around the apartment blocks without carefully considering how these areas could be used in the best way today. *In Tartu the ongoing process (coordinated by the City Government) of compiling a new master plan also considers the best solutions for large housing estates, even when many spatial processes (e.g. building suburban supermarkets) are irreversible by today.*

- (6) With regard to the planning approaches applied, the initial main qualities of large housing estate districts – walkability and infrastructure close to home – need special attention.

Target group: municipal-level urban planners, involved urban experts, state level urban policy makers.

Although retail investments (shopping malls at the edges of the city) and several new service centres (football stadiums, sport centres, etc.) have remarkably complemented former insufficient services, many of these investments also endanger the walkability of former *mikrorayons* (socialist self-contained neighbourhoods). For example, shopping malls imply car use and therefore the need for private cars and more parking places increases even more. What is more, several service centres attract people citywide today and residents of Annelinn-Jaamamõisa in turn use the facilities elsewhere in the city and its surroundings. To

save the quality of walkability (the so-called ‘city of short tracks’), at least basic recreational facilities (small sport courts, children playgrounds, bicycle paths, etc.) could be located in immediate surroundings of the houses. *The city of Tartu has followed this principle, for example by investing into local playgrounds and supporting apartment associations in similar improvements. Also, urban experts have actively participated in designing these playgrounds. In fact, all stakeholders share this principle, but no good solutions have emerged concerning how to fight against citywide growth in mobility needs. Again, the tools to invest into smaller recreational facilities exist, but there is no shared vision of how to combat urban sprawl.*

- (7) Special attention should be made to balance the emerging negative outside image of the housing estates and to ‘bind’ all urban districts together.

Target group: municipal-level urban planners, involved urban experts, local inhabitants and community activists.

One opportunity is to ‘open’ the area more for those people who do not live there and often do not have an adequate understanding of the qualities that keep the local residents living there. Cultural events, festivals and fairs held in the district bring the urban population together from different neighbourhoods and create positive common memories. Especially in small and medium-sized cities where the whole city serves as an accessible large ‘neighbourhood’ (e.g. Tartu with its fewer than 100,000 inhabitants today), it should be possible to avoid mental stigmatization and alienation in relation to some urban neighbourhoods. *To certain degree this has been done by all stakeholders. The City Government has invested into main infrastructural facilities, e.g. the schools in Annelinn have a very wide catchment area, while sports facilities attract users from neighbourhoods outside of Annelinn-Jaamamõisa. Local community activists, recently also the newly-created Annelinn Neighbourhood Association, have organized an annual Annelinn festival. Urban experts participate in this process by informing the local community about the initiatives elsewhere.*

- (8) In the planning activities the focus on those population groups who have consciously chosen this environment should be kept in mind (e.g. students, young households at the beginning of their housing careers, the elderly).

Target group: municipal-level urban planners, involved urban experts, local community activists, neighbourhood associations.

In university cities the process of studentification characterizes the housing estates as many affordable and comfortable rental apartments are located there. Also, since the housing estate districts are usually among the cheapest segments of urban housing stock, many young households (with small children) starting their housing career create their first home here. In addition, as mentioned, older people once settled here in the Soviet years, are satisfied with their accustomed residential environment and they do not want to leave the area anymore. The planners should also take into account their age-specific needs: adding elevators to houses, designing recreation spaces suitable for elderly, but also for several generations (e.g. grandparents and children) spending time together. Although selective out-and in-migration changes the population composition, the housing estates should serve as comfortable residential environments for those groups whose preference is to live here. *A certain discrepancy exists in this issue between the prevalent attitudes and the real needs of the district. Namely, the aging process, but sometimes also an expanding rental sector in large housing estates has sometimes been considered as a negative trend (owners are leaving, old people are not motivated to make larger investments, etc.). At the same time these groups – elderly and households searching for affordable rental apartments – need a pleasant living environment. Public discussions that also these groups are worth to live in well-planned and -equiped urban environment still need to be held.*

- (9) Neighbourhood activism should be consciously supported by outside experts and public bodies in these types of districts.

Target group: municipal-level urban planners, involved urban experts, local community activists, neighbourhood association, governmental policies towards the NGO-sector.

It has been noticed that large housing estates as extremely dense and anonymous urban areas do not favour neighbourhood activism. As the areas have been historically organized top-down and maintained by public actors, today inhabitants expect that someone else (a municipality) should take the responsibility how their surroundings are organized. The need to organize urban planning according to participative planning principles is however there, for example, public actors need

information on how to transform the area to have a more human-scale, with small interventions that people would appreciate. It is very likely that a more complicated pattern of local actors should be involved in urban planning in large housing estate districts than elsewhere in the city where local inhabitants have a natural tendency to organize themselves. In housing estates apartment associations, other local initiatives (e.g. gardening societies, local cultural leaders), city officials, and professional urbanists should join forces. *The case of Annelinn-Jaamamõisa clearly demonstrates the remarkable role of professional urban experts (architects, landscape architects, geographers, urban sociologists, and others) in the process. These groups, even if not living personally in these areas, tend to show a professional interest towards improving modernist architecture that, compared to its initial aims, has failed to meet the needs of society, but that still represents a considerable part of our physical urban space today. In Annelinn-Jaamamõisa this interest group has succeeded in inspiring municipal actors to turn more attention to these areas as well as to awaken local activism, for example the local neighbourhood association was founded in autumn 2015, after the visions of Annelinn public spaces were discussed intensively. It is also probable that young neighbourhood associations need training and support on how to bring together very different local actors.*

- (10) The already well established network of apartment associations, should be used better in planning activities. The leaders of housing associations need training about contemporary planning principles and administrative skills,

Target group: municipal-level urban planners, involved urban experts, local community activists, neighbourhood associations, governmental policies towards the NGO-sector.

Through apartment associations, inhabitants' own financial contribution to major investments will be mediated. Very often the leaders of the associations are already relatively old former professionals (as the population is aging) who lack knowledge regarding contemporary planning principles and administrative skills, for example when should investment support be applied for from KredEx (a special funding agency for turning houses more energy-efficient) or mortgages be requested from banks. The public sector could take the lead here, to train new local leaders and to inform housing associations about innovative solutions applied elsewhere in

similar districts. The apartment associations will certainly play a key role in redesigning spaces close to the apartment blocks, for example to turn the nature of these currently collective spaces into more private or semi-private. *The current situation is that the level of apartment association participation in urban planning issues varies a lot. The role of training associations' leaders currently rather lies on the shoulders of the NGO sector (e.g. federation of apartment associations). The local community network – municipality planners, neighbourhood associations, other local activists, interested urban experts, apartment associations, etc. still needs to develop a well-functioning communication scheme where all parties are regularly heard.*

- (11) As the proportion of renters is growing in large housing estates, it is reasonable to involve this group of residents more into planning activities.

Target group: municipal-level urban planners, neighbourhood associations, apartment associations, governmental policies towards tenants.

An hitherto ignored aspect of participative planning initiatives in large housing estate districts is the role that the renters play in the discussions on their residential environment. In apartment associations only homeowners (almost all apartments are privatized) participate in investment decisions. Renters, especially the students and young households, live in the area more temporarily and they might not be motivated to participate in local discussions. At the same time, as the area is more and more becoming a renters district, schemes are needed how to hear renters' voices too. *Here the action needs to be taken on a higher governmental level. Currently, a large share of the rental market is unofficial and the rights of tenants are therefore limited. Although the private rental sector is growing, the role of tenants needs to be more recognized also in organizing participative urban planning. Local community activists and a newly created neighbourhood association should turn more attention on how to involve tenants into community movements.*

- (12) Housing policies and planning approaches should take into account the multi-ethnic context of many large housing estate districts as well as be ready for ethnic diversification in the future. It is an utmost need to avoid that the housing estates where the minority ethnic groups reside also become socioeconomically disadvantaged.

Target group: municipal-level urban planners, neighbourhood associations, state-level social and integration policy agencies.

Many former socialist housing estates in the former Soviet Union are multi-ethnic. The case of Estonia (the capital city Tallinn, but also Tartu) has shown that socioeconomic segregation is increasing in the cities and unfortunately mixed ethnic districts (like housing estates) tend to become socioeconomically the most disadvantaged areas. At the same time, the supportive Russian-language social infrastructure and language environment, where Russian-speakers (a group with a remarkable population proportion in post-Soviet cities) feel comfortable, is located mainly in large housing estates. It is more wider task of the society to take care that the social distance of two larger ethnolinguistic groups (in Estonia people with Estonian or Russian mother tongues) would not increase. Currently the still existing parallel schools systems in Estonian or in Russian language keep these two groups separated in society. It should also be mentioned that the recent context of the migration crisis in Europe will also diversify post-Soviet and other postsocialist cities ethnically. Also, Estonia as a country where the Russian language is widely used is an attractive destination country for in-migrants from former Soviet spaces, e.g. from Ukraine. While the housing market is fully privatised, the newcomers from less affluent countries will probably enter the urban housing markets in the most affordable segment, i.e. in large housing estates. *The municipalities and governments need to intervene here with the measures of social and integration policies to avoid ethnic confrontations based on socioeconomic inequalities within the cities.*

DISSEMINATION ACTIVITIES

Scientific publications

Published

International audience

- (1) Leetmaa, Kadri; Tammaru, Tiit; Hess, Daniel Baldwin (2015). “Preferences toward neighbor ethnicity and affluence: evidence from an inherited dual ethnic context in post-Soviet Tartu, Estonia.” *Annals of the Association of American Geographers*, 105(1), 162–182. – *An introductory article on social processes going on in Annelinn.*
- (2) Tammaru, Tiit; Kährik, Anneli; Mägi, Kadi; Novak, Jakub; Leetmaa, Kadri (2016). “The ‘market experiment’: increasing socio-economic segregation in the inherited bi-ethnic context of Tallinn”. In: Tammaru, T.; Marcinczak, S., van Ham, M. (eds.) *Socio-economic segregation in European capital cities: East meets West. Book Series: Regions and Cities*, 89, Routledge, 333–357. – *An article introducing the development of socio-economic and ethnic segregation in Estonian capital city, including explaining the role of socialist-era large housing estates on residential landscapes.*
- (3) Mägi, Kadi; Leetmaa, Kadri; Tammaru, Tiit; van Ham, Maarten (2016). “Types of spatial mobility and change in people’s ethnic residential contexts”. *Demographic Research*, 34, 1161–1192. – *An article explaining how Estonians and Russian-speakers choose their residential destinations, including explaining the role of socialist-era large housing estates on residential choices.*
- (4) Holvandus, Johanna; Leetmaa, Kadri (in press, will be published in December 2016). “The views of neighbourhood associations on collaborative urban governance in Tallinn, Estonia.” *plaNext*. – *An article studying neighbourhood activism in different types of urban neighbourhoods.*

Estonian audience

- (5) Leetmaa, Kadri (2015). “Pildikesi Annelinnast.” [“Pictures from Annelinn”]. ŌU+U, *Journal of Estonian Landscape Architect and Urbanists*, 9. Available in: <http://www.urban.ee/issue/ee/17> – *An article on the results of architectural competition on Annelinn’s public space in 2014-15; one of the project team members (Kadri*

Leetmaa) was an invited member of the panel of reviewers in the competition.

- (6) Leetmaa, Kadri; Väiko, Annika (2015). “Siseränne Eesti asustussüsteemi kujundajana aastatel 1989–2011” [“Internal migration shaping Estonian settlement system and urban population”]. In: Rosenberg, T.; Tammur, A. (Eds.). *Rahvastiku areng* [Population development] (76–113). Tallinn: Estonian Statistical Office. – *An article explaining the role of internal migration in the development of urban population.*

Submitted articles

International and Estonian audience

- (7) Leetmaa, Kadri (2017). “Elukoht kui lõimumise süvamöödik. Muutused keelerühmade põhises ruumilises eraldatuses.” [“Place of residence as a measure of integration. Changes in socioeconomic and ethnic segregation in urban landscapes”]. In: Tammaru, T.; Eamets, R.; Kallas, K. (Eds.) “Eesti inimarengu aruanne 2016/2017” [“Estonian Human Development Report 2016/2017”]. – *Annual report consisting of articles from top social scientists in Estonia to analyse the most topical issues of Estonian society. This collection of articles has been traditionally discussed thoroughly among policy makers in Estonia as well as among other institutions observing Estonian society (OECD, EU, etc.). The articles in this issue are published both in Estonian and in English.*

2 articles in an ongoing book project:

- (8) Leetmaa, Kadri (first draft submitted, will be published in the first half of 2017) “Paneelelamurajoonide imidž – vaade seest ja vaade väljast” [“The reputation of socialist housing estates – the views from inside and from outside”].
(9) Mägi, Kadi (first draft submitted, will be published in the first half of 2017) “Muutused Annelinna sotsiaal-demograafilises struktuuris 1989–2011” [“Socio-demographic changes in Annelinn 1989 – 2011”].

In: Pae, Kaja (ed.) “Collection of articles on the past and contemporary planning process of a large socialist-era housing estate: the case of Annelinn, Tartu.” – *An ongoing book project funded by Tartu City Government and Cultural Endowment of Estonia targeted towards Estonian planners community to introduce best practice in urban planning applied in Annelinn to design public space in socialist-era large*

housing estates. After publishing the first version of the book in Estonian (2017), the editors intend to apply additional funding to publish the book in English for international planners community (probably in 2018, depends on funding).

Ongoing work

International audience

(10) Johanna Holvandus, Kadri Leetmaa, “The potential for neighbourhood activism in socialist large housing estate: the case of Tartu”, to be submitted in 2017 into a peer-reviewed scientific journal. – *An article explaining the role of local urban planning initiatives in socialist-era housing estates using the case of Annelinn; based on materials of the current project, incl. the interviews with urban activists related to large housing estates in Estonia and in Tartu.*

(11) Kadri Leetmaa, Johanna Holvandus, “From Soviet master planning and the neglect in transition period to contemporary sensitive planning interventions: planning history of Annelinn”, to be submitted in the 2017 into a peer-reviewed scientific journal. – *An article explaining the approaches applied in urban planning related to large housing estates in different periods: from late Soviet until late transition period. The aim is to present Annelinn as the best practice case in contemporary urban interventions.*

Academic events

(12) Paper presentation: Kadri Leetmaa, Kadi Mägi “Types of spatial mobility and change in people’s ethnic residential contexts”. The 8th International Conference on Population Geographies, Brisbane, 30.06.-3.07.2017.

(13) Paper presentation: Johanna Holvandus “The views of neighbourhood associations on collaborative urban governance in Tallinn and Tartu, Estonia. Neighbourhood activism in socialist-era large housing estates”. The 6th International Conference of Urban Geographies in Post-Socialist Countries, Prague, 22.09-26.09.2015

Knowledge transfer events

(14) A presentation and panel discussion by the project team member, Kadri Leetmaa, at the Annual Estonian Real Estate Development Conference 01.10.2015, on

comparision of different urban residential environments. Audience: appr. 200 persons, leading real estate agents and experts in Estonia.

(15) For transfering the knowledge directly to decision makers we have choosen an interactive interview-converation method. In winter and spring 2015/16 we have carried out interactive one-to-one conversations with (1) policy makers in Tartu, (2) professional activists influencing the policy making and planning process in Annelinn and (3) with other local (community) activists related to Annelinn. Altogether 13 such conversation were carried out. We mostly decided in favour of one-to-one interviews (instead of initially planned focus groups) with these experts because of very different schedules and time limitations of those experts involved. During the interviews we first introduced the results of the SCOPES project and asked their feedback and reactions on the trends we discovered during the desk research and statistical analyses. Their feedback in turn brought new information to the SCOPES analyses and helped to interpret the described processes. In general this interviewing process also served as a public communication process that made the city officials and other experts and parties aware of the processes taking on in Annelinn and in other socialist-era housing estates.

(16) Presentation by the project team member Kadri Leetmaa at the annual Estonian Planners Conference 5-6 Nov 2015, on the “Development of different urban residential environments in the cities of Central and Eastern Europe”. Audience: ca 300 persons, Estonian urban planners, landscape architects, geographers, architects, other urbanists.

(17) Presentation about the results of the research project at the seminar Museum Academy in the Tartu Art Museum 17 Nov 2016. This follow-up local seminar (for city officials, local activists of the Annelinn-Jaamamõisa district, members of the newly created Annelinn Neighbourhood Associations, arhitcts and other urban experts involved into planning activities) communicated the results of the SCOPES research project and discussed the recent ‘small intervention’ investment plans of the city government.

Public communication

(18) Project team member, Kadri Leetmaa, was interviewed by the Tartu Art Museum, for their exhibition “Who creates the city?”, 29.09.-4.12.2016. The intrview also gave an overview of the results of the SCOPES project and its application opportunities.

Audience: all inhabitants and visitors of Tartu.

- (19) Koorits, Vahur (2016). “Uuring: eestlased ja venelased hoiavad Tallinnas elukohta valides omaette”. Delfi 04.06.2016. [“Residential choices of Estonians and Russian-speakers”. Daily news channel Delfi 04.06.2016].
- (20) Aljas, Triin (2016). “Tallinn muutub tulevikus venekeelsemaks. Intervjuu Kadi Mägiga”. Postimees. 10.06.2016. [“Changing ethnic landscapes in Estonian cities. Interview with the project team member Kadi Mägi”. Daily newspaper Postimees 10.06.2016].

Collaboration

(21) The book project – Pae, Kaja (ed.) “Collection of articles on the past and contemporary planning process of a large socialist-era housing estate: the case of Annelinn, Tartu.” (see above: scientific publication) is a collaboration project with Tartu City Government and Estonian Centre of Architecture. The book in Estonian is addressed to Estonian urban planners’ community to understand the socioeconomic developments and the impact of planning in socialist-era large housing estates today.

(22) A member of the project team, Kadri Leetmaa, was invited as the panel member of the architectural competition of Annelinn’s public spaces in 2014/2015. This offered an opportunity to present and discuss the results of this project (running partly in parallel to the competition) among the local decision makers (officials working in planning sector in the Tartu City Government, members of the Estonian Architectural Society, etc.). The knowledge created under the research project were used in the evaluation process. The follow-up seminars were held in the city government how to use the ideas offered by the winners of the architectural competition in real planning and urban design (designing public spaces in Annelinn).

(23) A member of the project team, Kadri Leetmaa, is a member of two Advisory Committees of the Tartu City Council – the Committee of Urban Planning and Development and the Committee of Communal Services. She has also belonged to temporary committees of the Tartu City Government on light traffic (cycling and pedestrian roads) and on public transport.

Third-party funds

(24) The book project – Pae, Kaja (ed.) “Collection of articles on the past and contemporary planning process of a large socialist-era housing estate: the case of Annelinn, Tartu.” (see above: scientific publication) – is funded by Tartu City Government and Cultural Endowment of Estonia.

Follow-up projects

(25) Project team member, Kadri Leetmaa, plans to apply personal grant (4–5 international team members) from the Estonian Science Foundation, for the period 2018–2022 related to the topic “Neighbourhood activism and best planning practice in large housing estates”.

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