COSMOPOLIS
INTEGRATING MIGRANT COMMUNITIES INTO LOCAL ENVIRONMENTS IN HELSINKI

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Master’s Thesis
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ABSTRACT

Nowadays the high flow of population migrations from developing to developed countries is converging on most of the segregated areas in the urban environments. The grouping of these population groups that have gathered in specific locations are becoming physically and mentally segregated communities. Immigrant groups clustering in specific zones or neighbourhoods of cities make native residents to avoid or move out for various reasons causing mental barriers and bad reputation areas within urban contexts. In sub urban areas, this mental barriers are complemented by physical barriers, giving rise to mentally and physically segregated areas in developed metropolis.

Finland presents a great potential to develop multicultural urban environments, due to the existing social mixing policy. On the other hand, the vast inhabitant migration from rural areas in the 60’s (Vaattovaara et al. 2010) resulted in urgent need of housing buildings, developing high rise neighbourhoods in sub urban areas based on the modern model of a car-based city. This model is evidently problematic nowadays due to the various physical barriers, isolating this areas from urban life, therefore producing spatial segregation.

The main aim of the thesis is to study spatial segregation of neighbourhoods with high percentage of immigrant groups in Helsinki. Jakomäki, a suburb located on the northern borders of Helsinki, is chosen as a case study to develop a strategic proposal for better integration. There is a potential to integrate the suburb in parallel to the development of the capital city latest master plan; the developing of Malmi airport and the Boulevardization. The aim of this thesis is to integrate the physical space and the migrant communities in the local environment, in order to reach a cosmopolis. By taking in consideration urban goals established by UN Habitat Europe and the City of Helsinki, the project aims to impact at the urban, the district and the neighbourhood level; for triggering the development of the north part of Helsinki while benefiting local inhabitant communities and encourage mental and spatial integration.

Keywords: Segregation, Integration, Multiculturalism, Multicultural Interactions, Jakomäki, Helsinki
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BACKGROUND
THE STUDIED PROBLEM

Spatial clusters with high density of low income immigrant population are emerging in urban areas of developed countries. This clusters are usually complemented by physical barriers, followed by mental barriers of native groups of population towards foreigners. Physical barriers can be established by natural or built features on the environment, interfering with the spatial permeability of a specific area. On the other hand, mental barriers are constructed upon human prejudices towards a space, preventing human flows, due to negative perceptions.

European cities take in large groups of low income foreign population, limiting the housing location and attributes to the social housing market supply. Areas composed by higher amounts of social housing, tend to gather ethnic groups with low percentage of native inhabitants, this phenomenon leads the author to Research Question 1. Is the phenomenon given by facts other than the income level? This issue has been experienced by the author in different European cities, receiving comments from the locals such as “you should not go there, it is an immigrant neighbourhood” or “Immigrants are making our cities unsafe”. Figure 1.1, displays this negative mindset of native population towards immigrant groups. From the author’s point of view, this negative mindset towards foreign population, produces strong effects in the spatial development of contemporary cities, leading to Research Question 2.

RESEARCH QUESTIONS

1. Why are immigrants grouped in specific locations, creating segregated urban areas?

   This question is developed in chapters one and two, through quantitative and qualitative research methods to find the main causes of spatial segregation of immigrant groups.

2. What kind of effects are caused by mental and physical barriers on the clustering process?

   This question is explored in chapters one and three. Chapter one analyses the mental barriers as an effect of segregation; while chapter three, explores the physical barriers affecting a specific location.

3. How could spatial actions or policies be employed, in order to integrate immigrant groups to local communities?

   This question is developed in chapter four, by giving spatial solutions for the segregation phenomena, taken in count the findings of qualitative and quantitative analysis.

The following section looks for answers to the research questions, in order to understand the phenomenon and explore possible solutions to the problem. Due to the strong social influence on spatial segregation of immigrant groups, this chapters explores the possibilities to apply as spatial actions in order to address segregation. Since this project is specifically targeting the built environment, the theoretical framework provides analysing tools to find and evaluate segregation in the physical space.

Sections 1.1 and 1.2 of Chapter one, provides an in-depth description of the problem.
The analysis delivered a specific location to work with, in order to develop an integration strategy for a spatially segregated neighbourhood.

2. IDENTIFYING SEGREGATED AREAS IN HELSINKI

The findings from the literature review, provided a guideline for a qualitative and quantitative search, in order to find an intervention lab to develop a project.

The quantitative analysis lead to specific statistic search to be merged into analysis maps. The maps were used to make a qualitative search in the city by conducting variety of area visits to experience and observe physical characteristics.

3. ANALYSING THE SITE

Once the location was identified, chapter three analyses the site in the neighbourhood and district level. It is pertinent to reinforce the pedestrian connection with an already active destination point and make it attractive for natives, in order to provide an integration process, to establish interactions.

The findings of the chapter provides specific problems causing spatial segregation and potentials to be strengthen to contribute to the spatial integration.

4. STRATEGIC PROPOSALS

Strategic intervention points are developed in chapter four by assigning conceptual design proposals working as activator points and native population attractors.

A spatial scheme followed by a target population group to attract and a space quality checklist (compiled from literature) to address an accurate design are described in each of the strategic proposals.

1. THEORETICAL FRAMEWORK

About spatial segregation of low income immigrant groups. Causes, effects and possible solutions to the topic based on literature and references.

4. CONCLUSION

The findings from the analysis leads to a network of strategic proposals to be developed.
Chapter 1: Theoretical Framework

Chapter one explores the research questions in order to find the main causes and effects of spatial segregation of immigrant groups in developed countries, especially in Helsinki and the appropriate measures to reduce spatial segregation of immigrants. Why are immigrants grouped in clustered areas with bad reputation among local inhabitants? It is important to highlight the differences found between American and European cities and especially Nordic. It was convenient to be an international student recently arrived to the Helsinki, in order to avoid area prejudices that might be present among local inhabitants and work with an objective perspective. The findings from chapter one provides an overview of possible solutions for the phenomenon, the encouragement of multicultural areas and prevention of racism. Since the main reasons of the spatial segregation are social, it raised the question of how to address and give a solution to the topic through physical interventions?

Chapter 2: Find segregated areas in Helsinki

Chapter two explores the areas with high vulnerability of segregation, according to the collected data in chapter one. The quantitative analysis with statistics collected from various sources, introduces numerous neighbourhoods with existing characteristics of segregation. The qualitative analysis is performed through observations on the vulnerable areas, given by the quantitative analysis. The qualitative analysis takes into account observations of human interactions in the areas and the physical conditions of the built environment. Findings of this chapter points to a specific location in Helsinki with high vulnerability of spatial segregation towards immigrant groups, while the theoretical framework contributes with the social causes of spatial segregation of immigrants.

Chapter 3: Analysing the intervention area

Chapter three explores the physical barriers of the intervention laboratory, in order to implement a physical solution for spatially segregated areas in Helsinki. Two scales, district and neighbourhood are considered for the physical analysis of the area, due to the relevance of direct relations with the surrounding areas to enhance permeability, connections and shared services. The causes and possible solutions for the mental barriers are developed in the theoretical framework chapter, leaving a gap on which physical barriers are strengthening the social problem. The findings of this chapter provide an understanding of the existing problems and potentials of the area.

Chapter 4: Strategic proposals

Chapter four develops the research question 3 with strategic proposals, exploring physical solutions for the identified physical and mental barriers. A network of projects influencing district and neighbourhood level is proposed, to provide variety of passive and active interactions at the street level. It is necessary for native population to inhabit the area, in order to enhance multicultural interactions to prevent racism, white flight and white avoidance. The housing densification and the triggering facilities complement themselves for a raising vibrant and diverse neighbourhood.
CHAPTER ONE

I. THEORETICAL FRAMEWORK

ABOUT SPATIAL SEGREGATION OF IMMIGRANTS
1.1. General overview of spatial segregation

Nowadays cities growth is mainly given by the attraction of foreign born and working age population (UN Habitat 2016). High density of migration towards developed countries is a global phenomenon, which creates the urgency of contemporary cities to adapt to the growing foreign population since ethnic diversity in contemporary cities is unavoidable (Cantle 2012). High density of low income population groups migrates from developing countries, looking for better job opportunities, academic quality or improvement in the quality of life (Taylor 2012). It is important to highlight the differences of immigrant reception in various contexts, since on one hand, North America, New Zealand and Australia have longer experience of immigration, while the phenomena in Europe is relatively new, except for the nations with a history on the colonialism. Due to America’s longer experience with immigrants’ reception, immigration policies aim to attract highly educated groups able to position themselves in the labour market and create a better integration (Taylor 2012). On the other hand, Europe does not select skills when receiving immigrants, attracting a different profile of population mostly interested in generous welfare systems (Åslund 2004). A large proportion of those groups intending to stay in European countries are not highly educated individuals, which represents a growing low income population group. The income and education level represents a risk towards creating urban segregated areas within European cities with high density of immigrant population groups. Nordic countries are more likely to receive larger groups of immigrants, due to the attractiveness of welfare systems, this results in higher densities of population without high education therefore low income groups, which are proved to be the main sufferer of spatial segregation (Vaattovaara, et al. 2010). Finland presents few differences with other European countries regarding to immigrant reception since the phenomenon is more recent because of the geographic location, the non-colonialist history and self-sufficiency in the labour market (Raento and Husso 2001). The immigration rate to Finland is largely lower than other European and especially Nordic countries, still the strong welfare system is attractive for immigrant groups. Spatial segregation vulnerability increases proportionately with the low-income immigrant density specially in countries
By 2016 foreign inhabitants represented 70% to 80% of Helsinki population growth (Helsingin Kaupunki 2016) and the forecast of foreign language speakers by 2030 is around 20% of the Finnish population (Vaattovaara, et al. 2010).

Immigrant clusters increase mental gaps among locals, preventing multicultural interactions between natives and immigrants, raising the vulnerability of racism and ethnic segregation (Taylor 2012, Søholt and Lynnebakke 2015, Levrau and Loobuyck 2013). The process creates a loop where racial rejection encourages self-segregation resulting in low multicultural interactions which increases racism (Lentin 2005), white flight and white avoidance (Levrau and Loobuyck 2013), strengthening the clusters and attracting local population with lower level of education and income (Andersson, Brattbakk and Vaattovaara 2016). Statistics reveal the growing migration rates in Europe (UN Habitat 2016) are led by immigration more than by fertility rates.

This thesis targets low income immigrant population groups due to their higher vulnerability of spatial segregation, the discarded immigrant groups are highly educated workers and students, since they present higher possibilities of developing interactions with native individuals (the relevance of interactions will be described latter in this chapter). The income level is a strong feature defining the location selection of immigrant groups, highly educated workers have the possibility to choose housing location according to their preferences and students have the possibility to modify their income in the future since they are potential members of the labour force (Vaattovaara, et al. 2010). Furthermore, immigrants without a higher education degree have limited possibilities to increase their income, making them dependent on the social housing market when choosing housing locations. Even if spatial segregation in Finland is controlled by an existing mixing policy to prevent segregation of foreign language speakers, settling a limit of 30% of foreign language speakers per district (Dhalmann and Vilkama 2009), the groups still concentrate in specific areas with high density of social housing.
1.2. Causes and effects of spatial segregation.

Various similarities were found in the establishment of spatially segregated areas worldwide such as level of income (Åslund 2004, Wacqant 2010, Accetturo, et al. 2014, Dhalmann and Vilkama 2009, Søholt and Lynnebakke 2015), employment situation (Raento and Husso 2001), self-segregation (Accetturo, et al. 2014, Dhalmann and Vilkama 2009, Taylor 2012, Zhu, Liuc and Painter 2013, Åslund 2004, Søholt and Lynnebakke 2015, Dhalmann 2013, T. M. Kauppinen 2002), dependency on the social housing market (Åslund 2004, Dhalmann and Vilkama 2009, Vaattovaara, et al. 2010, Kauppinen and Vilkama 2016), white flight (Accetturo, et al. 2014, Bråmå 2006, Andersson, Brattbakk and Vaattovaara 2016, Wong 2010) and white avoidance (Bråmå 2006, Andersson, Brattbakk and Vaattovaara 2016, Grüner 2010). As previously described, the level of income is a determinant issue for constructing spatial segregation, since the location choices of the inhabitants are limited to the housing market prices. The level of income is directly related to the employment situation in the case of native inhabitants, but immigrants are more likely to work on fields not correspondent to their education level. Unemployment rates in Helsinki is more than double in immigrants than natives (Vaattovaara, et al. 2010). These arguments detaching the income level from the education level in foreign groups, might be taken as an explanation of the existing socially problematic natives inhabiting areas with high density of immigrant groups.

Foreigners level of income and dependency on social housing, raises the native inhabitants prejudice upon foreign population, since it is perceived that foreign inhabitants attract social problems. The prejudice encourages white flight and white avoidance towards immigrant neighbourhoods and increases racism and ethnic segregation, this is described to be a symptom of low tolerance rates towards immigrants, especially in Nordic countries (Andersson, Brattbakk and Vaattovaara 2016). The white flight concept was originated in North America, describing the process of white inhabitants avoiding characteristics associated with African Americans such as poverty and social problems (Harris 1999). Even if it is an American concept, the process has been developing worldwide, and especially increasing with the low-income immigrant trend towards developed countries. The white flight and avoidance is strengthened by aspects other than prejudice growing parallel to ethnic segregation, native’s fear of cultural loss, adopting the incoming culture and changing their original lifestyle (Modood 2014). The fear is increased by Europe’s shorter experience with immigrants (Taylor 2012). The threat perceived by native population leads to unfriendly relations between locals and immigrants, creating mutual conflicts and diminishing the possibilities for integration (Fleischmann and Phalet 2010). Nowadays white avoidance is more common than the white flight (Bråmå 2006), a reason might be the already established immigrant clusters in contemporary cities causing native population tendency to avoid immigrant neighbourhoods due to the existing prejudice and stereotype.

Once the reasons for existing prejudices towards immigrant neighbourhoods are clear, it is easier to understand some causes of self-segregation. A process where low income areas (of foreigners) attract social problems (of natives) raises the prejudice towards immigrants, therefore encouraging racist attitudes and intolerance, creating the need of ethnic communities to group in specific areas for the fear of racism. The self-segregation process has been evidenced worldwide, but specially in Nordic countries, because of the high number of refugees and asylum seekers grouping in specific areas. The clustering of these groups is not only about fear of racism, family reunion plays an important role on the spatial distribution (Søholt and Lynnebakke 2015). Other advantages of geographic proximity of immigrants with the same ethnic group are mutual collaboration, stronger feeling of belonging towards the host country, better interactions due to the affinity of culture (Dhalmann and Vilkama 2009) and the share of resources and national amenities (Zhu, Liuc and Painter 2013). The benefits of self-segregation for immigrant groups are reflected in spatial clusters of urban areas, but those gains for foreign population are represented in large scale detriment for local communities as increased ethnic segregation, and strong variations in the housing market prices. The ethnic segregation and racism present itself as a ripple effect towards other immigrant groups, it can cause highly educated immigrants to be victims of discrimination (Levrau and Loobuyck 2013).
CHAPTER ONE. THEORETICAL FRAMEWORK

SPATIAL SEGREGATION
OF IMMIGRANTS IN HELSINKI

CAUSES

Housing Market
- Housing ownership concentration
- Social housing concentration
- Safe rents
- Price reduction (due to immigrant density)
- Spatial deterioration

Self Segregation
- Fear of racism
- Multicultural collaboration
- Rental availability
- Integration (same group)
- Feeling of belonging
- Inadequate knowledge of options
- Same ethnical group

Level of education
- Employment situation

Level of Income

White Flight and avoidance
- Natives Economically Dominant
- Negative phenomenon for immigrants

IMMIGRANT GROUPS

Asylum Seekers
- Highest priority for council housing

Workers
- Relatively high income

Students
- Multicultural interactions. No register of segregation

EFFECTS

Mutual support integration
- Feeling of belonging
- Reduced mental burden
- More social contacts
- Better communication
- Cultural maintenance

Less need to learn the language
- Lower housing prices
- Spatial deterioration
- Stigmatisation and marginalisation
- Increased racism
- Attraction of low income natives

Spatial inequality follows socio-economic inequality but typically with a time lag, since it takes time for increasing socio-economic inequality to translate into physical structure of the cities.
State of European cities 2016. UN Habitat

“Spatial inequality follows socio-economic inequality but typically with a time lag, since it takes time for increasing socio-economic inequality to translate into physical structure of the cities.”

State of European cities 2016. UN Habitat

Fig 1.2. General Overview of Spatial Segregation
The causes of segregation of immigrant groups are discussing mainly social aspects, however, the housing market plays a significant role in the spatial decisions of immigrant groups. Spatial segregation of immigrants might be the result of unexperienced politicians in migration measures, to prevent self-segregation (Taylor 2012). Even with the mixing policy implementation spatial segregation in Helsinki is a fact, and prejudices towards ethnic groups are raising. Besides the previously described causes of spatial segregation, the grouping of immigrants in Finland is also caused because of the social housing dependency of foreign language speakers as a result of the restricted economic situation and the lower employment rates among immigrant groups (Kauppinen and Vilkama 2016, Dhalmann and Vilkama 2009, Vaattovaara, et al. 2010). The registered unemployment rates are higher among Middle Eastern, Vietnamese and Africans (60%) than among Americans and western European (10%) (Raento and Husso 2001). The dependency of low income immigrant groups on the social housing availability (Åslund 2004), represents a major risk for clustering, in Helsinki the foreign language speakers are mostly located in suburbs built in the 1980’s and 1990’s (Vaattovaara, et al. 2010). Spatial concentration of immigrant groups in Helsinki began in the 1990’s mainly in suburbs with empty social housing (Dhalmann 2013) due to the large immigrant groups depending on it. (Dhalmann and Vilkama 2009, Vaattovaara, et al. 2010). 80% of social housing buildings are located in sub urban areas (Dhalmann and Vilkama 2009), these are generally physically isolated from urban environments by various physical barriers. The social segregation problem is being complemented with isolated physical environments. In addition to the social housing dependency and the self-segregation matter; immigrant groups admit a preference towards suburbs, due to the larger green and open spaces (Søholt and Lynnebakke 2015). Besides, the housing prices are more affordable in suburbs for housing purchase, and private rentals, which represents a major potential to accumulate low income groups. A poll made by UN Habitat, revealed that only 10% of Helsinki’s population thinks it is easy to find affordable housing in the city (UN Habitat 2016), and the 2016 report of the city of Helsinki stated that east and north-west areas of the city are more affordable (Helsingin Kaupunki 2016). Segregation is produced by spatial isolation which is caused by residential segregation (Andersson, Brattbakk and Vaattovaara 2016). The housing market dependency on the affordable housing is not the only reason for immigrants’ location preferences in Helsinki, the media displays a growing trend of ethnic segregation and racism (Fig. 1, p 2). The fear of racism of immigrants is complemented with the white avoidance of Finns towards foreign language speakers, interviews made by Andersson, Brattbakk and Vaattovaara (2016) revealed that 41% of the interviewees prefer to live in a low immigrant dense neighbourhood. The segmentation is mutual, immigrants cluster for reasons described above, and Finns avoid multicultural neighbourhoods. The negative perception of Finns towards immigrants, can be explained by the relatively short history of migration and the heritage of seeing Finland as a culturally homogeneous country. The inherited perception, is ignoring the migration of Swedish speakers, Romani and Sami indigenous which comes from the XIX Century (Raento and Husso 2001). Is segregation then a matter of race? Mental barriers towards immigrant groups are strengthened by racism and ethnic segregation (Modood 2014), created by prejudices and media stigmatization. As Lentin (2005) states “Racism in common sense is the pathological problem of ignorant individuals who know no better” (Lentin 2005. P 388), this statement points out the lack of information of racist individuals towards different cultures. The developed countries belief of responsibility towards helping developing countries and their immigrants, is a strong trigger of racism and segregation, since this concept represents the idea of white superiority (Lentin 2005) promoting the hierarchy of locals above distinct ethnicities. This issue is a potential developer for two-sided segregation, leading foreigners to stronger welfare dependency, lower income and level of education, and locals to underestimate the capabilities of immigrants encouraging support but not income or educational development. “Living in segregated neighbourhoods reinforces in-group trust at the expense of out-group trust” (Andersson, Brattbakk and Vaattovaara 2016 p.36).
By improving the living environment of spatially segregated areas with high density of immigrants, the inhabitants’ well-being is promoted raising the community sense at the local scale, leaving behind the large-scale integration.1

Figure 1.3 summarises the location features characterising areas with high density of immigrants in Helsinki. The literature findings points the strong relevance of social issues defining spatial segregation of immigrants, contributing to the quantitative information search in order to find segregated areas in the city. Regarding social features, negative characteristics were found to be associated with spatial segregation, while spatial features are mainly attached to positive neighbourhood characteristics. The described findings are used in chapter two, to identify spatially segregated areas with high density of immigrants in Helsinki.

1 An example of good quality of life in a neighbourhood with high density of immigrants, is an interview made to a foreign young adult in a previous studio of this master, “Social Inclusion Design Studio”. The studio was taken in the fall of 2015, coursed in Chalmers University of technology and the team members were Aleksandra Borzęcka, Huda Hakki, Petra Sandberg and Veronica Contreras Eitner. The interview revealed the immigrant’s preference on staying on a high immigrant density neighbourhood of Gothenburg (SE). The area “Angered” is one of the most segregated areas in the city with more than 50% of foreign inhabitants. The interviewee reported that he never felt the need to leave the area due to the variety of existing basic and entertainment services and described his social network as first or second generation immigrants. The interviewee felt comfortable with the area, and due to his duration in Sweden, he is nowadays highly educated and a part-time worker.

This example proves that increasing the neighbourhood living conditions is a major issue, but in order to reduce racism and ethnic segregation, it is necessary to target multiculturalism as interactions between not only immigrant groups, but among native groups to enhance multiculturalism in contemporary cities.

-Where are immigrant groups located in urban areas and why?

In order to identify segregated areas in the city, the following features were identified according to the literature:

![Fig 1.3. Location Features](image-url)

- High density of social housing
- Low housing prices
- High unemployment rate
- High crime rates
- Low population density
- Suburbs
- Physical Isolation
- Public transport accessibility
- Large green areas
- Excersising areas
- Child friendly
- Safety

FEATURES OF SPATIAL LOCATION OF IMMIGRANT GROUPS IN HELSINKI

SOCIAL FEATURES

SPATIAL FEATURES
1.3. Addressing Segregation

Ethnic segregation and racism can be addressed by increasing and promoting interactions between native and immigrant inhabitants (Lévi-Strauss 1952, Taylor 2012, Søholt and Lynnebakke 2015, Andersson, Brattbakk and Vaattovaara 2016, Pettigrew and Tropp 2008). The most accurate solution to segregation is to improve the interactions between locals and immigrants’ and not only the improvement of immigrant living conditions at the neighbourhood level, this in order to prevent racism and ethnic segregation and create multicultural environments. Most projects address spatial segregation of immigrant groups through increasing the neighbourhood conditions of immigrant communities or preventing white flight of already settled groups. However, improving the existing inhabitants living conditions and avoiding native groups to leave does not prevent the clustering of population, but rather increase the vulnerability towards spatial segregation (Andersson, Brattbakk and Vaattovaara 2016).

Encouraging the interactions between neighbours in areas with high densities of immigrant groups creates a higher risk of spatial and social segregation and consequences described in Figure 1.2. An adequate strategy is to prevent white avoidance by attracting native groups to areas with an existing abundant density of immigrant population while encouraging interactions. For intergroup contact to occur, geographic proximity must be promoted (Andersson, Brattbakk and Vaattovaara 2016), for the attraction of local individuals, it is crucial to provide attractive features for Finnish individuals.

In order to encourage integration in the areas with high density of immigrants, it is necessary to enhance diversity and multiculturalism in order to create human interactions between the immigrant and the local communities. Cultural share is a great potential brought by the globalization in order to enrich knowledge and promote progress. Lentin (2005), making reference to the book Race and history by Lévi-Strauss (1952) states: “… progress comes about as a result of interaction between groups” (Lentin 2005, p 88). In order to achieve integration and multiculturalism, policies should target the transformation of interactions between immigrants and locals to remove prejudices and to maintain the country’s historic identity (Taylor 2012). National identities must be preserved under majority groups responsibility and should be common for all citizens, while minorities must be able to preserve, change and to adapt at their own way, no forced integration should be built (Modood 2014). Every identity should be encouraged by policies but not pressured to support and adapt to citizenship (Modood 2014), therefore the free expression of culture or religion should have room in the host country’s everyday activities. In order to address accurate measures to encourage integration and multiculturalism, it is necessary to detach individuals from the prejudice of immigrant communities and developing countries of being inferior, but rather to treat them as equals. UNESCO states that all men belong to the same species, and the division of groups had been falsely termed as races (Lentin 2005). Levrau and Loobuyck (2013) refers to the integration recognition paradox, which argues that humans should be recognised and accepted by their own identity, leading to a better integration and stronger sense of belonging towards the host country. Multiculturalism is about accepting diversity resulting in integration, takes different forms in different countries and changes over time (Modood 2014), this statement leads the author of this thesis to think of multiculturalism as a process of adaptation of societies, which needs to adapt to current and future situations. Majorities and minorities (natives and immigrants) have the right to be supported through policies, no one has exclusive rights (Modood 2014) leading to an equal treatment for everyone. This equal treatment is not referring to cultural identity of communities, furthermore, it is promoting and accepting the expression and preservation of all present cultures for mutual interaction, Modood (2008) states that differences should only be mentioned in combination with commonalities. Multiculturalism is to allow different cultural groups to exist per se, maintaining their culture and traditions, without the need of creating spatial clusters for fear of racism.

Multicultural interactions are the best way to release mental barriers and increase tolerance, therefore the phenomenon should be studied as the resulting social change, instead of immigrants as individuals or groups (Levrau and Loobuyck 2013). “What we need is a vision of citizenship that is not confined to the state, but dispersed across society, compatible with the multiple forms of contemporary groupness, and sustained through dialogue; plural forms of representation that do not take one group as the model to
which all others have to conform; and new, reformed national identities. That is multiculturalism” (Modood 2008. P88).

An example of encouraging multicultural interactions

Due to the high demand of education facilities in Biskopsgarden (Gothenburg), an area with high density of immigrant population, the municipality implemented a public transport network connecting the area with a low immigrant density neighbourhood with low education facilities demand. The transport network supplies the education facilities demand while providing multicultural interactions between second generation immigrants (with all the collateral advantages).

-Spatial segregation of immigrants is produced by physical and mental barriers, which are those barriers, and how are they strengthening urban clusters?

Fig 1.4 summarises the barriers found on the literature, scholars pointed social barriers the most, preventing interactions therefore integration. The mental barriers present themselves as a mutual phenomenon, from local groups towards immigrants and vice versa. The explanation of the spatial segregation phenomena is not deeply explained in the literature, the preference of immigrants towards suburbs is obvious, reasons given for such tendency are the green and open spaces in the areas of low densities. This location preference might be seen as an additional problem for segregation, since physical isolation complements the mental barrier towards foreign individuals. The brief description of physical barriers encouraging segregation, leads to perform a physical analysis of the environment, once the segregated area is identified. This analysis is developed in chapter three.
1.4. Features to create interactions

In order to develop an integration process between native and immigrant groups, geographic proximity between the two groups is necessary to raise the possibility of interactions (Andersson, Brattbakk and Vaattovaara 2016). Since those interactions should take place at the neighbourhood level in order to target spatially segregated areas, a strategy should be implemented to attract native groups to inhabit neighbourhoods with a high density of immigrant population. Mixed neighbourhoods are crucial to achieve inclusion, inhabitants interacting with people living close by promotes social relations (Søholt and Lynnebakke 2015). Parallel to the native population attraction, it is relevant to create and promote interactions to happen, then to build proper public spaces where inhabitants can connect. These interactions can be active, in which people socialise, or passive which implies only seeing and hearing other people (Gehl 2011). It is of high relevance to target spatial integration not only at the neighbourhood level, but between neighbourhoods to prevent the formation or strengthen urban islands. The permeability of the built environment with the surroundings enhances characteristics stated by The City of Helsinki and UN Habitat Europe for the city development such as mixed use development, green mobility, enhancement of denser and neighbourhoods and diversification (Helsingin Kaupunki 2016, UN Habitat 2016). The spatial permeability also allows connections in order to share facilities and services between adjacent neighbourhoods, avoiding the oversupply of services (to have the same services in two contiguous neighbourhoods).

The following section, explores possible actions to be taken in order to prevent spatial segregation of immigrants therefore to create multicultural interactions. On one hand, it is of high importance to attract natives to immigrant dense neighbourhood to achieve the previously mentioned geographic proximity. On the other hand, the development of vibrant public spaces is crucial to boost multicultural connection. Then, the combination of attraction of natives and public spaces were the main tools found in order to promote spatial integration of immigrant groups.

a. Neighbourhood features attractive to Finnish population

Findings of the previous literature, led to a new literature search in order to attract native population to areas with high density of immigrant groups. There are various features attracting different population groups among Finns, depending on the life situation, age group and economic situation. It is relevant to highlight the difference between population choices and preferences when selecting where to live, since choices are directly attached to the housing market supply, while preferences reflects the real wishes of the population. The current homogeneous housing stock given by the market does not reflect population’s needs and preferences regarding housing (Gibler and Tyvimaa 2014, Kersloot and Kauko 2004, Pirinen 2014). The Finn’s changing lifestyle and increasing income is creating a new need towards variety of housing options (Gibler and Tyvimaa 2014). The homogeneous housing market stock and the raising need of variety, is taken as a “massive” potential to this project. By providing options to fulfil the current needs and desires of Finns, attractive areas to inhabit can be triggered in areas with high density of immigrant groups to enhance multicultural interactions therefore reducing the segregation rates.

The housing market provides homogeneous products to diverse population groups, the products are not representing people’s preferences (Gibler and Tyvimaa 2014, Pirinen 2014, Kersloot and Kauko 2004). The housing choices are based on preferences, market conditions, regulations, availability and personal lifestyle and social class (Nyrud 2012). Due to the scarcity in housing options, the inhabitants’ preferences are not completely related to the population choices, people choose the best possible alternative from the available options (Lapintie 2010). Eskelä (2015) describes the problem in Helsinki of finding together available, affordable and quality in the same dwelling. The homogeneous housing stock reduces the options for the inhabitants to choose dwellings, limiting the decisions to what and where is accessible and not to inhabitant’s wishes, creating a gap between housing aspirations and availability (Pirinen 2014). This segmentation is given by a difference between the demand
of characteristics and restricted supply (Gibler and Tyvimaa 2014). The market uniformity is the product of a changing life-cycle among Finns since the fertility rate is dropping, marriages are taking place in older couples and divorce rates are growing, this is reflected in the household sizes (Gibler and Tyvimaa 2014). Even if the described statistics lead the housing market to build the same apartment types, it is not completely fulfilling population’s wishes towards housing or focusing in different population groups. Finns purchasing power is growing (Gibler and Tyvimaa 2014) and the housing expectations has risen regarding to areas, fixing and furnishing equipment, accessibility and outdoor quality (Pirinen 2014), but builders are not trying innovative proposals (Pirinen 2014). The market should be supplying the different types of residential needs (Gibler and Tyvimaa 2014) to create variety of available options to the variety of population groups.

In order to identify the different types of preferred housing options, the different groups of clients must be determined, since different life situations lead to different housing preferences. Various studies on the housing preferences are grouping different profiles of population in order to organise their needs and wishes. Those needs are not only targeting dwelling qualities, but features of the surrounding environment which have much importance in the choices and preferences. There are three types of residential environments in Finland, the city core, village and nature (Ilmonen, et al. 2000). A general overview of the population groups is that single persons or married couples with no kinds tend to prefer the city core, while married couples with kids are more into natural environments. The different groups and aspirations will be described in detail further in this chapter. On the other hand, the tenancy type is also important to influence the population choices towards housing. Housing ownership is the most desirable choice among Finns (Kersloot and Kauko 2004, Toimela 2016, Raento and Husso 2001), since is more affordable in long term, the wealth is accumulated for the owner and not a third party, there is freedom to “do what you want” and it give a sense of pride and achievement (Ruonavaara and Naumanen 2007).

Although some preferred features differ between population groups, common aspects were found between young people and families with children, there is a clear preference of Finns towards peacefulness, closeness to nature and private yard availability (Juntto 2007). The first identified distinction between groups is the income level, since the Finn’s wishes are found in too expensive dwellings while cheaper alternatives provide less benefits (Lapintie 2010). The Finnish middle class is not used to live in urban environments (Kersloot and Kauko 2004), which reflects the preference towards natural surroundings and peaceful neighbourhoods. On the other hand, the creative class, described by (Florida 2002) as inhabitants who completed tertiary education, expressed the preferences towards recreational facilities as parks, sports, night-life and street life close by (Eskelä 2015). Contrary to the creative class description, Finnish families with children do not occupy blocks of flats, due to the high dwelling prices and the smaller inhabiting areas (Pirinen 2014) given by the high demand of flats in the city core (Toimela 2016). Within the creative class group, another distinction was found among Finns, design professionals tend to live in the inner city while the information technology professionals tend to live in the suburbs (Ilmonen, et al. 2000), but no explanation was found to this phenomenon. Features for population groups living alone and married couples with no kids who have the tendency to prefer city cores, are good transport connections and parking places (Toimela 2016), retail and shopping facilities in a walking distance (Gibler and Tyvimaa 2014).

A clear preference towards natural and peaceful environments was identified in various studies independent from the population group (Tyrväinen, et al. n.d., Lapintie 2010, Gibler and Tyvimaa 2014, Pirinen 2014, Juntto 2007). The expressed preferences towards housing were present not only at the dwellings, but at the surrounding areas regarding the built environment and the natural surroundings. Juntto (2007) described population preferences in the following order: detached housing, small or other flats, row houses, senior houses. The expressed desire towards detached housing with complementary services is also described by (Lapintie 2010) with complementary features as big rooms, garden, surrounded by greenery and water; with restaurants close by and good public transport accessibility. Location preferences are directly related to the accessibility to services (Juntto 2007), access at walking distance was found to be relevant when choosing an area to live in (Larco, et al. 2012). It is relevant
to highlight that services are not only making reference towards basic services, but to entertainment services as retail, recreation and sports, Toimela (2016) describes the raising need for shopping centres in housing areas, since the sales and visitors are growing.

Features linked with nature are present mostly in a life situation with kids (Lapintie 2010), families with children have a higher need of a private yard and more housing area (The Finnish Architectural Review n.d.). Families with high income reflected a strong preference towards neighbourhood reputation, to be surrounded by people with the same social condition (Eskelä 2015, Pirinen 2014), quality and comfort regarding to safety, services, quality materials and health services. Trust and pride towards the neighbourhood, are important features in order to enhance recognition, (Pirinen 2014). Regarding natural environments, relevant features influencing the natives’ attractiveness towards neighbourhoods are mainly natural areas (Tyrväinen, et al. n.d.), such as outdoor views towards natural environments, sports facilities and resident activities (Gibler and Tyvimaa 2014), sea view (Lapintie 2010) and a combination of urban and rural living at a reasonable distance and time travel. (Gibler and Tyvimaa 2014).

Regarding dwelling characteristics, the preference towards interior features of the dwelling is described by (Toimela 2016) making reference to blocks of flats in the following order; balcony, sound isolation, more square meters and own sauna. Other features concerning housing in general are of high relevance as having private garden (The Finnish Architectural Review n.d., Juntto 2007, Lapintie 2010), natural views from the dwelling and extra rooms for other activities (Gibler and Tyvimaa 2014).

It was found a wide gap between the current housing supply and the inhabitant’s wishes in Helsinki. The previously described population’s preferences differ from municipal goals as sustainable development, access to public transport services and the need of high densities (The Finnish Architectural Review n.d.). This struggle leads to the question of what type of housing can accomplish the city’s goals while supplying the inhabitants wishes? There is a specific need towards developing high densities (The Finnish Architectural Review n.d.) due to the growing housing need, the estimated demand of housing is growing from 24,000/year to 29,000/year (KTI 2013). An article from (The Finnish Architectural Review n.d.) described a possible solution, low rise row houses allows densification complemented by the user’s preferences.
How to encourage spatial integration, what actions are needed in order to integrate immigrant groups into local communities?

Racism and ethnic segregation cannot be corrected directly with spatial strategies or interventions, but the encouragement of human interactions between native and immigrant population can be promoted by adequate public spaces at the neighbourhood level, in order to increase tolerance towards immigrant population. The first step for multicultural integration to grow is to enhance interactions and socialisation between immigrant and native groups, people interact with people living close by, promoting social relations between majorities and minorities (Søholt and Lynnebakke 2015).

Fig 1.5 summarises the literature findings of section 1.4, by presenting the most accurate actions to promote integration. Depending on the life situation of the population groups to be attracted, dwelling and area features can be promoted for the improvement of the area attractiveness. The situation of life of the households, determines the location and features preferences towards the housing location, therefore defining a target population group for the different types of housing.
In order to create and encourage interactions, features for contemporary vibrant urban neighbourhoods were collected, focusing on the street life. The following features were found to trigger the street life and passive and active interactions at the neighbourhood level.

**MVRDV, The Vertical Village (2012)**

“Human settlements around the world all share particular qualities that combine to create eminently liveable communities” The following are the described qualities of communities according to MVRDV.

<table>
<thead>
<tr>
<th>INDIVIDUALITY</th>
<th>HUMAN SCALE</th>
<th>COLLECTIVITY</th>
<th>DIVERSITY</th>
<th>DENSITY</th>
<th>CRITICAL MASS</th>
<th>FLEXIBILITY</th>
<th>EVOLUTIONARY GROWTH</th>
<th>PUBLICNESS</th>
<th>INFORMALITY</th>
<th>IDENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allows space for personal and unique</td>
<td>Proportional material</td>
<td>Offers the feeling of</td>
<td>Embrace eccentricities and plurality</td>
<td>Creates Vibrancy</td>
<td>Enough people to have a self sustaining social momentum</td>
<td>Accept inevitibility of changing needs and wishes</td>
<td>Determined character</td>
<td>Free and open</td>
<td>Accept the spontaneous and improvised</td>
<td>Coherent reflection of inhabitants culture</td>
</tr>
<tr>
<td>Secluded and discrete point of</td>
<td>Organise Daily life</td>
<td>Shared ways of living</td>
<td>Inhabitants embrace each other’s culture and desires</td>
<td>Creates Liveliness</td>
<td>Retain and reinforce positive aspects</td>
<td>Using available resources for future possibilities</td>
<td>Incremental process of adaptation</td>
<td>Space for social activities</td>
<td>Accept the spontaneous and improvised</td>
<td>Coherent reflection of inhabitants culture</td>
</tr>
<tr>
<td>collectiveness</td>
<td>Spatial Intimacy</td>
<td>Shared ways of living</td>
<td>Prefer complexity over monotony</td>
<td>Creates Intensity</td>
<td>Urbacy as participatory project</td>
<td>Responsive to immediate needs</td>
<td>Optimisation of local conditions</td>
<td>Space for collective debate</td>
<td>Accept made by modifications</td>
<td>Expressed in the physical form</td>
</tr>
<tr>
<td>Freedom of expression through living space</td>
<td>Spaces that are human scaled</td>
<td>Tied to a dense social fabric</td>
<td>Prefer complexity over monotony</td>
<td>A large amount of people compressed in a small area</td>
<td>Ability to modify the surroundings enabled by the absence of planning and regulatory controls</td>
<td>Extensible</td>
<td>Development reflects the changing needs, wishes and habits</td>
<td>Reinforce democratic values</td>
<td>Reflecting individuals desires</td>
<td>Expressed in the physical form</td>
</tr>
<tr>
<td>Measured by:</td>
<td>Low Height</td>
<td>Mix of private to public space</td>
<td>Percentage of different programmes</td>
<td>Continuity of investment or development in an area</td>
<td>Ability to modify the surroundings enabled by the absence of planning and regulatory controls</td>
<td>Extensible</td>
<td>Continuity of investment or development in an area</td>
<td>Proportion of space dedicated to common functions compared to private functions</td>
<td>Presence of individual’s additions</td>
<td>Expressed in the physical form</td>
</tr>
</tbody>
</table>
Liz Treutel (2016) Walkable neighbourhoods
5 Facts making walkable neighbourhoods

1. DENSITY
Relation between -Amount of people -Places of interest Determines Flows
Schools Parks Commerce
Better areas have more inhabitants per square Km

2. MIXED LAND USE
Variety of destinations
Variety of options
Example: Walk to work
1. Leave Home Housing
2. Grab a coffee Commerce
3. Get to work Office

3. STRAIGHT CITY GRIDS
90° Corners are more Walkable
Direct Routes Variety of Route Options
Changing paths for the human sight without changing drastically the walked distance

4. BUILDINGS FACING USERS
Buildings facing the walkable street.
Windows allow relation
Inhabitant/Pedestrian
“Eyes on the street” (Jane Jacobs)

5. NARROW STREETS, COMPACT BLOCKS
Less pedestrian intimidating

Alain de Botton (2008) SCHOOL OF LIFE
Facts that make attractive cities

1. ORDER
Organised complexity = Order with variety
Excessive order = Boring
Excessive Randomness = Messy

2. VISIBLE LIFE
Ability to observe what happens in the street.
Critique to areas people do not visit unless it’s their workplace

3. COMPACTNESS
Urban sprawl leads to dead spaces
Enhance the habitat in communities
Enhance habitat in uplifting surroundings
Enhance habitat close to squares

4. ORIENTATION & MYSTERY
Motorways and Main streets = Orientation
Back streets / Small alleys = Walkability
Feeling of being watched = Community

5. SCALE
Create Landmarks
Large scale buildings designated for main functions
“The biggest building of a town defines what the society is” Joseph Campbell

6. MAKE IT LOCAL
Create Strong Characters with the use of local materials.
Avoid creating areas that can be placed anywhere
### Jan Gehl, Cities for people (2010)

**PROTECTION**

- Safety (Traffic)
- Security (Crime)
- Unpleasant Experiences

### Jan Gehl, Life between buildings (2011)

**ACTIVITY TYPES FOR SPACE USERS**

#### 1. NECESSARY ACTIVITIES

- Mandatory activities
  - Work
  - Study
  - Grocery Shopping
  - Take place under all weather conditions
  - No structure is needed

#### 2. OPTIONAL ACTIVITIES

- Take place if there is a wish from the users
  - Walk around
  - Sit outside
  - Stand Around
  - Time and place makes them possible
  - Requires outdoor physical structure

#### 3. SOCIAL ACTIVITIES

- Depends on the presence of others on the public space
  - Active and passive interactions (socialise of watch people)
  - Requires outdoor infrastructure for activities to happen
  - Urban Furniture
  - Facilities

---

**COMFORT**

- Opportunity
  - Walk
  - Stay
  - Seat
  - See
  - Talk and listen
  - Play and exercise

**ENJOYMENT**

- Scale
- Climate
- Sensory

---

**Safety (Traffic)**

**Security (Crime)**

**Unpleasant Experiences**

**Environments**

**Urban Furniture**

**Facilities**

“The best that a social action such as urban planning and design can do is not to pretend it can create cohesive units, but that it can positively contribute to albeit in a limited way of the development of social relationships rather than merely accepting the alienation of the crowds’ (Madanipour, 2003: 142). The aim to start an integration process between a diverse group of neighbours, is supported by encouraging public spaces to promote spaces for sociability. This diversity is not only defined by variety of ethnicities, but different income groups, providing the possibility to interact actively or passively in public spaces (Gehl, 2011). The proposal intend to provide what Madanipour (2003) calls intimate spaces referring to private areas and impersonal spaces, referring to areas for socialising, by adding a network of housing areas and public spaces connected with each other at the pedestrian level. On one hand, Madanipour defines intimate spaces as the individual areas, where human being is able to remove all social masks and enjoy the personal space out of the social performance. On the other hand, the public space is defined by the same author as areas for relations of exchange between strangers, this relations are seen as performances. The relevance of public spaces have been previously described in this thesis, its importance is highlighted once again, since an accurate balance between public and private can be the main tool to achieve a more integrated society. The creation of spaces for interactions does not necessarily aim to force inhabitants to interact directly with each other, but to provide areas with public access to spaces and activities where every person has the right to occupy the space. Following Madanipour’s definition of public spaces and the adequate services provided by areas for socialising, the goal of the thesis is to spatially transform the existing neighbourhood structure of public spaces, from the current character of passing-by, to welcoming spaces where inhabitants stay and use in an everyday basis.

Public and semi-public spaces need the flexibility to perform variety of activities for different users, activities and time conditions, allowing inhabitants to use the space for different circumstances.
In European Context...

POLAND, Osiedle za żelazną bramą.

GENTRIFICATION BY TURBO BRANDING

A social housing project built in the 50’s to supply the housing demand after the war following the concept of collectivity. The shared kitchens and bathrooms have been renovated several times to improve the living conditions of the inhabitants.

In the past years, the building complex has been inhabited mostly by low income immigrant population (Asian and exchange students).

Poland’s historical heritage of WW2 and the rise of modern housing concrete blocks as consequence of the war, plus the need of young artists to maintain this heritage, made the area a spot for bohemian lifestyle and street art. Nowadays the area is going through a gentrification process triggered by a turbo branding campaign of an artist firm, rising the housing prices and increasing attractiveness for people to live there.
International Context of Urban Regeneration through Gentrification...

**Ciudad Salitre. Bogotá, Colombia.**

Before the urban development, the area was partly inhabited by illegal housing (slums). As the lot was a government property, the municipality with one of the major banks of the country, developed a strategy to provide infrastructure (roads and public services) and the first stage of housing and business projects. This strategy was made with the purpose of triggering the area’s development for the private sector to develop the latter stages.

Variety of land uses as housing, business, retail and hotels were assigned by the government with the proper plan and regulations in height and density of the housing development. ¹

**Titan Plaza Mall. Bogotá, Colombia**

The building of one of the largest shopping malls in Colombia was developed in a low income neighbourhood. The project development was entirely private, made by one of the biggest building companies in the country. The project is located in a transport node where two motorways join, receiving high density of population flows. The development of the project made of retail and offices, triggered the private housing development in the surrounding areas, therefore, raising the land prices of the adjacent low income neighbourhood.

The land price raise, produced neighbour communities and small business in the surroundings to get an economical benefit on the increasing floating population, and the recovery of the area reputation.

¹ This information was taken from a personal interview with one of the budget team members of the project development, since no public data of the plan is published.
1.5. Advantages of the Finnish system to improve spatial integration.

The main aim of the Finnish mixing policy is to prevent ethnic enclaves creating neighbourhoods with different ethnic groups (Dhalmann and Vilkama 2009). The mixing policy aims to prevent the accumulation of social problems in specific areas, by diversify the housing stock where private or social housing are predominant and promote the social mixing in residential neighbourhoods (Dhalmann and Vilkama 2009). The immigrant distribution by policy respects the inhabitants’ location wishes, letting them choose the preferred place of residence but still avoiding segregation (Vaattovaara, et al. 2010).

It is relevant to understand how the housing market works in Finland2. The market is divided into ownership and rental dwellings, the former can be direct which refers to single family houses, and indirect which comprehends flats in building complexes (Vaattovaara, et al. 2010). Two thirds of the dwelling owners purchase as an investment rather than inhabiting the place (Vaattovaara, et al. 2010). Rental dwellings are divided in four categories, private rentals, state subsidised housing or social housing, part ownership in which inhabitants purchase from 15% to 20% of the dwelling and pay lower rent and right of occupancy (Vaattovaara, et al. 2010, Dhalmann and Vilkama 2009). Owner occupied housing concentrates in south and central Helsinki leaving north and east of the city with higher concentrations of rental dwellings (Dhalmann and Vilkama 2009). It is important to highlight that immigrant groups are less likely to buy housing in the host countries, raising the preference for rentals, no matter the income level (Åslund 2004). Helsinki’s population is growing due to the migration process and the fertility rate, this is increasing the need of building housing projects, especially where the housing stock is one sided in order to implement the densification and mixing policies (Helsingin Kaupunki 2016). From the author’s point of view, the previous statement represents a great potential, since the areas with high density of immigrant population and social housing, are able to be developed by the private sector for the native population attraction. This, in order to balance the housing stock and the immigrant concentration.

2 This description is relevant especially for the author, being an international student recently arrived to Helsinki
1.6. Goals of “The city of Helsinki” and UN Habitat for a better city development

Since this project’s aim is to prevent spatial segregation of immigrants in Helsinki, it is relevant to address the city goals for future development parallel to integration projects. Besides Helsinki city goals, UN Habitat goals for European cities are highly important to the city development in order to achieve better urban and liveable areas in terms of sustainable development. The following images represent the main goals for city development made by the two entities.

**UN Habitat goals for 2020.**

The image represents the summary of UN Habitat goals for Europe, presented in 2016 (UN Habitat 2016).

Immigration is described as a contemporary fact in European urban areas and it is described that social segregation is growing in 11 out of 10 capitals. Cities grow by attracting Foreign born and working age population. Due to the housing costs, the suburbs are densifying, presenting a bigger challenge for sustainable development, since dense neighbourhoods surrounded by urban areas are more efficient.

**The City of Helsinki goals.**

The image represents the summary of Helsingin Kaupunki report on households and land use implementation. (Helsingin Kaupunki 2016).

Population in Helsinki is growing due to born children but mainly because of migration. This means the housing demand is and will increase in the next years. A relevant aim of the city is to promote and develop urban neighbourhoods and prevent urban sprawl. In order to fulfil the housing demand and urban neighbourhoods, features as diversity on housing and different population groups and multifunctionally.
Toolbox for Spatial Integration

The literature findings contributed to establish a toolbox of features to apply in spatially segregated areas with high density of immigrants, in order to address the problem. The two main objectives to create an integration project are attract native groups of population to areas with high density of immigrants, and to encourage interactions in the public space in order to reduce and prevent racism and the mental burden towards low income foreigners. The described features on page 23 are summarising and concluding the literature findings into a design toolbox in order to be applied latter in the proposal.

The collected components promoting integration at the neighbourhood level, are gathering elements of different parts of the literature review. The main aim of the toolbox (on the opposite page), is to provide elements to break the social and spatial barriers described in Fig. 1.4, in order to diversify spatially and socially the segregated areas. Two groups of features are taking part on the integration process, the first is to promote the attraction of native population and the second, to promote spaces for interactions. Both groups of neighbourhood characteristics, are taking into account social and spatial issues to be implemented according to Fig 1.5. These two processes are intended to be developed in parallel for a better integration process. Additional elements were taken into account for the toolbox development, as the implementation of the goals established by The city of Helsinki and UN Habitat Europe. The design toolbox takes advantage of the Finnish mixing policy to enhance diversity and create a balance between rental and owned and dwellings and private and social rentals, while implementing goals stated by The City of Helsinki and UN Habitat Europe to improve citizens living conditions. For the development of the toolbox, higher relevance was given to goals promoting diversity and preventing exclusion, while sustainable goals were still relevant, but taken as side effects for the integration process. Therefore, goals as the implementation of green mobility and the reduction of energy consumption, are achieved by improving neighbourhood vibrance, the development of denser neighbourhoods and mixed services.
CHAPTER TWO. IDENTIFYING SEGREGATED AREAS IN HELSINKI

Housing Features attractive for Finns

1. **Nature**  
   Managed greenery, Combine urban and rural features (greenery and density). Provide natural views for dwellings.

2. **Socialising activities**  
   Provide retail and recreation facilities complementing the basic services on neighbourhoods.

3. **Enjoyable activities**  
   Provide variety of outdoor activities for collective and individual purposes.

4. **Private greenery**  
   Provide private yards for inhabitants, mainly for families with kids.

5. **Increased inhabiting area**  
   Provide more housing area leaving space for more rooms.

Public Space Features to create Interactions

1. **Comfortable pedestrian.**  
   Individuality, mystery, protection, street life, mixed land use, identity, organised complexity (variety of landscapes), diversity, human scale.

2. **Oriented the pedestrian.**  
   Human scale, diversity, density, mixed land use, straight city grids, safety, buildings facing the users, organised complexity, visible life, compactness, scale.

3. **Collective public life.**  
   Collectivity, identity, informality, mixed land use, buildings facing the users, visible life, orientation, make it local, enjoyment.

4. **Giving room to informality.**  
   Collectivity, variety, diversity (on built environment), organised complexity, make it local, enjoyment. Informality enhancing organised local business and providing variety of landscapes of housing.

5. **Balanced environment (nature and buildings)**  
   Density, human scale, flexibility, buildings facing users, visible life, scale, protection.
2. IDENTIFYING SEGREGATED AREAS IN HELSINKI
Chapter two explores spatially segregated areas with high density of immigrant groups in Helsinki. The main aim of the chapter is to find an intervention laboratory in the city core to be developed in a further chapter of this project. The quantitative analysis is taking into account the official statistics of Helsinki, based on the features found in the theoretical framework part 1.2 (see pages 6 to 9). The analysed statistics placed in the map of the city, provide a spatial understanding of spatially segregated areas, leading to possible locations for the project. The quantitative analysis narrowed the area search to specific locations in Helsinki.

With the group of possible locations, a qualitative analysis was performed based on observations of the population groups interactions between native and foreign inhabitants (the observations are subjective, based on physical characteristics of the observed individuals).

The findings of the chapter spotted an intervention area for the further development of a punctual analysis, of the site and a spatial proposal to address spatial segregation of immigrant groups.
The foreign language speakers are not exceeding 30% of population in any area of the city. This makes evident the efficiency of the mixing policy for preventing spatial clusters of immigrants. The numbers are evidencing areas with highest and lowest densities than the average Helsinki. Areas with larger foreign language speakers are mainly concentrated in “Itäinen” district. Even so, the sub-district with the most foreign language speakers is “Jakomäki”.

As described in chapter one, areas with high concentrations of social housing attract large quantities of immigrants. The unevenness of the council housing distribution is reflected in the statistics. Even if the districts present an even disposal, peaks in the sub-district percentages demonstrate unevenness. Higher percentages are present in “Itäinen” district, but the top peak present itself in Jakomäki sub-district. The lowest concentration of social housing is evident in “Eteläinen” district, and all the sub-districts conforming it.
It is relevant to highlight the difference between social housing quantity and social housing inhabitants, since the dwelling density is not reflecting the amount of people inhabiting an area. Uneven distribution of inhabitants is not reflecting the average Helsinki's council housing inhabitants.

### Table 4. COUNCIL HOUSING INHABITANTS (%)

<table>
<thead>
<tr>
<th>District</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helsinki</td>
<td>23%</td>
</tr>
<tr>
<td>Eteläinen</td>
<td>22%</td>
</tr>
<tr>
<td>Viironiemen</td>
<td>20%</td>
</tr>
<tr>
<td>Ullanlinnan</td>
<td>18%</td>
</tr>
<tr>
<td>Kamppi</td>
<td>17%</td>
</tr>
<tr>
<td>Taka-Töölön</td>
<td>15%</td>
</tr>
<tr>
<td>Lauttasaaren</td>
<td>14%</td>
</tr>
<tr>
<td>Läntinen</td>
<td>13%</td>
</tr>
<tr>
<td>Reijolan</td>
<td>12%</td>
</tr>
<tr>
<td>Munkkiniemen</td>
<td>11%</td>
</tr>
<tr>
<td>Haagan</td>
<td>10%</td>
</tr>
<tr>
<td>Petäjämäen</td>
<td>9%</td>
</tr>
<tr>
<td>Kaaralan</td>
<td>8%</td>
</tr>
<tr>
<td>Keskinen</td>
<td>7%</td>
</tr>
<tr>
<td>Kallion</td>
<td>6%</td>
</tr>
<tr>
<td>Alppiharjun</td>
<td>5%</td>
</tr>
<tr>
<td>Vaillan</td>
<td>4%</td>
</tr>
<tr>
<td>Pasilan</td>
<td>3%</td>
</tr>
<tr>
<td>Vanhankaupungin</td>
<td>2%</td>
</tr>
<tr>
<td>Polvijärvi</td>
<td>1%</td>
</tr>
<tr>
<td>Maunulan</td>
<td>1%</td>
</tr>
<tr>
<td>Länsi-Pakilan</td>
<td>1%</td>
</tr>
<tr>
<td>Tuomarinkylä</td>
<td>1%</td>
</tr>
<tr>
<td>Outunkylä</td>
<td>1%</td>
</tr>
<tr>
<td>Itä-Pakilan</td>
<td>1%</td>
</tr>
<tr>
<td>Kollinen</td>
<td>1%</td>
</tr>
<tr>
<td>Latokartanon</td>
<td>1%</td>
</tr>
<tr>
<td>Pukinmäki</td>
<td>1%</td>
</tr>
<tr>
<td>Malmin</td>
<td>1%</td>
</tr>
<tr>
<td>Suutarilma</td>
<td>1%</td>
</tr>
<tr>
<td>Puistola</td>
<td>1%</td>
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<td>Jaakoma</td>
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<td>Östersundomin</td>
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### Table 3. POPULATION RECEIVING SOCIAL HELP (%)

The relevance of studying social help, is the concentration of social problems due to the attraction of low income native population to specific areas. This can lead to assume a higher vulnerability in the area. The social help is somehow distributed among the city, but still presenting high peaks mainly in "Itäinen" and "Kollinen", and low rates in "Eteläinen". This peaks are high percentages of foreign language speakers and council housing. The highest proportion of received social help is in "Itäinen".

It is relevant to highlight the difference between social housing quantity and social housing inhabitants, since the dwelling density is not reflecting the amount of people inhabiting an area. Uneven distribution of inhabitants is not reflecting the average Helsinki's council housing inhabitants.
Table 5. POPULATION DENSITY

The population density evidences the housing offer in different areas of the city and the crowdedness of specific areas. Higher population densities are evident in areas with the lowest percentage of council housing, council housing inhabitants, foreign language speakers and social help use. This comparison leads to conclude that the housing market offer is higher in those areas, since they are more attractive for Helsinki’s inhabitants.

The statistics revealed the neighbourhoods with highest and lowest percentages in features forming segregation, and the highest and lowest concentrations of immigrant groups in Helsinki. The following maps are spatially locating highest and lowest percentages among the city. Overlapping statistics in the physical plan of the city, evidenced areas with high vulnerability of segregation and areas with no evidence of risk of discrimination.

The additional maps from the previous statistics, are summarising the housing report of 2016 by The city of Helsinki (Helsingin Kaupunki. 2016.)

The map of population growth and decline, together with dwelling prices, gives a general perspective of where the declines are caused by housing prices, and where the declines are given by a different reason (such as the white flight).

The study of age groups within Helsinki gives an overview of the life situation of the inhabitants of each area, according to the identified life situations in chapter one.
Map 1.1. COUNCIL HOUSING AND FOREIGN LANGUAGE SPEAKERS

Statistics evidence an even distribution in the city of foreign language speakers. Higher concentrations of foreign language speakers are located in north and east Helsinki, while the lowest concentrations are in the city centre and west Helsinki. Council housing has an even distribution as well, with just one sub district overcoming 50% (Jakomäki). Lowest council housing stock is located in Helsinki city centre.

As previously described literature shows, the conflict areas with high risk of spatial segregation of immigrant populations are low income areas with high social housing density.

Mapping statistics of council housing and immigrant population distribution around the city, red areas appear showing higher concentration of immigrant groups and council housing stock (with higher rates than Helsinki average). On the other hand, Blue areas represent the lower concentration than Helsinki average of council dwellings and foreign language speakers.
As previously described, spatial segregation of immigrants have a higher tendency toward immigrants who are physically different than local population (e.g. Ethnic background and evidence of different religion). For this reason Somali and Arabic language speakers were the groups of interest. The map and the number of inhabitants makes evident a clear tendency of Somali speakers to concentrate at east Helsinki, while the number of inhabitants in the west is strongly lower.

NOTES:
The size of the flags indicates if it is the first, second or third language other than Finnish and Swedish.

The numbers on the flags indicates the amount of population with the language as the mother tongue.

LEGEND:
- Foreign Language Speakers
- Dominant Languages (other than Finnish or Swedish)
  - 1st Language
  - 2nd Language
  - 3rd Language

1. First, second and third language, are making reference to the most common foreign language spoken at the described areas.

High percentages of foreign language speakers (>25%) and dominant language other than Finnish and Swedish.
The white flight phenomenon, leads to decreasing prices on housing purchase and rent. Low prices in the housing market, attract population groups with less resources, typically the native born minorities in social decrease, such as low education, addictions and violence among others.

The proportion of inhabitants per district utilising social help, compared to the percentage on council housing inhabitants reveals areas with high risk of spatial segregation. The highlighted areas with high rate of social help usage and high percentage of council housing inhabitants appear to be the same highlighted areas in the previous maps concerning foreign language speakers.

Areas with low densities of foreign language speakers and low density of council housing inhabitants present as well a low rate of the use of social help.
Previously described areas with higher densities of council housing inhabitants and foreign language speakers present higher density of working age population (40-64 years) and children (0-15 years), while areas in the city centre with lower council housing inhabitants and foreign language speakers have a higher rate of youngsters (19-39 years).

These statistics lead to the assumption that focus areas with higher immigrant population density, high rate of council stock and high rates of social services usage, have a higher population rate of families with kids, while areas with lower foreign language speakers, council housing stock and low rates of social services usage are concentrating young workers.
High densities of population are located in central and west Helsinki, mainly in the business district. Even if the figure-ground diagram makes evident an even distribution of the building areas, average densities seem to be located within the main rail public transport axes, and lowest population density indexes are located in areas with poor or none rail public transport infrastructure.
Helsinki housing and implementation report of 2016 (KOTIKAUPUNKINA HELSINKI. Asumisen ja siihen liittyvän maankäytön toteutusohjelma 2016), describes the housing tendencies and predictions of the housing market. Neighbourhoods located in north and east Helsinki present a tendency of low dwelling prices and population decrease in the last years (specifically Jakomäki, Suurmetsassa, Tapulikaupungin, Yla Malmi, Kontula and Malminkartano), while central and west Helsinki evidences high dwelling prices, population growth and projection of population growth for the next years. Areas with good rail public transport connections seem to be the preference of Helsinki’s inhabitants, since those areas present higher population growth rates and predictions.
Low income immigrant groups tend to look for public transport nodes when choosing the housing locations according to literature findings. The previous statistics analysis revealed the locations with highest density of foreign language speakers in Helsinki, which are mostly established in east Helsinki. This two statements led to perform a qualitative search along the metro line from the first station located in “Itäinen” district, to the furthest two metro stations of the line. The observations were made in order to evaluate multicultural interactions between foreign and native inhabitants and the built environment conditions.

It is relevant to point out the subjectivity of the observations. Population interactions observations, were based on the ethnic characteristics of the pedestrians and there is no existing prove of the inhabitant’s nationality, they can be second generation immigrants, one foreign parent, or native Finns. Built environment observations were made by judging the physical condition of the buildings in a 200 meter diameter from the metro station.

The rail public transport was analysed in order to find the connectivity of the potential areas for spatial segregation. Helsinki’s rail public transport system makes evident three main axes connecting further nodes with central station. East Helsinki is served by the metro, while north and west Helsinki are served by commuting trains serving the city at a regional level as well. Rail transport axes are creating connectivity gaps in further locations. These gaps are complemented with a bus network. The bus system provides wider connections along the city, but does not represent an orientation feature specially for new inhabitants, since there are no strong axes guiding it.
Observations
The aim of this analysis is to find potential locations with high vulnerability of ethnic and spatial segregation, as it is a first approach to potential locations, no in-depth analysis was performed at this stage since the location of the project was uncertain. The observations were made on week days from 5 p.m. to 6 p.m. since it is a peak hour of a normal working day, assuming that transport nodes present the highest population flows during this time frame.

Social
- Population flow: high or low densities
- Population ethnicity (based on the physical characteristics)
- Observed age groups
- Observed interactions (of ethnic groups)

Physical
- Barriers (continuity of the circulation paths)
- Buildings conditions
- Density of greenery
- Feeder public transport (additional to the metro)

Findings
Siilitie: Low density of population flow. Mostly native inhabitants teenagers and kids, few adults on the street. Adults walking alone, kids walking with friends. Continuous circulation with variety of green areas (hills and parks). High density of buses.

Itäkeskus: Very high density of population flow (inside and outside the mall) variety of ethnicities and age groups. Most interactions were among similar ethnicity. Variety of greenery and built environment. Variety of bus stations in the surrounding area.

Vuosaari: Low density of population flow, mostly native working age inhabitants. High density of interactions and street life. No barriers were identified, continuous circulation. Variety of natural environment, parks and sea.

Myllypuro: Low density of population flow, low density of immigrants (perceived), mostly working age inhabitants walking alone. No interactions were observed. High density of green areas between buildings in good condition. No additional public transport connections were observed.

Kontula: High density of population flow, mostly immigrants (perceived). High density of interactions between the same ethnicity. All age groups were observed in similar quantities. Vibrant street life around the metro station, no street life observed further the station. Deteriorated buildings, high density of green areas. Variety of bus lines.
As concluded in the previous analysis, the neighbourhood Jakomäki in north Helsinki presents a high risk segregation, due to high percentages of low income immigrant population besides the perceived difference in population groups, high percentage in the use of social services, higher density of council housing buildings thus council housing inhabitants, low prices of buildings and rents and the lack of public rail connections with the city. Besides the statistic results Jakomäki also presents a great development potential due to it’s proximity to the future development zone of the former Malmi airport and to Malmi railway station.

In Helsinki’s master plan, Malmi will be developed as a retail and business centre. The city master plan also projects a boulevard development in the main access road to Jakomäki (E75).
2.3 Findings

In order to trigger Jakomäki development potential, the author proposes to increase the attractiveness and connections to the surrounding areas through an activation and diversification process.

Spatial segregation of immigrant groups is a social phenomenon usually complemented by spatial segregation (variety of barriers). In order to develop an adequate proposal, social and spatial actions are required to address spatial segregation of immigrant groups. The area was identified as vulnerable for segregation due to the social features found in the statistics and observations. It is important to evaluate the physical conditions in order to evaluate the spatial barriers complementing the segregation phenomenon. The punctual analysis of the site is developed in chapter three.
CHAPTER THREE

3. ANALYSING THE SITE
Chapter three provides the qualitative and quantitative analysis of the area of intervention in order to develop an appropriate proposal to address segregation of immigrant groups, while breaking spatial barriers which complement the segregation process.

The qualitative analysis is made through physical observations of the area, regarding to: accessibility, land use, built and empty areas, topography and activity intensity. The observations lead to the recognition of barriers and transition points within the studied area, in order to identify the spatial problems and potentials.

The quantitative analysis provides an accurate understanding of the population structure and the building offer and building type of the area, in order to study specific target population groups and building types. The analysis provides specific problems regarding the predominant social housing market, and reveals potentials for the diversification of the housing type and population groups and density.

It is relevant to highlight the importance of studying the area in two different scales due to the findings presented in chapter two. On one hand, the neighbourhood level supports the in-site dynamics, on the other hand the district scale encourages connections with different areas of the city and population groups. This two-scaled analysis is made in order to promote the physical and social diversification and to open the physical continuity of complementing services between neighbourhoods.
3.1 Introduction to intervention lab

As described in chapter two, Jakomäki development potential is based on the strengthening of its connection with the surrounding environment at the district level. In the following sections of this thesis, the author will use the term “district”, to make reference to the surrounding neighbourhoods and in-between spaces connected to Jakomäki and not to the district defined by The City of Helsinki. The physical paths and possible development axes are studied at the street level, due to the strong relevance of social interactions described in chapter one (section 1.4). The neighbourhood presents variety of public transport connections, leading to Malmi, Helsinki’s central station and Vantaa.

As a result, the analysis of the site focuses on the pedestrian and biking connections of the neighbourhood. Open street connections at the district level brings benefits other than create interactions, such as green mobility and street vibrance.

The pedestrian paths in the district are studied in order to improve the connection with Malmi and the complementing services area. The author also studied the pedestrian paths in the neighbourhood seeking the understanding of how the physical barriers were formed, if ever.

The relevance of activating the street life was highlighted in chapter one, when referring to enhancing population interactions. The described closeness of Jakomäki with Malmi is a strong potential in order to provide complementary services and prevent physical isolation. The existing positive characteristics of Malmi as variety of entertainment services, and existing public vibrancy, present a great connection potential for Jakomäki.

In the following section, the pedestrian connection is studied at the district level to provide and strengthen street life. Due to the existing public transport connections between the two areas and the future connections established in the master plan, the public transport is taken into account, but not analysed deeply in this study.

PATH 1

Exit of Jakomäki through the main service axis following the street “Suurmetsantie”, the walking/biking path runs parallel and with no isolation from the street traffic. The sidewalk is isolated from the built environment by a heavy green barrier concentrating human interaction with vehicle traffic.

No human-building interaction was found along this path until the crossing of the main railway in the entrance of “Tapanila”.

This path was discarded as a potential development due to the longer time required to reach the destination and because the main perceived destination is Tapanila railway station. The pedestrian connection in this project is intended to be Malmi railway station.

PATH 2

Exit of Jakomäki through the same point of path 1, follows “Suurmetsantie” until the north entrance of “Malmi Airport”. The path continues bordering the airport’s lot through the street “Malminkaari” following an “isolated by green” profile. The first built environment perception occurs on the arrival to a low density detached housing area, isolated by green from it’s surroundings, so that the following building contact is 500 meters away in the entrance to Ala-Malmi.

This path presents variety of confusing pedestrian points due to the lack of built environment along the way. This path is not taken as a main potential development area.

PATH 3

Exit of Jakomäki through a pedestrian bridge crossing the E75 Highway. In order to reach the bridge it is necessary to walk thorough a vehicle street isolated by topography from the residential area. After the bridge crossing, a 150 meter length of the sidewalk is found in a relation with the housing built environment (Two housing blocks). Further on the path the “isolated by green” typology is found all over the way with some exceptions of industrial buildings area, that by its features and scale doesn’t encourage a pleasant walking experience.

This path is connecting the housing area of Jakomäki with variety of built environments with different uses of the adjacent areas. This path, is the shortest way from the neighbourhood to Malmi, and the variety of landscapes presents a strong potential to develop different scenarios to create human interactions.
INTRODUCTION TO WALKABILITY

In order to improve and activate the green mobility connecting Jakomäki with the surrounding environment, three walking/biking paths were studied in order to activate and attract different groups of population across the area. Friendliness with human scale along the path is disturbed due to strong transitions in building types and scales related to land use, existing main or secondary vehicle streets, broad portions of unused and inaccessible green spaces and isolation of lots from streets. The feeling of emptiness is prevailing along the three different routes to reach Malmi train station from Jakomäki.

The pedestrian visual range.
The relevance of studying the human visual range is to provide an orientation for pedestrians to follow. Orientation features can be present at the street level for inhabitants use, or landmarks, which may not be for public use, still represents a visual connection for orientation. Street level visual connections are used for the activation of small economies, improving the local character and to provide variety of reachable destination points for pedestrians.
3.2 Qualitative Analysis

Map 3.2. ACCESSIBILITY - DISTRICT LEVEL

LEGEND
- Red: Main Roads
- Orange: Secondary Roads
- Dotted: Public Transport Route
- Dotted and Double: Walking paths Jakomäki-Malmin
ACCESSIBILITY AT THE DISTRICT LEVEL

Residential areas in the transition path from Jakomäki to Malmi train station, are considered to be “urban islands” due to their physical isolation from the surrounding areas. This isolation causes the population dependency on the usage of public transportation, due to weak services through green mobility. The closest commuting train stations are Malmi and Tapanila, but the heavy barriers isolating residential areas increases the perceived distance between the neighbourhood and train stations.

An existing pedestrian connection was found along all paths, appropriate bike and pedestrian lanes along different ways. Low users density was found out of the residential cores.

Rich existing public transport connections are serving the area for connections with further nodes while the development of green mobility and pedestrian activities is neglected.

Public transport connections in the district are served by buses only. Bus routes passing by Jakomäki:

**Bus 69:**
Kamppi Pasila Käpylä Malmi Jakomäki

**Bus 75:**
Rautatietori Jakomäki Puistola

**Bus 75A:**
Siltamäki Puistola Jakomäki

**Bus 77:**
Rautatietori Tattarisuo Jakomäki

**Bus 77 A:**
Jakomäki Malmi Siltamäki

**Bus 77N:**
Rautatietori Arabia Malmi Jakomäki

**Bus 518:**
Ilmala Pasila Kuninkaannäki (To Vantaa)

**Bus 562:**
Mellumäki Tikkurila Aviapolis (To Vantaa)

**Bus 562N:**
Mellumäki Tikkurila Aviapolis Lentoasema (To Vantaa)

**Bus 572:**
Mellumäki Myymäki (Through Vantaa)

**Bus 588:**
Länsisalmi Sotungin koulu (Vantaa route)

**Bus 702:**
Jakomäki Puistola Malmi Tapaninvainio Savela

**Bus 705:**
Malmi Jakomäki

**Bus 717N:**
Rautatietori Jakomäki Hakunila Kuninkaannäki (To Vantaa)
ACCESSIBILITY AT THE NEIGHBOURHOOD LEVEL

An existing public transport (bus) ring is surrounding the neighbourhood allowing several bus stations to serve the area. The ring creates a non tangible fence, since the buildings are not placed outside the boundary. The closeness of the pedestrian crossings to the bus stations and the lack of activity outside the ring, street crossings are only placed to serve public transport users. Five pedestrian access nodes were found leading the way in to Jakomäki, three by bridge crossings, one by a tunnel crossing and only one direct street connection. Minor streets inside the main street ring boundary of the neighbourhood are only serving the housing inhabitants and are mainly dead end streets ending in a parking lot. Continuing the parking spaces, the inner paths of the neighbourhood are pedestrian, connecting housing blocks between each other.

The direct street connection entrance is connecting the area with a residential area divided by greenery, followed by 300 meters of industrial land.

The two bridges located in the south of the neighbourhood are leading to a nature reserve with no built environment or permanent activities.

The bridge crossing the highway E75 is hidden by a green barrier. The path connecting the Jakomäki with the bridge is located in the ring street surrounding the neighbourhood, isolated from public life and building interactions.

The access tunnel to Jakomäki is continuing the main service axis of the neighbourhood serving the highest amount of users perceived in the area. The tunnel creates the connection with the adjacent neighbourhood “Alппikylä”, sharing the services between the two neighbourhoods.

STRENGTHS.
- Broad public transport connections
- Existing green mobility infrastructure
- Continuity in walkable / bikeable infrastructure

WEAKNESSES.
- Residential areas isolation
- Walkable flow disruption
- Hidden pedestrian access

OPPORTUNITIES.
- Helsinki master plan boulevard development on E75
- Walkable distance to/from railway network

THREATS.
- High ring traffic density (if re densification)
- Boulevard strengthening E75 barrier.
- Unsafe pedestrian accesses due to the weakness (hidden and dark)
Map 3.4. LAND USE - DISTRICT LEVEL
LAND USE AT THE DISTRICT LEVEL

Land use in the district level is currently breaking the continuity of the walking paths and strengthening built islands. Due to the drastic changes in land use, some areas parts of the path are used only during daytime. High population density was observed in shopping and service areas, while mono-functional areas were observed to have poor quality of public life.

Green empty areas are prevalent along walking paths, it was observed the isolating function of those areas towards residential neighbourhoods creating a heavy street/building division.

The identified industrial area is currently composed by low density of heavy buildings neglecting the street and isolating themselves through wide parking areas.

Two major pedestrian friendliness breakers were found along the path: Green empty and Industrial land

The industrial areas are shaped by heavy concrete buildings isolated from the street, these buildings are in the middle of a lot surrounded by a parking area which is usually isolated from the street by a fence. The industrial façades facing the street level are usually the back side of the building with poor or non-existing windows. The façades neglecting the street level produces an isolation and discomfort perception at the street level, breaking the walkable friendliness of the path.
The strong division of land use in the neighbourhood level is evident, concentration of services in a straight axis crossing the neighbourhood and leaving the remaining land specifically for housing. The main axis holding main services was found to be the most user active in the area. It was observed that the existing grocery shops are serving the adjacent neighbourhood alppikylä, creating a constant population flow in the previously mentioned access tunnel. This axis is the final stop in the neighbourhood of buses connecting to the city centre and Malmi train station.

The neighbourhood services are contained in the previously mentioned street ring, breaking the permeability with surrounding areas.

The neighbourhood entrance connecting with Vantaa is blurred by a green area with a high density of trees, breaking the pedestrian flow in and out the neighbourhood.

The housing area composed by high rise building blocks is connected through slim pedestrian paths blurred in the greenery, creating confusing walkable areas with no guidelines to reach a destination. The vehicle streets located in the housing area are functioning for reach parking lots.

Circulations between origins and destinations (parking and bus stops/housing) are clear and straight, this planned two point circulations avoid continuous flow of population and activities.
Map 3.6. BUILT ENVIRONMENT - DISTRICT LEVEL

# 34
# 35
# 36
# 37
Variety of urban typologies were found along the path and inside the neighbourhood itself. It was found that land use is a strong determinant for the urban typology and human friendliness at the street level. The following conceptual sections describe the human scale in relation with the enclosure of urban space.

The path to Malmi railway station present different transition points determined by the given land use and housing typology. This transition points represents a strong change in the building typology therefore to the urban dynamics that will be described in depth further in this chapter.

Industrial landscapes were found to be the least pedestrian friendly areas, with big scaled-concrete structures neglecting the street level. Green emptiness large areas are prevailing several points of the path, most of this broad areas are not pedestrian accessible. Two types of housing typologies were found along the path, detached housing and blocks of flats. The detached housing is isolated from the street level by green fences or walls, breaking the connection with the street level and producing unfriendly perception for pedestrian users. The blocks of flats are usually high rise buildings facing the street, but isolated by a parking lot (in Malmi) or a slope (in Jakomäki). Both of the found housing scenarios are neglecting the building relation with the street level.
URBAN TYPOLOGIES AT THE NEIGHBOURHOOD LEVEL


5. Isolated Mono-functional high rise buildings, no evident relation with vehicle street, lack of human scale. Confusing walking paths between buildings.

6. Small scale building spread surrounded by green emptiness. Lack of relation with street level.

STRENGTHS.
- Defined housing patterns

WEAKNESSES.
- Neglected streets
- Fenced areas
- Urban emptiness breaking continuity

OPPORTUNITIES.
- Empty greenery for future development and densification

THREATS.
- Over densification of empty greenery
- Increased sound-scape on residential areas
- Development of industrial oversized buildings
Map 3.8. TOPOGRAPHY - DISTRICT LEVEL
TOPOGRAPHY AT THE DISTRICT LEVEL

The great changes of topography along the path are man-made. The strong red lines found surrounding main streets with high density of vehicle are man made slopes. As most of the walking path is running parallel to vehicle streets, it is isolated from the surroundings by man made topography, creating an extra barrier (apart from the greenery density).

Besides man made slopes for isolating vehicle transit from habitable areas, the walking path line does not present any barrier produced by topography, since it is a continuous line with a clear skyline and proper inclination for the pedestrian to follow.

Terrain represents a walkable environment if seen independently from the barriers presented previously.
Map 3.9. TOPOGRAPHY - NEIGHBOURHOOD LEVEL
TOPOGRAPHY AT THE NEIGHBOURHOOD LEVEL

The previously described barrier isolating Jakomäki from the motorway E75, is strengthened by man made topography, blocking the walkability towards surrounding environments. Low topography allowing pedestrian continuous flow towards neighbouring areas, is complemented by other types of barriers previously described.

Inside the vehicle ring line of the neighbourhood, the topography makes evident the presence of slopes in the south area of the neighbourhood (described in the land use analysis as the housing area), while the north area, containing the service axis of the neighbourhood presents flat topography.

Although the topography plan presents slope areas in the neighbourhood, in the street level, the man made roads allows the continuity of the path, leaving the topography barriers to present themselves in the built environment gaps, or “Urban leftovers”.

WEAKNESSES.
Man made isolation at neighbourhood level
Topography complementing mono-functional land use (neighbourhood)

THREATS.
Straight and clear skyline in direct contact with vehicle roads
Walkability continuity role by topography

STRENGTHS.
Walking continuity along the path
Topography as natural barrier from motorway noise
Man made walkable continuity (district and neighbourhood)

OPPORTUNITIES.
Flat terrain in non-built environments
Straight skyline to create landmarks for orientation

MAN MADE ISOLATION AT NEIGHBOURHOOD LEVEL

TOPOGRAPHY COMPLEMENTING MONO-FUNCTIONAL AND LAND USE (NEIGHBOURHOOD)
Map 3.10. TRANSITION POINTS - ALONG THE PATH
CHAPTER TREE: ANALYSING THE SITE

TRANSACTION POINTS AT THE DISTRICT LEVEL

PATH 3

Path 3 was selected for the study to create interaction points and connectivity areas between Jakomäki and Malmi railway station, due to the shorter time required to reach the destination and for being the public transport route between the two points to connect at the street level.

Four transition points were identified along the path. The first one on the exit of Jakomäki where the land use changes to industrial. The second, the transition from industrial to forest. The third, transition from forest to spread single family housing. The last, entering malmi railway station densified surrounding.

Since the project’s intention is to activate the connection with Malmi train station which is already an active and vibrant public space, the path through Tapanila represents a major breaking point in the path.

- Represent the transition points found in each one of the paths. This transition evidences a switch in the land use, urban pattern and density and are generally broken by a barrier point.
- Represent linear paths surrounded by empty greenery and low density housing areas.
- Represent emptiness in urban dynamics, and strong human unfriendliness.
- Represent areas with higher urban vibrancy and street life.
Map 3.11. TRANSITION POINTS - NEIGHBOURHOOD
Images represent landscapes identifying the beginning and end of each part of the path.

The transitions found at the neighbourhood level present themselves where land use changes from housing to communal services and where the built area disappears broken by an empty greenery barrier.

Main services on the area are located in the main street, the axis where buses from Malmi railway station, Vantaa and the city centre are passing by.

Transition Point 1: Located in the main axis of the neighbourhood, the location of the last bus stop of public transport connecting with Malmi and the city centre. This point is connecting Jakomäki service axis, with the housing area of the neighbourhood inside the transport loop and the adjacent neighbourhood Alppikylä through the entrance tunnel crossing the motorway E75. The transition is built by the natural environment as well, since the topography rises to the housing area.

Transition Point 2: Located as well in the main transport axis this is a pedestrian exit point of the neighbourhood. Crossing as well the motorway E75, but through a bridge. The entrance is well hidden from the pedestrian path and the housing area through a greenery barrier creating confusion orientation points for the pedestrians. The transition is well defined by the built and the natural environment, since apart from the greenery barrier, the topography is breaking the street-pedestrian connection.

Transition Point 3: Located in the entrance point from Vantaa, this subtle entrance is hidden by a dense green barrier. The first pedestrian perception of Jakomäki from this point is created by housing blocks with poor maintenance conditions and hidden by nature. This entrance is directly connected with the main service axis of the area through a pedestrian street growing to transform in the main axis where services start showing.

Transition Point 4: Located in

Even though the flat continuity of the topography, the pedestrian continuity is broken by high density of trees and the man made strong barrier shaped by the feeding street of E75.
Map 3.12. OBSERVATION POINTS (Activity Intensity) - ALONG THE PATH
ACTIVITY INTENSITY AT THE DISTRICT LEVEL

The observation points were chosen in the perceived transition areas, the places where a change in the urban pattern was identified with the previous analysis, land use or crossing a barrier.

The observations were made in 5 different locations with different urban dynamics perceived in the first approach to the walking paths.

In order to analyse the activity intensity of the chosen observation points, Jan Gehl's analysis method was used. Observe the same point in 10 minutes intervals every two hours from 7:30 to 18:40.

The observations were made to transitory points (for measuring circulations) and stationary points (for measuring the area's vibrance).

All observations were made during week days, since this time lapse is considered adequate to identify inhabitants routines. Weekends were not taken in count due to the varying population dynamics. The observations were made during winter time, which may affect the street activity intensity of the points due to the cold. The average temperature was -2º.

Observations:

Location 1a: Jakomäki Square.
- 7:30 to 7:40, 12 people and no cyclists.
- 9:30 to 9:40, 17 people and 1 cyclist.
- 11:30 to 11:40, 30 people and 2 cyclists.
- 14:00 to 14:10, 25 people and 1 cyclist.
- 16:00 to 16:10, 23 people and no cyclists.
- 17:00 to 17:10, 28 people and 3 cyclists.
- 18:00 to 18:10, 32 people and 7 cyclists.

Location 2: Around industry.
- 7:30 to 7:40, no people and no cyclists.
- 9:30 to 9:40, 3 people and 1 cyclist.
- 11:30 to 11:40, 1 person and 3 cyclists.
- 14:00 to 14:10, 5 people and 3 cyclists.
- 16:00 to 16:10, 2 people and 2 cyclists.
- 17:00 to 17:10, no people and 1 cyclist.
- 18:00 to 18:10, no people and no cyclists.

Location 3: Forest.
- 7:50 to 8:00, 2 people and no cyclists.
- 9:50 to 10:00, no people and 1 cyclist.
- 11:50 to 12:00, 2 people and no cyclists.
- 14:20 to 14:30, 1 people and 2 cyclists.
- 16:20 to 16:30, 2 people and 1 cyclist.
- 17:20 to 17:30, 5 people and 3 cyclists.
- 18:20 to 18:30, 2 people and no cyclists.

Location 4: Malmintori.
- 7:10 to 8:20, 7 people and 2 cyclists.
- 10:10 to 10:20, 6 people and no cyclists.
- 12:10 to 12:20, 4 people and 3 cyclists.
- 14:40 to 14:50, 4 people and no cyclists.
- 16:40 to 16:50, 11 people and 5 cyclists.
- 17:40 to 17:50, 5 people and 8 cyclists.
- 18:40 to 18:50, 22 people and 7 cyclists.
Observed Users

**Pedestrians:**
1. To a destination
2. Walking the dog
3. Exercising

**Bus Waiters:**
1. Sitting in a bus stop
2. Standing (lack of bus stop)

**Players:**
Kids mainly

**Hanging Out:**
1. In the public space
2. Sitting outdoors in restaurants

**Sitting:**
Passive interactions

**Shoppers**

**Cyclists**
**DESCRIPTION**

**Location 1** The area to be activated, as the main goal of the project is to activate and connect the area, the chosen observation point were the three main entrances to the neighbourhood.

**Location 2** The transition of a secondary road to the access to Malmi Airport. This point is taken from route 1 Jakomäki-Malmi.

**Location 3** The transition of a secondary road serving the industrial area to the natural walking path bordering Malmi Airport.

**Location 4** The transition between the natural walking path to Ala-Malmi, a denser urban environment designated for housing.

**Location 5** The entrance to Malmintori from the walking path, which leads to Malmi railway station.

**FINDINGS**

**Location 1a** Most activity intensity observed. As the observation point is located in the “service axis” of Jakomäki, a constant flow of population was noticed mainly using the shopping facilities. The population flow density increased with the passing time, early hours (7:30 to 10) presented low population density, midday and early afternoon the population flow increased, and late afternoon, was noticed to be the most active time lapse.

**Location 1b** Lowest intensity activity observed at the neighbourhood level. During the whole observation period, there was no stationary points or interactions observed. The identified population flows were in direction to or from the close by bus stops. No different activity was observed other than circulation.

**Location 1c** Low activity intensity was perceived in the spot. Circulation towards bus stations was registered early morning and late afternoon. Low density of pedestrian activities were registered such as walking the dog and outdoor walking.

**Location 2** Low pedestrian activity was registered, while higher vehicle flow was perceived during working hours. No stationary point was registered. The main flow identified was cyclists and users walking to bus stations. Low density of public transport unload was registered.

**Location 3** The highest intensity at this point was found to be at late morning and early afternoon with low density of users performing outdoor walking. Early morning registered no activity at all. Observations of late afternoon were not made due to unsafety feeling.

**Location 4** The most vibrant point registered. The entrance to Malmintori from the walking path, leads to Malmi railway station and present high activity intensity during every time lapse observed. Transitory flows around the railway station and stationary activities outdoor and indoor at the mall entrance.
The historic map displays the development of most of the neighbourhood during the 1960’s. During this time the main concern was to respond to the high demand for housing and as a consequence, the area was developed under modern concepts (the trend at the time), the car based city design. The generic modern building block remains as one of the results of such a movement (Generic city of Rem Koolhaas). It is a block building that uses innovative materials of its time, concrete and steel, allowing higher buildings compared with the previous ones, combined with a fast and efficient building process.

The need for housing and the migration towards urban areas (Vaattovaara, 2010) made the suburbs to grow rapidly. The modern movement departed from the Russian table, breaking the context, and the tradition for creating urban planning from scratch. The result is a generic development that lacked context and created isolated neighbourhoods without identity. The extremist land use zoning and the lack of integration with the contexts, lead to isolated suburbs detached from pedestrian connections and street vibrance.

The modern developed trend, is based on the neighbourhood level, isolated from the surrounding environment. This isolation is strengthen with physical barriers based on the car-based city model, which grants the vehicle access to an area, but banns the pedestrian connectivity with adjacent habitats. Barriers are also present in the building level at the walkable sight, located with poor connection to the street life, and building models ignoring the basic city structure shaped by streets and blocks. Scarce straight street connections makes the orientation at the street level confusing, creating areas difficult to reach and discouraging the street life.

Buildings made in the 1980’s, present a more compact model in a wide street, making them easier to reach either by public transport, private vehicle or pedestrian circulation. The public character of the buildings made during this decade, makes them necessary destinations to reach, implying street happenings in the close surrounding.

Housing buildings are surrounded by narrow streets and confusing paths, preventing street life to happen in the close surrounding. Those buildings are destination points only for the residents of the same building, but not a circulation target for the neighbourhood inhabitants, or potential areas to create interactions. Public buildings, grocery stores and complementing services, are located in the straight and wide street of the neighbourhood, establishing a single interaction place in the neighbourhood.
Dwelling characteristics of the neighbourhood, reveal the sub-urban modern character of the area, table 6 and map 3.14 displays the low density of detached housing built before 1960’s and the construction trigger during the 1960’s and 1970’s. The massive urbanisation during this period makes evident a specific building type based on a modern model of high-rise housing buildings with small living environments of two and three rooms mainly (Table 7).

The modest construction rates (Table 6) and the population decrease in the recent years (Table 10), leads to the assumption of an unappealing character of the area for Helsinki’s inhabitants. The area’s population decrease (and assumed unattractiveness) due to the building types, is taken as a potential on this project, due to the high possibility to encourage building diversity in the area. The high density of greenery in the neighbourhood and the dense forest in the surrounding areas, presents a massive potential for attractive housing development for Finnish population. According to the Finnish population housing preferences found in chapter 1.4, section a, there is an evident desire towards larger housing areas, private backyards and green surroundings in order to acquire peacefulness in the housing environment.

The relevance of studying the existing building characteristics and housing market, provides the existing built character of the area. Due to the spatial segregation phenomenon happening in Jakomäki, and the high density of immigrant population, a diversification process is required to integrate the area spatially and socially (See chapter one, section 1.4).

High proportions of apartment buildings with two and three rooms and high percentage of social housing (Table 2, page 27), requires to be balanced in order to encourage integration of variety of income and ethnic groups.

The diversity of different population groups is attached to the diversity on the housing market, providing dwelling options for diversity of preferences (spatial or economic).
Studying the ageing structure of the neighbourhood, provides a definition of the life situation therefore housing preferences of the area’s inhabitants (chapter one, section 1.4). It is relevant to study the existing inhabiting population, in order to build a proposal for attracting the opposite income and ethnic group with similar age and life situation, since human active interactions tend to present themselves between inhabitants on the same circumstances (Andersson, Brattbak and Vaattovaara 2016).

Adults in a working age are prevalent in the neighbourhood population and kids under the age of 16 are on the average of Helsinki city. The ageing structure (Table 9) and rooms per dwelling (Table 7), lead to the assumption of a dominant group of adults with couple or living alone, and a smaller group of families with kids. The younger population group, representing teenagers and students are not a target group for the project, due to the low density on the area, and their preference towards central locations (chapter one, section 1.4)
### 3.4 Findings

<table>
<thead>
<tr>
<th><strong>DISTRICT</strong></th>
<th><strong>JAKOMÄKI</strong></th>
<th><strong>DISTRICT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High density of greenery</td>
<td>• Multiculturalism.(See map x)</td>
<td>• Residential areas isolation</td>
</tr>
<tr>
<td>Diversity of land uses</td>
<td>• Existing council housing density</td>
<td>• Low density of private dwellings</td>
</tr>
<tr>
<td>Helsinki’s existing mixing policy</td>
<td>• Urban Island</td>
<td>• Scarcity of public space activities</td>
</tr>
<tr>
<td>High density of greenery</td>
<td>• Transport node (Malmi)</td>
<td>• Lack of rail public transport connections</td>
</tr>
<tr>
<td>• Existing green mobility infrastructure (Continuity in walking paths)</td>
<td>• Variety of connections by bus (Malmi, City centre and Vantaa)</td>
<td>• Neighbourhood reputation</td>
</tr>
<tr>
<td>• Urban greenery as noise isolation</td>
<td>• Existing walking infrastructure</td>
<td>• Green emptiness preventing street life development</td>
</tr>
<tr>
<td>• Urban emptiness (potential development)</td>
<td>• Defined housing patterns</td>
<td>• Pedestrian entries disruption</td>
</tr>
<tr>
<td>• Basic services infrastructure</td>
<td>• Man made topography as a barrier</td>
<td>• Scarcity of population attractors (visitors and inhabitants)</td>
</tr>
<tr>
<td>• Defined housing patterns</td>
<td>• Topography complement the land use barrier</td>
<td>• Mono-functionality</td>
</tr>
<tr>
<td>• Basic services infrastructure</td>
<td>• Urban greenery as noise isolation</td>
<td>• High density of barriers</td>
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<tr>
<td>• Urban greenery as noise isolation</td>
<td>• Urban emptiness (potential development)</td>
<td>• Motorways and non built</td>
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<tr>
<td>• Urban emptiness (potential development)</td>
<td>• Fenced areas</td>
<td>• Green emptiness preventing street life development</td>
</tr>
<tr>
<td>• Defined housing patterns</td>
<td>• Existing walking infrastructure</td>
<td>• Walking path isolation from existing built environment</td>
</tr>
<tr>
<td>• Basic services infrastructure</td>
<td>• Defined housing patterns</td>
<td>• Existing walking infrastructure</td>
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<tr>
<td>• Basic services infrastructure</td>
<td>• Defined housing patterns</td>
<td>• Fenced areas</td>
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</tbody>
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<thead>
<tr>
<th><strong>STRENGTHS</strong></th>
<th><strong>WEAKNESSES</strong></th>
<th><strong>OPPORTUNITIES</strong></th>
<th><strong>THREAT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• High density of greenery</td>
<td>• Low density of private dwellings</td>
<td>• Man made topography as a barrier</td>
<td>• Social exclusion due to immigrant and council dwelling concentration</td>
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<tr>
<td>• Diversity of land uses</td>
<td>• Existing council housing density</td>
<td>• Defined housing patterns</td>
<td>• Development of industrial oversized and council dwelling concentration buildings</td>
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<tr>
<td>• Helsinki’s existing mixing policy</td>
<td>• Urban Island</td>
<td>• Land use mono-functionality (No land use variation in industrial area according to Helsinki master plan)</td>
<td>• Risk of raising rent prices for council housing inhabitants</td>
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<tr>
<td>• High density of greenery</td>
<td>• Transport node (Malmi)</td>
<td>• Housing densification with no complementary services</td>
<td>• Land use mono-functionality (No land use variation in industrial area according to Helsinki master plan)</td>
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<tr>
<td>• Existing green mobility infrastructure (Continuity in walking paths)</td>
<td>• Variety of connections by bus (Malmi, City centre and Vantaa)</td>
<td>• Loud soundscape in residential areas</td>
<td>• Intersection with future boulevard axis</td>
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<tr>
<td>• Urban greenery as noise isolation</td>
<td>• Existing walking infrastructure</td>
<td>• Unsafety of pedestrian entry (dark and narrow path)</td>
<td>• Empty areas as potential densification</td>
</tr>
<tr>
<td>• Urban emptiness (potential development)</td>
<td>• Defined housing patterns</td>
<td>• Defined housing patterns</td>
<td>• Existing walking infrastructure</td>
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<td>• Basic services infrastructure</td>
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<td>• Basic services infrastructure</td>
<td>• Defined housing patterns</td>
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</tbody>
</table>
Map 3.15. PATH’S PROBLEMS AND POTENTIALS

Path Part 1: VIBRANT NEIGHBOURHOOD

Path Part 2: RECREATIONAL NATURE

Path Part 3: HEAVY INDUSTRY

Path Part 4: NEIGHBOURHOOD ISOLATION
Path Part 1: **VIBRANT NEIGHBOURHOOD**

**Problems:**
No problems regarding street life and neighbourhood vibrance were found.

**Potentials:**
Existing neighbourhood vibrance due to two main population attractors:
1. Railway station.
2. Malmin Tori Mall.
Broad accessibility (pedestrian and public transport)
Malmin Tori as pedestrian visual landmark.

Path Part 2: **RECREATIONAL NATURE**

**Problems:**
Low density of visitors.
Poor outdoor lighting (feeling of unsafety)
No public transport accessibility
Hidden pedestrian accessibility

**Potentials:**
Existing walking path (environmental character)
Path as pedestrian guide for users orientation (Flat topography)
Existing outdoor activities users.
Direct connection with Malmi airport (Future housing development)

**POTENTIAL USERS**
Helsinki master plan: Bike and pedestrian path to Jakomäki and Kontula

Path Part 3: **HEAVY INDUSTRY**

**Problems:**
Low intensity of pedestrian activity.
Non existing street vibrance (scarcity of services).
Low density of public transport (connection Malmi & central station).

**Potentials:**
High density of urban emptiness for potential development.
Existing users for “necessary activities” (target workers of existing industry)
Existing pedestrian connection with residential areas.
Direct connection with Future Boulevard axis (Helsinki master plan).
Direct connection with Malmi airport (Future housing development)

**POTENTIAL USERS**

Path Part 4: **NEIGHBOURHOOD ISOLATION**

**Problems:**
Hidden pedestrian accessibility. See sections 1 and 4, pages 78 & 79
Isolated from direct surroundings. See section 3 page 79.
Lack of direct public transport accessibility (Bus stations only inside neighbourhood)
Low density of pedestrian activity

**Potentials:**
Direct connection with Future Boulevard axis (Helsinki master plan)
High density of Urban emptiness (potential building development)
Map 3.16. NEIGHBOURHOOD PROBLEMS AND POTENTIALS

“STREET LIFE HAPPENINGS”

“NEGLECTED BACKYARD”

SECTION 1

SECTION 2

SECTION 3

SECTION 4

POTENTIAL DEVELOPMENT AXIS

Map of a neighborhood showing potential issues and development axes.
PROBLEMS:

- Poor pedestrian accessibility. Weak access points. See sections 1 & 4, pages 78 & 79.
- Exclusive public transport accessibility (Neighbourhood buses are not allowing visual connection with surrounding areas and circulation axes, perceptual isolation).
- Existing basic services (for optional and necessary activities) but scarcity of population attractors (for social activities).
- “Neglected Backyard” north and east pedestrian access with damaged buildings, fenced access and low pedestrian intensity.
- Neighbourhood isolation by existing roads. See section 3, page 79.
- Housing buildings isolated by high topography. (Services located in flat areas).
- Man made slopes isolate the neighbourhood from visual connection with transport axis (E75). See section 3, page 79.
- Concentration of activity intensity in the service and public transport access axes. See section 2, page 78.

POTENTIALS:

- Concentration of activity intensity in the service and public transport access axes. See section 2, page 78.
- Passing by Motorway (potential landmark axis). See section 3, page 79.
- Motorway following boulevard axis (Helsinki master plan).
  - High density of immigrant population (Multicultural development).
  - High density of urban emptiness for building development.
  - High concentration of council housing (Potential densification of private buildings according to Helsinki Mixing Policy).
- Existing walking infrastructure connecting with Malmi and Tapanila.
- Walking paths continuity.
- Boulevard Axis.
URBAN SECTIONS, URBAN VIBRANCY

SECTION 1. THE TUNNEL

SECTION 2. VIBRANCY

HOUSING BLOCKS

COMMERCIAL CORRIDOR

LIBRARY

S-MARKET
URBAN SECTIONS, PROBLEMATIC POINTS

SECTION 3. THE BRIDGE

ALPYKYLÄ

SECTION 4. BRIDGE ENTRANCE

JAKOMÄKI
### 3.5 Goals and Strategies

<table>
<thead>
<tr>
<th>GOALS</th>
<th>ACTIVATE</th>
<th>ATTRACT</th>
<th>CONNECT</th>
<th>MIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL</td>
<td>Public Life</td>
<td>Native inhabitants</td>
<td>Variety of income groups</td>
<td>Inhabitant Groups (natives and foreign)</td>
</tr>
<tr>
<td></td>
<td>Human Scale</td>
<td>Private sector inhabitants</td>
<td>Variety of ethnic groups</td>
<td>Visitors</td>
</tr>
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<td></td>
<td>Seasonal Usage</td>
<td>Companies</td>
<td>Cultural exchange</td>
<td>Public space activities</td>
</tr>
<tr>
<td></td>
<td>Weekly Usage</td>
<td></td>
<td>Connect with city life</td>
<td></td>
</tr>
<tr>
<td>ECONOMIC</td>
<td>Small local economies</td>
<td>Linked local network</td>
<td>Linked local network</td>
<td>Economic activities</td>
</tr>
<tr>
<td></td>
<td>Strong Companies</td>
<td>Expand small economies (Jakomäki - Malmi)</td>
<td>Expand local business (Jakomäki - Malmi)</td>
<td>Groups (strong companies and local business)</td>
</tr>
<tr>
<td></td>
<td>Built environment</td>
<td>Open possibilities for small business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECOLOGICAL</td>
<td>Public Spaces</td>
<td>Sustainable Development</td>
<td>Sustainable mobility</td>
<td>Soft/Hardscapes</td>
</tr>
<tr>
<td></td>
<td>Urban leftovers (unused green areas)</td>
<td>Use of green spaces</td>
<td>Walkability and &quot;Bikeability&quot;</td>
<td>Vibrant transitions</td>
</tr>
<tr>
<td></td>
<td>Green areas for outdoor activities</td>
<td>Public life users</td>
<td>Urban fabric interaction</td>
<td></td>
</tr>
</tbody>
</table>

**ADDRESSING SEGREGATION**

**Social Features**

Encourage interactions between immigrant and native groups, in order to reduce the mental barrier towards immigrants and prevent racism (see chapter one)

**Spatial Features**

Attract native population groups. How?: By providing attractive housing features (see chapter one).

Connect spatially: the surrounding areas. How?: By creating vibrant public spaces in order to encourage multicultural interactions (see chapter one).
**STRATEGIES**

**DIVERSIFY**

*HOW?*

- Native population groups
- Private housing builders
- Companies
- Opposite income inhabitant group
- Floating population

**ATTRACT**

*WHAT?*

- Pedestrian connectivity (Population Flow)
- Liveliness (Public Life)
- Identity (Experience)

**ACTIVATE**

*WHO?*

- Native population groups
- Private housing builders
- Companies
- Opposite income inhabitant group
- Floating population

---

**Diversifying** the area in terms of inhabitant groups, neighbour interactions, provided services and connection with the surrounding environment. The findings of the literature led to address segregation by encouraging interactions between foreign and native population groups. To encourage interactions is necessary for the natives (in a similar life situation) to inhabit areas with high density of immigrant population.

**Diversifying** the area to increase liveliness and recreational activities for all the residents, complement the basic services with enjoyable public life for all inhabiting population groups. Give space for low income, relatively high income and high income, foreign born and natives to interact (actively or passively) in the same environment.

**Attract:** Native residents in private dwellings, to an area with high density of immigrants by providing Finn’s preferred housing features (dwelling and neighbourhood). Retail services to complement the residential character of the area. Strong retail companies to make the area attractive sharing the trade area with small and local business (different sizes and types of shops in the same space)

**Activate:** Street life and public liveliness in and out the neighbourhood level to create connections attractive for pedestrian circulation. Create an interesting circulation experience for drivers, public transport users and pedestrians, by adding street level services. Open the possibilities for different types of circulation.
This chapter presents a possible solution for a spatial cluster with high density of low income immigrant group, in the neighbourhood of Jakomäki. The proposal consists of a network of projects strengthening the connections in the neighbourhood and district level in order to use complementary services from adjacent neighbourhoods and to strengthen light mobility to encourage pedestrian and biking activities to encourage passive and active human interactions. The main aim of the project is to break spatial and social barriers which cause spatial segregation, while preserving the existing character of the area, for this reason, the first part of this chapter is describing and characterising the different parts found in the district and neighbourhood level.

The network of projects is proposed to break the spatial barriers isolating the area from adjacent surroundings by enhancing connectivity at the street level, while the punctual proposals are addressing segregation by creating spaces for passive and active interactions in the area and housing attractive to Finnish population. For an integration process to happen, it is relevant not only to create spaces for interactions, but to attract native population to interact with the existing immigrant groups (chapter one, section 1.3 and 1.4). The housing proposals in the network of projects are complying with the features found to be attractive for Finns (see design toolbox, page 19) while the spaces for interactions are complying with the features found to be relevant to create vibrant neighbourhoods (see design toolbox, page 19).

The target population group to attract to the housing projects are adults in a working age and families with kids from the middle class, not dependent of the social housing market, due to the stronger possibility to create interactions with the same age group (Andersson, Brattbakk and Vaattovaara 2016). It is of high relevance to see the group of projects as a whole network, and not the individual proposals by themselves, since the integration process needs all the parts to be working together to create an integration system for the neighbourhood.
4.1 Characterisation

Map 4.1. CHARACTERISATION DISTRICT LEVEL

Strategic interventions are proposed in order to activate each part of the studied paths, the proposals were built according to the character found in the analysis and the users to attract according to the desired activity type for each area (necessary, optional and social activities).
Path Part 1: VIBRANT NEIGHBOURHOOD
CHARACTER: Due to the already existing vibrant character of the area, no added character is proposed. This point is perceived as a population attractor with services complementing the surrounding neighbourhoods.

ACTIVITIES / USERS
Necessary, optional and social activities are taking place in the area, attracting variety of users in a broad time frame.

- Inhabitants
  - From Jakomäki Malmi project
- Workers
  - From heavy industry

Activity types taken from “Life Between Buildings” Gehl, 2011

Path Part 2: RECREATIONAL NATURE
CHARACTER: Existing greenery and outdoor activities complement Malmi airport densification proposal.

Added character: Strength the greenery. Walk trough. Transition path to malmintori. No physical intervention is required.

ACTIVITIES / USERS
Optional activities are taking place on the area, the natural character leaves no space to perform necessary and social activities due to the lack of built environment.

- Inhabitants
  - From Jakomäki Malmi project

Activity types taken from “Life Between Buildings” Gehl, 2011

Path Part 3: HEAVY INDUSTRY
CHARACTER
Industrial blocks with no street life or serving services.

Added character: Complement the industry, create street options. Restaurants and shops complementing the area to serve the already existing population.

ACTIVITIES / USERS
Existing necessary activities (jobs) concentrating a specific group of population in a specific time frame. Optional activities are proposed to complement the existing character. Restaurants and shops facing the existing walking path.

- Workers
  - From heavy industry

Activity types taken from “Life Between Buildings” Gehl, 2011

Path Part 4: NEIGHBOURHOOD ISOLATION
CHARACTER
Existing neighbourhood with basic services with no relation with surrounding areas.

Added character: Diversify to attract. Strengthen the pedestrian connection with adjacent built areas.

ACTIVITIES / USERS
Existing necessary activities (housing and basic services) concentrating residents and low density of social activities. Densification of social and optional activities are proposed to attract residents and neighbours to take part of street life.

- Visitors
  - From surrounding areas
- Inhabitants
  - Natives
  - From Jakomäki Malmi project

Activity types taken from “Life Between Buildings” Gehl, 2011
Map 4.2. CHARACTERISATION NEIGHBOURHOOD LEVEL

- Area Character: VIBRANT AXIS
- Area Character: MAIN ENTRANCE
- Area Character: THE BACKYARD
- Area Character: ORIENTATION AXES
Area Character: **VIBRANT AXIS**

**CHARACTER**
Existing main circulation axis, due to the majority of bus lines passing by. Main area of optional activities observed.

**Added character:** Increased street life and urban vibrance. Addition of spaces for social activities.

**ACTIVITIES/ USERS:**
Inhabitants from the private housing market and residents of the neighbourhood to develop social activities. Potential for developing recreational activities.

---

Area Character: **THE BACKYARD**

**CHARACTER**

**Added character:** Activation by inhabiting. Adequate location for housing due to the area’s peacefulness.

**ACTIVITIES/ USERS**
Inhabitants of private market dwellings. Increase pedestrian circulation towards the neighbourhood.

---

Area Character: **MAIN ENTRANCE**

**CHARACTER:**
Hidden and low circulation density. One of the main pedestrian entrances to the area with no attraction to be used.

**Added character:** Strengthen the axis to improve pedestrian circulation at the neighbourhood and district level. Triggered attractiveness towards pedestrian activities.

**ACTIVITIES/ USERS:**
Social activities to attract inhabitants to the node and triggering green mobility, to be used for necessary activities.

---

Area Character: **ORIENTATION AXES**

**CHARACTER:**
Confusing small roads with no landmarks or features for orientation. The modern character of the neighbourhood, constitutes disorienting paths and a difficult understanding of the role of streets and blocks at the urban level.

**Added character:** Orientation axes with straight grids to create orientation paths and build destination points in the neighbourhood.

**ACTIVITIES/ USERS**
Inhabitants of the neighbourhood (current and to come). Increase pedestrian circulation towards the neighbourhood and create destination points with interaction purposes.
4.2. The Network
Map 4.3. NETWORK OF PROPOSALS AT THE DISTRICT LEVEL.

- Town-house on the Backyard
- Local Gathering
- Axis Definition Town-house
- On the Road Town-house
- Diversifying Buildings Town-house
- Bridge Connection Mall
- Industrial Gathering Point

Legend:
- Places for Interactions
- Attractive Housing
STRATEGIC INTERVENTION POINTS

It is proposed to create a network of active nodes in order to activate the previously described inactive and isolated areas by creating a diversification process to attract users in order to enable interactions. This network of facilities and town-houses is connected by the already existing pedestrian infrastructure, but activating it by creating destination points. The town houses function as a native population attractor, while the facilities function as triggering points in each area to attract population to interact.

The currently vibrant areas has no need for intervention due to the existing population density and the future densification of Malmi airport projected by the city of Helsinki. Malmi airport project will attract high inhabitants density to the area, making “the forest” an innate population attractor for outdoor activities. This development is taken as a potential for the industrial area street life activation. The critical points to activate are identified as the main pedestrian gap in the walking path, discouraging users to walk trough. To activate the areas and pedestrian paths, “distractors” (cafés, shops and restaurants) are proposed at the pedestrian level to trigger the street life. The so called “distractors” are variety of services offered facing the street, in order to create origin and destination points for the pedestrian.

Facilities Location:

The facility location is given by the activity intensity as explained in chapter three. The strategic locations work as sewing projects, creating connections between relevant points. The aim of this proposal is not only to connect, but to create spaces for interactions between the current inhabitants of the neighbourhood and the attracted native population, brought by the housing proposals. The proposed facilities serve low and high income population, and provide opportunities for small, local business to be developed.

Local Gathering facility: The proposal is strengthening the already existing vibrant axis of Jakomäki and extending social activities to the area previously named as the “neglected backyard”. This extension is proposed by adding a linear building to the axis, facing the pedestrian path. The building is intended for cafés, restaurants and bars with direct visual relation to the pedestrian street. The semi-outdoor area is covered and acclimatised during the cold season.

Bridge Connection Mall: The proposal creates a strong landmark for the motorway users and a population attractor for new inhabitants, while strengthening the existing pedestrian entrance to the neighbourhood coming from malmi railway station. This triggering facility is proposed to be a Bridge-Mall, linking Jakomäki with the adjacent neighbourhood Alppikylä by adding retail to the linking connection and the possibility of variety of interactions.

Industrial Gathering Point: The proposal encourages the street life in the industrial area by adding convenient services to the existing users (industry workers) and creating food destination points, serving surrounding neighbourhoods. Proposed services are restaurants, grocery shops and public dining furniture for free use.
Map 4.4. NETWORK OF PROPOSALS AT THE NEIGHBOURHOOD LEVEL.

- Town-house on the Backyard
- Local Gathering
- Axis Definition Town-house
- On the Road Town-house
- Diversifying Buildings Town-house
- Bridge Connection Mall

Added Streets
Places for Interactions
Attractive Housing
Chapter Four. Strategic Proposals

**Added streets:**
Vehicle and pedestrian streets are added to the neighbourhood, in order to improve accessibility and orientation to make destination points smooth to reach. Destination points are public areas with strong potential to create passive and active interactions, such as buildings, parks or open spaces.

“Town House on the Backyard”: As previously described in the area analysis, it is pertinent to create connections from the existing axis to the so-called “neglected backyard” due to the poor physical condition of the buildings placed in the area and to open the access of the road leading to Vantaa. The added streets are opening a straight connection from the main road surrounding Jakomäki with the so-called “vibrant axis”, where most of the public activities of the neighbourhood are taking place.

“Axis Definition Town House”: The green empty area dividing “the neglected backyard” and “the vibrant axis” is used as a potential dwelling location in order to connect these two areas. The facility “local gathering” keeps it’s pedestrian character, while the area surrounding the apartment buildings is intended for town housing. The proposed streets strengthen the axis leading to the central green empty area, and to the public facilities located at the west of the plot.

“On the Road Town House”: The current main street surrounding the neighbourhood, presents itself as a barrier at this point, due to the current large distance between access streets to the neighbourhood. Three new streets are proposed every 150 meter, in order to provide vehicle and pedestrian access to the neighbourhood from the public transport circulation axis.

“Diversifying Buildings”: “Town House” Two straight street axes are proposed, replacing the narrow access streets to the apartment buildings in this area. The aim on these streets is to provide orientation guidelines for pedestrians and vehicles. One street creates a straight connection with the northern apartment buildings and the public facilities, while the other creates a straight connection of the current and proposed housing areas with the central green area of the neighbourhood.

**Housing locations:**
Town housing properties are located in areas complying with findings of chapter one (see design toolbox, page 19), according to Finns preferences on the housing selection. The features taken into account for setting the projects are density of greenery in the surrounding area to provide views, proximity to green environments with variety of outdoor activities. On the other hand, concerning the location of the housing projects, it is relevant to diversify the existing building types of the area for preventing the creation of small-scaled clusters inside the neighbourhood. The proposed dwellings are placed close by high-rise apartment buildings to promote diversity and interactions between neighbours. As Andersson, Brattbakk and Vaattovaara (2016) wrote, it is necessary to provide geographic proximity in order to encourage interactions.

“Town House on the Backyard” Location: This part of the proposal changes the isolated character of the north-east area of Jakomäki. The area is currently green and with a dense forest at the east side. Two buildings with poor physical condition are placed in the area. The adjacent greenery is taken as an attractor potential for new users, while the unappealing buildings environment is complemented and diversified with the presence of the housing proposal.

“Axis Definition Tow House” Location: Located in an empty green area, the proposal is surrounded by greenery, while balancing the built environment by diversifying the surrounding building types.

“On the Road Town House” Location: Located parallel to the main street of the neighbourhood and opening the access to the neighbourhood by breaking a strong barrier previously described. There is an existing risk unattractiveness to Finns due to the closeness with the neighbourhood’s main street and the E75 motorway. This risk is addressed by creating a dense green area, in order to isolate the pollution and noise, while conserving its opening character.

“Diversifying Buildings” Location: The closeness to the central green empty area of the neighbourhood is taken as a potential, as the high density of apartment buildings in the area. The proposal is located in an empty area surrounded by high-rise apartment buildings. The aim is to diversify the existing built environment and the population groups by mixing building types and population groups.
4.3. Punctual Projects
Plan 4.1. PROPOSED HOUSING MODEL

First Floor 1:100

Second Floor 1:100

Main Facade 1:100

Back Facade 1:100
Introduction to punctual projects:

The two project types satisfy the features found to implement an integration process at the neighbourhood and district level (see design toolbox page 19). One project depends on each other in order to develop integration between immigrant and native population groups, so the whole network function as a system. Proposed facilities provide places for interactions to happen (active and passive), but for establishing the integration process, native groups are to be encouraged to inhabit the area for the interactions to take place. On the other hand, dwelling projects attracting native population do not create interactions, if there is no appropriate public space to connect. The facilities and public spaces proposed meets requirements attractive to Finns concerning the area and the necessary features to acquire a vibrant neighbourhood with variety of interactions. The dwelling proposals, adhere to the literature findings towards the house itself.

The proposed housing model complies with the features preferred by Finns, in order to promote integration by attracting native groups of population to an area with high density of foreigners and encourage passive and active interactions to occur. The proposed public spaces in housing and facilities, projects are designed to promote street life for a vibrant neighbourhood. Facilities are placed in areas where a connectivity conflict was found, while housing projects are spread through the neighbourhood to diversify the existing building and population type inhabiting dwellings, create orientation roads, activate neglected areas and increase physical permeability to prevent barriers.

Dwelling features

A town housing model is designed according to the Finnish population preferences. The main features concerning the dwelling itself, are the importance of a private backyard and wider inhabiting area in the dwellings. The private yard location is placed in accordance of creating direct relations between buildings and streets. Placing the yard at the back area of a house, avoids green barriers of gardens isolating private and public life. With an area of 24 sqm, the four meters of depth, grants eight meters between windows, in the cases of two houses facing the back facade. The houses have an average area of 150 sqm plus yard, providing more area than the average in Finland, which is 80 sqm for housing in general, and 71 sqm in town houses, according to the Statistics Finland (2014).

The roof orientation of each row of houses varies according to the plot, since the larger the area facing the south, the less need for heating during the cold season (Bokalders & Block, 2010).

Area Features

The housing proposals complies with the found area features attractive to Finnish population, but related as well with the neighbourhood vibrance for creating interactions. The current greenery density of the area is taken as a potential for the Finn’s attraction towards the neighbourhood, due to the strong influence of the greenery and outdoor activities for natives. Secondary features for Finns, but still creating attraction such as socialising and managed greenery, are combined with vibration features to increase street life and socialisation. The public spaces of the housing projects create straight orientation axes, leading to socialising destination points. The destination points implement different types of activities as social, optional or necessary (Gehl, 2011). As previously described, social activities are the ones made by leisure, in public spaces with more people, optional activities depends on the inhabitant’s wish to use the public space and necessary activities are mandatory such as work or groceries.

I. The housing design standards and measures are taken from the chapter “Houses and Residential Buildings” of the Book Architects’ Data. (Neufert Ernest and Peter 2000)
Plan 4.2. TOWN-HOUSE ON THE BACKYARD

- Added Streets
- Connection with public facilities
- Local Gathering Facility
Design Toolbox Features
Natives Attraction

1. Surrounding greenery: The surrounding of this proposal provides variety of green spaces. At the east and west proximity, managed forest areas with high density of trees is easily accessible from the project. The neighbouring project is the swimming pool building, surrounded with parks and lower density of green spaces. The surrounding built environment, is a combination of low and high rise, being low rise the predominant ones.

2. Socialising activities: The project is located next to the “local gathering facility” (page 104), which provides variety of leisure activities for the neighbourhood inhabitants. The proximity with the neighbourhood school, provides access to sports fields.

3. Enjoyable activities: Being at the end of the “vibrant axis”, this project is directly connected with the current social happenings of the neighbourhood. The east forest paths, offer a direct connection with Jakomäki’s sport fields, while the “vibrant axis” provides direct pedestrian access to the basic services.

4. Private Greenery: Each house is provided with a 30 sqm private yard in the back part of the house. The backyards are facing each other to prevent barriers at the street level, but keeping a ten meter distance between built façades.

Vibrant Neighbourhood

1. Comfortable Pedestrian: The housing façades facing the street, provide protection for the pedestrian, while green areas isolate from uncomfortable perceptions such as safety and security.

2. Oriented pedestrian: The added streets provide orientation, while the green density surrounding them isolates the paths from noise and pollution.

3. Collective public life: Buildings facing the users providing street visible life. Straight street axes provide orientation and accessibility to variety of services.

4. Balanced environment: By densifying this area of the neighbourhood, a balance between built and empty is improved, by removing the neglected perception of this part of Jakomäki.

For the description of the icons, see design toolbox, page 19.
Plan 4.3. AXIS DEFINITION TOWN-HOUSE

- Added Streets
- Connection with public facilities
- Added Streets
Design Toolbox Features

Natives Attraction

1. Surrounding greenery: The north part of this project presents a wide green area, with direct access from the project. Every housing row is provided with green views to different environments. The north row faces the forest area, while the south rows face a park serving the adjacent high rise buildings.

2. Socialising activities: Located parallel to the “vibrant axis”, the project is provided with variety of services easy to reach, besides it’s direct connection with the proposal “local gathering facility” (see page 104)

3. Enjoyable activities: The proposal is in direct connection with the existing park serving the high rise buildings to the south, and an existing forest to the north. The connection with the sport fields from the school is strengthen with the “local gathering facility” proposal

4. Private Greenery: Two types of dwelling backyards are provided in this proposal. Backyards facing each other leave a 10 meter distance between façades, while yards of single row of dwellings are in direct link with the adjacent forest.

Vibrant Neighbourhood

1. Comfortable Pedestrian: This proposal provides diversity of land uses, since it is located between the “vibrant axis” and the housing area of Jakomäki.

2. Oriented pedestrian: The main aim of this proposal, is to provide an orientation straight axis, breaking the north-south linearity of the neighbourhood. The existing pedestrian road is broadened to provide vehicular access to the new housing project, and to connect the east and west part of Jakomäki.

3. Collective public life: The placement between the service and housing areas of the neighbourhood, gives this proposal the potential to diversify and link the area physically, by the land use mix and building type variety.

5. Balanced environment: The existing high rise adjacent buildings perpendicular to the street, gives a non human-friendly perception at the pedestrian level. This proposal is diversifying the existing built landscape by adding low rise buildings to the area blended with the greenery of the area, in order to provide more pedestrian friendly feeling.

For the description of the icons, see design toolbox, page 19.

Plan 4.4. ON THE BACKYARD FACADE

Front Facade 1:250
Plan 4.5. ON THE ROAD TOWN-HOUSE

Connection with public facilities

Added Streets

TO BRIDGE CONNECTION MALL FACILITY
Design Toolbox Features

Natives Attraction

1. Surrounding greenery: This proposal is placed parallel to the main vehicular circulation axis of the neighbourhood, for this reason, a green barrier is arranged isolating the housing from the main street. The eastern side of the proposal, faces the central greenery area of the neighbourhood, providing full accessibility to the green environments.

2. Socialising activities: The location of the proposal is central between the “vibrant axis” and the “bridge connection mall”, providing easy access to two different socialising areas.

3. Enjoyable activities: The adjacent dense green environment, provides variety of outdoor activities accessible for the inhabitants. The sports fields and swimming pool of the neighbourhood are located at 500m from the proposal.

4. Private Greenery: Facing yards allow the main housing facade to face the street. In this proposal, the façades of both of the rows are facing the street, followed by an area with high density of greenery.

Vibrant Neighbourhood

1 & 2. Comfortable Pedestrian & Oriented pedestrian: The addition of access roads to the project, provides to the central area of the neighbourhood at the same time. The opening streets are breaking the current barrier, isolating the street from the buildings access. As a result from the topography, the streets provide a smooth landscape transition.

3. Collective public life: Opening the streets and the central neighbourhood, also opens the visible street life of the current buildings. The proposed streets lead to the central green area of Jakomäki and the pedestrian roads through it.

5. Balanced environment: The project is located in the most dense area of high ride buildings, the proposal provides diversity on the built landscapes at the street view and on social and private housing.

For the description of the icons, see design toolbox, page 19.
Plan 4.7. DIVERSIFYING BUILDINGS TOWN-HOUSE

- Added Streets
- Bridge Connection
- Mall Facility
- Connection with public facilities
- Added Streets
Plan 4.8. ON THE BACKYARD FACADE

**Design Toolbox Features**

**Natives Attraction**

1. Surrounding greenery: This proposal is placed in the centre of a highly dense built environment. Nevertheless, the narrow distance to the central green area of the neighbourhood is evident. In addition, the two proposed housing rows are divided by a central green park, serving the existing and the proposed buildings.

2. Socialising activities: This proposal is located on the access axis of the “bridge connection mall”, providing easy access not only to the facility, but to the adjacent neighbourhood and the pedestrian path to Malmi railway station.

3. Enjoyable activities: Variety of green open areas are neighbouring this proposal as the existing parks serving high rise buildings, the proposed central park between the housing rows.

4. Private Greenery: The housing yards are facing the proposed park between the rows, in order to allow the main housing façades to face the street.

**Vibrant Neighbourhood**

1. Comfortable Pedestrian: This proposal provides two options for the pedestrian comfort. The main facade of the dwellings is facing the street, while the backyard faces the park between the rows.

2. Oriented pedestrian: Additional streets are proposed in this project, in order to provide vehicle accessibility to the dwellings and pedestrian orientation to the central green area of the neighbourhood.

3. Collective public life: Closeness with the “bridge connection mall” and the open access streets towards the main roads, provides the possibility of variety of interactions to occur.

4. Balanced environment: The proposal is located in the centre of a highly densified area of high rise buildings. The placement of this proposal, smooths the visual impact of non human-scaled architecture, while introducing the private market to the area.

For the description of the icons, see design toolbox, page 19.
Plan 4.9. LOCAL GATHERING FACILITY. AERIAL VIEW
Concept description
A linear facility located in the service axis of Jakomäki, the facility location is intended to create the connection of the existing active axis with the east area of the neighbourhood which was found to be isolated and with low pedestrian activity. The services provided by the facility are complementing the area with leisure activities, cafés, restaurants and bars to activate social activities.

By facing the pedestrian path, the building is intended to activate outdoor population flows, therefore, a flexible structure is proposed to serve the comfortable walkability during all weather conditions. An open wooden structure allowing the sun and air flow during the warm season to be covered by a transparent material during the cold season in order to stimulate street activities.

Priority of designated activities
Social activities are the main priority to attract in the axis. Active and passive interactions are encouraged by a strong relation between the built area and the street. Visual connections are enhanced with semi-opened spaces.

Optional activities are encouraged as a result for social activities. The happenings parallel to the pedestrian axis and the weather adaptation of the pedestrian street, constitute a population attractor for the neighbourhood users.

Necessary activities are the result of the growing business (cafés, restaurants and bars) activating the economy for job creation to neighbourhood residents.

(Types of activities taken from Gehl, 2011)

WHO
Inhabitants: Existing inhabitants of Jakomäki.
Existing inhabitants of Alppikylä
Future inhabitants of Jakomäki

Visitors: From the surrounding neighbourhoods.
Visitors from further areas of the city are not taken in consideration, since the location is serving at local level and the location is not positioned in an urban node.
Design Toolbox Features

1. Comfortable Pedestrian: The terrace flexible roof and its extension to the pedestrian path of the “vibrant axis”, provides pedestrian comfort serving the warm and the cold season.

2. Oriented pedestrian: As the proposal fills the existing gap in the “vibrant axis” between the multi-service area, and the swimming pool building, it is strengthening the connection of two relevant areas of the neighbourhood. The building opens itself to the pedestrian circulation to improve passive interactions, while increasing the feeling of safety.

3. Collective public life: Variety of services offered by the facility, with a terrace facing the pedestrian path on the “vibrant axis”, promotes passive and active interactions of the users of the facility and the pedestrians passing by. The project improves the possibility for social and optional activities described by Gehl (2011).

5. Balanced environment: This facility, opens the opportunity for local business to emerge or to grow at the neighbourhood level. The low rise proposal encourages human scaled buildings in the neighbourhood. The building opens the main facade to the area of high density of pedestrian circulation, while narrowing the facade towards the low circulation density area.
Concept Description

A joining facility placed in the identified critical pedestrian access point to Jakomäki. The conceptual building shape follows the existing pedestrian infrastructure on the way out of the neighbourhood towards the industrial area, Malmintori and the future Malmi airport densification project.

The main aim of the structure is to strengthen the pedestrian connection of Jakomäki with surrounding areas. On the other hand, the location crossing the E75 motorway, presents itself as a strong landmark to trigger population attraction of drivers using the motorway.

To trigger circulation along the transport axis of Jakomäki, a broad square is proposed at the entrance from the neighbourhood in order to open the lot to the neighbourhood from the street view. The open squares and circulation of the facility (Open roof shown in urban section 1) creates a visual connection of the structure with the high rise buildings characterising Jakomäki.

For improving the relation human-street life, the shops located in the bridge are assigned to food shops with direct view to the motorway. The food character was given to the bridge due to the users length of stay in this type of shops.

Social activities are the main target action implementation. The activation of street by concentrating social activities in the entrance node to Jakomäki, gives the project a jointing character to attract high density of population. The closed structure open the opportunity for the space to be used during all seasons.

Optional activities are a main target as well due to the continuity of circulations connecting variety of spaces for sitting and staying. The two circulation types on the bridge (outdoor and indoor), gives variety of landscape views and public space experiences in variety of time frames.

Necessary activities are not the main target of the project, but the users of this activity type are targeted. As the project is posed as a transition facility, the circulation character allows necessary activities users (from surrounding areas) to use the space as a pedestrian transition area, producing distractors on the walking path to create interesting street views.

Priority of designated activities

Social activities are the main target action implementation. The activation of street by concentrating social activities in the entrance node to Jakomäki, gives the project a jointing character to attract high density of population. The closed structure open the opportunity for the space to be used during all seasons.

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Necessary activities are not the main target of the project, but the users of this activity type are targeted. As the project is posed as a transition facility, the circulation character allows necessary activities users (from surrounding areas) to use the space as a pedestrian transition area, producing distractors on the walking path to create interesting street views.

(Types of activities taken from Gehl, 2011)
Plan 4.14. BRIDGE CONNECTION MALL. GROUND FLOOR

Plan 4.15. URBAN SECTION
Plan 4.16. STREET VIEW

**Design Toolbox Features**

1. **Comfortable Pedestrian**: The facility opens the connection of the Jakomäki with the adjacent neighbourhood and the pedestrian connection with Malmi railway station. It is considered to be the most important transition point of all the network of proposals.

2. **Oriented pedestrian**: The main entrance of the facility provides street life to an inactive area in the neighbourhood, providing a straight orientation axis to use the bridge. The provided orientation is not serving the neighbourhood itself, but the vehicles passing under the bridge, providing an outstanding landmark in the road. The feeling of safety while using the bridge is increased for the pedestrians, due to the population using the facility, and the increased lighting that the project is providing.

3. **Collective public life**: The facility provides a missing service on the neighbourhood, opening the possibility towards leisure activities, passive and active interactions, and variety of indoor and outdoor activities.

4. **Giving Room to informality**: Three types of shops are proposed, in order to serve large companies and small local business to grow or to be created. Large shops with 54 to 97 sqm serve large companies and are located in the least noisy area of the facility. Shops located in the thin bridge area, are intended for food services, in order to take advantage of the view and the potential use due to its circulation character. Small temporary structures, located in the middle of the facilities corridors, with 15 sqm, are intended to provide economic opportunities for emerging and local business. This small temporary structures, are benefited of the users attracted by large companies.

5. **Balanced environment**: The facility provides variety of activities missing in the neighbourhood, which character is mainly leisure. The diversification of activities provides entertainment areas for the inhabitants, population attractors from surrounding neighbourhoods and open and visible street life for the neighbourhood. This proposal in a strong interaction producer.
Give space for informality

Small retail islands are proposed to give room to “organised informality”, mimicking the phenomenon observed in Malmi railway station bridge.

The bridge joining Malmi railway station with Ylä and Ala Malmi is a necessary pedestrian circulation when using the commuting train services. Small informal sales are taking place along the structure.

The proposed light structures following the project circulation are intended to prevent disorganised informality while encourage local sales. This semi-informal islands are facing the official shops assigned to strong companies, with higher area and rent prices.

Concept Description

The industrial character of the area prevents street activities to happen in the surrounding areas, therefore a square is proposed with temporary structures contributing with complementing services to the already existing users. The square openness towards the street is intended to be a population attractor from the close surroundings, since 2 bus lines are passing by the street and the adjacent forest has variety of users performing outdoor activities.

The square is shaped by 30° and 60° angles, since it is the horizontal visual range of the human view. The proposal is opening itself to the street in order to break the emptiness of the pedestrian path at human scale. The public square integrating the walkable axis with the built environment, allows the continuous flow of users walking from Jakomäki and Malmi.

The openness of the structure towards the industrial buildings and the vehicle road, invites the industrial users to appropriate a friendly and human scaled public space with variety of services provided. Urban furniture is proposed to serve the users to be able to sit and stay in the area. The proposed services of the temporary structures are complementing the missing services, mainly for the industrial workers. This utilities are intended to be restaurants, cafés, and mobile corner shops. The temporary structures are provided with an additional temporary roof, for enabling the services in all seasons.

WHO

Workers: From the existing industrial buildings on the pedestrian axis
From the vehicle workshops in the adjacent neighbourhood.

Inhabitants: From adjacent neighbourhoods close to Malmi
From Alppikylä and Jakomäki
Future inhabitants from Malmi airport project

Priority of designated activities

Necessary activities are the main target of the node. Due to the industrial character of the area, parallel services are needed to benefit the already existing users with needed services such as restaurants grocery shops and pharmacies.

Optional activities are not a priority of the node due to the industrial character of the area. This activities are intend to be implemented with the Malmi airport densification project.

(Types of activities taken from Gehl, 2011)
Plan 4.21. URBAN SECTION

Plan 4.22. ARCHITECTURAL SECTION
Design Toolbox Features

1. Comfortable Pedestrian: The proposal opens the straight pedestrian path to a square facing the street and the fenced industrial building at the other side of the road. The square provides variety in the land use of the area, due to it’s mono-functional character; the project is intended for the population using the area for necessary activities described by Gehl (2011).

2. Oriented pedestrian: The pedestrian paths shaping the square circulation are following the pedestrian view coming from both sides of the path. In order to create a continuous circulations along the square, the paths are shaped by 60° angles. The industrial character of the area is preserved by the temporary buildings structure (containers) but yet transformed by adding street life to an industrial area serving the users.

3. Collective public life: The proposal provides visible street life for the industry workers, the pedestrians, and the public transport users of the buses circulating on the line.

4. Giving Room to informality: The proposal is implementing the local character to an industrial area, by adding street life. The possibility of small local business to grow and serve in this area, is increased by the non-existing competition in the area. The temporary character of the project provides flexibility to enlarge or reduce the project according to the demand.

5. Balanced environment: The proposal provides a human scaled area in a industrial land with massive buildings neglecting the streets. This added variety intends to attract users not only from the adjacent factories, but from the surrounding neighbourhoods (including malmi airport future development).
4.4. Possible Impact

The proposed strategy is intended to impact at three different levels, in order to enhance an integration process to encourage and develop UN and Helsinki city goals. Developing triggering areas produces a ripple effect towards surrounding environments.

**Neighbourhood level:**
By activating the neighbourhood at the street level with user and place triggering projects, the aim is to create an attraction process towards native population and the private sector, while improving the street life quality. By increasing the amount of population, the immigrant density and social housing percentage is lowered (not by displacing the inhabitants but by balancing proportions), this balance is supported by Helsinki mixing policy and the city’s objectives (Helsinki city report 2016).

The population attraction process is encouraged by housing development and business attraction, the retail spaces proposed in the projects are intended to be a mix of big companies and small business to grow. The area activation by placing complementary services, also raises job opportunities for low income local population groups.

**District Level:**
The neighbourhood activation is directly attached to the connectivity and relation with the surrounding environments, for this reason it is relevant to create a link for attracting not only neighbours, but inhabitants from surrounding neighbourhoods. The land use barrier represents a major connectivity risk, still the future development of Malmi airport a great potential. Fill the gaps in the existing modernistic urban model, in order to activate street life, pedestrian flows and reduce the use of motor vehicles. Reduce urban emptiness and create shorter walking distance with variety of origins and destinations in order to encourage green mobility.

**City Level**
Encouraging the nodes of street vibrance, walkable connections and variety of land uses, creates a ripple effect at the city level by neighbourhood densification, multiculturalism, and reducing the risk of social exclusion. At the city level, the node is placed in direct relation with one of the future boulevards presented in Helsinki master plan.
POSSIBLE IMPACT

CHAPTER FOUR. STRATEGIC PROPOSALS
4.5. Conclusion

The purpose of this thesis was to find causes, effects and possible solutions for the phenomena of spatial segregation of immigrant population in the developed countries, specifically in Helsinki. This, in order to prevent consequences in the potential scenarios, due to the current large proportion of population immigrating from developing to developed countries.

The dynamics of forming segregated urban areas

The reasons for immigrants to be grouped in specific locations were found to be a variety of internal and external facts, which are strongly attached to the population’s level of income. On one hand, internal facts depend on the inhabitants’ location preferences and decisions, leading immigrants to self-segregation and meanwhile natives tend to move out or avoid the areas with high densities of foreign population. On the other hand, external facts are dependent on local policies, regulations, housing availability and dwelling prices, which causes the grouping of different types of households in certain areas. Internal facts are caused, mainly by prejudices and mental barriers of natives and immigrants, since local population associates immigrant areas with a negative matters and foreign population is driven by the fear from racism. Nonetheless, external facts are caused by the lack of experience of policy makers regarding immigration matters and the social or private housing concentration in certain areas.

The effects of mental and physical barriers on the clustering process

In this research, the author found that mental and spatial barriers are affecting urban environments by raising the vulnerability of segregation. Mental barriers are formed through prejudice toward low income immigrant population, which prevents multicultural interactions from taking place, while increasing the risk of racism. Spatial barriers are reinforcing the mental distance with segregated areas, by isolating the areas and prevent human flows. Findings, evidence that spatial segregation of immigrants is a complex process, where social and physical components are complementing each other; strengthening the phenomenon. The consequences of the process are ethnic clusters colouring certain areas with a negative reputation among local inhabitants, which decreases the dwelling prices and attracts the native inhabitants with social problems. In addition to the described loop of facts, the built environment plays an important role in reinforcing the process. The dependency on social housing by the low-income immigrants in Helsinki, leads them to inhabit sub urban areas, built under the modern design concepts, based on the car dependency and the high-rise buildings. This neighbourhood design, is characterised by its isolating physical barriers, poor pedestrian connections as well as a dry quality of street life. The spatial design of those areas produces a negative effect on the area reputation as well, therefore complementing natives’ prejudices against the areas. The whole process previously described is a loop, in which some effects are creating more causes for segregation. For this reason, it is necessary to approach the spatial segregation of immigrant groups from both social and spatial perspective.
Possibilities to employ spatial actions or policies in better integration

For an adequate integration process, the findings revealed the need of a diversification process on the social and the built environment. In this work, spatial segregation of immigrants is approached as a system, taking into account the significant influence of each part of it in the whole process. A careful land use transformation and urban renovation in segregated areas, could be an action to solve some parts of the segregation problem. For this reason, it is important to develop the spatial and the social issues in parallel, considering the influence of the built environment on its inhabitants’ behaviour: The finding in regard to enhance integration, is to create multicultural interactions in order to prevent social intolerance towards foreign population groups. Geographic proximity between natives and immigrants is necessary, for encouraging passive and active interactions which might be challenging in already settled urban clusters. It is clear, that segregation is a two-sided process, where natives and immigrants are responsible for; so complying the natives’ wishes towards housing locations is as important as satisfying immigrants wishes. Accordingly, implementing housing and area features attractive to native population to an area with high density of immigrant population, might be crucial to encourage locals to consider the place as a potential housing location.

From the author’s point of view, it is easier to introduce locals to an already existing cluster, than introducing immigrants to an area with low immigrant density. The risk of the white flight phenomenon is still strong due to the existing prejudices, while re-creating existing clusters, in order to be attractive for natives, represents a smooth process with no forced introductions. Even so, the risk of white avoidance still exists, even if providing attractive neighbourhood features for natives.
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