# Let's play outside Children's safety in the Swedish Million Program

### MSc2 Thesis on Architectural History MSc Architecture, Urbanism and Building Sciences, Delft University of Technology

## J.M. van der Linde

#### April 2023

#### Architectural History Name supervisor: dr. Rachel Lee

**Abstract** – The main research question of this paper is *"How do concepts about urban planning stemming from the Swedish Million Program relate to children's safety in Tensta nowadays?"* This question will be answered through literature research on the history and critiques of the Swedish Million Program, site visits and interviews with residents in Tensta, and literature research on children's safety in urban planning. In Tensta several playgrounds and pedestrian crossings are observed and compared to contemporary thoughts on children's safety in urban planning. The main considerations about children's safety in urban planning in the Swedish Million Program in Tensta include the courtyard system and the separation of traffic. The courtyard system aligns with the contemporary design principle of having *"eyes and hands on the street"*. The traffic separation does not line up with the contemporary thought that it is beneficial for children to safely engage in risky play.

Keywords – Swedish Million Program, Tensta, post-war planning, public housing, children's safety, play areas, traffic separation

## **Table of Contents**

1 Introduction	2
1.1 Objects of study	3
1.2 Interpretive ideas	3
1.3 Academic context	3
1.3.1 Large-scale public housing programs	4
1.3.2 The Swedish Million Program	4
1.3.3 Public housing in Stockholm	5
1.3.4 Urban planning in regard to children's safety	6
1.3.5 Research gap	6
1.4 Methodology	7
1.5 Thesis structure	7
2 The Swedish Million Program	8
2.1 History of the Swedish Million Program	8
2.2 Critique of the Swedish Million Program	9
2.3 Conclusion	11
3 Tensta	12
3.1 The Swedish Million Program in Tensta	12
3.2 Current developments	14
3.3 Urban planning in Tensta in regard to children	16
3.4 Conclusion	19
4 Children's Perspective in Urban Planning	21
4.1 Design of play areas	21
4.1.1 The more goals, the more interesting a place	21
4.1.2 Playing as an opportunity for total design	23
4.1.3 Look for new locations and routes	23
4.1.4 Imitate and inspire each other	24
4.1.5 Safely engaging in risky play	24
4.1.6 In touch with nature	24
4.1.7 Playing also needs empty space	25
4.1.8 Management as a stimulus for playing	25
4.1.9 Eyes and hands in the streets	25
4.1.10 Investing in non-spatial elements	26
4.1.11 Include a neighborhood's own customs	26
4.1.12 See it as a child does	26
4.2 Traffic: stress factor or necessary risk?	27
4.3 Conclusion	28
5 Conclusions	29

## **1** Introduction

An increasing number of people struggle to find housing. In the Netherlands, at least 75,000 houses have to be built each year, in order to eliminate the housing shortage (Ministerie van Algemene Zaken, 2022).

However, housing is a complicated issue, as it has to provide for increasing demand and quickly changing patterns of living (Chhaya, 2017). Buckley et al. (2016) state that:

Over the past decade there has been a sudden, extraordinarily large, and simultaneous expansion of multi-billion dollar housing subsidy programs in many developing and emerging economies. All of the so-called BRICS - Brazil, Russia India, China, and South Africa - as well as Angola, Argentina, the Democratic Republic of Congo, Ethiopia, Rwanda, Mexico, Indonesia, and Sri Lanka, have initiated new large-scale housing programs.

According to Buckey et al. (2016), "much more attention should be paid to the lasting effects that such programs can have on the structure of cities for generations to come."

Sweden has a large multifamily housing stock, built between 1960 and 1975 (Lind et al., 2016). The buildings of this Swedish Million Program, mainly located in Stockholm, Gothenburg, and Malmoe, are now considered unattractive and face an urgent need for renovation in many aspects, including ventilation, windows, balconies, facades, and sanitary pipe replacement. (Bajards & Persson, 2017).

Chhaya (2017) describes the Swedish Million Programme as *"the most audacious experiment in modern housing"*. Chhaya describes:

...these estates are ageing and have become misaligned with modern ways of living, rendering them susceptible to segregated neighbourhoods and neglect, and out of date in terms of energy use. While a new housing shortage looms, the renovations to million program buildings could potentially provide some insights into the housing problem.

The Million Program is now one of the most discussed socio-economical and housing policy topics in Sweden. The total investment has been estimated from 300 billion SEK to 500 billion SEK (Bajars & Persson, 2017).

According to Dahlstedt (2015), the housing estates from the Million Program were a political problem in public debate, *"defined in terms of social and/or ethno-cultural otherness."* 

However, when visiting the projects of the Million Program, what catches the attention is not that the buildings are in need of renovation, but that there is a strong feeling of community, contributing positively to the area. Playgrounds filled with children are located in between housing blocks, allowing parents or caretakers to keep an eye on the children while playing. Pedestrian bridges cross the roads, allowing for a safe pedestrian environment. Was this pedestrian environment designed specifically with children's safety in mind, allowing them to play safely on the streets? And what will happen to this safe pedestrian environment if the areas of the Swedish Million Program will be renovated?

Renovation of the neighborhoods from the Million Program would not only mean an upgrade of the quality of the housing but would also bring significant changes in urban planning to the concerned areas. These areas should be studied before they are renovated, allowing us to learn from previous design decisions and make better planning decisions in the future.

#### 1.1 Objects of study

This thesis focuses on ideas about architecture and urban planning stemming from the Swedish Million Program (Swedish: *Miljonprogrammet*) in relation to children's safety in Tensta nowadays.

The thesis zooms in on the Swedish Million Program, first looking at the Swedish Million Program in general and then at the Swedish Million Program in Tensta, one of the first areas of the Million Program to be completed (*Tensta - Stockholmskällan*, 2022). In Tensta several playgrounds and pedestrian crossing points are observed, in regard to children's safety. Finally, current considerations regarding children's safety will be researched and compared to the findings about Tensta.

Tensta is chosen as a case study, as it quickly became a symbol of the Million Program, due to criticism for its lack of green areas and poor communication with the city center (Mekler & Alfredo, 2019). However, it is one of the areas that became home to many families as a result of the Swedish Million Program, and therefore a good case study to focus on children's safety in urban planning.

#### **1.2 Interpretive ideas**

The main research question of this paper is *"How do concepts about urban planning stemming from the Swedish Million Program relate to children's safety in Tensta nowadays?"* The subquestions posed are:

- *"What is the Swedish Million Program and how was it received?"*
- "How was children's safety considered in the urban planning of the Swedish Million Program in Tensta?"
- *"What concepts are applied by urban planners nowadays, and how do observations in Tensta line up with these contemporary concepts?"*

#### **1.3 Academic context**

In this literature review, existing literature has been grouped into different bodies of knowledge, relevant to the research questions posed in this thesis. The groups consist of *large-scale public housing programs, the Swedish Million Program, public housing in Stockholm,* and *urban planning in regard to children's safety.* Finally, the research gap leading to the main question of this thesis will be discussed.

It is important to note that most of the literature that is discussed in this thesis is written in English, potentially leaving relevant Swedish sources out of consideration. The aim is to offset this deficit through fieldwork in Tensta, including observations and interviews, and literature research on English literature written by Swedish authors.

#### **1.3.1 Large-scale public housing programs**

This section includes sources that research large-scale public housing programs in general, to provide an understanding of the relevant factors of these programs and critical focus points of public housing. There is a great amount of literature available that discusses the problems of public housing. This research is often paired with recommendations for strengthening public housing programs.

For example, Buckley et al. (2016) report a research gap in the analysis of the rationale, efficacy, and potential long-term effects of the introduction of large-scale public housing programs. In their research, a perspective is adopted that expands beyond typical public finance approaches. An outlook is provided on recent experiences, general trends in housing, an evaluation framework, and recommendations aiming at strengthening the programs.

More specific research on public housing programs is done, among others, on public housing in relation to children. An example of this is the research by Currie & Yelowitz (2000), examining the effect of public housing participation on housing quality and educational attainment. Currie & Yelowitz refute the stereotype that public housing would harm children. Their findings point out that households living in public housing projects are less likely to suffer from overcrowding or live in high-density complexes, and that the children living here are less likely to be held back. Newman & Harkness (2002) also found that living in public housing during childhood increased employment, raised earnings, and reduced welfare use. In Section 1.3.4 more literature about children's safety in regard to urban planning will be discussed.

#### 1.3.2 The Swedish Million Program

As the area of Tensta was developed as part of the Swedish Million Program, in this section, literature on the Swedish Million Program, in general, is discussed to better understand previous research on the program. In Section 1.3.1, literature on large-scale public housing programs was discussed, which was mainly focused on areas for improvement and recommendations. The same goes for literature on the Swedish Million Program, mainly discussing political regimes and the possibility of renovation.

Hananel et al. (2021) studied Public Housing Policy in Sweden, the United States, and Israel, examining "how differences in a country's political economic regime influence the implementation and outcomes of public housing policies over time and the extent to which and how the differences change over time."

Thörn & Thörn (2017) analyzed new forms of governance in major cities, focusing on inner-city developments, and researched the transformation of housing policies and the Million Program, including conflicts that have emerged as consequences of these developments.

In line with this, the research by Bradley (2009) explores dimensions of justice and politics in sustainable urban development in ethnically and socially diverse areas, among others in the area of Tensta.

Chhaya (2017) takes on another perspective, examining existing housing in Sweden on the topics of being able to modify one's own living environment or making housing more adaptable, involving and enabling for the dweller; encouraging more decision-making and participation from the user community; and investigating whether there is a *"scope within the Swedish Million Programme for reinterpretation and adaptation to allow the different, changing demographies and requirements for housing prevalent today".* 

When it comes to the possibility of renovation, the research of Bajars & Persson (2017) takes a different approach, discussing the energy-saving and thermal comfort potential of adding glazed spaces to existing building façades. Sternberg (2013) also researched the potential of change of the buildings from the Million Program.

The literature about the Swedish Million Program can be grouped into two topics: political regimes, in specific the implementation of public housing programs and the conflicts regarding them, and the possibility of renovation of the buildings of the Swedish Million Program.

#### 1.3.3 Public housing in Stockholm

When researching literature specifically about public housing in Stockholm, some specific topics recur. One of these topics is the underground rail system in Stockholm, researched by Cervero (1995) and Börjesson et al. (2014).

In the research by Börjesson et al. (2014), an ex-post cost-benefit analysis (CBA) of the Metro system in Stockholm built in the 1950s, is performed. Their most important findings are that the Metro is socially beneficial and that the most significant benefit of the Metro is its capacity, making it possible for many people to travel to and from the city center.

Once again, the shortcomings of the Swedish Million Program are discussed. For example, Zakrjevskaia (2014) researched "the shortcomings on a level of formulation of plans and visions, issued by the City of Stockholm that might influence the implementation capacity with regard to energy efficiency".

Nilsson & Åberg (2015) studied the promotion of social sustainability and enhanced attractiveness in Tensta, using previous surveys and self-conducted surveys, in the forms of a questionnaire, dialogues, and interviews with residents of Tensta. Their study objective was to find *"measures that enhance the social sustainability of a residential area whilst increasing its attractiveness".* 

Bengtsson (2018) looked at the physical environment to propose suggestions as to how the sense of public safety can be enhanced in Tensta Centrum.

Mekler & Alfredo (2019) researched public spaces in Rinkeby, Tensta, and Husby, to offer an alternative way of understanding inclusion in areas where residents are predominantly of foreign background.

The main takeaway from this literature review is that the Metro was an important factor in the Swedish Million Program and that shortcomings have been reported when it comes to planning. However, research has been done on the enhancement of the attractiveness of different areas in Stockholm, setting a base for future developments.

#### **1.3.4 Urban planning in regard to children's safety**

In the previous sections, literature about large-scale public housing programs, in specific the Swedish Million Program in Stockholm, was discussed. As public housing programs are inextricably linked to urban planning and safety, this section will discuss the literature on urban planning in regard to children's safety. Some main themes that recur, include *children's play* and *children's safety*.

When it comes to children's play, Daan et al. (2019) wrote a book with knowledge, inspiration, and concrete suggestions to make a city that invites playing and moving, formulating critical principles to create sustainable, full room for playing in the city. The research by Ekawati (2015) examined how street elements contribute to children-friendly streets. Danenberg et al. (2018) wrote a book emphasizing the human perspective and exploring how cities are experienced and shaped, from a child's perspective.

Children's play and children's safety are closely intertwined, as children's play is often influenced by children's safety. For example, Woolley et al. (1999) researched children's concerns and fears when using the city center. Besides that, Veitch et al. (2006) did a "qualitative study of parents' perceptions of influences on children's active free-play".

The sources mentioned in this section will be used to research and list contemporary ideas about children's safety in urban planning. Findings about ideas stemming from the Swedish Million Program in Tensta will then be compared to this list, to evaluate to what extent they are similar to contemporary ideas.

#### 1.3.5 Research gap

Most of the research done on the Swedish Million Program in general, and on the Million Program in Stockholm in particular, focuses on shortcomings of the program and recommendations for the potential renovation of the projects or recommendations for future large-scale public housing programs.

Although there is a great amount of literature available about children in (contemporary) urban planning, a topic that has not been covered in the literature about the Swedish Million Program is the considerations about children when developing the Swedish Million Program, and how these considerations would compare to contemporary thoughts on children's safety in urban planning.

This research paper aims to give a better understanding of design choices regarding children's safety that have been made in Tensta during the Million Program, and how these design choices relate to contemporary visions.

This research aims to critically reflect on whether the contemporary ideas about, for example, traffic separation or the location of playgrounds are actually the best options for an area such as Tensta. This

will be done through literature research and research on the needs and wishes of the inhabitants of Tensta.

#### 1.4 Methodology

First, the question *"What is the Swedish Million Program?"* will be answered through literature research on the history of the Swedish Million Program, as well as on the critiques of the Swedish Million Program.

After that, the question *"How was children's safety considered in the urban planning of the Swedish Million Program in Tensta?"* will be answered through site visits and interviews with a child and a young adult in Tensta.

In Tensta several playgrounds and pedestrian crossing points are observed, in regard to children's safety. These observations are compared to the positions of inhabitants, by interviewing residents, and of regional planners, through literature research.

Next, the question "What concepts are applied by urban planners nowadays, and how do observations in Tensta line up with these contemporary concepts?" will be answered through literature research, comparing the analyzed playgrounds and pedestrian crossings to contemporary literature on considerations about children in urban planning.

Finally, these subquestions will lead to an answer to the main research question: *"How do concepts about urban planning stemming from the Swedish Million Program relate to children's safety in Tensta nowadays?"* 

#### **1.5 Thesis structure**

In Chapter 2 the question *"What is the Swedish Million Program and how was it received?"* will be discussed, including the history of the Swedish Million Program, as well as the critiques of the Swedish Million Program.

In Chapter 3, the question, "How was children's safety considered in the urban planning of the Swedish Million Program in Tensta?" will be discussed.

In Chapter 4, the question *"What concepts are applied by urban planners nowadays, and how do observations in Tensta line up with these contemporary concepts?"* will be discussed.

In Chapter 5, the conclusions of the research will be discussed, relating to the main research question: *"How do concepts about urban planning stemming from the Swedish Million Program relate to children's safety in Tensta nowadays?"* 

## 2 The Swedish Million Program

In this chapter the question *"What is the Swedish Million Program and how was it received?"* will be discussed.

In Section 2.1, the history of the Swedish Million Program will be discussed, to provide a better understanding of the contents of the program. In Section 2.2, the critique of the Swedish Million Program will be discussed, in order to give an idea of how the program was received.

#### 2.1 History of the Swedish Million Program

According to Hall & Vidén (2005):

The first decades of the post-war era saw a large and quickly growing need for new housing. In Sweden, rapid urbanization, growing prosperity and demands for higher housing standards led to years-long housing queues. The housing shortage became a political liability for the ruling Social Democratic party. To end the housing shortage once and for all, the Swedish parliament decided that a million new dwellings should be built in the period 1965 to 1974 and this was achieved.

The Swedish Parliament started intervening in the Swedish housing market in the early 1900s, initially in order to deal with a temporary crisis. After World War II, the Social Democratic Party introduced a new housing policy that gave municipal housing corporations (MHCs) subsidized loans, leading to the major construction of public housing. The aim of this policy was to create housing at a reasonable price for everybody. As the demand for housing increased, the government started implementing the Swedish Million Program in 1965 (Hananel et al., 2021).

The goal of the Million Program was to build a million new homes in a time span of ten years (1965-1974) and eventually produced 1,006,000 new apartments, which constitutes one quarter of Sweden's existing housing stock (Sternberg, 2013). This led to the creation of new suburbs and an oversupply of public housing (Hananel et al., 2021).

Of the one million homes, approximately one-third were single-family dwellings, one-third consisted of multifamily housing with three stories or less, and one-third were high-rise multifamily housing with four stories or more (Sternberg, 2013).

According to Bajards & Persson (2017), almost half of the one million apartments built in Sweden between 1965 and 1974 as part of the Swedish Million Program, are located in Stockholm, Gothenburg, and Malmoe.

Examples of the Million Program in Stockholm can be found in Akalla, Backlura, on Byälvsvägen in Bagarmossen, Fältöversten in Östermalm, Hjulsta, Husby, Kälvesta, Nälsta, Rinkeby, Skärholmen, Sätra, Tensta, Vinsta, Vårberg, Östberga, and Bredäng (*Miljonprogrammet -Stockholmskällan*, 2022).

As discussed in Chapter 1, an essential aspect of the Million Program in Stockholm was the underground rail system that was built during the program. Hall & Vidén (2005) state that *"In Stockholm and other*" major cities this epoch was characterized by firm planning and boldventures, such as the new suburbs and the construction of an extensive underground railsystem." In the research by Börjesson et al. (2014), an ex-post cost-benefit analysis (CBA) of the Metro system in Stockholm built in the 1950s, is performed. Their most important findings are that the Metro is socially beneficial and that the most significant benefit of the Metro is its capacity, making it possible for many people to travel to and from the city center. According to Cervero (1995), regional planners built this extensive rail system, linking satellite new towns with downtown Stockholm, to maintain central Stockholm's vitality, eventually leading to "a tremendous amount of cross-haul commuting in the Stockholm region." According to Cervero, relatively few Stockholm new town residents work locally, compared to other 'natural' suburbs in greater Stockholm and UK new towns.

#### 2.2 Critique of the Swedish Million Program

As the Swedish Million Program led to an oversupply of public housing, consequently, public housing companies had to compete for tenants and encountered economic difficulties. This was especially the case for districts that were not near metropolitan centers (Andersson et al., 2010; as cited in Hananel et al., 2021).

In Sweden, unlike most other countries, every citizen is entitled to public housing, meaning that there are no eligibility criteria and no means tests. This policy, with controls that reduce prices significantly in high-demand areas, creates advantages for people with a higher income because even if they can afford to buy or rent in the private sector, there is still a possibility to choose for a less expensive option in the public housing sector (Andersson & Söderberg, 2012; as cited in Hananel et al., 2021). As a result, there is a long wait for an apartment, which has created a black market in which people buy illegal rental contracts directly from tenants at inflated prices (Öst et al., 2014; as cited in Hananel et al., 2021). On top of that, the policy has created overcrowding in immigrant neighborhoods. Longtime residents of public housing in the city center prefer to stay in their apartments, leaving the apartments in remote neighborhoods vacant. The poverty, unemployment, and violence rates are notably higher in these neighborhoods than the national average (Andersson et al., 2010; Magnusson & Turner, 2008; Öst et al., 2014; as cited in Hananel et al., 2021).

According to Thörn & Thörn (2017), with the abolishment of the Ministry of Housing in 1991, regulations supporting privatization and marketization of the public housing sector led to an increase in the number of evictions from municipal housing and the number of homeless. This affected mainly the inhabitants of the Million Program. On top of that, Thörn & Thörn state that:

...partly as an effect of systematic disinvestment, the Million Program has become in urgent need of renovation, which has come with "upgrades" and rent increases of up to 80 percent, something which has laid the ground for the most recent phase o gentrification through "renoviction" In addition, these areas are the ones most severe hit by cutbacks in the public sector. For example, a combination of cut free-school reform has contributed to school segregation along class- and racialized lines; and to Swedish pupils' school performance dropping from the top to the bottom of OECD ranking.

In many of these suburbs, fewer than fifty percent of students make it to upper secondary school (Sernhede et al., 2016, as cited in Thörn & Thörn, 2017). Thörn & Thörn state that re-regulated housing policies in combination with other neoliberal reforms have caused *"deepening spatialized social inequalities in Swedish big cities"*, and that these Swedish big cities *"belong to the most segregated in Europe"*.

Hall & Vidén (2005) discuss whether we have learned anything from the Swedish Million Program that otherwise would have remained unknown. Their conclusion is as follows:

Yes and no. Yes, the importance of taking the residents into account, in planning as well as in the management and development of existing housing, has been realized and maybe learnt to avoid very large-scale and homo-geneous new developments; No, giving the recent past the time to settle – in daily life by adjustments to the continuous changes of society and in people's minds as parts of the modern cultural heritage – has not yet been learnt.

According to Hall & Vidén (2005), we have learned to take into account residents, but we have not yet learned how to allow flexibility for changing user needs.

The importance of this flexibility is also stressed by Chhaya (2017), stating that "The process of design and provision of housing needs to become more porous and based on the needs of the community, assuming that lives of people are fluid, and will change." In addition, Sternberg (2013) states that "if and how they [the buildings from the Swedish Million Program] can be altered to fit contemporary society rests on how well we can understand their original structural intentions and the changing needs of today's residents."

According to Sternberg (2013), there was an underlying idea of completeness and low maintenance in the Swedish Million Program that influenced for example material handling but also prospects for future growth, meaning that the buildings were not built for and able to handle changing needs in society.

According to Sternberg (2013), the housing areas of the Million Program are now beset by a fourfold set of forces that call for change. Firstly, a rapid demographic shift causes friction with the built environment. Secondly, technical systems are in need of long-term maintenance. Thirdly, energy costs and consumption issues lead to questions about sustainability. Lastly, historical preservation issues interfere with the first three forces.

When it comes to the extent to which we have learned the importance of taking users into account, Chhaya (2017) states that *"Residents have been the most marginalised group of all the parties who come together to make housing",* leading to believe that there are still

improvements to be made when it comes to resident participation in the design process. Chhaya continues:

I contend that this is one of the fundamental issues of all housing that are designed with little adaptability and hence are dated with a fixed lifespan, after which changing lives begin to make them redundant. However, a user-driven process and designs that afford adaptation according to changing needs may allow housing to have an inherently longer life, and affect the social cohesion and sense of place of the city as well.

Chhaya (2017) sees an opportunity in finding "smarter" solutions, meaning "housing that induces and allows change, care, investment of time and increase of interaction."

#### **2.3 Conclusion**

The Million Program was built in response to the post-war housing shortage, with the goal of building a million new homes in ten years' time (1965-1974). This was achieved and led to the creation of new suburbs and an oversupply of public housing.

However, the buildings of the Million Program are in urgent need of renovation and re-regulated housing policies, privatizing the public housing sector, have led to social inequality, where in some areas more than half of the students do not make it up to upper secondary school.

This leads us to question in what way children were considered in this Million Program. As mentioned in Chapter 1, there is not much literature available about the considerations of children in the Million Program. Therefore, in the next chapter, a case study will be done on the area of Tensta, to study which infrastructure and spaces were originally imagined for children.

## 3 Tensta

The current suburb of Tensta was built as part of the Swedish Million Program and was one of the first areas of the program to be completed. Many people were critical of the end results. Most of the housing was completed before the Metro was built, and more attention was spent on the housing itself than on the surroundings (*Tensta - Stockholmskällan*, 2022).

However, the Million Program did create new communities across Sweden. People started living in new areas of Stockholm and brought their families and a vibrant atmosphere to places like Skärholmen, Tensta, and Hasselby Gard (Brodala, 2018). As Tensta was one of the areas that became home to many families as a result of the Swedish Million Program, it will be used as a case study to show how children were considered in the program.

Therefore, in this chapter the question *"How was children's safety considered in the urban planning of the Swedish Million Program in Tensta?"* will be discussed.

In Section 3.1, research is done on the Swedish Million Program in Tensta. In Section 3.2, current developments in Tensta are discussed. In Section 3.3 the urban planning in Tensta in regard to children is discussed.

#### 3.1 The Swedish Million Program in Tensta

Tensta is part of the area Spånga-Tensta in Stockholm. Spånga-Tensta can roughly be divided into two dwelling areas: Tensta and Gamla Spånga. Tensta in turn can be subdivided into Tensta and Hjulsta, Tensta being the larger area and thereby lending its name to both of the areas (Bradley, 2009).

Initially, local families with children moved into Tensta. In the following decades from the 80s to the 90s, an increased number of people with foreign backgrounds moved into the area (Mekler & Alfredo, 2019).

According to Bradley (2009), when Tensta was in its planning phase, the city's director of planning stated, *"We think that it is the best we have accomplished so far."* The planning of Tensta was based on *"the idea of a benevolent neighborhood unit - a demarcated neighborhood with its own identity that was thought to foster solidarity and community"* (Bradley, 2009).

However, Tensta quickly became a symbol of the modern Million Program, and of the housing shortage of the 1960s, as it received criticism from the initial wave of inhabitants for its lack of green areas and poor communication with the city center (Mekler & Alfredo, 2019). According to Bengtsson (2018), surroundings, media, and history have given Tensta "*a predetermined poor reputation as a troubled Swedish area with high crime and low education.*" It should be noted that views differ as to whether the segregation and social problems are primarily due to urban planning or more overarching societal structures, dynamics, and social and economic politics. Furthermore, Tensta is not only a symbol for these social problems but also "an appreciated neighborhood and a symbol of contemporary *culture*" (Arnstberg & Erdal, 1998; as cited in Bradley, 2009).

When asking inhabitants, in this case, a young adult, what the best thing is about Tensta, they would answer: *"The fact that we have different* 

cultures, different societies, and different nationalities from all over the world. We have mixed religions which make you learn about different places, and friends from other countries, creating respect for other religions" (Interviewee 1, personal communication, March 1, 2023).

Tensta is filled largely with apartment blocks and consistent traffic separation (Stockholms Stad, 2018). During the Million Program, Tensta favored higher density, leaving little land in the area unbuilt (Bekler & Alfredo, 2019). In the northern part of Tensta, the buildings are higher than in the southern part, creating a barrier towards the highway and allowing for more sunlight. The balconies of the buildings are all oriented to the southwest. Simple, cube-shaped buildings with carfree streets shape the town. In the middle of the town, the carfree pedestrian street Tenstagången is located (*Tensta – Orten Runt*, n.d.). This street functions as the backbone of the district and smaller streets with residential buildings cut through it. One of the main buildings on the street is Tensta Centrum, located just outside of Tensta Metro Station. Tensta Centrum was taken into use in 1970, five years before the Metro Station opened in 1975 (Mekler & Alfredo, 2019).

According to Mekler & Alfredo (2019), the public spaces at the center of neighborhoods are important in supporting community life in the suburbs. Mekler & Alfredo state that public space is "not only produced by those who envision it, but also constructed by those who use it, through daily processes, behaviors, and habits."

Mekler & Alfredo (2019) compare Tensta to Husby or Rinkeby, stating that, even though the elements that constitute spatial organization are similar, Tensta is focused on a constant flux of movement. Rather than containing activity as Rinkeby Torg, Tensta has a gradient of spatial elements that create possibilities for different activities to unfold. They state that:

... smaller spaces of gathering appear at the corners of residential buildings, in the entrance of the garage, next to the market, or in front of the Mosque.

An example of a space of gathering can be found outside of the Tensta Metro Station, where a staircase is built that allows different activities to unfold (see Figure 1).



Figure 1: Space of gathering outside of Tensta Metro Station (own image).

However, According to Bengtsson (2018), the area around Tensta Centrum would be more livable if everybody felt safe there. Bengtsson states that *"public safety is a social factor that is important for social sustainability and for people spending time in open spaces."* 

According to Sven Lorentzi (as cited in Stockholm Stad, 2012), needs have changed since the construction of the area was planned 40 years ago. Because of the large number of families from different cultures, there is a considerable need for more spacious flats. On top of that, new forms of cultural and leisure activities have emerged, club activities have changed, and there is a bigger demand for shops and premises for small companies. In the next section, current developments and plans for the area of Tensta will be discussed, to form a better understanding of the impact of the Million Program in Tensta.

#### **3.2 Current developments**

Tensta is part of the area of Järva, situated ten kilometers north of Stockholm City. Järva is made up of the neighborhoods Akalla, Husby, Kista, Hjulsta, Tensta, and Rinkeby (Stockholm Stad, 2012).

Järva is home to over 60,000 people from various parts of the world. One of Europe's largest ICT clusters is located in Järva, as well as leading global companies and a growing assortment of shops, services, and cultural and sporting activities. (Stockholm Stad, 2012). According to Stockholm Stad, the neighborhoods around Järvafältet have a young population compared to the rest of Stockholm, which is both a challenge and an asset for Järva.

The area of Järva knows many challenges, including unemployment and insufficient education opportunities (Stockholm Stad, 2012). Stockholm Stad states that: Schools are one of the city's most important areas of responsibility, particularly around Järva. The area has a younger population than the city as a whole and there are more pupils here. Many have a foreign background and a particular need to learn Swedish. The latter also applies to many adults. Speaking the language is the key to entering the Swedish labour market – as well as integrating into Swedish society.

Emerging from a dialogue with residents, Stockholm Stad (2012) also found that security is one of the most important issues in Järva.

Mekler & Alfredo (2019) name Tensta as one of the *"three most stigmatized neighborhoods of Stockholm"*, next to Rinkeby and Husby. In these three neighborhoods, residents are predominantly of foreign background, which is used in their research as an alternative way of understanding inclusion.

This *inclusion* is also the core objective of Stockholm Municipality's *"Vision 2040: A Stockholm for Everyone"* (Mekler & Alfredo, 2019). According to Mekler & Alfredo:

Acknowledging the divide between neighborhoods, the government has brought forward social sustainability as a key component to improve the fast-growing city.

Vision Järva 2030 is based on the City of Stockholm's vision "A world-class Stockholm", and its content has been developed during an extensive dialogue process between politicians, civil servants, property owners, entrepreneurs, associations, and residents in Järva. The vision consists of four main areas: good housing and a more varied urban environment, improved education and language teaching, more jobs and enterprise, and everyday safety and security (Stockholm Stad, 2012).

Stockholms Stad (2018) describes the development potential of Tensta in its *"Stockholm City Plan"*:

Spånga-Tensta can be developed with new housing as well as public and commercial services. Its proximity to Järvafältet and the opportunities to develop the environment alongside the Bällstaån river can create additional value. Access to Järvafältet can be improved with clearer funneling between the built-up area and the natural landscape. Järvafältet will take on an important role in linking together the districts that surround it through new pedestrian and cycle paths and more activities and destinations. The opportunity of enhancing the green and recreational aspects of the Järva wedge should be studied. The area will become more accessible once the Mälarbanan railway line and the Stockholm Bypass are complete.

Stockholm Stad (2018) also mentions the possible extension of the current blue Metro line in the future, linking Hjulsta and Barkarby station, which would have a major positive impact on the district.

According to Stockholm Stad (2018), the district of Tensta needs additional locations where community groups can meet and cultural events can be held. They also mention that measures to create safety and security must be taken into account in planning. The total need for new school capacity for compulsory education in the district by 2040 is estimated to be equivalent to three new schools. On top of that, one artificial pitch and two sports halls would be needed.

Bradley (2009) speaks about Stockholm's master plan relating to Tensta: pedestrian lifestyles are to be encouraged by creating *"urban boulevards"*, or streets with housing and shops or offices on the ground floor, and parking spaces close to dwelling areas. On top of that, functional traffic separation is to be removed. Bradley interviewed Jakobsson, the representative of the municipal housing company. Jakobsson explains that the concept of vertical traffic separation from the Million Program, with roads for cars and bridges over the roads for pedestrians, has become too much separation and is too uniform. He states that *"it is a central idea in our urban plans to reintroduce these urban streets"*.

#### 3.3 Urban planning in Tensta in regard to children

Tensta Centrum, mentioned in Section 3.1, was named by residents as their favorite place in Tensta. One of the children in Tensta said: *"This is my favorite place, because the pigeons come here and because I shop here"* (Interviewee 2, personal communication, March 1, 2023). Another resident noted: *"It is the best place because you can buy things from all over the world"* (Interviewee 1, personal communication, March 1, 2023).

When asking the children about play facilities, and what they are still missing in Tensta, they would answer: *"I would like to have one big playground!"* (Interviewee 2, personal communication, March 1, 2023). They said that they usually go to the playground closest to their house.

However, in the center of Tensta, a big playground can be found (see Figure 2). According to one of the residents, the playground offers many options for children to play: from a circus in summer and a pool with water, to playing gymnastics and going on free horse rides (Interviewee 1, personal communication, March 1, 2023). When walking around the playground, one of the first things noticeable is the lampposts (see Figure 3). The interviewed resident names the bright lights at the playground as one of the reasons that it is safe to be here at night (Interviewee 1, personal communication, March 1, 2023).

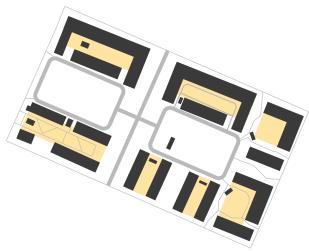


Figure 2: Playground in Tensta (own image).



Figure 3: Lampposts at a playground in Tensta (own image).

Besides this big playground, in Tensta a great amount of smaller playgrounds can be found. Because of Tensta's courtyard system, with building blocks facing inwards and overlooking the courtyards, there is space for playgrounds for children where parents or caretakers can keep an eye on the children (see Figure 4). In Figure 5, a photograph is shown of one of these playgrounds.



**Figure 4:** Example of a courtyard structure found in the southeast of Tensta, with roads and pedestrian paths marked in grey, buildings marked in black, and courtyards highlighted in yellow *(own image)*.



Figure 5: Playground located at a courtyard between building blocks (own image).

When asked about safety at night in Tensta, the resident said that Tensta is considered a safe and peaceful place (Interviewee 1, personal communication, March 1, 2023). According to the interviewed child, they were allowed to walk to school with a younger sibling from the third grade, and most children walk to school by themselves once they reach the fifth grade (Interviewee 2, personal communication, March 1, 2023).

According to Mekler & Alfredo (2019), roads were initially submerged and bridges connected different residential areas for pedestrians (see Figure 6). In this way, pedestrians pass over the roads, rather than underneath, which is the case in many other suburbs (Bradley, 2009). According to one of the interviewed residents, people living in Tensta value this traffic separation, which is conflicting with the plans of planners to remove vertical traffic separation, as discussed in Section 3.2. According to the resident, planners would think it is safer in the dark to have traffic on the same level as pedestrians. The streets would become more commercial in order to pay for the maintenance of the city, which would mean that the infrastructure would be changed (Interviewee 1, personal communication, March 1, 2023).



Figure 6: Pedestrian bridge in Tensta connecting different residential areas (own image).

Bradley (2009) speaks about these plans for possible urban transformation. In the master plan of Stockholm and subsequent documents, the planning strategy is summarized in the phrase *"build the city inwards"* (Stockholms Stad, 2000; Stockholms Stad, 2007; as cited in Bradley, 2009). Bradley interviewed Larsson, the planner, who speaks about these possible urban transformations:

"So in order to really get it more inner-city-like, you would have to blast away the few green hills that are left. Well, even if you did that you wouldn't get anything that looks like the inner city because the houses are of lamellar type and pulled back from the street, and the entrances face the courtyards, because this is where the kids play, or played. In that case you have to change the courtyard system, which would be a huge cost. And it should also be said that this system with vertical traffic separation is quite good. The people who live in these houses have a lot of children and for them the traffic separation means increased safety. And that was the whole idea with traffic separation. In the 50s, when Sweden was the country with the highest number of cars per capita, there were a lot of accidents, whereof many that involved children."

# Larsson also reflects on other areas in Stockholm that are under development, stating that:

"... the planners working on this development say that one should not live and play in the courtyards but in the streets instead, one talks about an "urban life." And that says something about the children, that one does not think of the children as much as one did before. And it is usually so that if you plan for children it will be good for all."

#### **3.4 Conclusion**

In this chapter, the question *"How was the children's safety considered in the urban planning of the Swedish Million Program in Tensta?"* was discussed. Research points out that the main considerations when it comes to the children's perspective, were the courtyard system, creating many safe

places for children to play, and the separation of traffic, increasing safety for children on the streets.

In the next chapter, these two aspects will be compared to concepts applied by urban planners nowadays.

## 4 Children's Perspective in Urban Planning

Danenberg et al. (2018) use the fundamental principle "*a city good for children is a city good for all.*" In fast-urbanizing cities, public spaces are the most important places to offer comfort and opportunities to people. Children depend on public space for emotional, cognitive, physical, and social development (Danenberg et al., 2018).

In this chapter the question *"What concepts are applied by urban planners nowadays, and how do observations in Tensta line up with these contemporary concepts?"* will be discussed, comparing observations in Tensta to contemporary literature.

In the previous chapter, it was discussed that the main considerations about children in the urban planning of Tensta during the Swedish Million Program were the courtyard system and the separation of traffic. In Section 4.1, observations of the design of play areas in Tensta will be compared to the literature, and in Section 4.2, the traffic separation in Tensta will be discussed on basis of the literature.

#### 4.1 Design of play areas

Daan et al. (2019) formulate twelve critical principles to create sustainable room for playing in the city. The principles by Daan et al. are used as examples of contemporary thoughts on children's safety in urban planning, as Daan et al. combine views from different fields, such as architecture and design but also pedagogy, and also combine views on different international cities, leading to an integral vision on sustainable play areas. The principles are as follows:

- 1. The more goals, the more interesting a place
- 2. Playing as an opportunity for total design
- 3. Look for new locations and routes
- 4. Imitate and inspire each other
- 5. Safely engaging in risky play
- 6. In touch with nature
- 7. Playing also needs empty space
- 8. Management as a stimulus for playing
- 9. Eyes and hands in the streets
- 10. Investing in non-spatial elements
- 11. Include a neighborhood's own customs
- 12. See it as a child does

In this section, these principles will be used, together with other literature, to evaluate play areas in Tensta.

#### 4.1.1 The more goals, the more interesting a place

According to Daan et al. (2019), play areas that allow different types of usage are attractive to various types of users in different life stages. Places become more desirable for parents and accompanying adults when there

are shadow places, when a location is smoke-free, offers good seats, lovely trees, and is free of busy traffic and air pollution. Furthermore, a diverse use throughout the day and improving the sense of ownership contribute to the desirability of a place.

As discussed in Chapter 3, one of the main elements of urban planning stemming from the Million Program in Tensta is traffic separation, which aligns with the idea of Daan et al. (2019) that a playground free of busy traffic is more desirable.

When it comes to the playgrounds in Tensta, in this case, the playground in Figure 7, observations point out that there are indeed shadow places and trees on the playground. Benches are placed alongside the square and picnic tables are placed around the water (see Figure 8), but better seats could be placed close to playing facilities. It is not known if the playground is smoke-free.



Figure 7: Playground in Tensta, with tree and shadow places (own image).



Figure 8: Benches around the water at the playground in Tensta (own image).

When observing a playground located at one of the courtyards, it is noticeable that the playground is surrounded by pedestrian paths, but that there are no benches surrounding the playground (see Figure 9).



**Figure 9:** Playground located at a courtyard between building blocks, surrounded by pedestrian paths, without places to sit *(own image)*.

#### 4.1.2 Playing as an opportunity for total design

Taking the added value of playing into account, playing can be an integrated part of urban design, water management, landscape architecture, or the management of public space (Daan et al., 2019). As Larsson, the urban planner, said in the research by Bradley (2009), nowadays children are not taken into consideration in urban planning as much as they used to be.

Taking into consideration the significant number of play spaces found in Tensta, as well as the traffic separation, children were indeed taken into account in the urban planning of Tensta, even though there is not much literature to be found on considerations about children in the Swedish Million Program in general. Not only are there many playgrounds in Tensta, they are also spread throughout the neighborhoods, minimizing the walking time for children who want to use the playgrounds.

When it comes to Bradley's (2009) statement that children are not taken into consideration as much nowadays, one could argue that Stockholm Stad (2018) does take children into consideration in its *"Stockholm City Plan"*, by focusing on new recreational areas, new schools, and new sports facilities.

#### 4.1.3 Look for new locations and routes

Daan et al. (2019) suggest looking for new locations: for example, by placing a swing at a bus stop, they argue, waiting time turns into playtime.

According to Danenberg et al. (2018), children's space is often limited to the playground, *"neglecting the majority of urban fabric and infrastructure as an everyday place for the youth"*. Playing outside in a growing city does not come naturally, as the areas are often busy and densely built up (Daan et al. 2019). As discussed in Chapter 3, children name Tensta Centrum to be their favorite spot in Tensta, illustrating how it is not necessarily the playgrounds that are used mainly by children to play. In Chapter 3 it was also discussed that Tensta has a gradient of spatial elements that create possibilities for different activities to unfold (Mekler & Alfredo, 2019).

However, there are no examples to be found in Tensta comparable to the swing at the bus stop. This principle of placing play elements at new locations seems to be a rather contemporary approach, not yet implemented during the Swedish Million Program.

#### 4.1.4 Imitate and inspire each other

Children learn the most from watching and imitating other children and adults, and profit from participating in games and movement they would otherwise shy away from. This calls for facilities and coaches (Daan et al., 2019). In Tensta, space has been created that allows for such activities, such as the space that is used for horse rides at the playground in Tensta. The same could be said for sports fields, such as basketball fields, that can be found at several playgrounds.

#### 4.1.5 Safely engaging in risky play

Playground safety initiatives of the 70s and 80s were not without merit (Gill, 2007). Gill states that:

Some genuinely dangerous equipment was removed from public playgrounds, and some reckless or negligent manufacturers were forced to raise their standards or go out of business. Playground providers doubtless took safety more seriously and improved their systems. However, these initiatives also led to a preoccupation with safety across the industry, almost to the exclusion of other goals. With the benefit of hindsight, they also revealed some of the key characteristics of excessive risk aversion.

According to Gill (2007), the final insight from looking at playground initiatives from the 70s and 80s is that they predate both the rise of a compensation culture and the nanny state, *"fuelling the spread of excessive aversion to risk in children's playgrounds."* In recent years attitudes toward playground safety have relaxed (Gill, 2007). In Tensta, no specifically dangerous equipment is found on the playgrounds.

#### 4.1.6 In touch with nature

Playing in nature appears to help children develop an elevated interest in and understanding of nature. When creating urban play areas, natural elements can be added by planting trees to climb in, instead of standard or pyramid trees, or by letting water storage units double as play areas (Daan et al., 2019).

The play areas in Tensta do have trees surrounding them, but these trees are not necessarily appropriate for climbing. However, it could be said that these trees still contribute to children creating an elevated interest in nature, as these trees could be used when playing for example hide and seek.

#### 4.1.7 Playing also needs empty space

Vacant sites invite children to invent their own interpretation of playing. These sites can be temporary spaces, such as construction playgrounds, temporary (art) installations, or building sites during holidays (Daan et al., 2019). As Tensta has a big pedestrian area, it allows children to safely use almost any open space as play space.

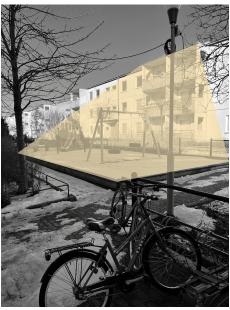
#### 4.1.8 Management as a stimulus for playing

Management and maintenance are necessary for safe playgrounds of high quality. Focused maintenance can for example include sweeping leaves in autumn (Daan et al., 2019).

Although the playgrounds were observed to be in good condition, without garbage for example, not much can be said about for example sweeping leaves, as the observations were done in winter.

#### 4.1.9 Eyes and hands in the streets

The presence or lack of people is an important determinator of the feeling of safety and accessibility of a site (Daan et al., 2019). Daan et al. name as an example being able to supervise the spot from nearby housing. As discussed in Chapter 3, Tensta is built with a courtyard system, with entrances of building blocks facing the courtyards. Therefore, not only is it possible to keep an eye on the play areas from the housing (see Figure 10), but when entering one's home one would also pass the play area, increasing safety at the playground. The principle of having *"eyes and hands on the street"* has previously been explained by Jacobs (2016) as *"eyes belonging to those we might call the natural proprietors of the street."* These *"eyes on the street"* would allow for *"a marvelous order for maintaining the safety of the streets and the freedom of the city"* (Jacobs, 2011, p. 183, as cited in Tavolari, 2019).



**Figure 10:** View from building blocks towards the playground located at the courtyard in between the building blocks *(own image)*.

#### 4.1.10 Investing in non-spatial elements

Daan et al. (2019) state that "a play area of high quality needs a link between the social and physical aspects of policy-making; preferably partnering with professionals who have expertise in both fields." Daan et al. advise weighing the costs of physical intervention against supporting local initiatives of temporary events for children. As current initiatives in Tensta are not a means of measurement for urban planning during the Million Program, this aspect will be left out of account.

#### 4.1.11 Include a neighborhood's own customs

Differences between neighborhoods should be embraced and specific needs should be assessed. Differences can be used to emphasize diversity in the identities of the city, reinforcing the feeling of ownership of residents (Daan et al., 2019). In Chapter 3 an interviewed resident was quoted, explaining that the mixed culture in Tensta is very much appreciated, leading to believe that inhabitants of Tensta do experience this feeling of ownership and community.

#### 4.1.12 See it as a child does

Children have a fundamentally different perspective of the world and should be observed when playing at a site, showing us how they utilize space as a playground (Daan et al., 2019). In Tensta, there are different initiatives executed at Tensta Konsthall, focused on environmental learning with young people. These initiatives aim at learning about Tensta with and from children. However, these initiatives say nothing about urban planning during the Million Program, and will therefore be left out of account.

#### 4.2 Traffic: stress factor or necessary risk?

Playspace is often limited in a busy and densely built-up area, with much traffic present on the roads (Daan et al., 2019). According to Woolley et al. (1999), children from smaller towns typically stress traffic as their major concern, when using the city center. In the previous chapter, the traffic separation stemming from the Million Program in Tensta was discussed. Taking into consideration the research by Woolley et al. (1999), one could argue that separating playing children and pedestrians from car traffic (see Figure 11), would mean that children would feel less stressed when using the city center in Tensta.



Figure 11: Pedestrian bridge separating traffic (own image).

However, encounters with certain types of risk are said to help children learn how to manage those risks (Gill, 2007). According to Daan et al. (2019), it is beneficial for children to learn how to engage in risky play. This lines up with research by Senda (2015), stating that it is important that children experience little accidents, as it teaches them how to avoid getting caught up in big accidents.

According to Gill (2007), these arguments support the "education initiatives which teach children practical skills that help them to protect themselves, such as swimming, cycling or road safety". Next to this, Gill names three other arguments as to why children should be exposed to moderate risk: not feeding children's natural appetite for risk-taking might lead to seeking out situations in which they are exposed to greater risks; there are additional health developmental benefits to being given the chance to undertake activities with a degree of risk; and lastly longer-term developmental benefits, as the risk would allow children to build their character and personality.

It could therefore be argued that although children would feel less stressed when using the car-free pedestrian area in Tensta, there are also downsides to the fact that they are being separated from the traffic, as being exposed to the traffic risks would have developmental benefits.

#### 4.3 Conclusion

In this chapter the question *"What concepts are applied by urban planners nowadays, and how do observations in Tensta line up with these contemporary concepts?"* was discussed, comparing observations in Tensta to contemporary literature.

The play areas in Tensta were compared to critical principles for creating sustainable room for playing in the city, formulated by Daan et al. (2019). Concepts from the Swedish Million Program that correspond with contemporary concepts, include:

- Creating shadow places and adding trees to make a place more desirable;
- Creating enough empty space that can be used as a playing area;
- *"Eyes and hands on the street"*: increased safety due to courtyard playgrounds.

Contemporary design principles that were not found to be present in Tensta as a result of the Million Program, include:

- Adding benches to make a place more desirable;
- Placing play elements at new locations;
- Safely engaging in risky play.

When it comes to traffic separation in Tensta, again the topic of safely engaging in risky play comes forward. By separating playing children and pedestrians from car traffic, children would feel less stressed when using the city center. However, following contemporary thoughts, encounters with certain types of risks have several benefits: they teach children how to manage these risks; not feeding children's natural appetite for risk-taking might lead to seeking out situations in which they are exposed to greater risks; there are additional health developmental benefits to being given the chance to undertake activities with a degree of risk; and in the longer-term, the risk would allow children to build their character and personality.

## **5** Conclusions

The main research question of this thesis was "How do concepts about urban planning stemming from the Swedish Million Program relate to children's safety in Tensta nowadays?"

The main considerations about children's safety in urban planning in the Swedish Million Program in Tensta, include the courtyard system, increasing safety and creating many places for children to play, and the separation of traffic, increasing safety for children on the streets.

The courtyard system does line up with contemporary concepts of urban planning, as an important contemporary design principle is having *"eyes and hands on the street"*. Other contemporary design principles found in Tensta include the creation of shadow spaces, adding trees to make play areas more desirable, and creating enough empty space that can be used as a playing area.

However, the system of traffic separation does not line up with the contemporary thought that it is beneficial for children to safely engage in risky play. In the Swedish Million Program, pedestrians were separated from car traffic, mainly in order to create a safe playing environment for children. Current residents state in interviews that they value this traffic separation.

Other contemporary concepts that were not yet applied in the Swedish Million Program, include adding benches and placing play elements at new locations. Children could be encouraged more to play in touch with nature, by placing trees that are appropriate for climbing.

It would be interesting for further research to look into these contemporary concepts, reviewing if these concepts are actually better in regard to children's safety compared to the urban design concepts of the Swedish Million Program, and if so, researching possible implementation in Tensta.

Overall, observations in Tensta lead to the conclusion that urban planners have provided a great number of spaces in Tensta that are appropriate for children to play. These play spaces offer a safe environment, located at the courtyards in between building blocks. Even if future use of these courtyard areas would change, this safe environment keeps existing due to the principle of having *"eyes and hands on the street"*. Observations of the big playground at Tensta lead to the conclusion that this is an area used in many different ways: next to the provided play facilities, there is a big open space that allows for different types of usage, making the space flexible and future-proof.

## References

Andersson, R. Bråmå, A., & Holmqvist, E. (2010). "Counteracting Segregation:
Swedish Policies and Experiences." <i>Housing Studies</i> 25(2):237–56.
Andersson, R & Söderberg, B. (2012). "Elimination of Rent Control in the Swedish
Rental Housing Market: Why and How?" Journal of Housing Research
21(2):159–81.
Arnstberg, KO. & Erdal, B. (1998) <i>Därute i Tensta.</i> Stockholm: Stockholmia.
Bajars, K., & Persson, A. (2017). Study of glazed spaces as a renovation strategy for two
typical residential multi-apartment buildings from Swedish Million Programme.
Retrieved December 19, 2022, from
https://www.ebd.lth.se/fileadmin/energi byggnadsdesign/publications/exjobb/
<u>17-6-web.pdf</u>
Bengtsson, M. (2018). Safety in public space: Exploring solutions around Tensta Centrum.
Retrieved March 17, 2023, from
https://www.diva-portal.org/smash/record.jsf?dswid=1669&pid=diva2%3A122
<u>3261</u>
Börjesson, M., Jonsson, R. D., & Lundberg, M. (2014). An ex-post CBA for the Stockholm
Metro. Transportation Research Part A: Policy and Practice, 70, 135-148.
Retrieved February 13, 2023, from
https://www.sciencedirect.com/science/article/pii/S0965856414002407?casa_
token=PmZZMPPeQYIAAAAA:_IT-GZkVgqhZJjW70yXEo5vmX0Q-toiViLyXErfvojjq
<u>nXu9dMbFE7RktYlLue5vEfo]iwpt7PE</u>
Bradley, K. (2009). Just environments: politicising sustainable urban development (Doctoral
dissertation, KTH). Retrieved March 18, 2023, from
https://www.diva-portal.org/smash/get/diva2:209293/FULLTEXT01.pdf
Brodala, J. (2018, February 12). <i>How the "Million Programme" Brought Homes and Vibrancy</i>
to Stockholm. Culture Trip. Retrieved February 16, 2023, from
https://theculturetrip.com/europe/sweden/articles/million-programme-brought-
homes-vibrancy-stockholm/
Buckley, R. M., Kallergis, A., & Wainer, L. (2016). The emergence of large-scale housing
programs: Beyond a public finance perspective. <i>Habitat International</i> , 54(3),
199–209. Retrieved February 19, 2023, from
https://doi.org/10.1016/j.habitatint.2015.11.022
Cervero, R. (1995). Sustainable new towns: Stockholm's rail-served satellites. <i>Cities</i> , 12(1),
41-51. Retrieved February 27, 2023, from
https://www.sciencedirect.com/science/article/pii/026427519591864C
Chhaya, K. (2017). Re-imagining the Million Programme: Strategies to Increase Flexibility
in Existing Multi-Family Housing. Retrieved December 22, 2022, from
<u>https://www.diva-portal.org/smash/get/diva2:1130343/FULLTEXT01.pdf</u> Currie, J., & Yelowitz, A. (2000). Are public housing projects good for kids?. <i>Journal of</i>
<i>public economics</i> , 75(1), 99-124. Retrieved March 2, 2023, from
https://www.sciencedirect.com/science/article/pii/S0047272799000651
Daan, B., Peeters, K., & Fink, A. (2019). <i>Spelen in de stad</i> . Retrieved March 12, 2023, from
https://canvas.kth.se/courses/37456/files/folder/Readings/Childperspective?p
<u>review=6081106</u> Dahlstedt, M. (2015). Discourses of employment and inclusion in Sweden. <i>Transformation</i>
of Scandinavian cities, 61-80. Retrieved December 19, 2022, from
https://books.google.nl/books?hl=nl&lr=&id=W14qCwAAQBAJ&oi=fnd&pg=PA6
<u>1&amp;dq=million+programme+sweden&amp;ots=EhaQuCxBFR&amp;sig=mvcsfYNWECg4kXo</u>
giQCQ8JXQlbQ#v=onepage&q=million%20programme%20sweden&f=false
Danenberg, R., Doumpa, V., & Karssenberg, H. (Eds.). (2018). <i>The City at Eye Level for Kids</i> .
STIPO Publishing. Retrieved March 12, 2023, from
https://canvas.kth.se/courses/37456/files/folder/Readings/Childperspective?p
review=6081113
Ekawati, S. A. (2015). Children–friendly streets as urban playgrounds. <i>Procedia-Social and</i>
Behavioral Sciences, 179, 94-108. Retrieved March 11, 2023, from
https://www.sciencedirect.com/science/article/pii/S187704281501767X
$\frac{1}{100}$

Hall, T., & Vidén, S. (2005). The Million Homes Programme: a review of the great Swedish planning project. *Planning Perspectives*, *20*(3), 301-328. Retrieved December 19, 2022, from

https://www.tandfonline.com/doi/full/10.1080/02665430500130233

Hananel, R., Krefetz, S. P., & Vatury, A. (2021). Public housing matters: Public housing policy in Sweden, the United States, and Israel. *Journal of Planning Education and Research*, 41(4), 461-476. Retrieved March 13, 2023, from <a href="https://journals.sagepub.com/doi/pdf/10.1177/0739456X18793702?casa">https://journals.sagepub.com/doi/pdf/10.1177/0739456X18793702?casa</a> toke <a href="https://journals.sagepub.com/doi/pdf/10.1177/07394564AhznvzEpRDMiSNhkGihUTTTOXrjU18hMAxy3H3s64vGMwCpCA">https://journals.sagepub.com/doi/pdf/10.1177/07394564hznvzEpRDMiSNhkGihUTTTOXrjU18hMAxy3H3s64vGMwCpCA</a>

Interviewee 1. (2023, March 1). Interview in Tensta [Personal communication].

- Interviewee 2. (2023, March 1). Interview in Tensta [Personal communication].
- Jacobs, J. (2011). *The death and life of great American cities* 50th anniversary edition. Modern Library: New York
- Jacobs, J. (2016). *The death and life of great American cities.* Vintage. Retrieved April 17, 2023, from

https://books.google.nl/books?hl=nl&lr=&id=paudDAAAQBAJ&oi=fnd&pg=PA7 &dq=death+and+life+of+american+cities&ots=VMcUoyCMiX&sig=aPPzbaKQZop cA0qAJ6bJcOGh830#v=onepage&q=eyes%20on%20the%20street&f=false

Lind, H., Annadotter, K., Björk, F., Högberg, L., & Af Klintberg, T. (2016). Sustainable renovation strategy in the Swedish Million Homes Programme: A case study. *Sustainability*, 8(4), 388. Retrieved December 19, 2022, from https://www.mdpi.com/2071-1050/8/4/388

Magnusson, Lena, and Bengt Turner. (2008). "Municipal Housing Companies in Sweden—Social by Default." *Housing, Theory and Society* 25(4):275–96

Mekler, S., & Alfredo, A. (2019). The construction of identity: An urban study of the Centrums of Rinkeby, Tensta and Husby. Retrieved March 13, 2023, from http://www.diva-portal.org/smash/get/diva2:1355239/FULLTEXT01.pdf

Miljonprogrammet - Stockholmskällan. (2022, April 6). Stockholmskällan. Retrieved February 25, 2023, from

https://stockholmskallan.stockholm.se/teman/staden-vaxer/miljonprogrammet

Ministerie van Algemene Zaken. (2022, January 11). *Meer betaalbare huurwoningen bouwen*. Huurwoning Zoeken | Rijksoverheid.nl. <u>https://rijksoverheid.nl/onderwerpen/huurwoning-zoeken/maatregelen-tegen-woningnood/meer-betaalbare-huurwoningen-bouwen#:~:text=Steeds%20meer %20mensen%20hebben%20grote.de%20woningachterstand%20weg%20te%20werken.</u>

Newman, S. J., & Harkness, J. M. (2002). The long-term effects of public housing on self-sufficiency. *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management, 21*(1), 21-43. Retrieved March 18, 2023, from

https://onlinelibrary.wiley.com/doi/epdf/10.1002/pam.1038

Nilsson, S., & Åberg, O. (2015). Det Socialt Hållbara Bostadsområdet: En studie om främjande av social hållbarhet och ökad attraktivitet i ett flerbostadshusområde kopplat till miljonprogrammet.

Senda, M. (2015). Safety in public spaces for children's play and learning. *IATSS research*, 38(2), 103-115. Retrieved March 11, 2023, from

https://www.sciencedirect.com/science/article/pii/S0386111215000023 Sernhede, O., Thörn, C. and Thörn, H. (2016) "The Stockholm Uprising in Context Urban

- Social Movements and the Rise and Demise of the Swedish Welfare State City", in M. Mayer, C. Thörn and H. Thörn (eds) *Urban Uprisings: Challeng Neoliberal Urbanism in Europe.* Basingstoke: Palgrave Mac
- Stenberg, E. (2013). *Structural systems of the million program era.* KTH School of Architecture.

Stockholms Stad. (2000) Översiktsplan 1999 Stockholm. Stockholm: Stadsbyggnadskontoret.

Stockholms Stad. (2007) *Stockholm växer – Utmaningar för stadsbyggandet i Stockholm.* Stockholm: Stadsbyggnadskontoret. Stockholms Stad. (2012). Järva 2030: A future vision becomes reality. Retrieved March 18, 2023, from

https://international.stockholm.se/globalassets/rapporter/vision-jarva-2030--english.pdf

- Stockholms Stad. (2018). *Stockholm City Plan*. Retrieved March 18, 2023, from <u>https://vaxer.stockholm/globalassets/tema/oversiktplan-ny\_light/english\_stockholm\_city\_plan.pdf</u>
- Tavolari, B. (2019). Jane Jacobs: contradictions and tensions. Retrieved April 17, 2023, from <u>https://www.researchgate.net/publication/332061702\_Jane\_Jacobs\_contradiction</u> <u>s and tensions</u>
- Tensta Orten runt. (n.d.). https://ortenrunt.se/tensta/
- Tensta Stockholmskällan. (2022, April 8). Stockholmskällan. Retrieved February 16, 2023, from https://stockholmskallan.stockholm.se/teman/stockholmsplatser/tensta/
- Thörn, C., & Thörn, H. (2017). Swedish cities now belong to the most segregated in Europe. Sociologisk forskning, 293-296. Retrieved March 16, 2023, from https://www.jstor.org/stable/pdf/26632198.pdf?refreqid=excelsior%3Aae52974 d35483b446568686a98fc0648&ab\_segments=&origin=&initiator=&acceptTC=1
- Veitch, J., Bagley, S., Ball, K., & Salmon, J. (2006). Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play. *Health & place*, 12(4), 383-393. Retrieved March 11, 2023, from https://www.sciencedirect.com/science/article/pii/S1353829205000195?casa token=3bEFg9iMUMIAAAAA:xcKwUC4F3wM-gmMNy4aefFEHCYy3ZXk9JzA2dsG HnDGmnnLAGFVg47w098h- VLh-TY0Fj0bhkA
- Woolley, H., Dunn, J., Spencer, C., Short, T., & Rowley, G. (1999). Children describe their experiences of the city centre: a qualitative study of the fears and concerns which may limit their full participation. *Landscape research*, 24(3), 287-301. Retrieved March 12, 2023, from

https://www.tandfonline.com/doi/abs/10.1080/01426399908706564?casa\_tok en=r8e6CiK0Sr0AAAAA:zLGtEXiqxv4EAHSh3n9YfEZ5bAcCI-Mi-wPfvNWf41tLr] R0h4YURRMrs1CNFyIj1v2EsstxVkRl0Q

Zakrjevskaia, O. (2014). Towards development of Sustainable Housing. Analysis of planning objectives and implementation capacity of energy efficiency in the housing stock of the Million Houses Program in Stockholm. Retrieved March 1, 2023, from

https://www.diva-portal.org/smash/get/diva2:789668/FULLTEXT01.pdf