



Planning for well-being by urban design – a city case study of Malmö, Sweden

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Preface

My work would never have been possible without the help of employees at the City Planning Office and the Property and Street Office in Malmö. I would like to thank Maria Olsbäck for her important help and good advice. I would also like to thank all the interviewees who were willing to help me in this work. For this thesis they are all anonymous, but you know who you are - thank you! Finally, I would like to thank my supervisors who patiently supported me and guided me, as well as my twin sister Victoria, trained psychologist, and my biggest fan and support! I hope this work will inspire readers to learn more about environmental psychology - a very exciting topic whose research has great potential to make a difference.

Abstract

This thesis examines how the City of Malmö in Sweden approaches issues of well-being and health in the urban environment, through urban planning. More and more people across the world are moving from rural to urban areas. The advance of urbanization shows correlation with the increase in mental ill health worldwide and is believed to be due to increased environmental stress that occurs in urban settings. The theoretical framework “Mind the G.A.P.S.” aims to concretize and explain what dimensions of an urban environment has the potential to influence people's perception, feelings, and use of the environment, to create the conditions for health and well-being among the population. The framework was used to study how the urban planning of the city of Malmö relates to these dimensions, and thus how the issues are approached from an urban planning perspective. The study showed that the city takes many initiatives, such as efforts to increase the coverage of greenery in the city, to promote physical activity by linking places for exercise throughout the city, to promote social interaction by creating places for collective urban agriculture and increasing safety and security through various light installations. The material is illustrated with a number of neighborhoods like places for activity in Limhamn, collaborative neighborhoods in Sege Park, safety measurements in Sofielund, and green space for relaxation in Lindängelunds recreation area. The material highlights obstacles due to several conflicting objectives, specifically national versus local objectives. The framework showed the importance of concretizing dimensions of health and well-being, but also lacked some dimensions of sensory qualities, which suggests the need of a review of the content of the framework.

1. Background

1.1 Introduction

2007 is estimated to be the year when, for the first time in history, more people in the world lived in urban areas than in rural areas, with an increasing acceleration of urbanization over the last few decades (Ritchie & Roser, 2018). To address the fact that urbanization is associated with certain aspects of poor health and well-being, steps are taken to develop an urban planning strategy, that is targeting well-being (McCay, n.d.). Urban environments can affect the population at different levels both directly and indirectly, via environmental factors such as crowding, noise, and higher levels of stimuli, etc., that can lead to over-stimulation and stress (UD/MH, n.d.) Likewise, the prevalence of social vulnerability and exclusion due to segregation is a risk factor for individuals' social networks and social support, which in its turn affect well-being (Srivastava, 2009). Increasing population size and density of urban areas have been documented to correlate with falling levels of subjective well-being (Burger et al. 2020).

This thesis examined how the City of Malmö addresses well-being issues through its urban planning. The theoretical framework 'Mind the G.A.P.S' (2016), developed by expert groups within architecture and urban planning from the organization "The centre for urban design and mental health", aims to concretize, clarify, and create an evidence-based guide to health and well-being priorities in urban planning. The organization encourages that the framework is used by anyone, anywhere, working with urban development issues, and can be used as a theoretical guide as well as an analytical tool to examine a city's development potential on issues related to health and well-being in the urban environment. For this thesis, this framework was applied on the planning carried out by the city of Malmö's targeting well-being. In addition, interviews with employees of the City Planning Office and the Property and Street Office in Malmö, provided a description of the current situation and the priorities that are being set. The framework was used as to review and study the city of Malmö as a whole, as well as specific neighborhoods of the city, to generate results and basis for discussion that are comparable to the corresponding analysis of other cities that have or will undergo the same review based on the same framework. Developing the dimensions contained in the framework is a beneficial way of addressing matters of well-being and creating favorable conditions for promoting well-being in the urban space (McCay, n.d.).

The Oxford English Dictionary (2016) defines well-being as “the state of being comfortable, healthy and happy”, and generally includes judgments of life satisfaction. Well-being is highly subjective, but for this thesis, well-being is regarded as an umbrella concept, and used as a way of describing high levels of satisfaction and health, as well-being encompasses physical health, mental health, and generally good quality of life (Uzzell et al, 2006). Well-being is regarded as a state that is based on living conditions that ensure safety, security, and social sustainability, among others, all of which together form well-being. Counteracting variables such as concrete nuisance of noise and pollution, lack of accessibility to areas for recreative activity, social life and social integration are aspects that discourage well-being. By consciously working on both the prevention and the promotion of these variables, it is possible to create an urban planning strategy that promotes well-being.

1.2 Environmental psychology on health and well-being

The surrounding environment is the venue in which everyday life takes place and can be a major influence on how people choose to (or see the opportunities to) live their lives. Environments with certain qualities can support and facilitate the daily lives of urban residents and create a solid foundation for experiencing well-being (UD/MH, n.d.).

Environmental psychology studies the transaction and interaction between people and the environment in which they live and operate (Küller, 2005). From this field of research, it has been shown that the environment can have several health and well-being benefits, though buffering or moderating effects of unfavorable conditions (Evans, 2003; Lindheim & Syme, 1983), that help the individual cope with environmental stressors through mitigating stress, as well as promoting physical activity and create engagement in society and social connections (Cohen & Wills, 1985; Boverket, 2021, 2019a). Greenery in the vicinity of one's home can be linked to positive health behaviors and social interactions (Jennings & Bamkole, 2019), and proximity to good quality parkland is associated with a sense of community (Francis, et al. 2012). Materiality, noise levels, lighting, and traffic safety are measures that work for physical safety and health, which is an important part of the experience of safety, and ultimately for well-being (Cohen et al, 1986).

Well-being, as part of overall quality of life, is a complex item to measure. Well-being is highly subjective and is dependent on factors that via interpersonal comparisons are hard to assess and extract reliable knowledge of (Uzell & Moser,

2016). What can be measured though, are objective indicators of objective standards of living and life satisfaction (Uzell & Moser, 2016). Such factors could be the amount of greenery in the neighborhood, rates of criminality, noise and air pollution, proximity to services, etc. (Uzell & Moser, 2016). Greenery in an urban setting is effective for promoting exercise and social interaction and has several different stress-reducing and restorative properties that can help urban dwellers to manage an otherwise intense living environment as urban environments often are (Ulrich et al. 1991; Kaplan & Kaplan, 1989). Furthermore, spaces need to be useful, playful, and accessible, to foster social interaction and connectedness between urban dwellers (Stevens, 2007). Networks for lingering, such as streets or paths, needs to encourage exploration and movement and is significant for the urban scene to nourish physical activity (Stevens, 2007). Structures of the streetscape, together with buildings and street-props, create the foundation for activities to take place within a city context (Stevens, 2007).

Stress is a well-known catalyst for mental illness, and is a prominent problem, especially in urban areas (Ulrich et al. 1991; White & Shah, 2019). Stress in its essence is a normal, well-needed function for human survival (Mobbs et al. 2015). However, when stress is excessive and prolonged, and no sufficient opportunity for recovery is available, the stress can become a threat to one's health and well-being in and of itself (Kaplan & Kaplan, 1989; Küller, 1991). Coping with the excessive stress influences both behavior and health and having to cope with environmental demands in addition to stress in general, can cause mental fatigue (Cohen et al. 1986). Overgeneralization is a consequence of coping that means that stress management spills over into situations where the stressor does not exist, but the mechanisms of stress management are activated anyway (Cohen et al. 1986). This can cause dysfunctional behaviors, such as withdrawal as a response to crowding, or lack of attention or ability to focus, both during exposure to stressors and without (Cohen et al. 1986). In today's modern society, overstimulation, sustained alertness, and cognitive strain are prevalent and can have the effect of causing mental fatigue and excessive exertion (Kaplan & Kaplan, 1989; Ulrich et al. 1991; White & Shah, 2019; Gruebner, 2009). Studies suggest that the degree of effort necessary to exert control and stress management is a crucial factor when accounting for the psychophysiological consequences of prolonged or excessive stress (Cohen et al. 1986).

A healthy and well-functioning community, from a social and economic perspective, can have a buffering effect on environmental factors that have a negative impact on health (Amick et al, 1995; Cohen & Wills, 1985), and is significant for people's ability to cope with and respond to environmental stressors (Dupéré & Perkins, 2007). Being isolated or marginalized in society is a threat to

one's social capital, feelings of safety, and belongingness (Scannell & Gifford, 2014). The concept of community, defined as a geographical location and as a social construct, consisting of shared responsibilities, associations, and social networks has a significant impact on the quality of life of individuals in terms of social interaction, social support, and social belongingness (Amick et al, 1995).

An essential part of life satisfaction and overall well-being is the feeling of attachment to the place one lives (Junot et al, 2018). There are ways in which attachment to places occurs, or grounds on which the feeling of attachment or emotional bonds builds upon, that are similar amongst people, even as individuals (Scannell & Gifford, 2010, 2014). Two aspects of place attachment are place identity and place dependence (Scannell & Gifford, 2014). Having historical connections or strong societal bonds to a place can give rise to feelings of distinctiveness (from other people) and identifying with a place, which creates feelings of belongingness on a community level (Scannell & Gifford, 2014). Place dependency refers to how a place provides for certain needs or has goal-achieving prerequisites (Scannell & Gifford, 2014). Feeling connected to one's city or neighborhood, or specific places in the community, are important motivators for people to go outdoors and spend more time in these places. Sharing thoughts and ideas for solutions with neighbors about local problems is a way of participating in informal efforts to care for the community (Manzo & Perkins, 2006). These efforts demonstrate the importance of a strong community that leads to residents' community involvement and commitment (Brown & Perkins, 1992).

1.3 Urban planning in Sweden's municipalities on health and wellbeing

National overarching documents shape, constrain, and guide how urban planning should be conducted in the country's municipalities, and determine which aspects and objectives should be prioritized (Malmö stad, n.d.-d). The aim is to create an understanding of the prerequisites and starting points for Malmö City's urban planning regarding matters relating to well-being.

1.3.1 The Public health policy

Overall objectives for public health are described in “The Public Health Policy” adopted by the Swedish government, consisting of various public health policy frameworks (FHM, 2022). The frameworks, or target areas, reflect the determining factors of health, i.e., how we live, where we live, social background and belonging, what we eat, sexuality, socio-economic status, etc. (FHI, 2018;

FHM, 2021). The policy is not legally binding, but it should serve as a guide to creating an equal health perspective in community planning where changes are made with the purpose of affecting people's living conditions and reducing health inequalities (FHM, 2021).

1.3.2 The planning and building (PBL) act on health and well-being

The planning and building act (PBL) is Swedish legislation that includes minimum requirements and standards for how the municipalities can draw up their comprehensive plans, aimed to promote equal and good social conditions and a sustainable living environment (PBL, 2010). PBL describes the municipality's role of catering to the public interests, and furthermore how land is to be allocated and developed where rules govern how detailed plans may be drawn up (PBL, 2010). PBL contains regulations that protect human health in matters of safety, security, and vulnerability. *Health risks* are according to medical or hygienic judgment, nuisances that may adversely affect health and which is not minor or entirely temporary (PBL, 2010). PBL uses the established Swedish definition of a nuisance to human health, to formulate regulations that are intended to avoid human illness. The guidance, therefore, does not address *health-promoting* aspects, such as access to green space for recreation and daylight conditions, which are also important aspects of spatial planning (Boverket, 2019b). However, access to parks and green spaces is formulated as an important public interest in planning under the PBL and derives from the knowledge of how natural and green environments' affect health and well-being (Boverket, 2019a).

1.3.3 Boverket's building regulations (BBR) on health and well-being

Boverket's building regulations (BBR) regulates alterations of existing buildings or new constructions in terms of technical requirements such as load-bearing capacity as well as detailed care regarding esthetical characteristics i.e., choice of colours, materials, building heights, or building features in general (Boverket, 2020). Furthermore, BBR informs about regulations and recommendations regarding accessibility, wayfinding, daylight access, ventilation, fire prevention, and how dwellings should be sized and planned with their long-term use in mind (Boverket, 2020). Dwellings should also be designed regarding their size, and provide space for cooking, cleaning, storage, and a separable space for sleeping. The size of the dwelling, in terms of square meters per person, and the height of the ceiling should be acceptable and sufficient to avoid adverse effects on human health. Daylight access is a key quality of the standards of a building where

correct illuminance and luminance distribution are to be present. Thereto, windows with a view shall be present in dwellings, which together with daylight access should not cause a nuisance to health (Boverket, 2020).

1.3.4 Boverkets publication: Socially sustainable urban development - a review of the evidence

In 2010, the Housing Agency published a knowledge review describing the work on social sustainability, focusing on how to combat segregation and promote integration (Boverket, 2010). The work highlights different themes that are common in sustainable urban development, namely *holism*, *variety*, *connection*, *identity*, *involvement* and *collaboration*. *Holism* refers to the notion that actions taken in one part of the city affect all others, as well as that area-specific actions are not sufficient to break patterns of segregation but must be addressed from a holistic perspective (Boverket, 2010). For instance, combining physical and social interventions can help to break down the stigma of an area, which can contribute to the fight against segregation. *Variation* refers to variation in function, design and by creating more target points and meeting points, which give people more reasons to spend time in the public space, contributing to a sense of security (Boverket, 2010). *Connection* is about strengthening the links between different neighborhoods, as a physically cohesive city is seen as a way of creating the conditions for a socially cohesive city, which in its turn is intended to reduce alienation and promote integration (Boverket, 2010). Improved communication, public transport and routes make the city more cohesive, and for example roofing of wide and sunken streets can reduce barriers within the urban environment. *Identity* is about efforts to strengthen area-based identity and collective self-esteem, especially in socio-economically disadvantaged areas. By physically upgrading areas, it is possible to counteract the stigmatization of areas that often comes from rumors and negative acceleration of specific locations that affect the whole area. It may also be important to highlight the unique characteristics and distinctiveness of the area, in order to distinguish and reinforce the identity of the place (Boverket, 2010). *Involvement* and *collaboration* mean taking residents' experiences and wishes as a starting point for area renewal and focusing on real resident involvement. To empower residents can be the most effective way of improving conditions in the neighborhood (Boverket, 2010).

1.3.5 Swedish healthy cities on health and well-being

WHO Healthy Cities is a global community where nations around the world work to raise awareness and advocate for the importance of health in various policy

agendas, including urban planning (Barton et al. 2009). The Swedish counterpart started in 2008 and has been advocating the goal that all spatial planning should be health-promoting (Healthy Cities Sverige, 2013). Two major publications have been formulated by the organization, namely 'Health-Enhancing Urban Design' and 'Confidence-Enhancing Urban Design'. Both documents aim to explain and underline the importance of public health in issues of social sustainability and seek to share knowledge rather than checklists and statements of what is regarded as right or wrong. The emphasis lies on analyzing current conditions, overseeing resource management, and encouraging interprofessional collaboration (Healthy Cities Sverige, 2013).

1.4 Mind the G.A.P.S.' dimensions

The theoretical framework of "Mind the G.A.P.S." developed by expert groups within architecture and urban planning from the organization "The center for urban design and mental health", aims to concretize, clarify, and create an evidence-based guide to health and well-being priorities in urban planning (UD/MH, n.d.). The framework includes several strategic design suggestions and proposals on content for an urban environment's potential to promote health and well-being and furthermore avoid ill-health and stress. The framework uses the term 'mental health', to describe a state among the urban population that implies good health, both physically and mentally, and that provides the conditions for individual well-being and a thriving, resilient society. The aim of the framework is to point out how an environment can affect people both positively and negatively, considering that both measures targeting the promotion of well-being and measures helping people to avoid developing mental illness, are important.

G. - Green spaces

There are important links between accessible green spaces and mental health and well-being. Access to natural environments in neighborhoods and in people's daily routines is likely to help improve and maintain mental health and well-being.

A. - Active places

Positive, regular activity improves mood, well-being, and general mental health. Integrating opportunities for activity, from active transportation to outdoor gyms, can integrate exercise, social interactions, and engagement into daily routines.

P. - Pro-social places

Urban design should facilitate positive, secure, and natural interactions between people and promote a sense of community, inclusion, and belonging. This includes potentially vulnerable groups such as refugees, immigrants, youth, and the elderly, with a diverse range of engagement from passive observation to active participation. To create interesting, flexible public spaces, citizens should be involved at every stage of design and development.

S. - Safe Places

A sense of safety and security is crucial for people's mental health and well-being. Dangers in cities include traffic, getting lost, environmental pollution, and risks posed by other people. Appropriate street lighting and surveillance, clear landmarks, and people-centered design of residential, commercial, and industrial streets are important. A safe environment improves accessibility, but risk-prone urban design can reduce the propensity to do things in the city and reduce people's sense of autonomy and freedom of choice (UM/HM, n.d.).

1.5 Aim and research question

In Malmö, as in most cities in Sweden and around the world, the distribution of health and well-being is unequally distributed across the population, and stress, anxiety, worry, or generally low or reduced mental well-being has increased in the population in Sweden over the past 20 years (FHM, 2021). Factors such as socioeconomic status, social capital, and educational level are crucial for an individual's well-being and health. However, research shows that the environment in which individuals live, and work can also have a major impact on their stress tolerance, well-being, and general ability, which in turn can affect their capacity to cope with other adversities in life. By identifying protective factors for positive mental health and planning and designing environments based on this knowledge, there is an opportunity to promote well-being and facilitate the daily life of a population.

The aim with this study is to investigate how knowledge about how neighborhood characteristics effect well-being and aligned design principles are considered in the urban planning of Malmö municipality. Based on the aim of the thesis, the following research questions was articulated:

- How does the City of Malmö work, from an urban planning perspective, to promote well-being in the population?
- How are the intentions of planning to promote well-being translated in the development and design of a particular neighborhood?

1.6 Implementation and limitation

The document studied, so called “grey literature” is “[...] information produced on all levels of government, academia, business, and industry in electronic and print formats not controlled by commercial publishing, i.e., where publishing is not the primary activity of the producing body” (Third International Conference on Gray Literature, 1997). This means that the grey literature (usually) does not go through a peer-review process, and the quality can therefore vary.

Some delimitation of the literature review was done to focus on what is relevant to the work and the research question, (i.e., documents related to well-being) and to make the scope of the work manageable.

The choice of interviewees was based on the interviewee's professional role and knowledge in topics considered relevant to the research question. All subjects work at the City Planning Department, or on behalf of the City of Malmö, which may generate a degree of bias. Four people were interviewed to give a manageable time perspective and a scope that created relevance for the work.

2. Method

2.2 Research design

The overall question in this study concerns how the urban planning office of Malmö works with matters relating to well-being, specific documents, municipal target documents, guidelines, etc., that serves as guidance for urban development. Neighborhoods in Malmö are reviewed and presented in terms of their potential to promote well-being, to provide lessons and highlight examples of value for future work. Interviews with employees of the City of Malmö shed light on local design

principles and prioritization of issues related to well-being and illustrated how work on these issues is handled in urban planning.

Thereafter, the framework “Mind the G.A.P.S” was used as a tool to review and study the city of Malmö, to narrow the scope and create a more structured procedure and approach of what dimensions to view. Finally, specific neighborhoods in the city were reviewed, to gain a deeper understanding of how the above-mentioned documents and structures are used in the planning and strategic process. Using the same framework, namely ‘Mind the G.A.P.S.’, each neighborhood of analysis intends to highlight and describe the work on one specific dimension of the ‘G.A.P.S.’ framework, to outline and concretize at a deeper level the work on issues related to that dimension. By using the ‘G.A.P.S.’ framework, results were generated that are comparable to the corresponding analysis of other cities that have (or will) undergo the same review, based on the same framework.

The study is structured as an abductive research approach and begins with a qualitative document study followed by reviews of Malmö as a whole, and of samples of cases in the city. Semi structured interviews supported the review and were intended to deepen and clarify the strategies and method of approaches that the document study had highlighted. Abductive research allows for a flexible interplay between deductive and inductive schemes, meaning it works as a combination of inductive and deductive reasoning but with logical underpinning (Denzin, 2009).

2.3 The sample of cases

The value of studying cases is to take part in and compare with other experiences as a way of sourcing information and to create a deeper and more nuanced understanding of a specific phenomenon (Johansson, 2003). In this study, the selection of cases is based on their ability to highlight work performed on each dimension of the ‘G.A.P.S.’ framework, to exemplify and clarify thinking processes and approaches. As described by Flyvbjerg (2006) cases for study should preferably consist of either “most likely” or “least likely” cases, i.e., cases that are likely to confirm or falsify hypotheses or observations (Flyvbjerg, 2006).

Based on suggestions from staff at the city planning office, as well as personal ideas about suitable locations as cases to be studied, it was decided which sites would be examined and analyzed. Some of the neighborhoods are development sites, and are still at the planning stage, while others are long-established sites undergoing reforms and development programs. All dimensions of ‘G.A.P.S.’ can

be found in all neighborhoods, but each neighborhood has clearer content of one dimension and has therefore been chosen to serve as an example.

2.4 Document study

Document studies differ from literature reviews in that a disparate set of documents are studied. A document study can involve articles, governance and policy documents, directives, etc., and has the strength of being able to study phenomena over time and space (Funck & Karlsson, 2021). To yield results deemed relevant for the research that relates to well-being in an urban planning context, and to streamline the reading process, specific search terms were used. The words were (1) "urban environment", "urban design", "design" and (2) "mental health", "well-being", "mental illness", "health". The search terms were in Swedish. The same search algorithm was used for all documents, but especially for the extensive documents, to simplify the navigation in the texts.

2.5 Interviews

The interviews were prepared and conducted as semi-structured interviews. The advantage of interviews is the possibility to clarify specific matters and to gain a deeper understanding of a certain topic, and generate different perspectives and descriptions based on the interviewee's experiences and insight into the case (Kvale & Brinkman, 2015). Four interviews were conducted in total, of which two interviewees worked in The Building Permits Unit and two in The Property and Street Office. All interviews were conducted digitally via Zoom, and a common interview guide, prepared by the author, was used as a basis for the interview structure. The interviewees from the Property and Street office are referred to as Landscape architect A and Landscape architect B, and the interviewees from The Building Permits Unit as Building permit architect A and Building permit architect B.

2.6 Ethical considerations

The research requirement focuses on essential issues of high quality, which means that research on factors that can improve people's health and living conditions, remove prejudices or raise people's awareness of how people can make better use of their own resources, is especially important (Vetenskapsrådet, 2002). The quality of research and how the results of research can be used is highly dependent on ethical considerations and guidelines. The main research ethics

principles in the humanities and social sciences are: *the information requirement, the consent requirement, the confidentiality requirement and the usage requirement* (Vetenskapsrådet, 2002). Informed consent from research subjects is a fundamental research ethics principle for good research practice and is aimed to protect research subjects and respect their right to self-determination (Vetenskapsrådet, 2017).

The interviewees were informed about the purpose of the interview, the aim of the project and the fact that information they convey would be treated confidentially. The ‘Mind the G.A.P.S.’ framework was presented and described to explain the position of the work and what was to be investigated. The interviewees names were replaced by neutral designations in the text. When transcribing interviews, what was said was reproduced word for word. At a later stage, to highlight quotes, some corrections were made because the spoken language sometimes contains a lot of excessive words that do not contribute to the purpose and point of the sentence. The corrections were thus very small, but worth mentioning for the sake of transparency.

As the concept of well-being is difficult to define and formulate a boundary around in terms of risk assessment and consequences at a societal level, the discussion could be offensive and exclusionary for certain groups, as different mental states and conditions would be valued as more or less important in a wider context. By formulating measures and interventions as ways to counteract threats against well-being, and facilitate supporting elements, for example, it can be shown that this work addresses fundamental conditions for well-being that aims to assist the larger population.

3. Results

The following chapter presents strategic target documents, visionary programs, and action plans, etc., specific to the City of Malmö, where the extracts are focusing on matters relating to well-being. The documents have then been reviewed against the framework ‘Mind the G.A.P.S.’ to form an idea of how the work on the dimensions set out in the framework looks like in the city of Malmö, and to understand the positioning based on the priorities of the framework. Statements from interviews support the discussion about the work and the positioning Malmö has today. A selection of neighborhoods of particular significance are discussed to view the City of Malmö's work on health and well-being at a more detailed level.

3.1 The planning and construction process

The City of Malmö is the municipality's largest landowner, which means that operators buy land from the municipality to build on. Depending on which stage in the planning process the land is sold can affect how much influence the buyer has in how the area will look, if there is a detailed plan that has gained legal force by local politicians or not (SKR, 2021). In the planning process by the municipality, different departments are responsible for different areas of planning and development in the City of Malmö, and they are driven by varied factors. The Planning Department at the Urban Planning Office is responsible for producing planning programs and detailed plans, which are based on the Comprehensive Plan and the PBL, among other things (Malmö stad, 2019). Laws and regulations at national level set the framework for what the materials can contain, and how they can be shaped (Malmö stad, 2019). Comprehensive plans and detailed plans are adopted by the municipal council, which has a coordinating and overall policy-making role (Malmö stad, 2019).

The Building Permits Unit is responsible for ensuring that discussions, advice, and information are of a high architectural standard for both buildings and the cityscape as a whole and in compliance with applicable laws and prepared Comprehensive and detailed plans (Malmö stad, 2019). Further, they are responsible for ensuring compliance with building regulations in terms of choice of materials, ventilation standards and daylight factors, etc, in the actual stage of implementation.

The Property and Street Office is responsible for managing public land based on policy documents and adopted objectives. A public place can be, for example, a street, road, square, park, car park or natural area. The work of the Property and Street Department is often not subject to planning permission, i.e., the proposals do not need to be tested against legislation or the like (Boverket, 2017). On the other hand, they must relate to the investment budget, procurement procedure, contractors, municipal governance documents, etc. (Malmö stad, 2022c).

3.2 City initiatives on Green places

The planning documents of Malmö take departure in a description of the city as an urban area with a growing population that is putting high demands on green and blue environments (vegetation and water features) and describes the challenges of serving with recreational and undisturbed areas for recovery (Malmö

stad, 2018). The comprehensive plan (2018) states that Malmö is to be developed into a dense, green, and functionally mixed city that preserves surrounding agricultural land. In line with this, the plan 'The Green and Blue Environment Plan' (2019) was formulated to set out the City of Malmö's overall direction and objectives for the city's green and blue environments, and clarify both for Malmö's citizens, politicians and staff what ambitions the City of Malmö has for the green and blue places in the city. The objective of the plan is to promote the health and well-being of Malmö residents, ensuring Malmö's adaptation to climate change and enhancing biodiversity (The Green and Blue Environment Plan, 2019). According to the Comprehensive plan (2018), spending time in green environments, such as parks, have both direct and indirect positive effects on health and well-being. The national agency of housing offers municipalities research information on the correlation between the presence of greenery in the home environment and a reduced risk of cardiovascular disease, as well as how green environments stimulates physical activity and recovery, through increased ability to cope with stress (Boverket, 2019c). According to the Comprehensive Plan, the accessibility to green and blue environments should be enhanced via green/blue streaks that connect larger parks with each other. Water should be seen as a resource in the urban environment that adds aesthetic, educational, and ecological values to the urban scene, where rain and meltwater management should be used and designed for the purpose of creating meaningful places (Öp, 2018). Further, accessibility is a general requirement, where people should be able to visit these types of environments regardless of their ability to travel far (Öp, 2018).

Between 2000 and 2015, the area of green space per inhabitant has decreased in Malmö (Miljöbarometern, 2021), and measurements from 2010 showed that Malmö had the least green space per person with around 126 m² per urban resident, compared to other large cities in Sweden (SCB, 2015). The values reflect population growth and reduction in green space simultaneously, i.e., the area per person is decreasing as the number of inhabitants increases, because residents must share the available green space (Miljöbarometern, 2021). But greenery is regarded as an important dimension of the urban space, and is something of priority, according to Landscape architect A, working at the Property and Street Office:

We work a lot with arguments for the green and aesthetic qualities, like, how important it is to actually be in a beautiful environment, but also the green values, the green values are very important for people to feel good. (Landscape architect A)

‘BiodiverCity’ was a project that ran between 2012 and 2018 and focused on the green and healthy city. By developing products, services and processes that promote and enhance the city's biodiversity, the vision was a greener, more attractive, and healthier city (Malmö stad, 2021a). The City of Malmö, together with the region, researchers, contractors, housing, and property companies, among others, ensured that the city was enriched with green roofs and facades, urban biotopes, and mobile plant systems, etc. (Malmö stad, 2021a). In line with initiatives on cultivation in residential areas from the Comprehensive plan (2018), the Building Permit Department is also working on these initiatives:

“Urban farming is something that is high on the agenda right now, there is a lot of focus on farming. So, it's not just the recreational aspect, but also the fact that the green contributes to activity but also perhaps to livelihoods. But we also need green environments for ecological sustainability, so it's not just for people's well-being. Maybe it is in the end, but we also need it for the sake of nature.” (Building permit architect A)



The city library of Malmö. Photo: LeJC (CC BY-SA 3.0)

The ‘3, 30, 300’ principle is a guideline used by the planners and employees of the Property and Street Office, to give direction to the vision for future urban and green development (Landscape architect A). The principle is developed by Cecil Konijnendijk, Professor of Urban Forestry in British Columbia and Associate Professor at the Nature Based Solutions Institute in Barcelona (former researcher at

SLU). The guideline implies that everyone should be able to see at least three trees from their homes, schools and workplaces, every city block should have at least 30 percent tree coverage, i.e., crown cover refers to the proportion of an area that is shaded by tree canopies, and finally all residents should have a maximum of 300 meters to a green space (The green cities, 2022).

According to Landscape architect B the size of green spaces is also an important factor and the green spaces in Malmö today are believed to be too small and too few not to risk being overloaded and worn out by users in the city to the extent that the maintenance costs of the spaces become too high. In addition, green spaces need to be of high quality and have a wide range of uses, so that they can be utilized by everyone in the city. According to Landscape architect B this is something Malmö is successful in, and there is a good range of playgrounds as well as outdoor gyms and seating areas etc. for residents to use and spend time in. However, if the trend of decreasing green space per inhabitant continues, the '3, 30, 300 principles' will not be achieved, and it will lead to a deterioration in the availability of green space for the residents of Malmö (Landscape architect B). As the Comprehensive plan strives towards a denser city (2018), building permit architect A points out how smaller green spaces *can* be successful in terms of usability, content, and environmental qualities. However, there are large differences in how different proposals submitted to the planning department look in terms of green spaces, with some succeeding well in creating qualities in small spaces, while others do not. Further, building permit architect A describes the conflict of land use and how the priorities look like.

When you build, you build on some kind of land. Then you try to build on land that has not been green space from the beginning or is today, for example industrial areas or parking areas. And in that case, you will be able to create new green spaces. But the fact is that we are taking up more green space than we are creating. (Building permit architect A)

Building permit architect, A points out that Malmö have access to green spaces as well as blue spaces, such as the sea, coastline, and the canals in the city center. The western harbor for example, is a place that was thought to be an area for those who live there but has turned out to be an area that residents throughout Malmö visit. Building permit architect, A says that sometimes the planning comes a bit after the completion of a project, which gives space for people to be able to take possession of an area and use it as they choose. Here, the seaside location became

attractive to the entire population, and became an excursion destination enjoyed by many.

3.3 City-initiative on Active places

The program for ‘Active meeting places’ proposes strategies for the development of structures and public places which will increase the opportunities for Malmö residents to be physically active (Malmö stad, 2015). The keywords for what are considered a good space for physical activity are: simple, conventional, and close, but also flexible, to offer a variety of physical activity (Malmö stad, 2015; Fastighets- och gatukontoret, 2020). The program highlights the idea of ‘basic offer’, i.e., places for everyday activities, which encourages meetings between people. The basic offer should focus on the possibility of spontaneous activity, and should be uncomplicated and appeal to everyone, regardless of age, gender, ethnicity, etc. (Malmö stad, 2015; Fastighets- och gatukontoret, 2020).



(Fastighets- och gatukontoret, 2020).

Via the program for 'Active meeting places', outdoor gyms have been developed and evenly spread across Malmö, and sports facilities, activity centers and swimming pools are available in all districts of the city (Landscape architect A; Malmö stad, 2021d). However, there is a struggle of implementing new areas for sports activities, or simply open spaces for undefined, multifunctional use, in new

development areas (Landscape architect A). The prevalence of large lawns and spaces of these types is highest in older urban areas, but in newer areas, buildable spaces are prioritized over green spaces (Landscape architect A). The issue has been raised that there are too few football pitches in the city and that children and young people must queue for a very long time to get the chance to play football (Landscape architect A). Landscape architect B states that there is a good range of active places in the city, and that the available spaces are being used, but, like Landscape architect A, thinks that the spaces are too few and too small and also points out the imbalance in the use of the areas, i.e., some areas are used more by young boys than by others in the community, and young girls in particular do not use the active meeting places to the same extent.

For example, the outdoor gyms are used more mixed, and near them young people may often want to hang out. A couple of years ago we built what we call multi-sports arenas, where you can play football, for example, but many of the areas that were built a while ago are used by boys. For girls to use public space, it often requires organized activity, so now we're working a lot on that, in dialogue with schools and the like, to activate spaces. (Landscape architect A)

The development of a good basic offer relies on proximity and accessibility. In addition, it should be possible to complement the basic offer with other physical activity facilities (Malmö stad, 2015; Fastighets- och gatukontoret, 2020). Important aspects in the planning process of 'Active meeting places' are to consider social spin-offs, clustering, and the opportunity to be inspired by others, meaning that planning for spaces for activity should preferably be made in the vicinity of other activities, as well as where people move and where various multifunctional uses can arise (Malmö stad, 2015; Fastighets- och gatukontoret, 2020; Book, 2012). Important elements of the basic offer are the creation of football pitches, open grass areas, outdoor gyms and exercise or walking trails. Other ways to create opportunities for exercise and activity are through creative solutions where certain features of the urban space are given dual functions.

For example, many people work out where there is some topography, i.e., some differences in height, and that you can build it into the city in different ways, so that it invites both play and activity in different ways. For example, widening a staircase so that you can use it for exercise. So active meeting places are included a little bit all the time. (Landscape architect A)

Building permit architect, A says that active places in Malmö are dispersed and scattered in smaller areas across the city, but s/he also says that they are working on so-called sequences, i.e., that you should be able to move between the sites in a natural way with bicycle lanes and the like. In addition, it is made clear in the PBL that open spaces are prioritized over, for example, car parks and ancillary buildings, to ensure that the need for space is met as far as possible (Building permit architect A). As these priorities are based on the PBL, it makes decisions straightforward, according to Building permit architect A.

In addition to the more formal sports ground, Malmö has what is called “spontaneous sports fields” or “multisport arenas” that are spaces available for different activities, equipped with artificial grass or rubber asphalt surface, basketball hoops, football goals, surrounded by fences and illuminated until 22.30 in the evenings (Malmö stad, 2021d).

3.4 City-initiative on pro-social places

The City council of Malmö decided in 2010 to form a commission consisting of various expert groups, with the mission to review the social sustainability situation in the city of Malmö, and subsequently propose measures to reduce gaps in areas such as health inequalities, often caused by different socio-economic conditions (Malmö stad, 2021c). During the period of 2011 to 2013, the Malmö commission produced 32 reports and documents in total, categorized as “Children and young people's upbringing conditions”, “Democracy and influence in society”, and “The sustainable city”, amongst others (Malmö stad, 2021c). The document “The city's spatial impact on health” deals with the theme of urban planning's importance for public health and is described as a background report with scientifically based descriptions intended to provide a basis for discussion amongst politicians (Dock et al. 2012). The first topic of discussion in the report is how the physical environment can influence the social environment, meaning that the built environment can shape and contribute to social interactions, create safer environments, and reduce segregation. Examples suggested in this approach are to dissolve barriers and create stronger and more interconnected networks of routes for cyclists and pedestrians as well as public transport (Dock et al. 2012). It is stated that barriers arise where areas are separated from each other, both physically and perceptually, causing restricted or impeded movement through the city, which in turn reduces population mixing and thus limits people's social sphere (Dock et al. 2012).



“Summer street” Malmö stad, malmo.se

Landscape architect A stresses the importance of creating qualities of stay and residence in a place and combining social spaces for different ages and different interests. Focusing on creating spaces for social activity where there is sun and limited traffic is one approach (Landscape architect A). 'Summer streets' in Malmö is a project that converts centrally located streets over a few months, by blocking traffic, and turning the street into spaces for outdoor cafés and other pedestrian areas. This is a way of making the most of the summer months and creating central urban spaces for recreation and social gatherings (Landscape architect A). At the neighborhood level, work is being done to create seating areas, playgrounds, and gardens. However, this is the baseline of what a residential area should contain (Building permit architect A).

We are very much guided by legal requirements, and the legal requirements that are set are usually said to be the minimum level of society. They are democratically produced, and the legislation and the regulations clarify what it is. So, there is the PBL and then it goes down, and finally there is the BBR that shows more precisely how to do it. That is something that we work very hard on, to ensure that this level is maintained, which is one way of ensuring social sustainability. (Building permit architect A)

The Malmö commission's final report, presented in 2013, gives overarching recommendations and stresses even further what impact urban planning has on social sustainability, health, and well-being. The physical environment is described as settings where social meetings and contexts can take place and is today unevenly distributed and of unequal quality across the city (Stigendal & Östergren, 2013). High-quality outdoor and indoor environments are said to be directly connected to health and well-being, both through things like air quality, noise levels, humidity, and daylight penetration and through issues about feelings of safety, security, comfort, and well-being, etc. Safety and security issues are described as highly dependent on the physical structure and design of the environment and can be addressed through elaborate design strategies (Stigendal & Östergren, 2013). In addition, the design and size of housing is important for generating a mixed social composition, where people of different life stages, family constellations and ages can live together. However, as stated by building permit architect A, with increasing housing and environment qualities comes increased housing costs that risk causing gentrification of an area, which is why there is value in working with the existing factors of an area.

If you really want to work with social sustainability, you have to work with what is there, and the people who live there, and that the activities that are there can remain [...] (Building permit architect A)

The municipality has no formal means of determining the tenure of new housing projects and have little influence on the final cost of housing (Boverket, 2010). Building permit architect B states that it is important that developers *should* be able to build as cheaply as possible to generate housing that many in the city can afford to live in, which can create a better social composition. Inevitably, this generates a trade-off between certain qualities, some of which may be more important to prioritize than others (Building permit architect B). Building permit architect B says that it is the market that determines how social sustainability values are considered, i.e., developers and architects are the ones who see what gives them a high return on investment, and to reduce construction costs, qualities related to health and well-being may not be prioritized. If social sustainability values were to become part of the requirements from the building permit department, there is a risk that other factors would be de-prioritized (Building permit architect B). Ultimately, if building regulations become more difficult, and requirements higher, developers will in turn argue for requirements of their own, to simplify the building process and reduce costs. There is then a risk that, for example, accessibility requirements could be renegotiated, and that would not be desirable (Building permit architect B). Instead of tightening laws, building permit architect B believes that administrators from the City of Malmö can inspire

and inform developers to plan in a certain way, to create added value and a better urban environment.

Building permit architect B points out what the planning process looks like, and where in the process different analyses and actions can be made to examine what an area might need or what values that should be preserved. During the preparation of comprehensive plans and detailed plans, various social impact assessments and analyses can be carried out to see which actions can have an impact on a specific area. Social impact assessments (SKB) is a theoretical template developed by the City Planning Office of Malmö, with the purpose of addressing social issues in an early stage of the building process (Malmö stad, 2018). The template also aims to increase knowledge about the impact of spatial planning on people's well-being and from there provide the conditions of making better and more informed investment decisions. Social issues are being assessed alongside other aspects of sustainability, with the intention of working proactively and preventively with these matters (Malmö stad, 2018). Topics like integration, children's rights perspective, and gender equality are discussed with a critical and insightful observation about what knowledge-gaps that exist, and what norms drive the discussions. The overarching goal of the SKB is to ensure and support socially sustainable urban planning from different angles (Malmö stad, 2018). The commission for a socially sustainable Malmö has suggested performing a compulsory social impact assessment before each physical investment. This analytical phase is at a high hierarchical level, which means that the ability to influence or critically review planning proposals from a social sustainability perspective is difficult once the process has reached a more detailed level (Building permit architect B). However, if there are deficiencies in planning proposals on issues of social sustainability addressed in the PBL or the Comprehensive Plan, these can be rejected or denied planning permission and start of construction, which is a way to ensure that at least a minimum level is maintained (Building permit architect A; Building permit architect B).

3.5 City-initiatives on Safe places

'Safe places' in the 'G.A.P.S.' framework encompasses both safety dimensions and security dimensions, meaning it relates to both concrete dangers in cities such as traffic, environmental pollution, getting lost, and risks posed by other people, as well as the sense of safety through appropriate lighting, the presence of people, transparency, and visibility in the streetscape, etc (UD/MH, n.d.). The program 'Malmö's urban environment' and the sub-project "City Light" intends to use lighting to draw attention to intersections, perceived unsafe places, squares,

borders, etc. to increase safety and security, and create attractive environments that increase movement and activity in the city. Creating spaces and directions through lighting, as well as wayfinding at night, facilitates orientation and thus creates a sense of security in the urban space (Malmö, 2022a).



“City Light”, Malmö stad. malmo.se

The City Council of Malmö has adopted "Safety and security policy for the City of Malmö" which is a policy, primarily aimed at politicians and officials in the City of Malmö, and which provides a direction to guide decisions to achieve desired goals (Stadskontoret, 2013). The city of Malmö works with social interventions through partnerships with different operations for social sustainability, but also with targeted initiatives where there is a particular need, for instance in specific urban districts or particularly vulnerable areas (Stadskontoret, 2013). Crime prevention, security cooperation with other authorities, and crisis preparedness are angles of approach for Malmö to give prerequisites for the urban dwellers to feel safe and secure in the city (Boverket, 2019c).

It's very much about bringing groups together and making sure that mixed groups move through and use areas. There's something like the 'granny syndrome', when older women are there, you feel it's a safe place. (Landscape architect A)

There is a difference, but equal importance of perceived safety and security and *actual* safety and security. Creating prerequisites for people to feel safe in a space tends to make them choose to and want to spend time there, which in its turn make the space more secure, as the presence of people and movement is a major factor in creating secure urban environments (Landscape architect A). It is important to identify areas that can be perceived as unsafe, for example closed facades without windows such as the outer wall of a car park, and how this can be addressed by opening the facade, improving lighting, and creating more activity and movement in the street space (Landscape architect B). Building permit architect A talks about viewpoints as a way of creating security.

“That you have the opportunity to have a view of the street and that there are not closed facades on the ground floor facing a street, that there is some visibility over corners etc. And meeting places are important to bring in stopping points. I work a lot on getting dog rest areas everywhere because dog owners are always walking around. And then you can work with clarity, so that you don't have to walk around looking for entrances, for example. A clarity, a hierarchy, you could say, that is easy to read. This is really quiet a fundamental architectural strategy.” (Building permit architect A)

As Building permit architect A mentioned, building permit architect B also points out that many things are limited based on the PBL, i.e., certain issues the building permit officer does not have the right to require, or the right to review. However, the PBL does of course ensure that a minimum standard is maintained, and that is the purpose of the building regulations.

Densification, as a way of minimizing traffic, air pollution, and noise pollution is being suggested (Öp, 2018), which can also help create conditions for a socially sustainable society with more physical and social connecting points in the urban network. The importance of creating identity-forming environments should be considered, to create home environments that people can identify with and be proud of (Öp, 2018), which in turn strengthens the sense of community and the integrity of the area (Boverket, 2010). Qualities that create good living standards such as well-built houses and high levels of traffic safety, low levels of noise and pollution also provide the conditions for health and well-being (Building permit architect B; Building permit architect A). Building permit architect A describes the importance of conditions that reduce the risk of people feeling unwell in different ways, for example by minimizing or strategically planning car traffic, mixing the distribution and size of apartments in an area to create a diverse mix of residents, or ensuring that outdoor environments around homes function well (Building permit architect A).

“What we are working on is sustainable construction, and sustainability in terms of materiality and so on, and there it is just as important, and I think we are working on this, to produce buildings that actually last over time, and then it is not just about the materiality and that it can exist and age, but that the housing and also other activities function in their own right, but also in their context.”
(Building permit architect A)

4. Visions in practice

A set of neighborhoods in Malmö was scrutinized and used as illustrative examples of dimensions in city planning acknowledged to be important in city planning, according to the G.A.P.S framework. Each neighborhood intends to highlight the work on a specific dimension of the framework, to describe and concretise the work performed on issues related to that dimension by the City of Malmö. The following chapter presents the different sights and their current target and governance documents, along with content from interviewees' statements about their knowledge of the specific sites, and their view of the topic and issues. Some of the sites are existing, while others are under construction. The descriptions of the sites do not consider how they relate to the rest of the city but are only intended to highlight how they relate to the ‘G.A.P.S.’ framework, and how and if the different dimensions are present.



Map of Malmö with approximate location of sites for analysis and review, except for the Western harbor which is marked out for clarification of the relationship between the districts.

4.1 A green place initiative – Lindängelunds recreation area

Lindängelund recreation area is an area in southern Malmö adjacent to the district of Lindängen and flanked by a motorway on its southern side (Malmö stad, 2021b). The area is located close to Katrinetorp Estate, which is one of the country's best preserved empire sites (Katrinetorp landeri, n.d.-a). Lindängelunds recreation area is one of the largest green areas of Malmö. It has historically been used as farmland and is located on the outskirts of the city. Nowadays, when the city is being expanded, Lindängelund is intended to become an integral part of the city and made more accessible and relevant (Sydväst, 2013).

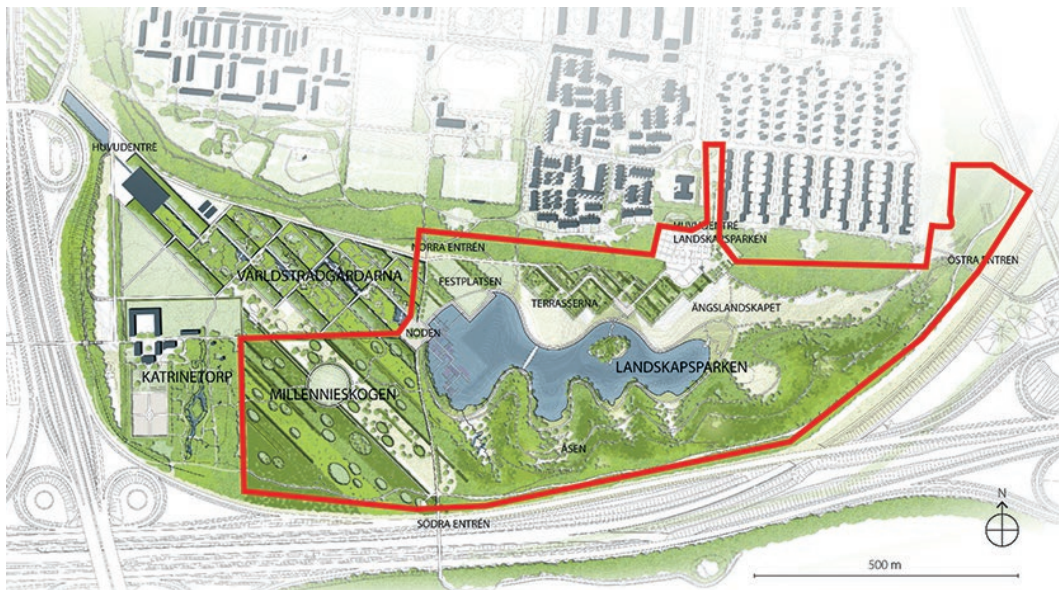


The Millennium Woods. Photo: Åke E:son Lindman. Sydväst Arkitektur och Landskap, sydvast.se

4.1.1 Green dimensions of Lindängelund

The development of Lindängelund recreation area intends to create a park with a woodland environment (Malmö stad, 2021b). Today, the park area ‘Millennium Woods’ exists on the site, and is a landscaped park with so-called meditation rooms, i.e., oval rooms created by ivy hedges enclosing smaller areas of the park. Protection from the wind is provided in various parts of the park by curtains of Chinese sequoia, giant tetucus and redwood trees (Malmö stad, 2021b). When finished, the 100 hectares of land will have a lake, wooded ridges, open meadows,

cultivated terraces, world gardens and greenhouses (Sydväst, 2013). The ambition is to develop experiential, large-scale natural environments that give the feeling of ‘coming to another world’, which is stated as an important part of the vision for the area, and to furthermore provide a knowledge center in the area, acting as a role model in large-scale biotope design and plant composition (Sydväst, 2013). The design of the park is partly based on the principle of eight park characters, defined by Grahn and Sigsdotter (2010) in their environmental psychology research, which together should satisfy our human needs for recreation, activity, socializing, experience, and recovery (Sydväst, 2013).



The red line indicates the area for which the detailed plan for Lindängelund recreation area is being prepared. Malmö.se

The project is described by Landscape architect A as very ambitious, but also as having problems with high noise levels because it is located along the motorway. In addition, Landscape architect B says that the area is very remote in Malmö, which means that many residents of Malmö have not found this area yet or does not even know it exists. According to Landscape architect B, there is no way that such a large park area would be planned inside the city center where space is prioritized for other purposes, leaving areas on the outskirts of Malmö to be used. This presents the conditions for traveling to the area with some obstacles. The ‘sequences’ mentioned by building permit A, which involved creating natural pathways and points of contact between different areas of the city are not clearly implemented here, nor are the green/blue streaks, suggested in the Comprehensive plan (2018) that connect larger parks with each other. Since the area is surrounded by heavily trafficked roads, and the bike lanes pass through these areas, it does

not provide a pleasant route to the park. Traveling with public transport takes anywhere from 30 minutes to an hour out to the park and cycling routes likewise. The park is inaccessible in several ways, both geographically and perceptually, as residents of Malmö who live in opposite parts of the city, or far away from the area might not have the possibility to visit the park, leading to reduced population mix and thus limits people's social sphere, which contradicts the objectives of a mixed population and social exchange in the city's public spaces, as suggested in "The city's spatial impact on health" (2012). The risk of concentrating high quality green spaces such as Lindängelund recreation area, in specific, segregated locations is that not all residents will benefit from the environment, which also makes the project problematic both from an equality perspective and as an economic incentive for the municipality. However, Landscape architect B thinks the area has the potential to be a future example of how priorities *should* have been set during the expansion of the city, as the amount of green space per inhabitant in the city is likely to be minimal in the future (Landscape architect B).

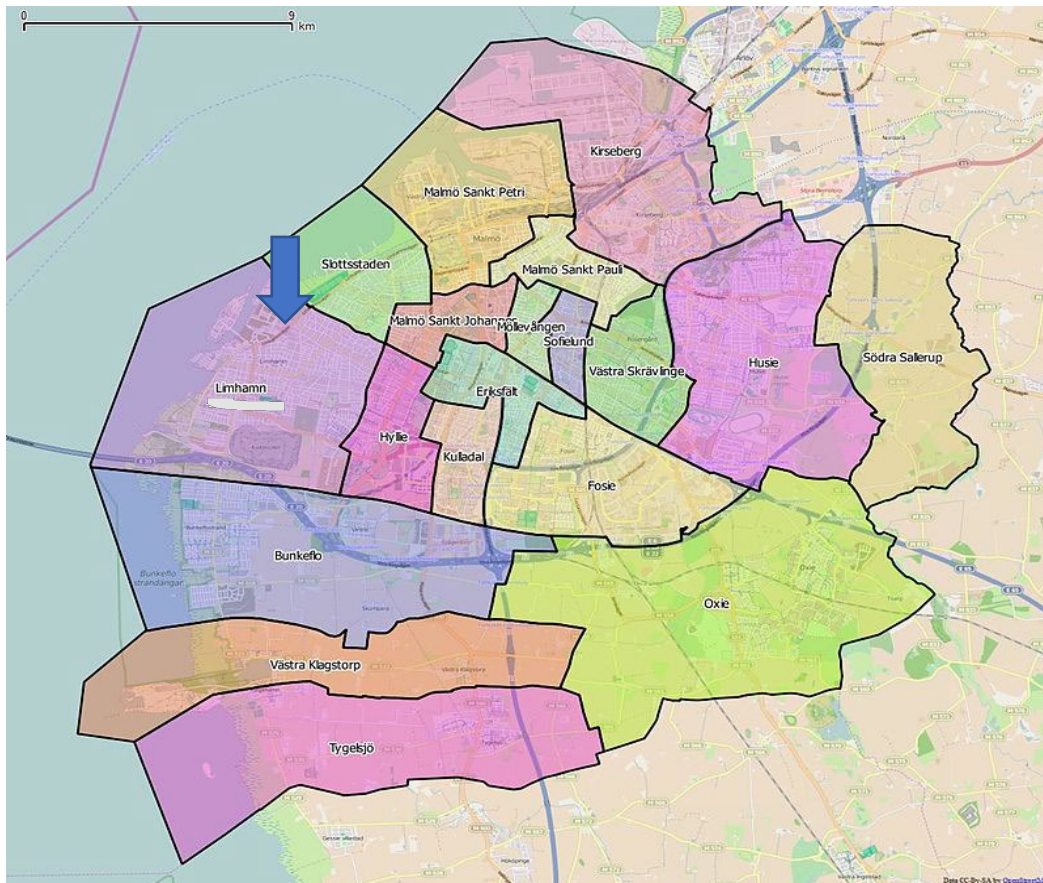
4.2 An active place initiative – Limhamn

Limhamn is an old urban district of Malmö, that not until 1915 became a part of the city of Malmö ("Limhamn", 2021). The neighborhood has a history as an industrial area, fishing area and harbor, and at the end of the 19th century Limhamn was one of the leading fishing villages in Skåne (Malmö stad, n.d.-b). Today, Limhamn has varied building styles due to the history of the district, and it has therefore been important to preserve the traces of this history in the design of the new urban structure (Malmö stad, n.d.-b). In the center of Limhamn, for example, there is a mix of housing from several periods, including apartment buildings, villas, workers', and fishermen's dwellings, etc. ("Limhamn", 2021).

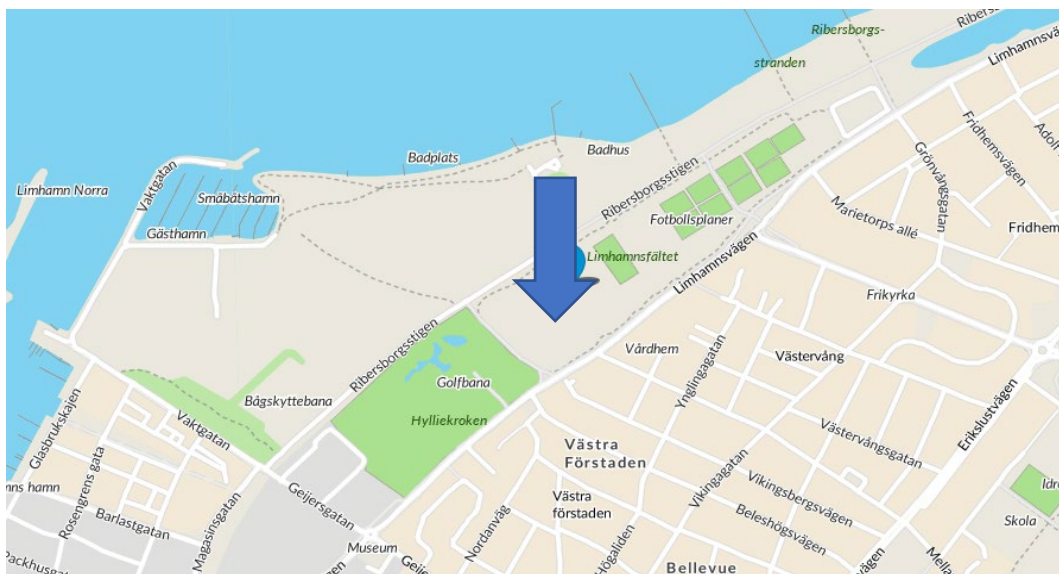
4.2.1 Active dimensions of Limhamn

The urban district of Limhamn has several different areas within it, including the Sibbarp beach and the Limhamn field (Malmö stad, n.d.-b). These areas are located along the west coast of Malmö and have large green spaces and sports areas for American football, soccer, rugby, as well as golf and equestrian sports. In addition, the area has an outdoor gym, children's playgrounds, and large social areas along the waterfront with seating areas, jetties into the water and walking and cycling paths that are also used for inline skating and similar (Malmö stad, n.d.-b). Limhamn has one of the largest ranges of sports clubs in the city, with things like martial arts to diving, sailing, surfing, and ice-hockey ("Limhamn", 2021). What was pointed out by Landscape Architect A was that older neighborhoods

more often have larger green spaces for activity than new neighborhoods do, which Limhamn is an example of.



Districts within Malmö municipality. Arrow points to the Limhamn field.



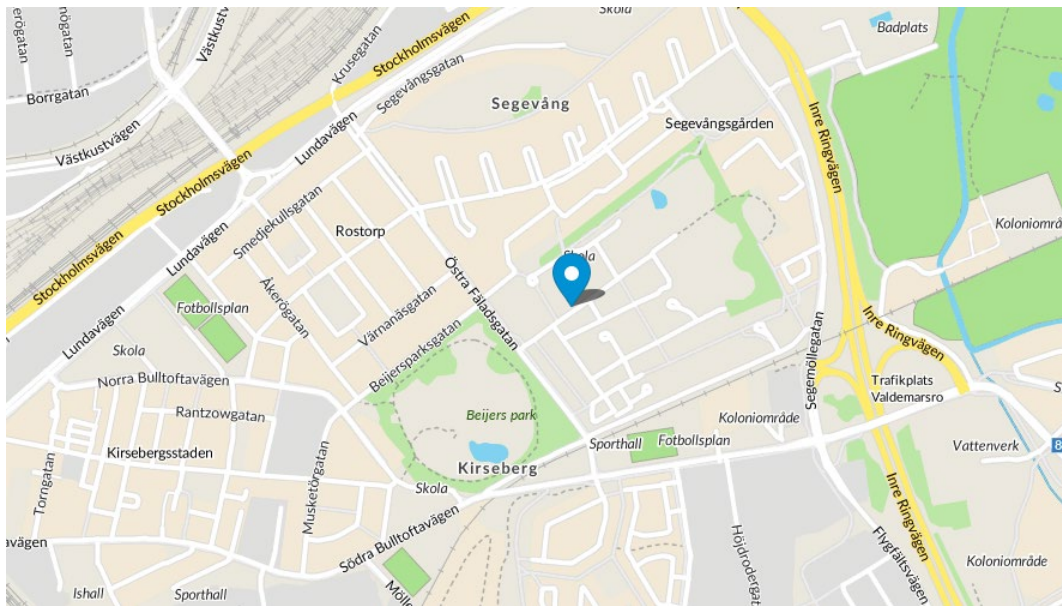
Arrow points to the Limhamn field. Hitta.se

Landscape architect B believes that the Limhamn field is a good example of an active place in Malmö and says that the development of, for example, playgrounds and outdoor playgrounds is not so complicated to implement. Unlike planting trees, which requires taking up land at depth for their root systems, installing various built units is not as advanced, either to get through in negotiations or to implement (Landscape architect B).

Reports from 2021 show that children and young people living in Limhamn are among the most active in the city, although one of the main reasons for this seems to be good socio-economic conditions for young people, which are shown to promote physical activity and association activities (Blomdahl et al, 2021). Similar to the recreational area of Lindängelund, Limhamn is also a relatively isolated area from the rest of the city in that it is on the very edge of the city boundary, but also one of the areas in Malmö with the highest socio-economic status compared to other parts of the city (Delegationen mot segregation, 2021; Salonen et al. 2019). Higher socio-economic status can be linked to better chances of taking part in activity events, partly due to greater access to, and insight into the city's offerings (Book, 2012). This means that because the population of Limhamn has a generally higher socio-economic status, and because of the fact that several areas for activity exist in Limhamn, the use of the area's risks being unevenly distributed across the inhabitants of the city as access can be linked to both geographical and social separation from the community at large. The West harbor area, which is located on the same coastal strip as Limhamn, has proven to attract residents from almost the entire city, and may have the potential to link Limhamn with the rest of Malmö, thus opening the district to new visitors.

4.3 A Pro-social place initiative - Sege Park

In March 2020, the redevelopment of Sege Park in Malmö began. Originally, from the 1930s, there was a mental hospital on the site, but in the mid-90s, the hospital was closed, and the buildings were converted into schools, preschools, and a health care center (Malmö stad, n.d.-c). The aim of the redevelopment is to create a calm, green, and sustainable setting for the residents, that enables people to live resource-efficient and sustainable lives. The aim of the development of Sege Park is that the area will serve as a model and demonstrator for various projects, such as the sharing economy and various transport solutions (Malmö stad, n.d.-c).



Sege park, surrounded by Bejers park, the inner highway and the Stockholm's-way. Hitta.se



Aerial view from northwest over Sege Park. 2016. Malmö.se

4.3.1 Social dimensions of Sege Park

The vision of the planning program for the area points out the proximity and connection to greenery in Sege Park, where tranquillity and community are keywords (Pp 6047, 2015). The approach to the area is to emphasise the preservation of greenery and some construction. Urban gardening is planned on the site, as a way of creating social connections, and shared resources such as carpools, bike pools, recycling stations etc., are suggested to contribute to a more sustainable and social community (Pp 6047, 2015; DP 5455, 2017). In accordance with the Comprehensive Plan, the area will be planned for a functional mix, meaning it will implement both services, housing, and businesses, alongside spaces for recreation and stillness. In line with this, walking, biking, and public transport should constitute the basis of the transport system in Sege Park (DP 5455, 2017).

As the Sege Park area will be developed as an almost entirely new residential area, apart from the former student housing that already existed on the site, there are opportunities to shape the area for good social conditions. However, the situation arises, as mentioned by building permit architect A, that with high housing and environment qualities comes increased housing costs that risk causing gentrification of the area. One way to counter this, according to building permit architect A, is to make use of the structures that are already in the site, which is the idea of the development of Sege Park (Pp 6047). If the social qualities of the area are to reach their full potential, a mixed social composition is important, to generate a good exchange between people, in line with the values of “The city's spatial impact on health” (2012). Providing conditions for a mixed population also requires a mixed range of housing design and distribution of housing, which in turn can provide opportunities for the population to choose to stay longer in the same residential area, thus increasing the sense of community in the area (Scannell & Gifford, 2013).

4.4 A safe place initiative - Sofielund

Sofielund, is a large urban district, consisting of the areas of southern Sofielund, northern Sofielund, Annelund, Lönngården and a sub area called Seved. Sofielund has clear characteristics as an industrial district, and the buildings are mixed, but in varying condition (Pp 6053, 2021). The district was built up in the first half of the 20th century, until about 1980, and the most famous factories in the area are the starch manufacturer Stadex AB and the bakery Pågen AB. According to the objective description in the planning program for the districts of Sofielund, the

area will be Malmö's cultural, leisure and business center in the future (Pp 6053, 2021).



Photo: Gianluca La Bruna, Arkitekt.se

4.4.1 Safe dimensions of Sofielund

Southern Sofielund and Seved is on the list of twenty-three particularly vulnerable areas in Sweden (NOD, 2019). The area's challenges today include the presence of illegal activities, as well as heavy and dangerous traffic in the area (NOD, 2019; (Pp6053, 2021). From a safety and security perspective, there are several comprehensive visions and measures in the planning programme to ensure the safety and security of residents and visitors in the area (Pp6053, 2021). Initiatives that lead to increased attractiveness, positive social effects, and collective community are ways of addressing the issues (Pp6053). Through refusing planning applications to demolish and convert existing buildings on neighbourhood land into new housing will protect buildings and their activities that is considered to have a beneficial and significant effect on the area and should therefore be retained (Building permit architect C). Likewise, although some activities in the area today are illegal and lack building permits and are not compatible with the current detailed plan, these businesses and activities have been shown to increase the attractiveness of the district, and businesses without or with temporary building permits may be given permanent building permits (Pp6053, 2021). By increasing the attractiveness of the district, the idea is to also improve safety in the area, as human

presence and activity create both perceived and actual safety (Pp6053, 2021). The project "City Light" intends to create light installations in the district that not only create security but also facilitate wayfinding and have the potential to attract residents from the rest of Malmö to visit the district and sit on the light sets as art installations (Malmö stad, 2022a).

Today the area contains a mix of businesses and, due to low rents, has provided an opportunity for new businesses to take root and start up in Sofielund. Low rents will continue to be one of the most important factors in strengthening and developing the district's economy and business activities (Pp6053, 2021), to further increase the attractiveness of the district. More activity and movement in the district during all hours of the day is stated to be encouraged via a symbiosis between industrial, associative, and cultural life, and small businesses (Pp6053, 2021). Giving the opportunity for cultural- and leisure operators to be vocal in the shadow of the noise from the industries, (a so-called cultural sound zone) allows for the area to be used during evenings and weekends, which enables a safer environment.

Increased traffic safety will be addressed by narrowing of the road surface, still allowing for 25-meter vehicles, but will control the speed, and together with street lighting, tree planting and designing that ground floors in buildings have contact with the street level will improve safety and security in the area. Being an industrial district, the area needs to have some accessibility for larger transport vehicles. To create a safer, and more pleasant environment, more pedestrian spaces and improved pedestrian passages have been created, to keep pedestrians protected (Pp6053, 2021).

5. Discussion

The review of planning documents, the conversations with planners and the illustrative examples show that the City of Malmö is generally a municipality where many initiatives are taken in terms of social sustainability and well-being. The study points to high-profile examples of areas where there is a focus on active life such as Limhamn, on green structure such as Lindängelund recreation area, safety initiatives in Sofielund, and social engagement in Sege Park. In total, the city of Malmö has many initiatives on health and well-being issues, in statutory documents as well as governance documents. Supporting legislation, such as the planning and building act (PBL), as well as BBR and policies like the Swedish healthy cities network are concerned with maintaining a minimum standard to ensure that the living and urban environment is decent. The material points to a focus on

‘hard’ values that are measurable and concrete, but soft values, i.e., qualities for well-being are harder to find evidence of. Ensuring that sustainable material choices as well as appropriate living spaces, varied apartment distribution and high architectural quality are in place is good for creating a pleasant environment, which will last over time.

It is difficult to say how the municipality in general is meeting its social sustainability objectives in the urban planning development, but it is clear that the green dimension is perceived as a particular challenge, because it requires space, (both above and below ground) and a lot of maintenance. Furthermore, the dimension of safety is complex, based on the fact that safety and security can be evaluated on a perceived level and on a concrete level, and the measures for each aspect are not necessarily the same. Social dimensions are also complicated to implement, as there is great value in accommodating for a social mix, which creates the conditions for reduced segregation, and increased integration. Connecting neighborhoods and promoting mixed movement requires major efforts, both in terms of infrastructure and social interventions. Finally active places, which seems to be the easiest dimension to implement based on land use and effort, there is the difficulty of creating the conditions for all city residents to want to use the sites, and to avoid the exclusion of particular groups, referring to the interventions of social dimension.

Furthermore, the absence of buildable space, finances, or time, makes it seem like the legislation become the priority, and in the visions from Malmö's own policy documents sometimes seem to be de-prioritized. This notion raises the question of whether conflicts of interest can arise between local and national interests, and how flexible national plans and legislation might need to be in that case? For instance, comparing Malmö with Stockholm, the capital of Sweden, the metropolitan area of Stockholm has close to one million inhabitants and Malmö has just over 350,000 (Kommuner i siffror, 2021). The price per square meter of housing in Stockholm is around SEK 80,000 and in Malmö around SEK 40,000 (Svensk mäklarstatistik, 2022), and the average income in Stockholm is around SEK 95,000 more per year than in Malmö (Kommuner i siffror, 2021). These data illustrate a rather noticeable difference between the different municipalities, without mentioning their topographical and geographical differences, which may indicate how national interests and objectives can fall out very differently in different municipalities. A reform of the role of national interests in local, municipal planning would be appropriate, to create more flexibility and room for creative solutions that serve the interests of municipalities first and foremost. What is important is to maintain the minimum level that the PBL etc., aims to ensure that the

country's municipalities achieve, without hindering the further development of the objectives and efforts regarding health and well-being. The 'Mind the G.A.P.S' framework reflects this philosophy in the sense that the framework describes what interventions are needed, but not exactly what they should look like or exactly to what extent, which allows the framework to be used and still consider the prevailing conditions of the specific location. An approach that could allow more of the municipality's own vision to percolate between national policy documents, could provide optimal conditions for the development of each individual municipality. Although, based on the 'G.A.P.S.' framework, Malmö has a proactive agenda, for instance, Malmö invests in trying to address the lack of greenery in the city through green projects such as 'BiodiverCity'. Also, outdoor gyms have been built in several places in Malmö to provide opportunities for exercise (Malmö stad, 2015). Furthermore, there is an aspiration to build socially functioning neighborhoods with space for social activities, as well as business and other features, that both invite people to socialize but also create a safe urban environment (Öp, 2018).

Ultimately though, there is a discrepancy between how the visions and initiatives look like and what is finally realized in the urban space, which to some extent can be described as a competition between 'hard' and 'soft' values or data, i.e., aspects such as traffic accessibility, stormwater management, pipelines in the ground and so on, may take precedence over qualities such as green spaces, social spaces, and places for recreation. The reasons for this are many, and the recurring explanations are difficulties in concretizing well-being values and justifying their right to take their place in urban planning in terms of budget and land area. Issues of health that are measurable and where there are clear guidelines and action programs to address specific problems, allow these types of dimensions to naturally become more prominent at both the legislative and planning stages. However, an important point raised by several interviewees was the power and influence developers and builders can have on the content of new plans, as the housing market drives what is built and how it should look, based on profit margins. Municipalities have the formal responsibility and right to decide on detailed plans, but the initiative today often lies with the developer (Boverket, 2010). The type of housing and services, may have already been decided and shaped when detailed planning begins, putting the municipality in a difficult situation where the overall image and the understanding of the different contexts in the built environment can be lost, which can be a constraint for the municipality when it comes to connecting the surrounding built-up area (Boverket, 2010). Own objectives formulated by the municipality may therefore be difficult to address, as it requires that the detailed plan aligns in that direction. Furthermore, municipalities that do not own most of the land in the city may find it difficult to attract actors to follow planning policy

visions. However, The City of Malmö is the municipality's largest landowner (Malmö, 2022b), which means that the municipality is probably in a rather strong position in relation to private operators, especially when compared to other Swedish municipalities with a smaller landholding.

Furthermore, building permit architect A explains the importance of which architectural and construction firm undertakes which projects, and that the expectations on quality and budget these developers have on the project may influence the quality and design of the construction. During the housing shortage in Malmö from the turn of the millennium the building permit architects and building permit administrators felt compelled to cut back on demand for quality in favor of quantity (Building permit architect B). This trend is reversing, as the housing shortage is catching up, which means that higher quality of the architecture is expected in the future (Building permit architect B).

Further, according to building permit architect B there is a linguistic discrepancy or lack of transition between what the vision documents say and what some bodies in the planning process use when talking about urban development. Building permit architect B says that the concept of social sustainability in relation to well-being is not something they use in their work in the building permits department, nor is it something that is concretized in the PBL that makes it understandable or useful. Because the values of social sustainability and well-being are not defined as something concrete and measurable, they become soft values that are given low priority (Building permit architect A). The values of social sustainability and sustainability emerge more generally in issues of materiality, building quality, ventilation, etc., (Building permit architect B). To counteract this linguistic as well as substantive gap that may arise, could be to either legislating more clearly on the values of social sustainability, with a focus on well-being, and giving these qualities more substance and competitiveness against other values, *or* having a sparser, more coarse-meshed legislation that enabled the municipality's own initiatives on these issues, might give health-promoting dimensions a better chance to be integrated into the urban planning, with an execution of probably higher quality, and with greater nuances.

Building permit architect B talks about the difficulty of implementing well-being values, and the risk that unproven methods do not have the intended effect, or that consequences in other forms arise, which are difficult to predict. In Malmö for example, the general approach in urban planning nowadays is that there should be a centrally located multi-story car park, so-called mobility center, where all the nearby properties' cars end up, which means that the streets are rather quiet

(Building permit architect A). From a safety, social and even activity perspective it is a particularly good initiative, as it clears out the streets from parked cars and allows for bigger open spaces instead of parking lots in, for example, residential areas. However, what is pointed out by Building permit architect B is that when car parking spaces are no longer a priority for developers, as the mobility centers are intended to accommodate this, developers are also opting out of building proper basements in the properties. In the past, underground car parks have been a way for developers and architects to incorporate parking spaces on the site, and in doing so also created spaces for various other needs, such as plant rooms, storage rooms, shelters, and above all bicycle parking. Thus, the risk is that more bicycle storage, bicycle parking and other miscellaneous additional buildings will have to occupy the open space, instead of it remaining as a quality space for the residents (Building permit architect B). This example highlights the complexity of the planning process and the pitfalls that can arise which illustrates why innovative and novel ideas can be viewed with some skepticism.

Furthermore, there is value in bringing together some of the dimensions, such as social spaces and active spaces, to generate safe spaces, for example. As Malmö is a highly segregated city, with large differences in socio-economic status (Salonen et al, 2019), it is important to prioritize an equal distribution and availability of high-quality environments in the city for social activity or exercise, etc. One of the most important aspects connected to the use of spaces for activity or participation in physical activity *is* socioeconomic status (Book, 2012). The availability of play and activity areas in the neighborhood is crucial for young people's everyday movement (Book, 2012). Also, factors such as transportation options to, from and within the area are important (Book, 2012). Economic opportunities to own a car gives families the opportunity to let the children have activities in more inaccessible areas. In addition, higher socio-economic status often means more power and better access to information, which provides greater insight into the city's offerings and furthermore access to it (Book, 2012).

Issues of segregation in general needs to be addressed both through holistic and area-based interventions, i.e., analyzing the impact of interventions in one neighborhood on another, and working in a site-specific and holistic way at the same time. Otherwise, there is a risk that the regeneration of an area creates contrasts that make neighboring areas appear more run-down and deprived, leading to stigma and prejudice that can damage the areas in question socially (Boverket, 2010).

5.1 Discussion of method

The purpose of using the 'Mind the G.A.P.S.' framework was because the educational value of concretizing and simplifying the values of well-being made the study more straightforward and created a clear delineation and an illustrative basis for discussion. This facilitated the structuring of both the document study and the interviews and provided a clear limitation of approaches, which in turn limited the scope of the work and created a clearer focus. However, the interviews revealed a lot of other information that was considered valuable, but which from the perspective of the framework did not fit into the thesis. A more flexible approach would have made all the information useful for the research question. However, the delimitation of the framework demonstrated the complexity and scope of issues related to well-being in the urban environment, and the difficulty of concentrating environmental qualities referring to well-being into single points. At the same time, the framework further emphasized the importance of concretizing the values for well-being, to simplify discussions and create clear objectives and focus areas.

The framework is primarily designed to serve as a basis for discussion, but also as an explanatory summary of research related to health and well-being in the urban environment, providing an evidence-based basis for urban planners' decision-making in planning processes. If the 'G.A.P.S.' dimensions are considered when planning, there is also a good chance of encapsulating values that provide the conditions for health and well-being. Furthermore, by using the 'G.A.P.S.' as an analytical and measuring tool, the framework can also be used to conduct a comprehensive review of the health and well-being conditions of an urban environment, possible to carry out also when an area is not finished at later stages of a development.

The process of deciding on cases and selecting documents to study was done through open dialogue with staff at the City Planning Office. The cooperation was good, and the help very useful, though worth mentioning is the risk of unintentional bias that can arise when recommendations come from those working in the field, where outstanding good examples may take precedence over less good ones. The search for documents and literature was difficult, and in the course of the work, new documents were discovered which made the amount of data grow. Thus, a screening was done throughout the work process for relevant material, so as not to make the reading too extensive. A clearer and more efficient structure of the data collection would have facilitated the process and allowed a deeper reading of selected sources.

The interviews were conducted digitally, which made the process more time efficient. The disadvantage of digital interviews is the risk of loss of data, as conversations may not fall as naturally as in real life. Follow-up questions may not reveal themselves as easily and focusing on relevant areas seemed more difficult to maintain. What might have helped would be to send out some (but not all) of the questions for the interview in advance, to allow the interviewees to reflect on their answers before the interview was conducted. This could have led to deeper, more unified, and clear answers, but naturally also create the risk that answers were biased and constructed, rather than spontaneous.

5.2 Minds the G.A.P.S. – discussion of dimensions

What the framework seems to be missing, and that is pointed out both by the interviewees as well as stated in the visionary documents, is the importance of beautiful environments for health and well-being. There is a value in feeling a sense of belonging and pride in one's city or area of residence, and therefore aesthetically high-quality architecture as well as outdoor environments are of great importance (Building permit architect B; Building permit architect A). Furthermore, sensory values, referring to concerns for user-friendliness, enjoyment, visually gratification and conscious work on elements of smell, light, and air, are not explicitly addressed in the framework. Features of sensory qualities will make the urban scene an attractive place to be in, as stated in the Comprehensive plan (2018). The reason why these qualities are not included in the framework may be due to the intention that the framework should act as a strategic instrument to implement *new* dimensions, i.e., dimensions that are already established or implicit in urban planning become redundant in the framework. However, there is a point of bringing important dimensions together and making the framework clear and rich in content, while keeping it concise but substantive in its design as it makes it clear and user-friendly.

The dimensions of 'safe places' seems to be the more complex and richer dimension, which is also the most difficult to grasp. Issues of safety and security, both perceived and actual, are difficult to delineate. Matters of aesthetic qualities of an urban environment can have an impact on the feeling of security, i.e., that the place feels cared for and not forgotten, which are aspects of the dimension that are not addressed in the framework. For instance, aspects like how buildings are placed on a lot, and the relationship between them creates the design of the courtyard, which is important for the spatial encounter between inside and outside, and

how different areas relate to each other and work together with their surroundings (Building permit architect C; Building permit architect D).

Another aspect that emerged from both the document study and interviews with professionals in the urban planning sector is that the contents of the ‘G.A.P.S.’ framework seems to benefit from being in balance. In other words, too much social life and no space for restoration, or too much open green spaces with too little topography and terrain that makes it interesting, may cause imbalance or dysfunction in the urban space. Too many safety measurements that take away curiosity and the desire to explore the city is also something that must be taken into consideration. Just like well-being is a complex concept that relies on several different components to be strong and durable, the balance of ‘G.A.P.S.’ needs to be thought through, so that not one dimension dominates the other that in its turn may cause problems rather than solutions. The framework needs to be used both holistically and on local levels, to ensure that all dimensions are implemented and together can create conditions for well-being in the urban environment.

6. Future research

This thesis explores the work on social sustainability, health, and well-being in the urban planning of the city of Malmö. To concretize what the values and components of well-being in an urban space are, and thus what factors should be reviewed, the framework ‘Mind the G.A.P.S.’ was used. With urbanization underway globally, and mental ill health on the rise worldwide, it is vital that environmental measures are considered and researched further to ensure the best possible conditions for people in urban environments to lead healthy lives, both mentally and physically.

6.1 The relative usefulness of G.A.P.S. framework and needed improvements

What became clear from this thesis is that hard measurable values have priority over soft values, which seems to be based on an uncertainty and lack of understanding about what the soft values are and how they can be used, as well as what significance they can have in a societal perspective. The ‘G.A.P.S.’ framework is a way of explaining what content is important in urban space in terms of social sustainability, health, and well-being, and attempts to concretize these dimensions to make the idea system tangible. As suggested in the discussion of the thesis, other dimensions were found worthy of further study, and could

possibly be added to the dimensions of the framework to broaden the scope. Similar schemes for other qualities of urban space can both raise awareness of their importance and give a chance for their actual implementation. By generating data on the positive effects that health and well-being interventions can have on a population, this can create an economic incentive for both municipalities and private actors to invest in these types of interventions, with a long-term and sustainable goal in mind. By learning from the ‘Mind the G.A.P.S.’ framework and drawing inspiration from successful places in other countries and cities around the world, there is great hope that the urban environment can become a green, active, pro-social, safe, and perhaps beautiful environment, for health and well-being.

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8. Appendix

Interview guide

INTRODUCTION

Your professional role and part in the project in XXXX?

PROJECT

Can you tell us about any project in the city that you find particularly interesting from a social sustainability perspective?

How has it been conceived? What has been the starting point?

PERSPECTIVES ON URBAN DEVELOPMENT AND HEALTH

How would you describe the relationship between the design of the environment/places and people's well-being? What is important?

How do you talk about well-being/health/well-being in the context of urban planning? Can you give concrete examples?

Which factors/elements of urban space would you say have the greatest impact on well-being? Mental health? Physical health? Please tell us in general.

PROJECT

If we take a closer look at the area in question. How have health and well-being issues been addressed in the work on these areas? How are these issues dealt with specifically in these areas?

I was going to list a number of dimensions around well-being that I would like to see how you think about these and people's health and well-being.

G A P S

Green places.....

Active places.....

Pro-social places.....

Safe places.....

PRIORITIES

We have now had a dialogue about your perspective on these issues - what does it look like in the borough as a whole?

What place do health and well-being issues have in the planning/design process?
What do the priorities look like to you?

CLOSING QUESTIONS

Can you suggest/introduce people who are interested in this area or work in this area that I can talk to next?