



# RECLAIMING SOCIAL ASPECTS IN SUSTAINABLE DEVELOPMENT

## – Urban agriculture in Cuba

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## **Abstract**

The state of the world's cities today forces us to address the issue of sustainability. More people are moving in to the cities and urban planners and designers are put to a challenge of dealing with this by creating a livable environment. Social aspects of sustainability within urban planning and design have been less acknowledged than the environmental and economical aspects. In Cuba a movement of urban agriculture sprung to reduce food crises in the early 90's and has now created new elements in the townscape. At the same time movements in many developed countries have started urban farming activities as well, mainly due to social and environmental reasons. This thesis focuses on the appearance of social aspects in municipal urban agriculture in Havana, Cuba. The method used is abduction through observations on five sites in Havana, Cuba. To narrow it down and make the analysis concrete Social Impact Assessment is used as a framework for the observation. The thesis reveals a number of social aspects that are promoted through the municipal urban agriculture in Havana, such as food access, employment, social gain and sense of place. It distinguishes what factors in the physical environment that promotes the social aspects, such as social and spatial context, connections, use and integration. It also reveals that the soft aspects of social sustainability are weakly promoted by the urban farms analyzed. Finally it presents a design proposal of how the social aspects can be further increased through urban agriculture by enhancing the factors found important in the analysis, such as public environments, integrating different functions and connecting the farms with the urban fabric.

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## **Introduction**

When starting this thesis I had a certain mindset. I came with the experience I have from my life, for example my living situations, my culture, my studies, my practice and many more. I believe that it is this that has shaped my idea of a thesis topic and I believe that it will shape parts of the outcome of the thesis as well. Therefore I consider it rather important and interesting for the reader to know what I thought before starting my thesis.

I started my work in August 2013. I had an idea that I wanted to go abroad and do a "Minor Field Study" and apply for a scholarship. The aim was set to Latin America due to a personal interest and the field of study was social aspects of sustainability in the urban development. In the course "Architectural leadership" I formed a scope concerning social aspects in the city, chose Cuba as my country and applied for a scholarship. The scope I had at that time was quite broad and all I knew was that I wanted to work with social aspects in the urban development and that I wanted to do field studies in Havana, Cuba.

My idea at this time was that Cuba, along with many other Latin countries, has another social fabric in their communities than we do in Scandinavia. From my previous experience in Latin America I pictured it to be more open and with strong ties within the communities, that people knew each other, cared and spoke daily. I wanted to study this and connect it to social sustainability and urban design. I wondered what effects these social fabrics created, how they appeared, if it was something special in the urban design that promoted them and if they could be improved even further. This means that I went into this thesis to learn more from Cuba in terms of social aspects in the city. I thought that I would meet something good, but I also thought it would be interesting to see if I could improve the quality of these elements through my skills as an urban designer and with my experience from Sweden and Europe.

What I found out from my first studies was that urban agriculture was something big in Cuba due the crisis in the 90's. A development that is small but growing in Sweden is actually very well developed in Cuba and especially in Havana, though for other reasons than in Sweden. I found my perfect target. Again I created a preconception and had a picture of these urban gardens flourishing in the neighborhoods of Havana, the neighborhood facilitated it, every household was involved in some way, it produced food, created working opportunities and a social platform to meet, all around the urban agriculture plot. I did not think it was perfect, but I thought it was a good start and that I could come with interesting ideas of developing them to be even better and at the same time learn from what I see. I wanted to link what could be found on these sites with social sustainability through an academic approach to both show how physical implementations/urban design can promote social sustainability and to give the project strength by previous research. Let's see what I found.



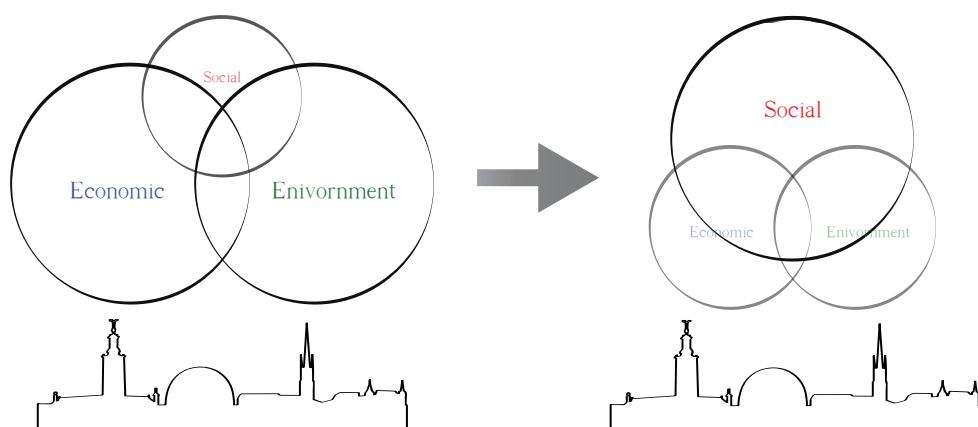
# 1.0 Background



*In urban development the three ground pillars of sustainability are to be acknowledged equal, but research show that the least studied of these three is the social dimension.*

## 1.1 Bigger issue

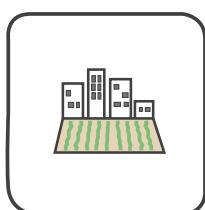
Today there are expanding urban areas all over the world and there is a need to deal with this progress in terms of environmental, economic and social sustainability (United Nations, 2012). The strive is to develop cities that can help us reduce our ecological footprint and at the same time keep our standard of living high. Architecture and urban planning play a big role in forming our cities in a sustainable way. We have the opportunity to influence transport systems, greenery, built environment and for the most make the components in a city work together. Sustainability is often described with the three ground pillars; environmental, economic and social (Dempsey et al., 2011). In urban development the three ground pillars of sustainability are to be acknowledged equal (Spangenberg & Omann, 2006), but research show that the least studied of these three is the social dimension (Amir Ghahramanpour et al, 2013). To be able to reach balance between the three ground pillars I believe that we need to put equally much emphasis on them. Social sustainability is important to be able to create long term solutions in urban development and it contributes to progress of the other two ground pillars as well. Due to the fact that the social aspects have dropped behind I will shift from the general focus and target the social dimension in this report.



*One answer to respond to the crisis  
after the collapse of the socialist block  
was to start farming activities within  
the cities.*

## 1.2 Societal problem

When it comes to developing countries little is known regarding the social aspects of urban densification (Seema Dave, 2009). It is acknowledged that cities in developing countries are rapidly growing due to economic growth and at the same time they struggle with infrastructure, housing problems and urban poverty (Seema Dave, 2009). Cuba faced a crisis in the early 90's due to the collapse of the socialist block which lead to a decline in most of the social indicators, such as inequality, poverty, health, social security and unemployment (Mesa-Lago, 2005). They managed to climb up from the bottom reached at 1993, but were 2003 still under the levels of 1989, meaning that both poverty and inequity had risen. Social sustainability and the built environment thus is a current issue in Cuba. One answer to respond to the crisis after the collapse of the socialist block was to start farming activities within the cities (Strömdahl, 2010). This was foremost to produce food but has as well made an impact on the cityscape and created new elements and activities in the public and semi-public spaces. Similar activities have started to grow also in the western world, including Sweden, even though not for the same reason. The agriculture activities have, apart from producing food and employment, shown to create social values such as empowerment of the people, higher morale and solidarity, community pride, clean-up of neighborhoods and possibilities for relaxation, leisure and exercise (Altieri, 1999). These are social values that can be linked to both social equity and sustainability of the community (Bramley and Power, 2009). So far the movement of urban agriculture is growing, but there are some threats that have been pointed out. Altieri (1999) describes the movement as an answer to the crisis and lack of food resources and puts it in relation with Cuba's role in the global market. Now Cuba is slowly opening up towards the global market which could threaten this movement with imports of food from other countries, leading to a less sustainable future (Altieri, 1999). Quon (1999) brings up the issue of competition for urban land and the lack of knowledge regarding urban agriculture among planners. All in all, the social values of urban agriculture could play an important role of sustaining this activity and to change the current view of urban agriculture as something that only produces food.



Implementing agriculture in  
the city. Producing food and  
social qualities, how?

*...there is a distance between the scientific approach and the actual implementation...*

## 1.3 Research problem

There is a clear disagreement around the social dimension in sustainable development. The subject often embraces a split vision of goals, assumptions and indicators, and foremost it is unclear what social matters really are and what type of dynamics there are within (Beate Littig, Erich Grießler, 2005). Beate Littig and Erich Grießler (2005) argue that there is a distance between the scientific approach and the actual implementation, and that ideas often become subject to deformation and selectivity in the political process. To make the social dimension easier to implement I aim to look in to how social sustainability/ quality could appear in the physical environment of urban agriculture and also other green elements, such as parks, in the city, and how the social aspects can be improved through design.

## 1.4 Research questions

- *How does social sustainability appear/perform through the urban agriculture development in Cuba?*
- *How can social sustainability potentially be improved through urban agriculture in Cuba?*

The aim with these questions is to find support and argumentation from findings on social sustainability both in research and through observations of existing urban agriculture and other green elements in Cuba and then translate these findings into design. By doing this I hope to be able to bring research into the practice of architecture and urban design when it comes to social sustainability, and vice versa.

## 1.5 Methodology

The thesis consists of 75 % theoretical work and analysis and 25 % design work. Below follows the structure and methodology.

### **Preparatory work**

The first period, in Sweden, consisted of specifying what aspects of social sustainability that maybe important in a Cuban context and in the context of urban planning and design by doing desk research. This included as well a study of urban agriculture in Cuba to see if there were any interesting social aspects of it that could be found in advance. The literature used was e.g. Mesa-Lago (2002, 2005, 2009), Colantonio (2009) and Vallance et. al. (2011) for the social aspects in general and the urban planning and design perspective. For the urban agriculture Altieri (1999), Gonzalez Novo(2000) and Mougeot (2000) was studied. The aim was to find out what type of social aspects that are needed/important, if urban planning and design can help improving them and especially through urban agriculture. A framework was also developed to create a foundation for my field analysis. Three topics out of four from The Social Impact Assessment (SIA) (Göteborgs stad, 2011) was used to form the framework.

### **Site analysis**

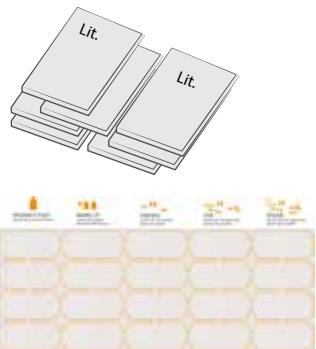
When in Havana field studies were conducted with analysis of three urban farming sites and three parks. Abduction was used as a method (Wikipedia, 2014), meaning that empirical studies (observe, take notes, photos, measure and sketch) were used to map out each site from the factors listed in the SIA framework (see page 13). By doing this conclusions could be made of which social aspects that were promoted on the site, by which factors in the SIA and how they were designed. Then the results were merged from the urban farms and the parks to create the foundation for the design criteria.

### **Design and reconnection**

After the field study and analysis the result was shaped into design criteria for the design proposal. The design criteria states what is important to include when designing urban agriculture in Cuba from a social sustainability perspective. The design is then presented and also relinked to the social aspects targeted to pinpoint the aim and the purpose with the design proposal.



### Preparatory work



Starting off with literature studies the aim was to find out what social aspects that are important in the Cuban context and how they can be enhanced through urban design and urban agriculture.

The SIA was shaped as a framework to analyze the sites and the social aspects that are important in the context.



### Site analysis



2-3 urban agriculture sites and 2-3 parks were then analyzed. Observations and analysis were made to show how the different factors from the SIA occur on the sites and what social aspects that were promoted. This created the foundation for the design criteria.



### Design and backtrack



From the outcome of the analysis design criteria were made for the proposal, arguing what is important when designing urban agriculture and how it should be designed to promote social aspects. The design proposal is then presented and reconnected with the social aspects targeted.

## **Social Impact Assessment**

The factors listed to the right, taken from the Social Impact Assessment theory (Göteborgs stad, 2001) were used as a framework for the observations. The reason for choosing the Social Impact Assessment as a framework is because the factors cover a broad spectrum of the physical environment when it comes to social impact, giving a possibility to make a wide and thorough analysis of the existing situations regarding social aspects. Each factor were analyzed on site and linked to the social aspects targeted with the analysis. The aim with this method was to make clear what in the physical environment (what factors) that promoted the social aspects and how (by what type of design/relation), to be able to form design criteria from the analysis.

## **Social Impact Assessment**

### **- Factors**

#### **Coherence**

Social and spatial contexts-  
Connections  
Variety and mixture  
Continuity  
Location of public functions  
Health  
Safety

#### **Interaction**

Integration  
Meetings and contacts  
Participation  
Common arena  
Private - public environments  
Orientability  
Security

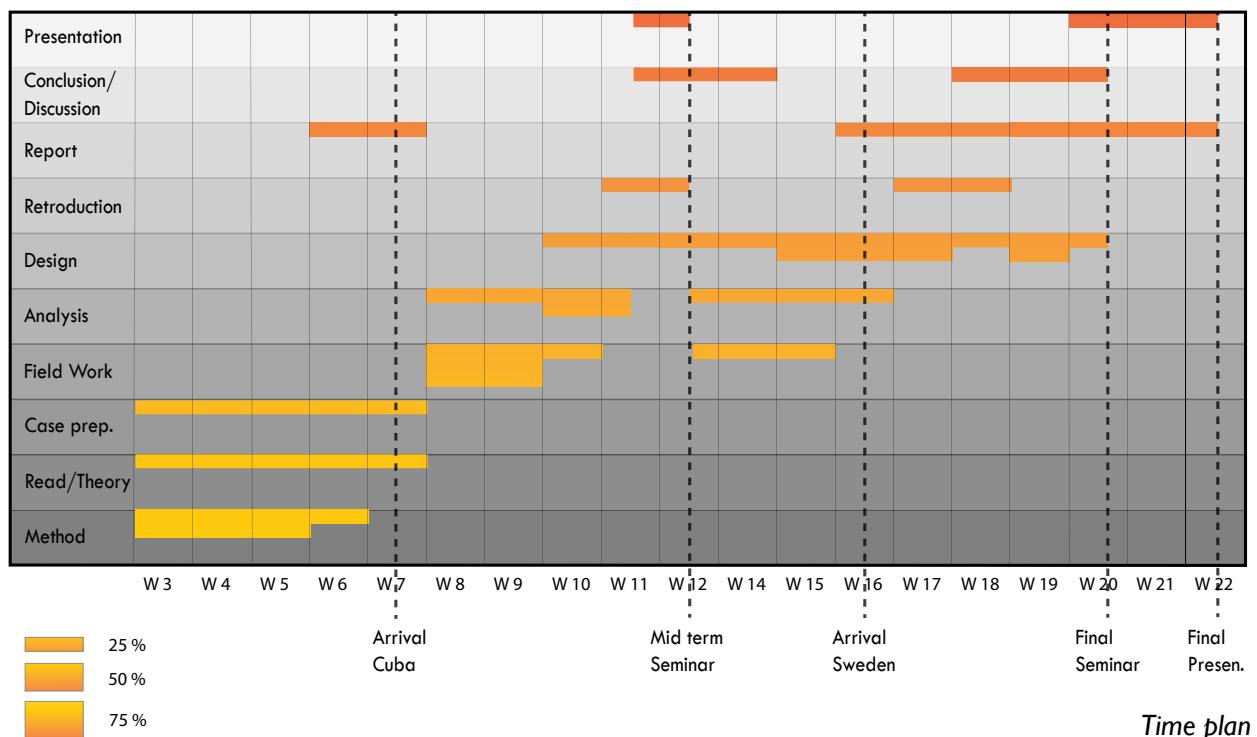
#### **Everyday activities**

Use  
Location  
Different needs, life situations  
Range and variety  
Service and activities  
Availability  
Range and proximity  
Safety

*Göteborgs stad, 2011.*

## 1.6 Time plan

The time plan for the thesis was divided into three different periods and also shows the mid-term seminar in the middle. The first period was before going to Cuba when the focus was on preparatory work for the field study, theory and method. The second part consists of the time spent on Cuba where the focus was on field work, analysis and later starting the design work. The third and last part of the time plan was after the arrival to Sweden. The focus was on the design, conclusion and discussion and finishing the report.





# 2.0 Desk research



## 2.1 Sustainable development

The notion of this work takes part from the strive for sustainability and a sustainable development.

The United Nations (UN) is leading a common work for sustainable development along with the nations that are members of the organization. Different agencies in the UN are working together and individually with many tasks and goals striving for a sustainable future of the world, including our cities (UN-HABITAT, 2006). In the common goals are economical, environmental and social sustainability, and the relation in between them (UN-GA, 2012).

The issue of sustainable development is acknowledged by the 193 member states of the UN General Assembly (GA) and in 2012 a resolution was adopted called "The future we want" (UN-GA, 2012). The document was created on the Rio de Janeiro conference held in June, 2012. The resolution contains an annex with 283 points under different headings treating sustainable development and the process so far.

In this thesis the focus is on the social aspects of sustainability and sustainable development.

## 2.2 Social sustainability

Starting off wide, social sustainability is often seen as one of the three ground pillars frequently used to describe sustainability (UN-GA, 2012). Even though the three ground pillars are to be acknowledge equal (Spangenberg & Omann, 2006), there is a general agreement that the social aspects has fallen behind in policy making and in research (Colantonio, 2009) (Ghahramanpour et al, 2013).

The concept of social sustainability is complex and the definition vary, sometimes being rather chaotic, regarding to which literature used (Vallance et al, 2011)(Colantonio, 2009)(Dempsey et al., 2009). One reason for this is the wide context in which social issues are debated, leading to different definitions according to the perspective of the study or in which discipline the concept is used (Colantonio, 2009). In some cases the often used definition of sustainability in general; "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs", from the Brundtland report, Our Common Future (UN, 1987), is used to define social sustainability as well (Vallance et al, 2011). This definition is though fairly wide. To be able to narrow it down I have studied different literature handling the issue of definition and the wide concept of social sustainability. Polese and Stren presents a definition that is targeting a number of parameters within the concept:

“... development (and/or growth) that is compatible with harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups while at the same time encouraging social integration, with improvements in the quality of life for all segments of the population.” (Polese and Stren, 2000:15-16)

This definition explains quite well the different parameters within social sustainability; development/growth, evolution of civil society, environmental issues, diverse groups, integration and quality of life. The research conducted under the topic of social sustainability focus on different parts within the definition above. On one hand basic needs and underdevelopment, such as; work, food, energy and sanitation or population growth, decision making and economical relations are addressed, when others focus on changing the behavior and pattern of the wealthier population in the world, trying to promote environmental ethics (Vallance et al, 2011). This shows that the relation between the three dimensions of sustainability (environmental, economic and social) is rather unclear whether the social dimension is either working for goals on its own (e.g. basic needs and under-development etc.) or if it is a tool to support the environmental dimension (through environmental ethics)

(Vallance et. al., 2011) (Colantonio, 2009). It also indicates that the concept of social sustainability can look different or be more or less relevant depending on where in the world it is contextualized. Social sustainability in the context of the so-called “Third World” and “First

World” can address different issues. Vallance et al (2011) refers in one way to social sustainability as social development and as something that might be achieved. This way of looking at the definition is mostly used in the context of less-developed or developing countries. When looking at the definition from a “First World” perspective, where basic development such as access to food, shelter, energy and sanitation have been achieved, these issues might not be relevant (Vallance et. al., 2011). Instead the issue of social capital, cohesion and exclusion is brought up. Bramley and Power (2009) narrows the concept of social sustainability down to the issue of social equity (e.g. access to services, facilities, and opportunities) and the issue of sustainability of the community itself (e.g. level of interaction, participation, pride, stability and security). Depending on the context, either one or both of the issues can be addressed. Colantonio (2009) also divides social sustainability into two parts; hard and soft, which are fairly similar to social equity and sustainability of the community described Bramley and Power (2009). The hard social sustainability addresses issues such as employment and poverty and soft social sustainability focuses on happiness, social mixing and sense of place.

*This shows that the relation between the three dimensions of sustainability (environmental, economic and social) is rather unclear...*

Vallance et. al. (2011) have narrowed it down in a different way to three categories of social sustainability; development sustainability, bridge sustainability and maintenance sustainability. The first category, development sustainability, is rather similar with Bramley and Powers (2009) social equity and Colantonio (2009) hard social sustainability, meaning meeting the basic needs of people. “Bridge sustainability” is covering the aspect of social sustainability in terms of a tool to change the behavior or pattern of people to promote the environmental dimension of sustainability. The “Maintenance sustainability” category is managing the face of change in society, whether important socio-cultural characteristics can be sustained and new changes in society can be embraced by the people.

From this review I draw the conclusion that within social sustainability different issue can be addressed depending on the context worked in, e.g. “Third World” or “First World”, or discipline, e.g. architecture, biology, social science, etc. The concept is wide and for my research and purpose I need to be clear with what parts of social sustainability I am targeting.

## 2.3 Cuban perspective

To be able to move on with the research I need to position myself further in the concept of social sustainability according to my discipline and my context. I will try to address the social sustainability issues of Cuba through my research questions.

- > How does social sustainability appear/perform through the urban agriculture development in Cuba?
- > How can social sustainability/quality be improved through the urban agriculture development in Cuba?

To be able to answer these questions I need to find out what social sustainability is in a Cuban context, what aspects of social sustainability is lacking in Cuba according to research and how does it appear/perform or can it be improved through urban design/urban agriculture.

Starting off with social sustainability in general, research has been conducted regarding the crises that Cuba went through in the 1990's after the collapse of the socialist block in Eastern Europe (Mesa-Lago, 2002, 2005, 2009). Most of the social indicators declined due to the crises and reached the bottom in 1993. Due to market-oriented reforms in the mid-90's the social indicators improved but had 2008 not reached up to the levels of 1989 (Mesa-Lago, 2009). Among the social indicators measured are poverty, inequality, housing, unemployment, food, education, health and social security. These indicators can be related to hard social sustainability, social equity and development sustainability, described earlier in this report. In

relation to the development of the social indicators presented by Mesa-Lago, the rating of Cuba in the United Nations Development Program (UNDP) has progressed from a Human Development Index (HDI) of 0.626 in 1980 (before the crises), to 0.690 in 2000 (after the crises) and 0.780 in 2012 (~today), which places them on the 59th place in the world ranking, under "high human development" (UNDP, 2013). The HDI of Cuba is though discussed and criticized by Mesa-Lago (2002). The research of Mesa-Lago and the result from the UNDP is clearly not coherent since Mesa-Lago argues that the social indicators have not reached the levels of 1989 when UNDP is showing a clear progress of the HDI from 1980 until 2012 (latest figures) (Mesa-Lago, 2002, 2005, 2009)(UNDP, 2013).

According to Mesa-Lago (2005) there are no official statistics on poverty incidence but Cuban estimates shows an increase among the urban population from 6 % to 20 % between 1988 (before the crisis) and 2002 (after the crisis) and at the same year, 2002, 31 % of the urban population of the capital, Havana, considered themselves to be poor. The inequality is also likely to have risen due to segmented markets and the fact that part of the population receive remittances from abroad (Mesa-Lago, 2005). The issue of unemployment is hard to measure and Mesa-Lago (2005) considered the official numbers, 2.3 % in 2003, to be doubtful and estimates, roughly, himself the unemployment rate to have been 21 % in 2000. A discussion whether jobs are needed or not is also relevant since Mesa-Lago (2005) presents facts that for example the expansion of employment has been mainly in the service sector, but at the same time the productivity in the same sector has gone down. When it comes to food Cuba has a rationing system. Before the crisis the system covered the basic needs of the people when it comes to nutrient (Mesa-Lago, 2005). Although now the food rationing covers only 1/4 of the monthly consumption and the rest has to be obtained in the free market, which can be problematic with the income levels of Cubans (Mesa-Lago, 2005). The education has not been heavily affected by the crisis and both elementary and secondary education are at the same levels that of 1989. The biggest drop was to be found in the university level in the fields of agronomy, natural science (32 %, 1989-2003) and mathematics, technical studies (57 %, 1989-2003)(Mesa-Lago, 2005). Before the crisis the health in Cuba was ranked the highest in the region. During and after the crisis all the health indicators declined, except infant mortality, and the quality of health deteriorated. The population of Cuba is the second oldest in the region but the age of retirement is the lowest, leading to a long and costly retirement period (Mesa-Lago, 2005). The real pension has decreased and at least 20 % of the retired are considered to be poor (Mesa-Lago, 2005). Housing is considered to be the most serious social problem in Cuba. Construction has declined, and the condition of the existing houses are in many cases not satisfactory.

By reviewing the work of Mesa-Lago I can compile a number of social indicators that need to be worked with in Cuba. He is addressing social issues related to the hard social sustainability, social equity, and

*Among the social indicators measured are poverty, inequality, housing, unemployment, food, education, health and social security.*

development sustainability described earlier in this report and brought up by Colantonio (2009), Bramley and Power (2009) and Vallance (2011). The statistics from UNDP (2013) shows that the country's development in terms of Human Development Index has gone up, ranked as a high developed country in the latest report. This indicates that it also might be relevant to look into different types of social sustainability, for example sustainability of the community, soft social sustainability, maintenance sustainability and bridge sustainability, as well described earlier in this report and by Vallance (2011), Bramley and Power (2009) and Colantonio (2009). Which issues that can be addressed by me is also limited to the ability to influence them through urban agriculture and urban design.

## 2.4 Urban agriculture

Urban agriculture is simply defined by Zezza (2010) as production of agricultural goods by urban residents. Within this definition a split can be made to distinguish intra- and peri-urban agriculture shedding light over differences between agriculture in the central parts of a city and in the borderland to the rural (Mougeot, 2000). These different types of urban agriculture vary often in size and techniques.

The urban agriculture development started to grow rapidly in Cuba after the collapse of the Socialist Block in the 1990's (Altieri et al, 1999). It was an answer to the decreasing level of food security and economic crisis that lead people in to action on their own, producing both food and employment. Urban agriculture has been seen mostly as a tool to secure food resources for people within the city (see e.g. Zezza, 2010 and Mougeot, 2000), but it has also been found that it is often environmentally sustainable due to reduction of food miles and decrease in use of pesticides and artificial fertilizers (Viljoen and Bohn, 2009). From this aspect it can be argued that urban agriculture contributes to economical sustainability in the way that it gives people access to an extra income and employment, environmental sustainability since it reduces food miles and use of pesticides and artificial fertilizers and social sustainability in the way that it creates working opportunities, food security and increase health, which are related to hard social sustainability, social equity and development sustainability described earlier in this report.

The existence of urban agriculture has been discussed in the field of urban planning and design (e.g. Quon, 1999, Mougeot, 2000, Viljoen and Bohn, 2009, Altieri et al, 1999). One issue brought up is the fact that urban agriculture compete for urban land (Quon, 1999). The current urbanization going on in the world has led to pressure on land within our cities, raising the question whether there is enough land in our cities to host agriculture (Quon, 1999). A specific issue for Cuba is brought up by Altieri (1999). He describes the urban agriculture movement as an answer to the crisis and lack of food resources and puts it in relation with Cuba's role in the global market. Now Cuba is slowly opening up towards the global market which could threaten this movement with imports of food from other countries in turn leading to a decrease of urban agricultural and therefor a less sustainable future due to increased food miles (Altieri, 1999).

These issues lead to the topic of urban planning and design. Viljoen and Bohn (2009) made a study to see if urban agriculture could be part of a sustainable urban design, not compromising with the urbanity or the compact city. In the conclusion they found that urban agriculture could be an essential element of a sustainable infrastructure within cities. This relates to a definition of urban agriculture from Mougeot: "It is not its urban location which distinguishes UA [urban agriculture] from rural agriculture, but the fact that it is embedded in and interacting with the urban ecosystem." (2000: 9). This definition corresponds well with the result from Viljoen and Bohn (2009), that urban agriculture should not be seen as a separate element in the urban fabric, rather as an integrating element within the urban fabric.

This integrated element is not only in the city eco-system but as well in the social dimension of a city. Altieri et al (1999) have conducted research in Cuba and found that urban agriculture led to empowerment, solidarity and higher morale. This generated a community pride and clean-up of the neighborhoods, which in turn also led to leisure, exercise and relaxation. These results are verified by others as well, for example Gonzalez Novo and Murphy (2000) states that population retrieved a higher standard of living and found more participatory channels for action through urban agriculture , Quon (1999) states that urban agriculture can improve the economy of the community and improve qualities of life, such as beautifying the community or providing recreational activities and Viljoen and Bohn (2012) lifts the general social gain of urban agriculture. These qualities correspond to soft social sustainability and sustainability of the community, earlier described in this report. Further on Quon argues that there is a need to better understand the role of urban agriculture in communities and how it affects urban residents in their social lives, that planners in general know little about urban agriculture and its effects and that it is often not regulated through planning (Quon, 1999). This indicates that urban agriculture, seen as something that produces more than food, could be an important and qualitative element in the urban fabric due to its social, economic and environmental values.

Another issue brought up is the public perception of the public landscape. Viljoen and Bohn (2009) states that the public distinguish between "working landscape", such as urban agriculture, and "leisure landscape", which has a clear programme of aesthetics and leisure. One challenge is to convince both the public and the planners that urban agriculture can function as both. Why can not vegetable plants be as decorative as flowers? And how big of difference must there be between an urban agricultural landscape and a park? Here Viljoen and Bohn (2009) states that it must be demonstrated and communicated that urban agriculture can bring more qualities to a city than just producing fruits and vegetables.

*It is not its urban location which distinguishes UA [urban agriculture] from rural agriculture, but the fact that it is embedded in and interacting with the urban ecosystem.*

When the urban agriculture in Havana started it lacked design criteria due to the fact that it was crisis and a solution was needed fast, which often lead to an unconsidered design and layout (Viljoen and Bohn, 2009).

## 2.5 Conclusion

I draw the conclusion from this literature review that social sustainability is a complex concept that can be addressed different in relation to context and discipline. In the case of urban design and urban agriculture in Cuba the social dimensions of sustainability are relevant both in terms of hard social sustainability, social equity and development sustainability as well as soft social sustainability and sustainability of the community. The issues of bridge sustainability and maintenance sustainability are also relevant and urban agriculture has a potential in these aspects of social sustainability as well.

In hard sustainability, social equity and development sustainability the urban agriculture play an important role in relation to food production, employment and health, which in turn promotes social and income security.

In soft social sustainability and sustainability of the community urban agriculture play an important role by being able to generate empowerment, solidarity, higher morale, community pride, clean-up of neighborhoods, leisure, exercise and relaxation (all combined to recreation later on in the report), sense of place and social gain. Which are important features promoting health, long term sustainable communities, safety and happiness (quality of life).

In bridge sustainability the urban agriculture play an important role generating social structures and urban forms that are environmentally friendly through locally produced goods generating reduced food miles and less use of pesticides and artificial fertilizers, which are important for Cuba's long term environmental sustainability.

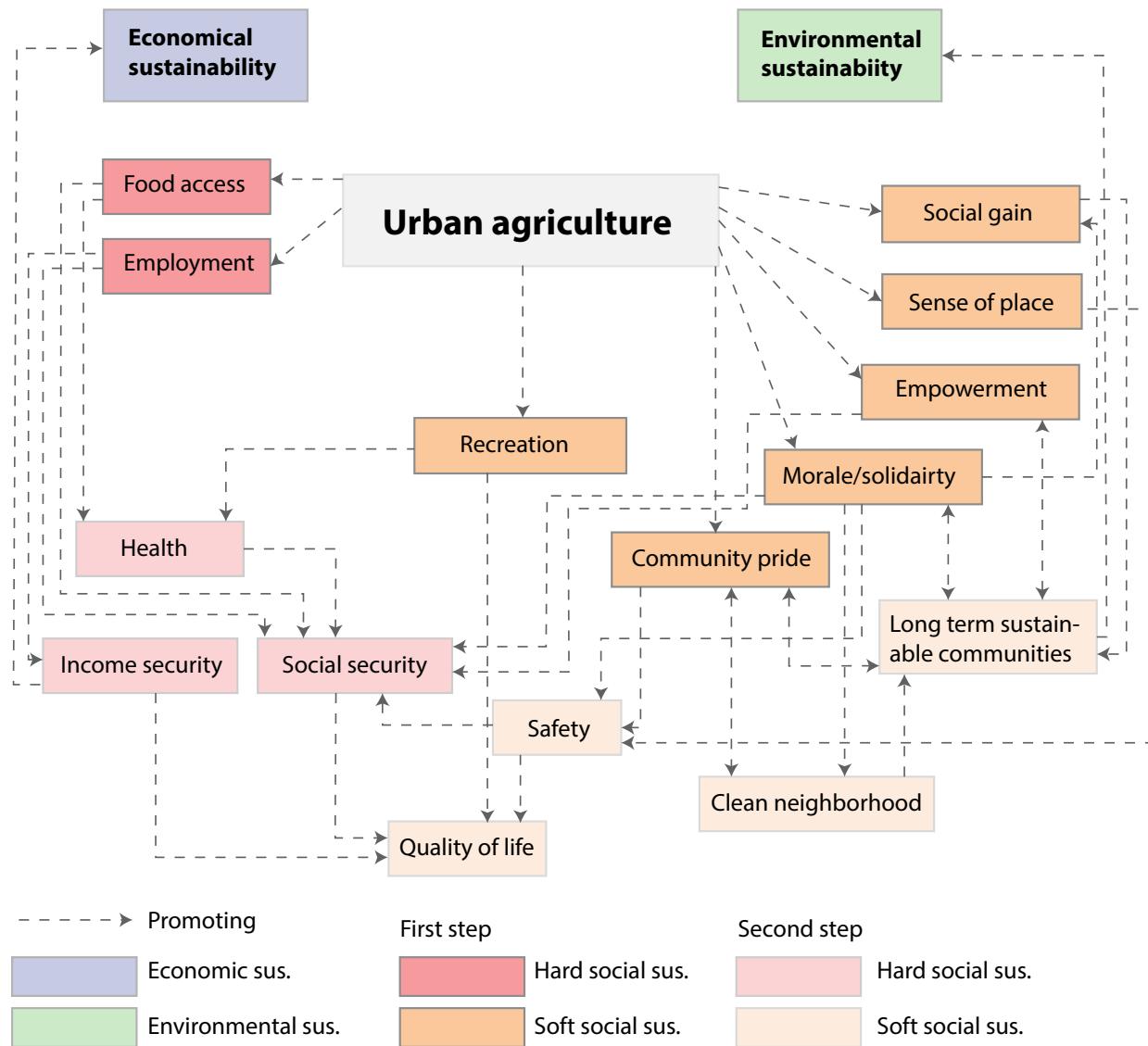
In maintenance sustainability urban agriculture play an important role in creating social structures that can help keep the urban agriculture despite the threat of the global market Cuba is opening up to and the economic growth of Cuba, preserving environmentally sustainable alternatives to access food.

Hard and soft social sustainability (or similar social equity and sustainability of the community) are aspects of social sustainability that are wide and stretches over a broad spectrum of situations like the one Cuba is positioned in at the moment, somewhere in between the need of hard social sustainability and the possibility to develop the soft social sustainability. Therefore the focus in this report has been on hard and

soft sustainability. The illustration in the next spread is showing the relations between urban agriculture and the different social aspects found in the literature.

The challenge is, according to the research read, mainly the competition for urban land and the threat from the global food market. By strengthening the urban agriculture by design in a way that it creates as much social qualities as possible and at the same time produces food, it can be argued that the value of urban agriculture as an urban element can be higher and therefore more likely to be preserved as an integrated part of the urban fabric, despite the threats mentioned.

## 2.6 Mapping of social aspects through urban agriculture



The mapping shows the relations found between urban agriculture and social aspects according to the literature. The first step of aspects affected by urban agriculture (strong colors, divided in hard and soft social sustainability) are the aspects that potentially can be *directly* influenced by urban agriculture. In the second step are aspects that potentially can be affected in the *long run*, but not directly by the design or layout of the urban farms. As an example, a clean neighborhood is not directly promoted by the urban farm, it is through the community pride and morale and solidarity that the aspect of clean neighborhood is promoted. Therefore the aspects from the first step will be the focus in the analysis. Safety has been added as an important aspect because of the situation with theft in Cuba. The aspect of safety was something that was found influencing the design and layout of the urban farm analyzed and is a crucial variable for the urban farms to exist, therefore it has been added in the aspects targeted with the analysis.

	Food access	Access and production of food.
	Employment	Employment possibilities.
	Social gain	Interaction, integration, contacts and meetings.
	Recreation	Leisure, relaxation and exercise.
	Sense of place	Awareness of the site by creating a special character, attachment and belonging.
	Community pride	Pride among the people living, working or using the site.
	Morale/solidarity	Morale and solidarity among the people living, working or using the area.
Hard social sustainability	Empowerment	Individual power/possibilities of the people living, working or using in the area.
Soft social sustainability	Safety	Safe installations of the food crops.

*The social aspects taken from the literature that will be targeted with the analysis.*



# 3.0 Analysis



## 3.1 Social Impact Assessment

The Social Impact Assessment (SIA) (Göteborgs stad, 2011) consists out of four topics of which I will use three; Coherence, Interaction and Everyday activities. The fourth one, Identity, is hard to analyze with the chosen method and is therefore not included. Under the three topics chosen, several factors that affect the social impact in an area (social aspects) are listed. Health, safety and security is not included (placed in brackets) because they are also considered to be social aspects in this case. The factors in the SIA are related to the physical environment and bring up different variables that all effect the social aspects in an area. By analyzing the variables and their relation to the social aspects targeted the aim is to find what in the physical environment that is promoting (or reducing) the social aspects in the areas. The SIA is developed in a Swedish context and is in this report used in a Cuban context. The factors listed in the SIA are broad terms and each factor has been analyzed from the specific sites. The method is tested in a Cuban context and will be criticized in the discussion later on in this report.

To create my framework for the site analysis I started off with selecting the social aspects relevant from the literature studies that are directly affected by urban agriculture. For example quality of life and long term sustainable communities is not included because they are broad terms that are not directly affected by urban agriculture and can therefore not be analyzed in the SIA framework, but they are affected in the next stage by the other social aspects (see mapping of social aspects through urban agriculture on page 25).

The social aspects targeted are:

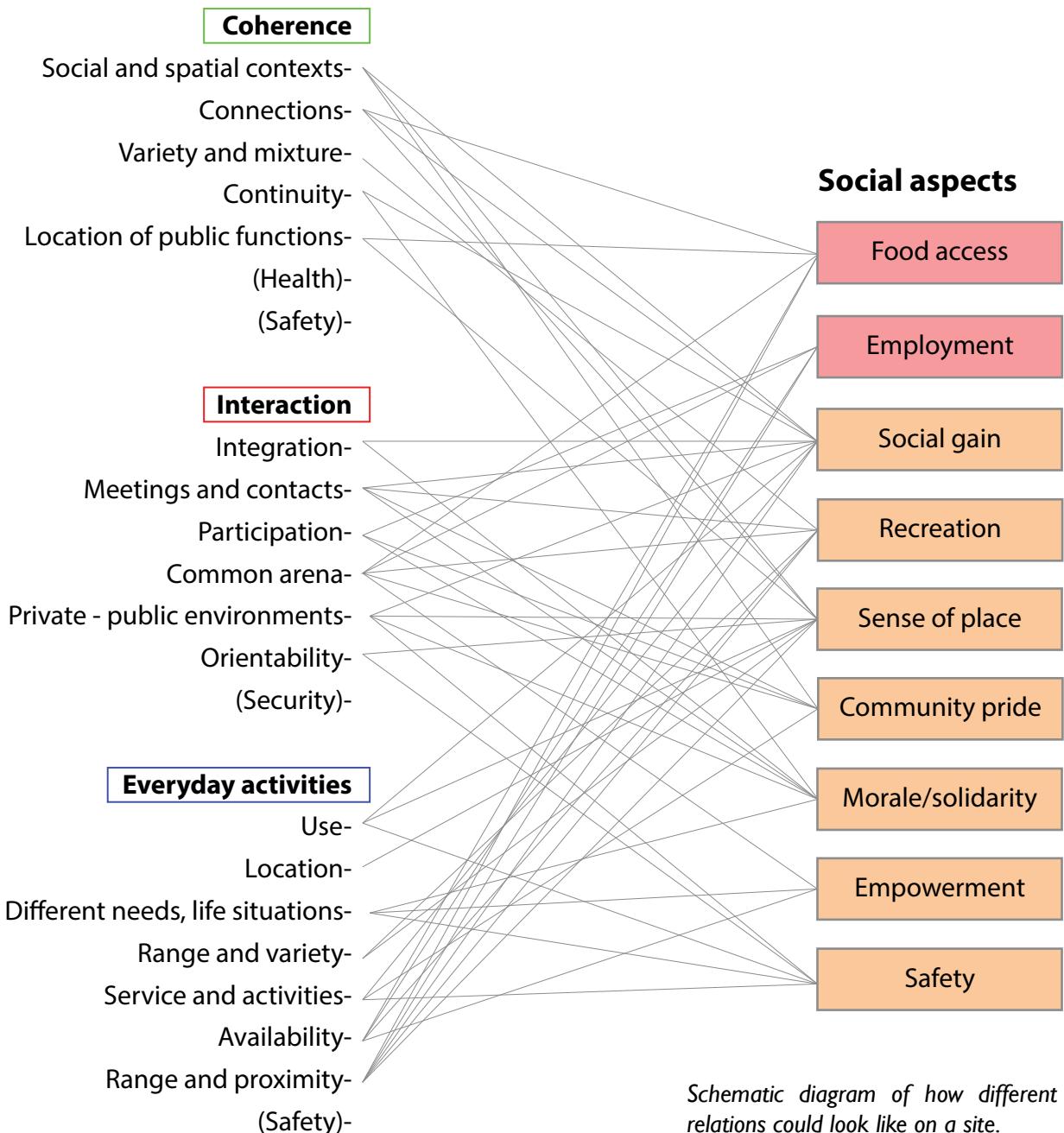
**Hard social sustainability aspects:** Food access and employment.

**Soft social sustainability aspects:** Social gain, recreation, sense of place, community pride, morale, solidarity, empowerment and safety.

In the site analysis I have argued which social aspects that have been successfully responded to and through which factors. For example, a site might through a certain design or element create meetings and contacts (factor in the SIA) that promote social gain (social aspect).

Both the factors and the social aspects have been flexible during the analysis, meaning that they both were able to be reduced or added on to if relevant information was found when conducting the site analysis.

## Social impact assessment





## 3.2 Site analysis

The site analysis are carried out on five different sites. Two of the sites are municipal run urban farms, two are municipal run parks and greeneries and the fifth site consists of both a municipal run urban farm and park. The sites are chosen by me after I have visited a number of places within central Havana and its suburbs. I have also gotten tips and ideas from my contact person, Dr. Dania González Courret. The site analysis aim to represent a variety of size, location and surroundings. I have excluded peri-urban agriculture since the focus is to study the social relationship between the farms/green elements and the urban life.

The site analysis will be presented and explained from the Social Impact Assessment framework described earlier in the report. Each heading in the framework will be touched upon and presented in text, drawings, maps and photos.



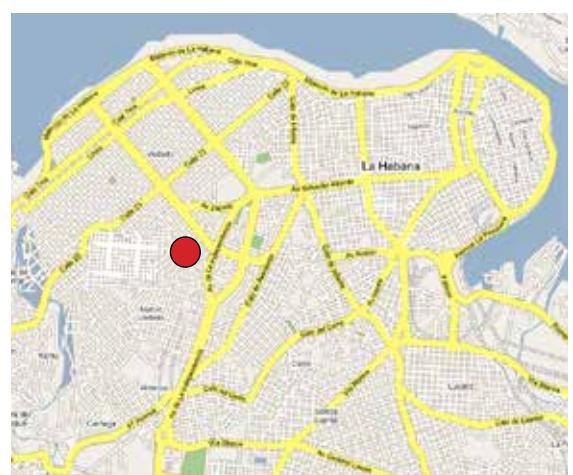


### 3.2.1 Site 1; Organopónico Nuevo Vedado

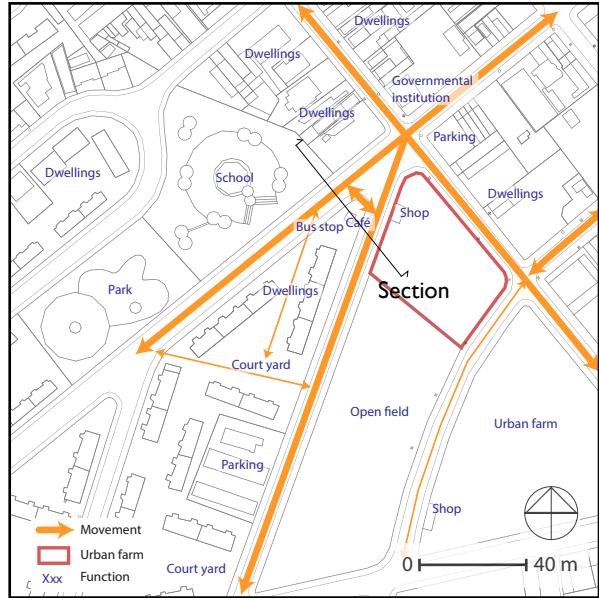


#### Short description

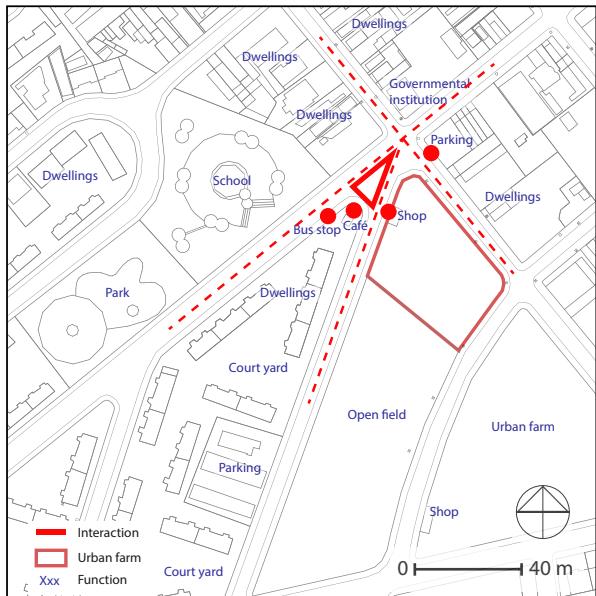
The urban farm in Nuevo Vedado is located South-West of the most central parts of Havana. It is a dwelling area hosting single houses, 3-4 stories apartment buildings and some buildings up to 15 stories. It is in walking distance to the lively parts of Vedado with big avenues, cultural events and hotels. A few blocks east of the area is the great Plaza de la Revolución with several governmental institutions and historical features. The area is fairly calm but still busy, it hosts a mix of social classes, small activities and services.



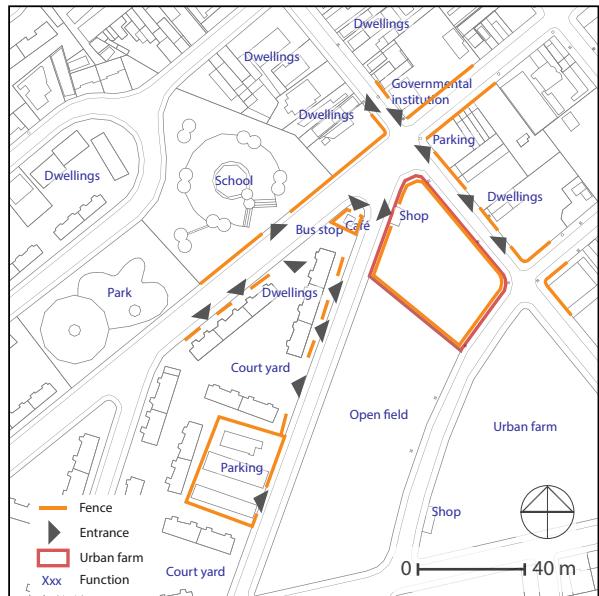
The area around the urban farm in Nuevo Vedado is busy with people walking through the area in every direction, mainly on the streets but also some through the open dwelling area West of the urban farm. The conjunction where the urban farm shop is located is the most active part of the area hosting some services and shorter meetings. The area consists of mainly dwellings but a school, a governmental institution, café and the urban farm is also found. Most of the places surrounding the streets are sealed off with fences, hedges or walls, making the streets the only places accessible. The urban farm is as well sealed off and is entered through the shop on the North-West side.



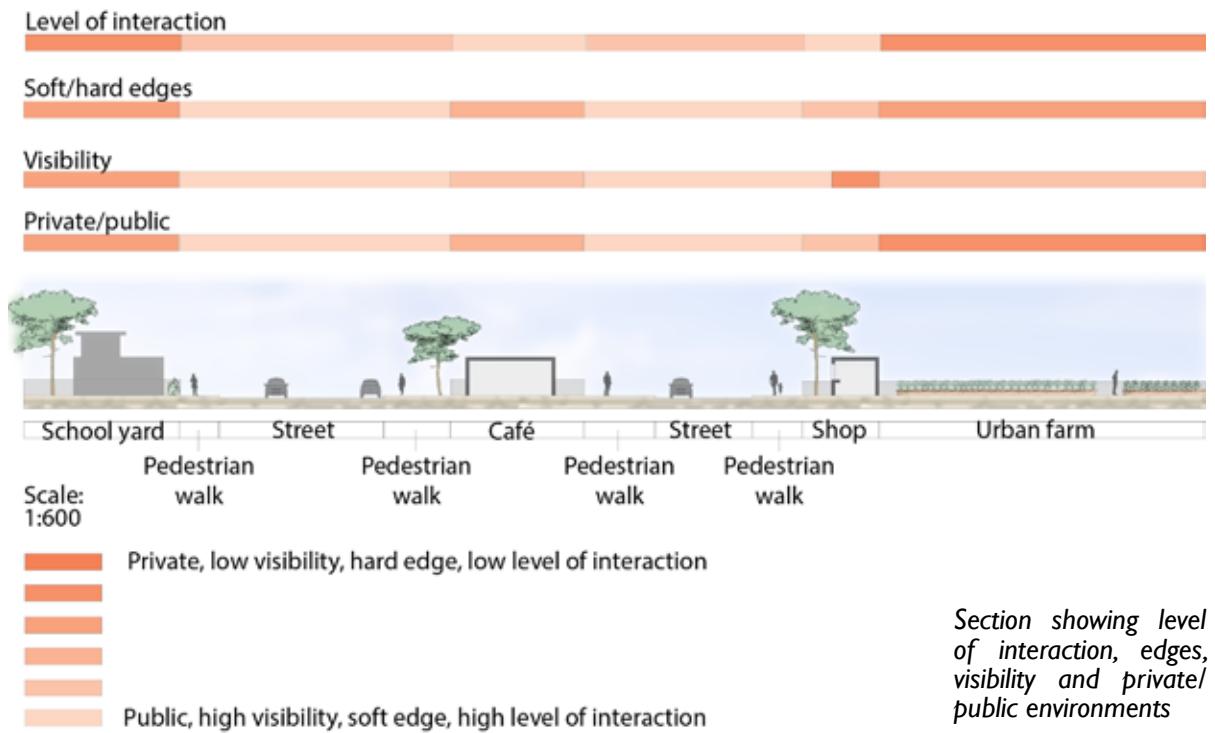
Movement



Activity and interaction



Entrances and fences



The streets are the only fully public places in the area also providing orientation, visibility and possibilities for interaction. Some of the areas surrounding the streets, including the urban farm, are not accessible and got poor connection with the streets.

#### 30 min observation around the urban farm and the shop. Weekday, Sunday and evening

	Weekday	Sunday	Evening
Pedestrian/Bicycles	190	160	91
Cars/motorcycles	132	95	45
Working in the farm	4	1	0
Shop visitors	19	0 (closed)	0 (closed)
Café visitors	11	30	0 (closed)
Chatting/sitting down	11	12	8

## Coherence

### Social and spatial context

The streets function as connections, public spaces and meeting places. People are frequently moving on the streets, sometimes stopping for a chat or to buy somethings. The dwellings are clearly distinguished from the streets, they all have fences and/or hedges. The same goes for the urban farm which is sealed off with a fence of spikes not inviting to enter but visually connected. The only way to interact with the urban farm is to go to the small shop which is located in the North end, close to the conjunction and the most busy part of the neighborhood. Opposite to the shop, facing the conjunction there is a café which hosts guests frequently every hour. The bus stop has very little service and during the day it serves as a place to sit down in the shadow. The urban farm is isolated and placed individually on the other side of the streets from the dwelling blocks, it got no clear relation to the surroundings and it is only the people working there that are inside. West of the urban farm is a field of high grass not programmed at all. It creates a physical and visual barrier disconnecting the southern parts from the northern.

### Connections

The streets are the only connections in the area. The grid pattern divides the blocks into squares or triangles with straight streets. In this area there is no clear hierarchy among the streets, they serve as more or less equally important connections.

### Variety, continuity and mixture

The area consists mostly of dwellings in two to four stories. West of the big field are higher buildings of 15 stories. The only open spaces are the urban



*The picture shows the wide streetscape functioning as connection, public space and meeting place. It is a shared space with conditions deterred by the cars.*



*The urban farm is sealed off with a fence. It got good visibility but excludes the public from any interaction. It creates hard edges and works as a barrier in the area.*



*The streets are the only connections in the area.*



*The buildings vary in heights from two to 15 stories creating different typologies in the areas. The open field is visible to the left in the picture.*



*Since the streets are a shared space between pedestrians and cars situations occur when pedestrians are vulnerable crossing a street when cars pass with speed.*



*The main integration take place on the sidewalks, at the bus stop, in the café and at the shop. People stop for a short chat on the sidewalks or even in the streets.*

farm and the field. Two semi-private small parks are located between the four stories buildings, a bit run down, no shadow and not used by anyone during the observations. In the area some services are offered; school, parking/car service, café, urban farm shop and a bus stop. In the area people of all age and gender move, pass by and stop for a short chat.

### **Safety**

The cars drive fairly fast and there are no designated places for crossing the streets, the cars have priority. The two stories dwelling areas, school, parking area and urban farm are fenced off from the streets.

## **Interaction**

### **Integration, meetings and contacts**

The streets are the arena for integration, meetings and contacts. A lot of people are passing by and mostly smaller exchange of phrases take place. The café, urban farm shop and the bus stop function as places to meet and linger, especially the café and the bus stop invites people to sit down and stay longer. The different elements in the streetscape function much on their own, the streets, café, urban farm shop and the bus stop, little integration is found in between them except for the entrances to the shop and the café.

### **Participation**

None found. The people working in the urban farm are the same every day and are employed. There is no participation between the café and the urban farm, the shop only serves as a place in the neighborhood where the people can buy vegetables.

## **Common arenas, private/public environments**

The streets are the only public environments in the area. They host the only possibility for a common arena but are dominated by cars. The private environments are distinguished by fences and people seem to only care about their own property which makes the edge between the public and the private even more distinguished. There is no fully open public space which offers seating possibilities and shadow.

## **Orientability**

The area is fairly easy to navigate due to the grid pattern and distinct edges of the private and public environments. This creates well defined spaces, maybe too well defined, and does not invite to take off in any direction than the designated. The only undefined area is the field west of the urban farm.

## **Security**

The area is calm, private areas such as the car parking are protected with guards and fences.

## **Everyday activities**

### **Use**

It is mostly dwellings in the area but also the urban farm, shop, café, school, some parking areas combined with car service and the streets where cars, motorcycles, bicycles and pedestrians are. Most people pass by, some stop at any of the services available, some small talk takes place and some people linger on the place at the bus stop, café or the urban farm shop. People work in the café, urban farm, shop, and parking/car service areas.

### **Different needs and life situations**

The area is a middle class dwelling area in need of



*The urban farm is sealed off by a fence and the only people allowed in are the ones working. The farm is designed to produce food, only.*



*The rest of the private property are also sealed off by fences or walls. This defines what is private and what is public, creating hard edges and restraining integration.*



*The few public functions located in the area are the shop and the café. They function as meeting places and thus their sizes they are fairly frequently visited.*



*Among the dwellings located North-West of the urban farm there are two open court yards. They seem to be unused and lack shadow.*



*The availability in the public spaces are good. The private and semi-private places are sealed off and not always very inviting. The picture shows the café.*

different everyday services, recreation and meeting places. A few more working opportunities could benefit the area in being active during the whole day. The adaption to handicapped and elderly are as poor as in the rest of the city.

#### **Availability**

The public functions are open for those who want and can (e.g. pay in the café). The streets are open for all but dominated by cars. It is not adapted well for handicapped and elderly. The private environments are strictly private and distinguished by sharp edges. There is though quite a lot of free space, but poor possibilities for any other use than transport and passing by. The urban farm is closed and not available for the public.

## Conclusion

The urban farm in Nuevo Vedado is not very well integrated with the rest of the area. It is placed individually on the opposite side of the dwellings, sealed off with a fence and not open for either the ones living in the neighborhood or the public. However it is visually connected, got a small shop in the north end facing the busy conjunction creating a minor meeting place and an opportunity to buy locally produced and cheap vegetables - mainly responding to the hard aspects of social sustainability.

### Food access

The urban farm in Nuevo Vedado has a clear purpose, produce food and sell it to the people in the neighborhood, giving food access. The fact that the farm has a clear *use*, the *availability of service*, the shop as a *public function* and its *connection* with the streets and surroundings are the factors promoting the food access.

### Employment

To run a municipal farm employment is needed, the *use* of the farm is the main factor promoting employment.

### Social gain

The interaction and coherence of the urban farm is weakly promoting the social gain in the area. The shop, as a *public function*, is promoting some *meetings* and *integration* around it. The farm is through its shop also *connected* to the public street creating both a *social and spatial context* in the area.

### Sense of place

The urban farm creates a visual impression because of its *use* and *variety/mixture* (growing food in an otherwise hard concrete surrounding), promoting a sense of place. The shop which is functioning as a focal point and *public function*, also hosting *meetings*, strengthen the sense of place as well.

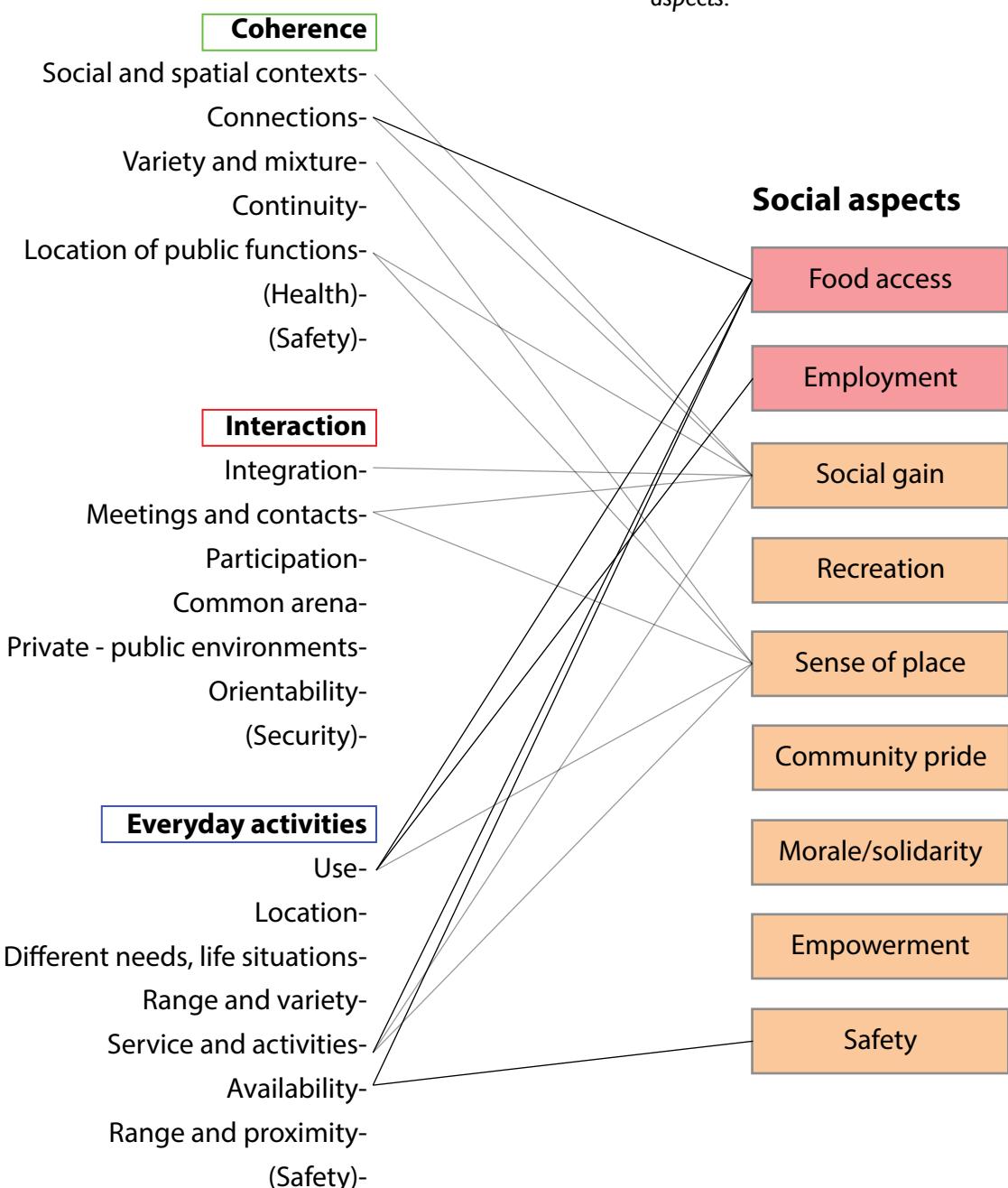
### Safety

Safety is mentioned mostly in the aspect of safety of the actual property (the food crops) in this case. The lack of availability is in one way promoting the safety for the crops. The urban farm is not contributing to any general safety in the area.

Recreation, morale and solidarity, empowerment and community pride were not responded to according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.



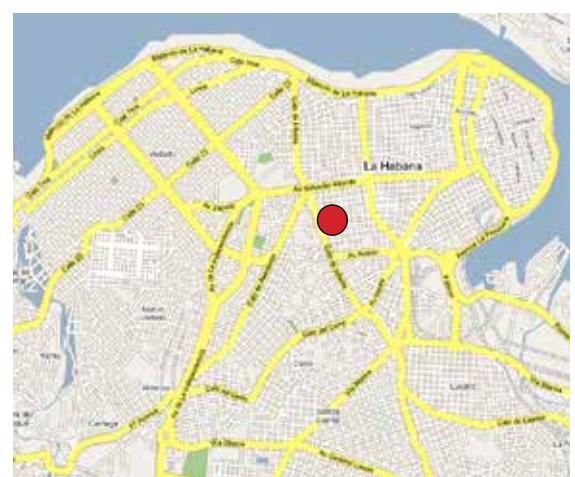


### 3.2.2 Site 2; Organopónico 24 de Febrero

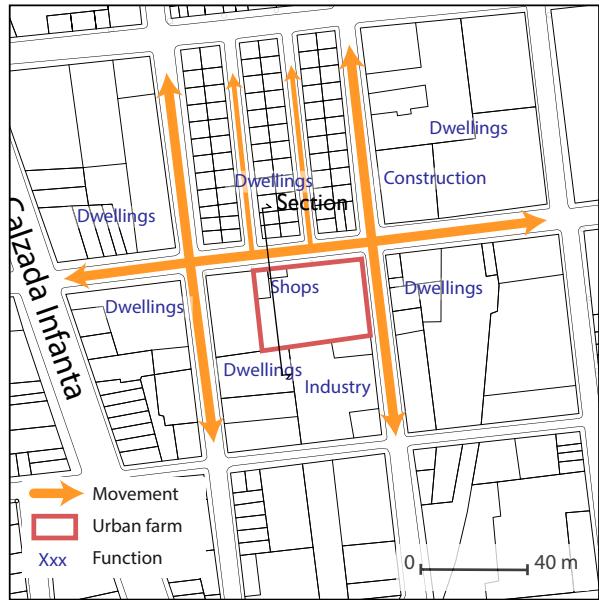


#### Short description

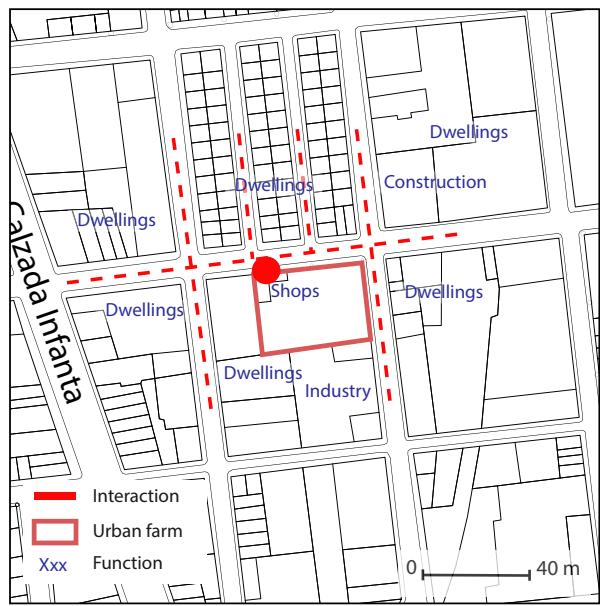
The urban farm 24 de Febrero is located in the most central parts of Havana. It is a dense area with a mix of different uses. The site itself is a bit hidden away from the more busy streets of Calzada Infanta and Avenue Salvador Allende offering a variety of services and public connections. The urban farm is fairly small and squeezed in between dwellings and an industry. It hosts two types of shops in one of the corners selling food and plants to people living nearby.



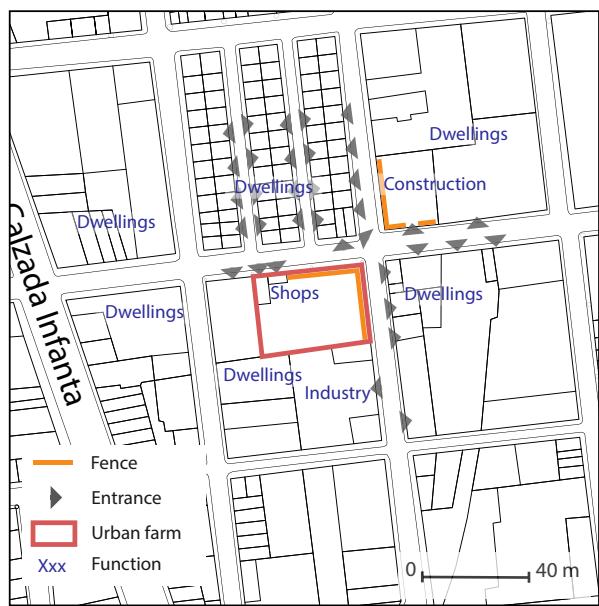
The two streets outside the urban farm are fairly quiet. A big number of the people passing by are actually visiting the shops when they are open. The area is dense with mainly dwellings but also an industry and a construction site of what looks like an old house. There are no open spaces except for the urban farm, which is sealed off with a fence around it and as well a hedge on the North side, decreasing the visual relation to the street. The interaction is taking place on the streets and mainly in and outside of the shops where a lot of people come and go. It is not possible to walk anywhere except for the streets, where cars also pass.



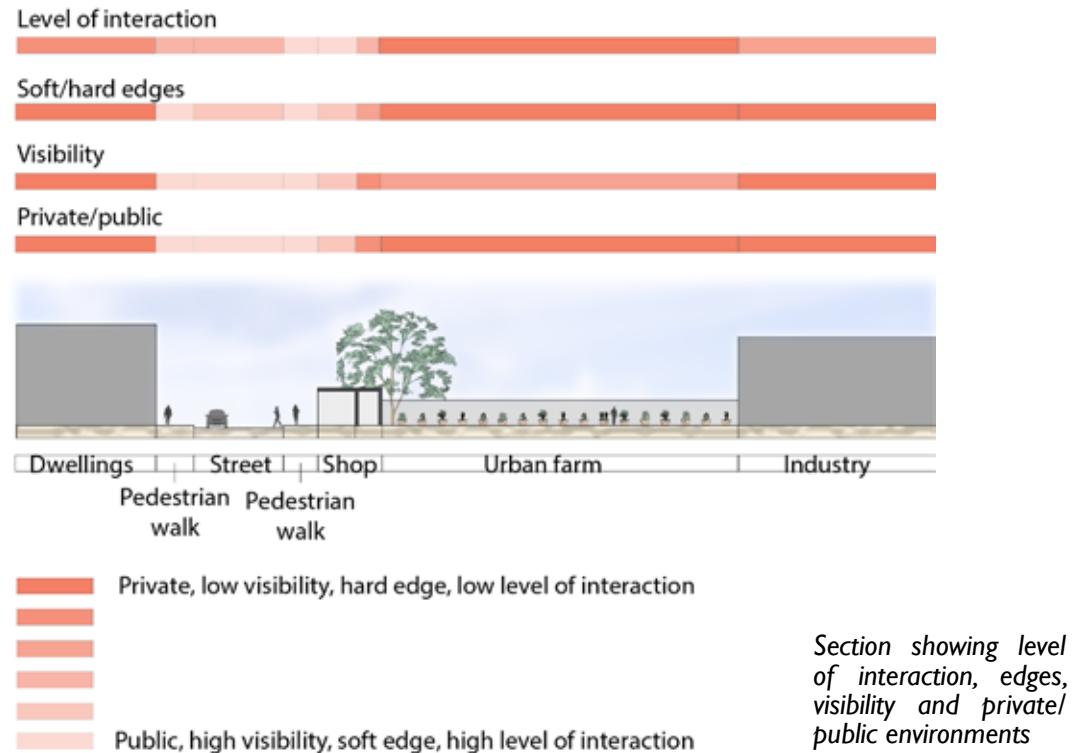
*Functions*



*Activity and interaction*



*Entrances and fences*



The streets are narrow and are the only places accessible for the public. The streetscape is shared between cars and pedestrian but with the cars having the priority. A lot of activity take place on the sidewalk and in the shops.

30 min observation around the urban farm and the shops. Weekday, Sunday and evening.

	Weekday	Sunday	Evening
Pedestrian/Bicycles	141	103	39
Cars/motorcycles	30	21	9
Working shop/farm	6	2 (closed)	0 (closed)
Shop visitors	52	0 (closed)	0 (closed)
Stopping/Chatting	15	1	9

## Coherence

### Social and spatial context

The urban farm is surrounded by buildings in South and West and streets in East and north. It is closed towards the streets with fences around it and vegetation covering the farm partly visually. The shops are located in the North-West corner, one selling fruits and vegetables and one selling decorative plants and herbs. The shops faces the street with welcoming entrances and a clear sign. Mainly the fruit and vegetable shop is frequently visited. People passing on the street drop in for a chat or to buy something and even cars stop right next to the sidewalk outside to make a quick purchase. The farm it self does not contribute in the social context but ease up the dense dwelling blocks with open space and greenery, affecting the spatial context. The site lacks any type of meeting place where people naturally can stop, sit or relax. The dwellings are placed directly next to the sidewalk with entrances and windows facing the narrow streetscape.

### Connections

The area has a grid pattern of streets dividing the dwellings into blocks with entrances facing the sidewalks. The shops are connected to the streets with open entrances, welcoming signs and good visibility. The urban farm has its entrances through the shops only and is therefore not connected to any of the public spaces in the area.

### Variety, mixture and continuity

The area is dominated by dwellings, got some small scale industry and commercial activities but very little greenery. The buildings are mostly two stories with one building going up to four. North-East of the urban



*This picture shows the surrounding buildings of the farm and the farms connection to the street in the east. It is sealed off with a fence and got no entrance.*



*People move along the streets and a majority stays either outside the shop or goes inside for shopping or talking. The shops are the social hub in the area.*



*The area has a traditional grid pattern connecting it to the bigger streets and public spaces. This picture shows the street outside the shop and the crossing further ahead.*



*The urban farm is surrounded by buildings and streets. The area is dense but the buildings are often not more than two stories. It is a variety of dwellings and industries.*



*The picture shows one of the shops related to the urban farm. This part of the urban farm integrates well with the street and invites people enter.*



*Most of the meetings and contacts take place outside of the shops. People linger on the street passing by or before or after they have visited the shop.*

farm is a demolished building waiting for construction.

#### **Location of public functions**

The bigger avenue, Calzada Infanta, located two blocks to the West, has a variety of public functions offering most of what is needed. On the site the two shops located together are strengthening the sense of place.

### **Interaction**

#### **Integration**

The dwellings are clearly distinguished from the streets with their facades and lack of interface, but have entrances and windows facing the street. The shops open up towards the streets making people passing by to stop, go in, buy something or talk for a while either inside or outside of the shops. People come from every direction to visit the shops and a majority of the people passing by on the street also make some kind of interaction around the shop. The urban farm is not integrated at all due to the lack of access and visibility.

#### **Meeting and contact**

Meetings take place on the streets and foremost around and in the shops where people linger. Some people stay a long time in the shop eating lunch which they have brought with them. It is hard to say whether the people staying in the shops are working or just killing time. Shorter meetings and contacts take place on the streets, foremost in the corners and conjunctions.

#### **Participation**

The fact that there are two types of shops located on the same site creates a kind of small cluster. They help each other bringing customers to the site.

## Common arena

The only common arenas are the streets which serve the needs quite poorly due to lack of space and the domination of cars.



*The two shops are located right next to each other, often visitors visit both of them creating a kind of cluster. It is unclear whether they share the duty working in the farm.*

## Private and public environments

The streets are the only fully public environments in the area. Otherwise it is dominated by private buildings, yards and the urban farm. The semi private/public places are the shops.

## Orientability

The orientability is easy due to the grid pattern, though it is not possible to see various directions because of the dense building structures, the streets are the only directions opening up.



*The streets are the only way to orientate in the area and the only place public. The sidewalks are narrow but due to the fairly easy traffic it is possible to walk in the street.*

## Everyday activities

### Use

The urban farm is only used to produce food and plants sold in the shops. The shops are mainly for purchases but also function as meeting places. The buildings nearby are not multi-functional and are used as dwellings or small scale industry. The streets are used mainly for transportation but is also hosting shorter meetings and contacts.

### Different needs and life situations

The area is a middle/working class area that hosts most of the services needed in the surroundings, except greenery, such as parks. It is about as poorly adapted to elderly and handicapped as the rest of the city.



*The urban farm is with its narrow paths and raised boxes designed only for producing food. There are no multi-functional elements in the area.*

### Range, variety and proximity

The area is fairly monotone in its layout but has the urban farm, some industry and Calazada Infanta



*The area is a middle/working class area in fairly good shape. It is rather monotone in its layout heavily dominated by dwellings and streets.*



*Apart from the shops there are few services in the area. South of the urban farm is an industry. It is strictly private and does not contribute to the social aspects in the area.*



*The availability in the area is poor except for the streets. The urban farm is sealed off and in the north it is not even possible to see into the farm.*

offering both variety and proximity. The only thing lacking is as mentioned greenery close to the area. The urban farm offers greenery in a sense but is not open for the public and has only one use.

#### **Services and activities**

There is a small amount of services and activities in the direct surroundings of the urban farm and its shops. The activities are mainly drawn to Calzada Infanta. The fact that neither the streetscape or the buildings invite for any activity except transportation makes the shops the only places activated.

#### **Availability**

The urban farm is not available for anyone but the ones working there. The shops and streets are available for all, even though you do not want to buy anything you can always go in and just have a look or chat. The houses have closed facades and no activity in the ground floor.

## Conclusion

The urban farm 24 de Febrero was found to be fairly similar with the urban farm in Nuevo Vedado. It has one clear focus, producing and selling food, and is poorly integrated with the surroundings in general, except for the shops.

### Food access

The urban farm 24 de Febrero has a clear purpose to produce food and sell it to the people in the neighborhood, giving food access. The fact that the farm has a clear *use*, the *availability of service*, the shop as a *public function* and its *connection* with the street and surroundings are the factors promoting the food access.

### Employment

Employment is promoted by the *use* of the site for food production and sale.

### Social gain

The interaction and coherence of the urban farm is weak but still promoting the social gain in the area. It is foremost the shops, as *public functions*, that are promoting some *meetings* and *integration* around them. The farm is through its shops also *connected* to the public street creating both a *social and spatial context* in the area.

### Sense of place

The urban farm creates a visual impression because of its *use* and *variety/mixture* (growing food in an otherwise hard concrete surrounding), promoting a sense of place. The shop which is functioning as a focal point and *public function*, also hosting *meetings*, strengthen the sense of place as well.

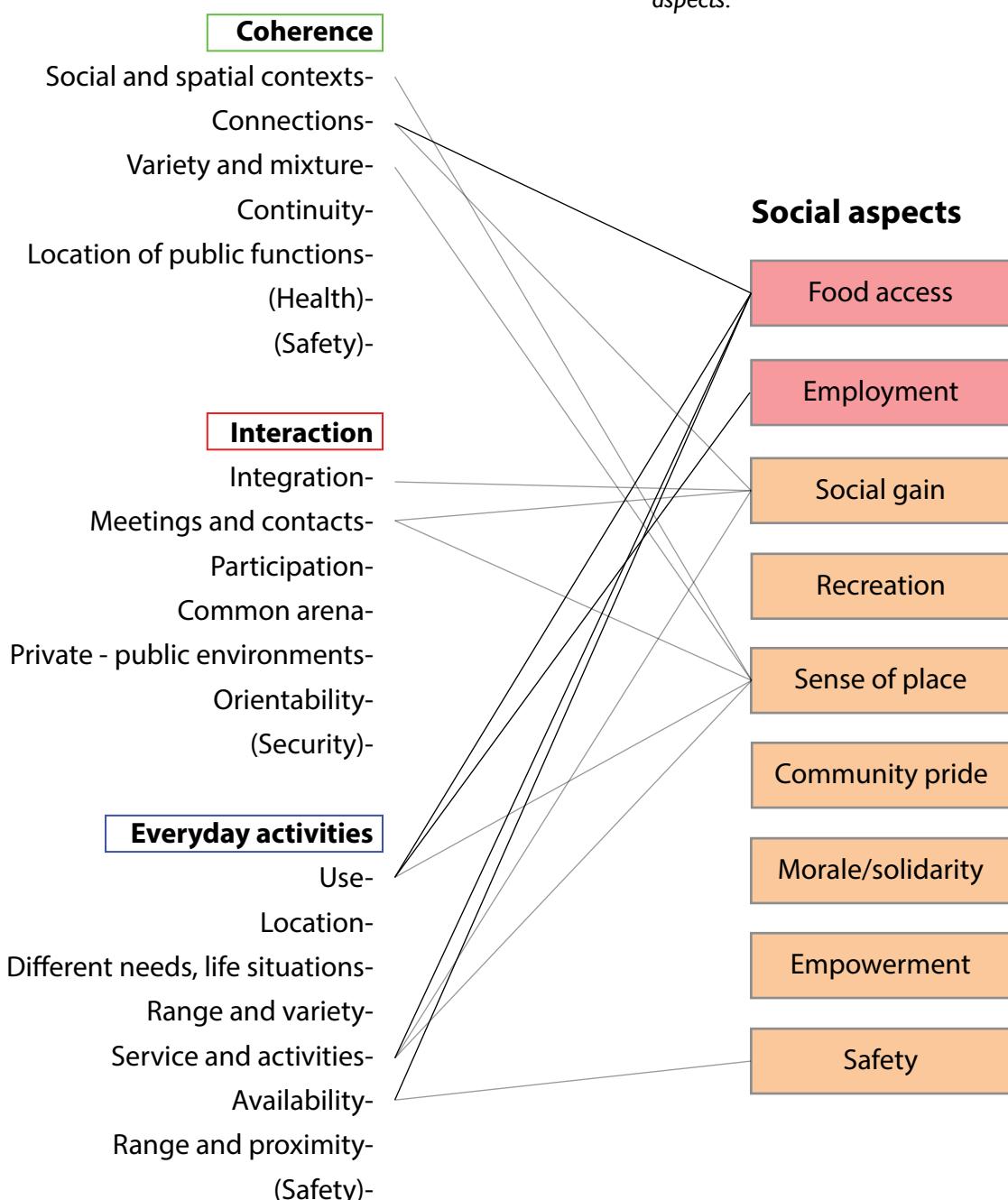
### Safety

Safety is mentioned mostly in the aspect of safety of the actual property (the food crops) in this case. The lack of *availability* is in one way promoting the safety for the crops. The urban farm is not contributing to any general safety in the area.

Recreation, morale and solidarity, empowerment and community pride where not responded upon according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.



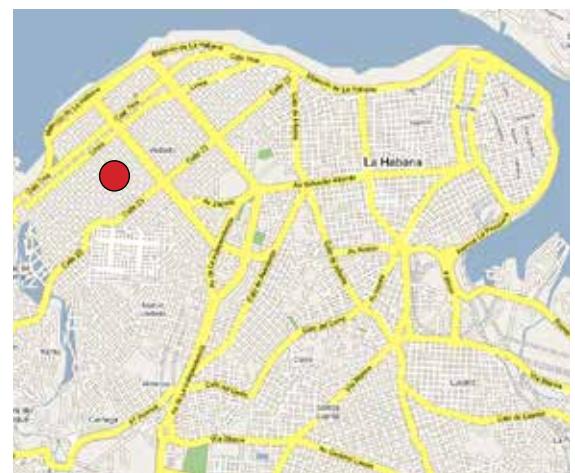


### 3.2.3 Site 3; Parque Lennon

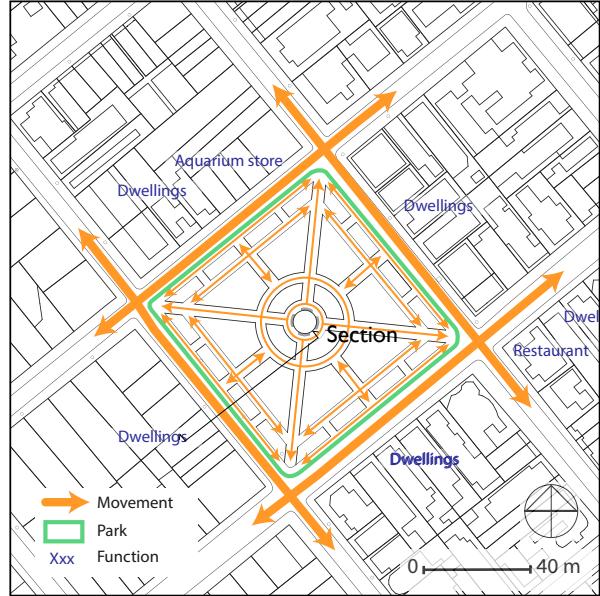


#### Short description

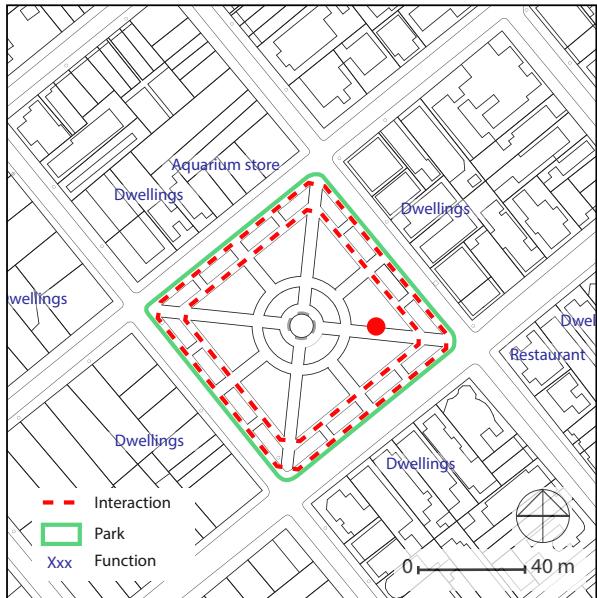
Parque Lennon is located a bit west of the city center in an area called Vedado. The area has low density and is dominated by dwellings, private gardens and green streets. The park occupy one square in the grid system creating a green oasis and open space giving a break in the otherwise rather monotone area. It is hidden away from the bigger avenues Línea, Paseo and 23 giving it a calm atmosphere, with fairly little activity in the surroundings.



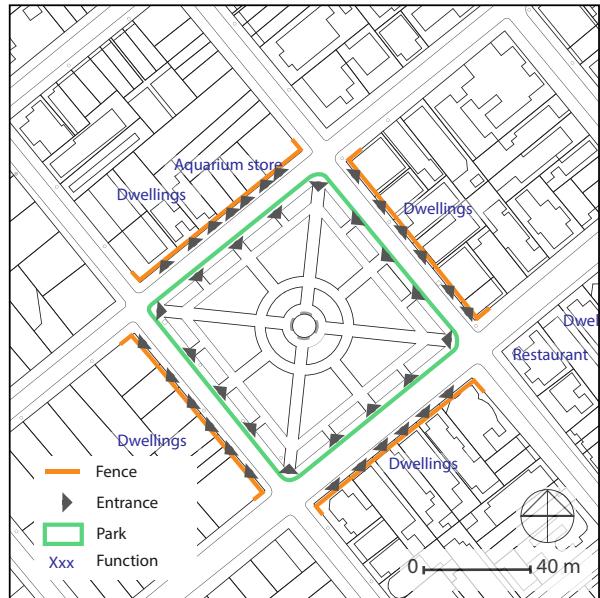
The park is surrounded by streets in every direction. There are few other functions in the area except for residential. The general movement in the area is directed to the streets, but the open layout of the park invites people to take shortcuts and move more freely. Most of the interaction takes place on the edge between the park and the streets, mainly because of the flow of people and seating possibilities. A lot of people, both tourists and locals, also stop at the Lennon statue (the red dot). The park has an open layout and many entrances leading to good interaction with the streets. The surrounding buildings are mostly sealed off with fences and the entrances are often closed.



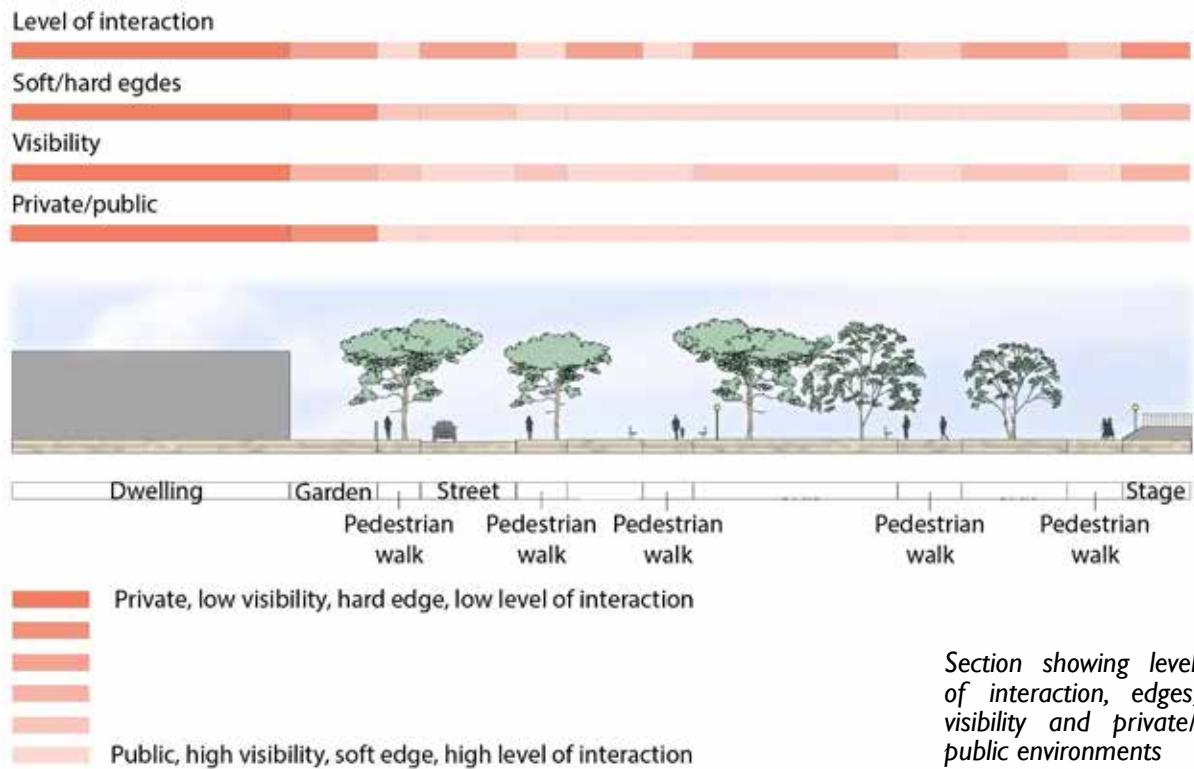
*Movement*



*Activity and interaction*



*Entrances and fences*



The section is showing the open layout of the park, with good visibility and a soft edge towards the street. It is public and hosts interaction between people passing by and staying in the park. The surrounding buildings are poorly integrated with the streets and the park.

30 min observation. Weekday, Sunday and one evening

	Weekday	Sunday	Evening
Walking in the area	212	148	96
Sitting down	34	25	24
Stopping/chatting	30	15	3
Other activity (e.g. play)	6	27	7

## Coherence

### Social and spatial context

The park functions as a place to cut through diagonal in the grid system. Some people linger on the place for a small talk or just to relax on a bench. It attracts people from the nearby surroundings and some tourists coming to take pictures of the John Lennon statue. The park occupies exactly one square in the grid pattern and is thereby surrounded by streets and dwellings. The park is open and visible both inward and towards the surroundings. The monumental pattern of paths leads to an unused stage in the middle of the park. Most people stay around the benches just a few steps in from the sidewalks.



*The park hosts a lot of people just passing by but also people staying, resting, talking or just observing other people.*



*The monumental pattern in the park connects well to the surrounding streets and lead people in towards the middle.*



*The area is dominated by dwellings in one or two stories surrounded by streets. The park breaks the repetitive pattern with its open space and greenery.*

### Variety, mixture and continuity

The park is located in a fairly monotone part of the city. The squares of dwellings are only interrupted by a park every fourth block. Some institutions and restaurants can be found in the surroundings, but not much. The building heights are mostly low, one to two stories, sometimes going up to four.

### Safety

The area feels very calm with no disturbing activity what so ever. It hosts mostly middle aged groups of people and kids.



*In the park a mix of middle aged people, elderly and kids both pass by and stay. The area is calm and feels safe.*



*The picture shows the relation between the park (left/middle) and the street (right). The park opens up in a good way inviting people to enter.*



*Most of the meetings take place on the edge between the park and any of the streets. Sitting on the edge gives both the presence of the street and the quiescent of the park.*

## Interaction

### Integration

The park is very well integrated with the streets through lots of entrances and good visibility. The streets and the park lacks integration with the surrounding houses that are cut off by sharp edges such as fences and hedges. The people from the neighborhood or the ones just passing by mixes in the park either just taking a short cut or staying on a bench under the shadow of the trees. Tourists are frequently coming to the park either by bus or by foot to take pictures of the John Lennon statue.

### Meetings and contact

People meet in the park, either to relax, talk, play or just watch. Some are just passing by, some stay for a few minutes and some stay for more than an hour. The park's location offers a possibility to catch your breath while walking through the neighborhood. On the weekend kids are skateboarding, climbing and chatting on a bench. Quite a few couples also come to the park to relax a few minutes.

### Participation

None that can be seen from the observations.

### Common arena

The park functions as a common arena where people act pretty much as they like, relaxing, talking, playing etc. The layout invites people to enter and hosts some open spaces where various activities can take place. The streets are dominated by cars but the sidewalks are also a place where people can occupy certain smaller spaces to play domino, talk and relax.

## Private and public space

The streets and the park are public spaces free for everyone to access and use. The buildings are mostly private dwellings except for a restaurant in one of the corners and an aquarium selling decorative fishes. The private and public spaces are clearly distinguished by hard edges such as fences, walls and hedges. Most buildings have an interface giving a distance between the street and the facade.

## Orientability

The orientation on the site is clear due to the grid pattern and the clear layout of the park. The public spaces are fairly well defined in its use (e.g. pedestrian, car, greenery). The possible directions for movement are many due the number of entrances to the park. Some does not directly lead you further on and can create confusion in direction and movement.

## Everyday activities

### Use

The park is used for meetings, recreation play and walking. Sidewalks and streets are mainly for transport with cars, bicycles or by foot. The neighborhood hosts a low amount of programmed activities. Around the park a restaurant and an aquarium store are found and further from the park a few cafeterias and smaller retail shops, the area is heavily dominated by dwellings.

### Different needs and life situations

The area is of upper middle class with many single houses with private gardens, garage and terraces. The park makes a welcoming interruption in the dwelling area creating a public green lung for the neighborhood. Its paths and sidewalks are in good condition and together with good seating possibilities it makes it



*Various activities take place in the park, especially on Sundays. People sit, talk and relax as well as play baseball, skateboard and climb.*



*The surrounding buildings are poorly integrated with the public space. The private is clearly distinguished by fences, walls or/and hedges.*



*One of the few services around the park is the restaurant located in the South-East corner. The entrances faces the park.*



*The age groups represented in the park varies. It is fairly well adapted to elderly and handicapped with good seating possibilities and even surfaces.*



*The park is open in its layout with no hidden places creating a safe feeling with good visibility and presence of other people.*

accessible for elderly and handicapped as well.

#### **Range, variety and proximity**

A monotone area with little variety and mixture. The center of Vedado is close, offering various services and a livelier atmosphere.

#### **Availability**

The public spaces are easy to access, inviting in its layout, free of charge and open for everyone. Both men, women, children and elderly use the park.

#### **Safety**

The park is open and there are no hidden or dark places.

## Conclusion

Parque Lennon was found, according to the analysis, to mostly respond to the soft aspects of social sustainability. The park differs in many ways from the urban farms with a few crucial factors that stands out, such as the public environments and common arena.

### Employment

Employment is promoted by the *use* on the site and need for maintenance in a public environment.

### Social gain

The park is due to its public environment functioning as a common arena for *meetings* and *integrations* for all ages. Because of its *use*, open layout, good *connections* and *social and spatial context* with the surrounding it attracts people and promotes the social gain in the area.

### Recreation

Recreation is according to the analysis the main *use* of the park. It is functioning as a *common arena* where people *meet* and *integrate* due to its state as a *public environment* with open spaces, that it is well *connected* with its surroundings and got good *social and spatial contexts* with the streets due to soft edges and good visibility. These factors promotes the aspect of recreation.

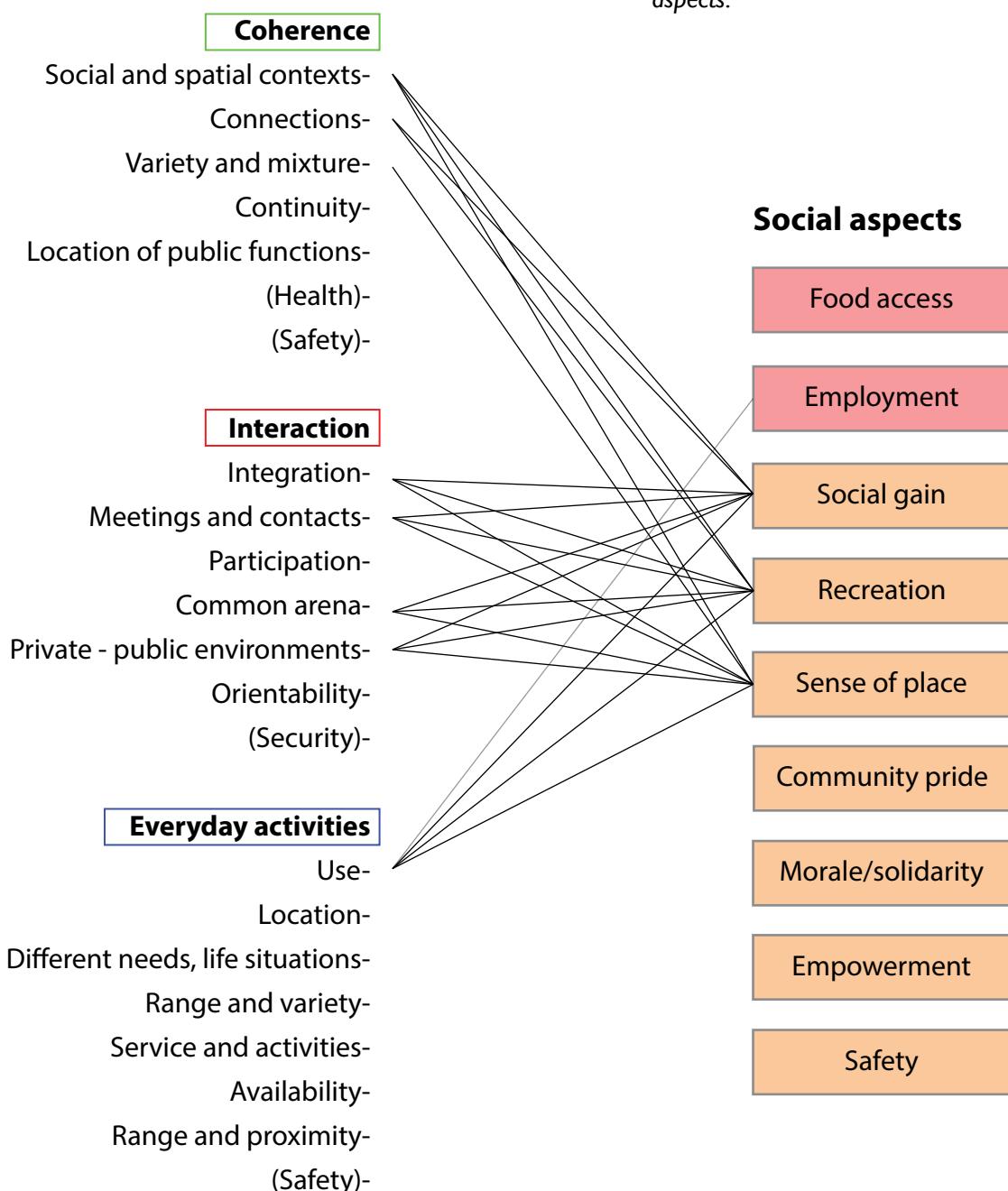
### Sense of place

The park creates a visual impression because of its *use* and *variety/mixture*, the park is a green element gently breaking the monotone pattern of houses and streets in the area, promoting a sense of place. Parque Lennon also functions as a place for *meetings* and *integration* and is one of the few *public environments* in the area, which distinguish the park from the surrounding elements, strengthening the sense of place.

Food access, morale and solidarity, empowerment and community pride where not responded upon according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.



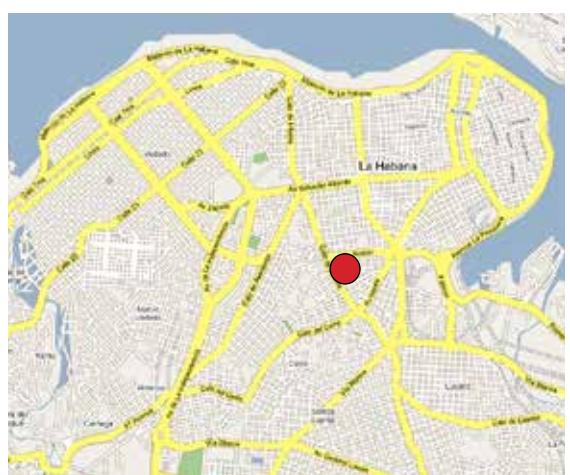


### 3.2.4 Site 4; Parque de La Normal

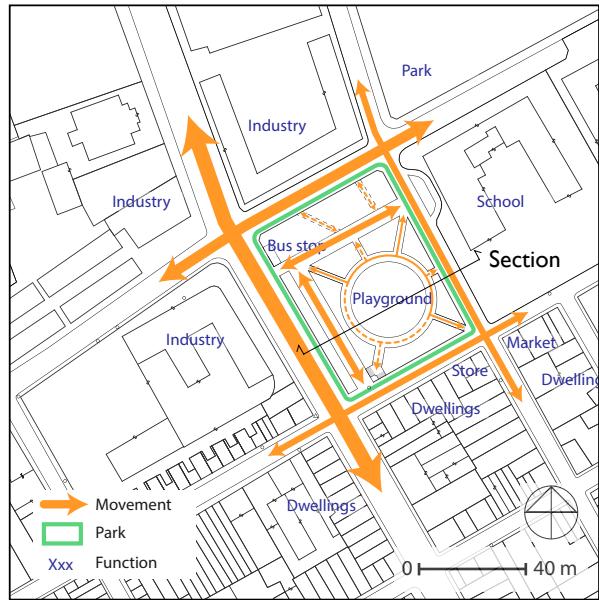


#### Short description

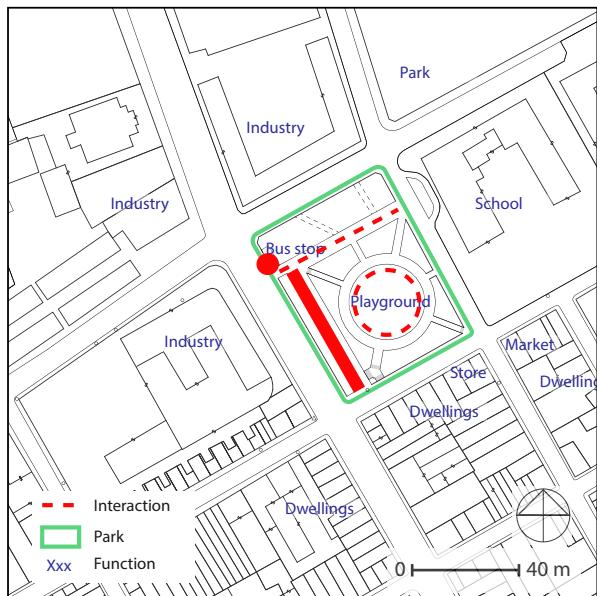
Parque de La Normal is a small size park located south of the city center right next to the lively street Calzada Infanta. The park is a meeting place and a place to relax a bit from the busy surroundings of Calzada Infanta which is hosting various services and activities in contrast to the calmer less programmed park that instead offers a playground, greenery and benches, some parts more frequently used than others.



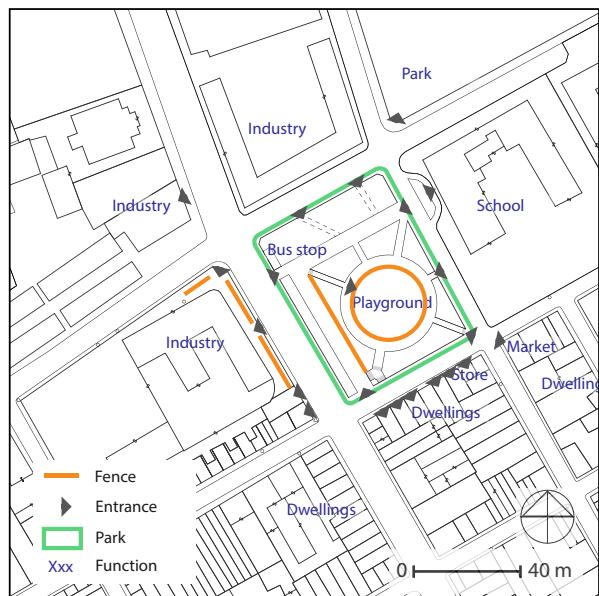
The park is situated in the middle of a lively environment. It is surrounded by streets and buildings with various functions. Most people are concentrated to Calzada Infanta, but the park with its walkways also lead people to walk through it. The soft edge makes the activity on the sidewalk of Calzada Infanta spill over the edge and in to the Western part of the park. Some interaction also occur around the playground, on the second main walkway and around the bus stop. The parks has many different entrances inviting people to take short cuts or just enter the park for recreation. The elevation creates a barrier shaped as a wall in the West and the playground has a high fence and only one entrance.



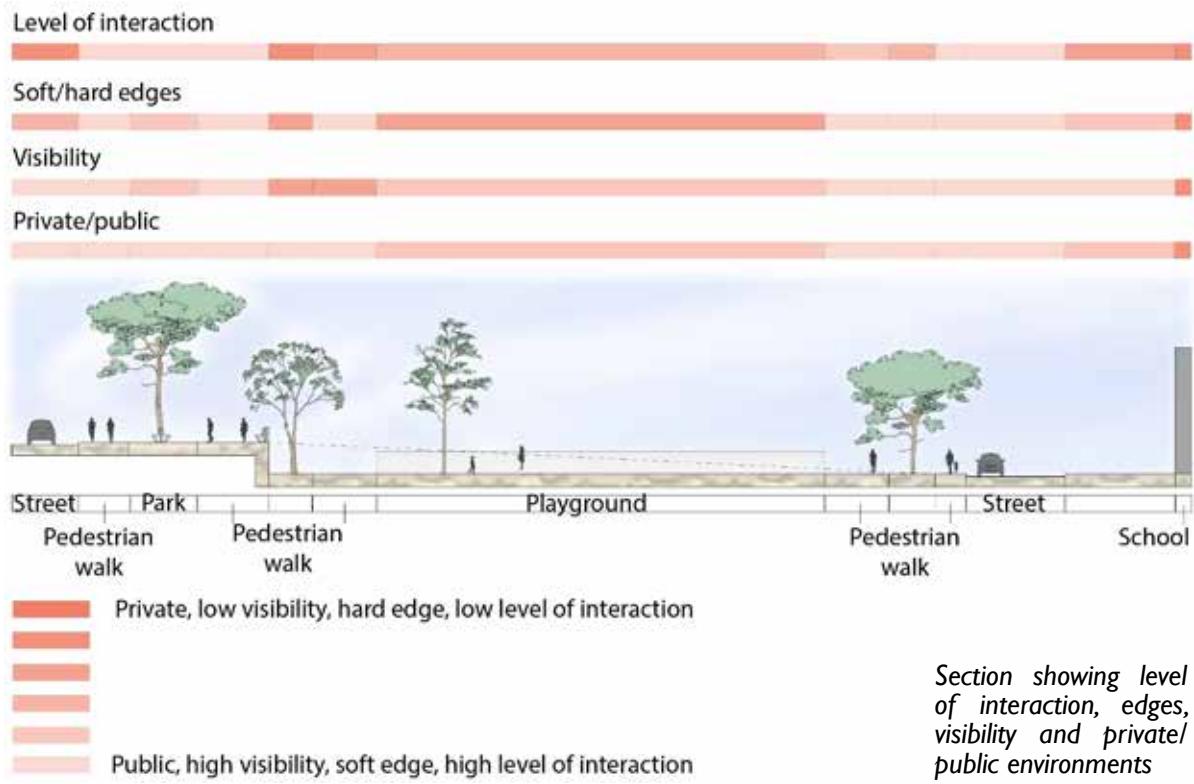
*Functions*



*Activity and interaction*



*Entrances and fences*



The section is showing the elevation in the park, creating a hard edge between the higher and lower parts. The park has soft edges toward the streets creating interaction, especially in relation to Calzada Infanta. The playground is a bit cut off due to the fence.

30 min observation. Weekday, Sunday and one evening

	Weekday	Sunday	Evening
Walking in the park	273	242	138
Sitting down	32	17	8
Stopping	16	23	19
Other activity (e.g. play)	0	14	0

## Coherence

### Social and spatial context

One part of the park opens up towards the main street, Calzada Infanta, people pass by, look in or enter the park. It has a soft edge with benches and trees creating a good relation with the street and the sidewalk. The playground is on a lower elevation, a bit cut off and not visible from the main street. The Calzada Infanta creates a barrier towards the other side of the street because of its width and the heavy traffic. The buildings surrounding the park have a good view over the park but is not in anyway connected to it properly. The school has its entrance in line with one of the main paths in the park, creating some kind of visual connection. People gather close to the street which attracts more people to enter and take part. The park is used as a short cut for people crossing, though the playground is sealed off with a fence and only has one entrance creating a barrier for people moving across the park.

### Connections

The area is well connected with streets and public transport. The Calzada Infanta is a busy street with a lot of cars and pedestrians. The other streets host less cars and people. It is easy to get to the park by car or by foot. The park itself is well connected to the surroundings with many entrances making people go in and through the park in every direction.

### Variety, mixture and continuity

The area is a good mix of dwellings, greenery, industries, shops, markets and a school. The buildings vary from one to four stories. The park has also different characters, lively in the West, calm in the North and playground in the South-East. It is mostly



*This picture shows the relation between the park and the pedestrian walk on Calzada Infanta.*



*The school entrance is placed in line with one of the main paths in the park, creating coherence between the two elements.*



*Calzada Infanta is a wide street hosting a lot of traffic, in the picture a person is seen quickly crossing the street from the factory opposite of the park.*



*There are many public functions located in the area, especially on Calzada Infanta, but this market is located on the small street behind the park.*



*The Western part of the park is well integrated with the street. The playground is disconnected from the livelier parts by an elevation and fence.*



*In the Western part of the park, right next to Calzada Infanta, people meet on the benches, staying for a short while or spending the afternoon.*

men in the park but a few women and children are also spotted.

#### **Location of public functions**

The public functions offer a variety of services mostly on Calzada Infanta but also on the smaller streets. In the park is a small post booth that was closed during the observations.

### **Interaction**

#### **Integration**

The Western part is well integrated with the busy street. Activities spill over in the park and vice versa. The playground is hidden below the street level, sealed off with a fence with one entrance and looks abandoned and unused during the weekday, but comes alive during the weekend. The buildings surrounding the park are not integrated with the park except for the entrance to the school leading to one of the main paths in the park.

#### **Meetings and contacts**

The big benches in the western part of the park host a lot of meetings and contacts. Their location close to the street is convenient as well as the size of the benches. Also the streets/sidewalks in general, the second main path and the bus stop create meeting opportunities. Except from the western part of the park there is no natural meeting place.

#### **Participation**

None that could be seen during the observations.

#### **Common arena**

The park is a common arena for meetings, relaxation and play. There is some free open space for people to

be creative and no certain pattern or behavior needed to follow.

### **Private and public environments**

The park is public, open and free for all. The streets are also public, but especially Calzada Infanta is dominated by cars. The surroundings are mostly private dwellings, industries and such. There are some semi-public/private shops, cafés and markets

### **Orientability**

The orientability around the park is good and it is easy to navigate due to the grid pattern. The elevation down to the playground in the middle together with the fencing makes it a bit confusing how to move and create less movement in that area.

## **Everyday activities**

### **Use**

The park is used for recreation, meetings, play and movement. There are no commercial activities in the park, but slightly outside many services can be found. The surroundings have various uses such as dwellings, a school, industries and markets.

### **Different needs and life situations**

The area is a working/middle class area. The park is fairly well adopted to elderly and handicapped.

### **Range, variety and proximity**

The park is likely to attract people from the surrounding blocks. Together with the other functions nearby they create a broad variety and proximity for the neighborhood.



*The park is open and free and can be used as a common arena. There are unprogrammed spaces suitable for creative activities.*



*To navigate the streets are crucial. The grid pattern connects the area with other parts of the city and makes it easy to orientate.*



*The park is mostly used for meetings, recreation and walks. There are no commercial activities in the park.*



*Due to the location services and activities are close. Small retail shops and markets are located in the area and also contributes to activate the park.*



*The park is open in its layout and the edges of the park are soft inviting people to enter. This picture shows the view from the street Calzada Infanta in to the park.*

### **Services and activities**

The Calzada Infanta is a swarm of activity and services offering everything from food and beverage to repairmen of glasses and car service. The park lacks specific services and activities.

### **Availability**

The availability in the park is good, it is free and open for all. The edges are soft and inviting. A majority of men where observed in the park, but no specific reason in the physical environment could be found.

## Conclusion

Parque de La Normal was found to be fairly similar in its social aspects as Parque Lennon. It was foremost the soft social sustainability aspects that were promoted by the park. One important function that has not been noted in the previous studies was the importance of location.

### Employment

Employment is promoted by the *use* on the site and need for maintenance in the park.

### Social gain

The park is due to its public environment functioning as a *common arena* for *meetings* and *integration* for all ages. Because of its *use*, open layout, good *connections* and *social and spatial context* with the surrounding it attracts people and promotes the social gain in the area. The *location* of the park, right next to lively Calzada Infanta, was found to increase the activities and the influx of people in the park.

### Recreation

Recreation in different forms is according to the analysis the main *use* of the park. It is functioning as a *common arena* where people *meet* and *integrate* due to its state as a *public environment* with open spaces, that it is well *connected* with its surroundings and got a good *social and spatial context* with the streets due to soft edges and good visibility. These factors invite or support people using the park and therefore also the aspect of recreation as the main *use*.

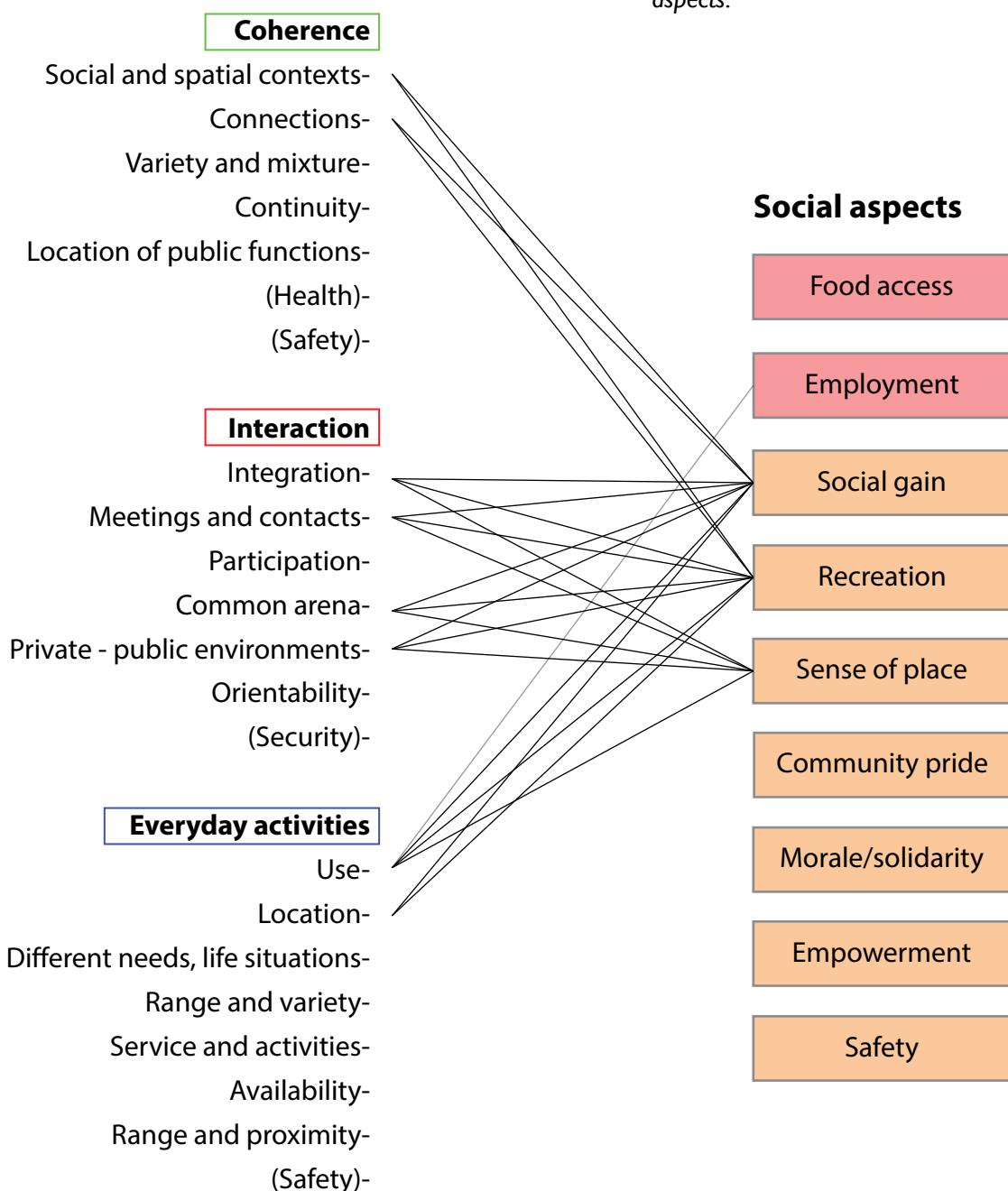
### Sense of place

The park promotes the sense of place because of its *use* and high level of activity, but is not breaking any certain pattern in area as Parque Lennon. The functions of the park as a place for *meetings* and *integration* and a *public environment* distinguish the park from the surrounding elements, strengthening the sense of place.

Food access, morale and solidarity, empowerment, community pride and safety where not responded upon according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.



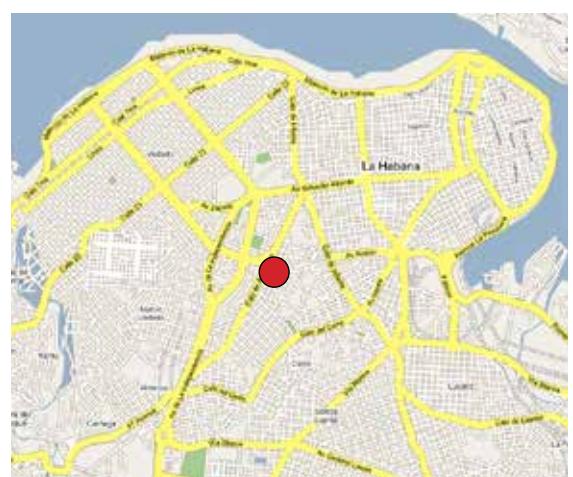


### 3.2.5 Site 5; Cerro Norte

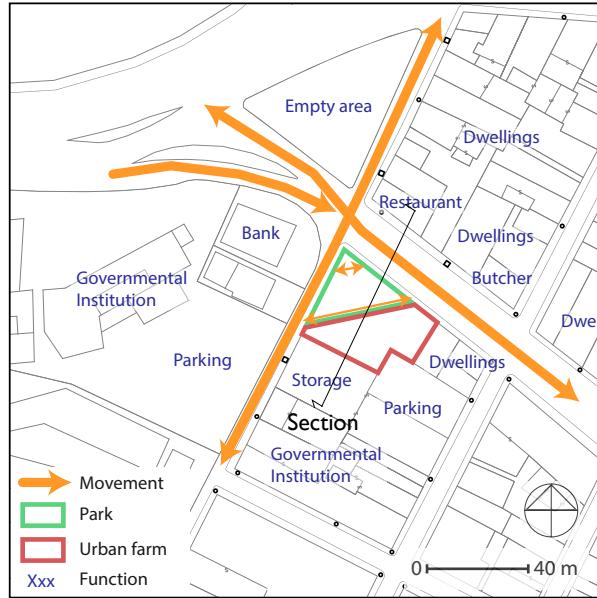


#### Short description

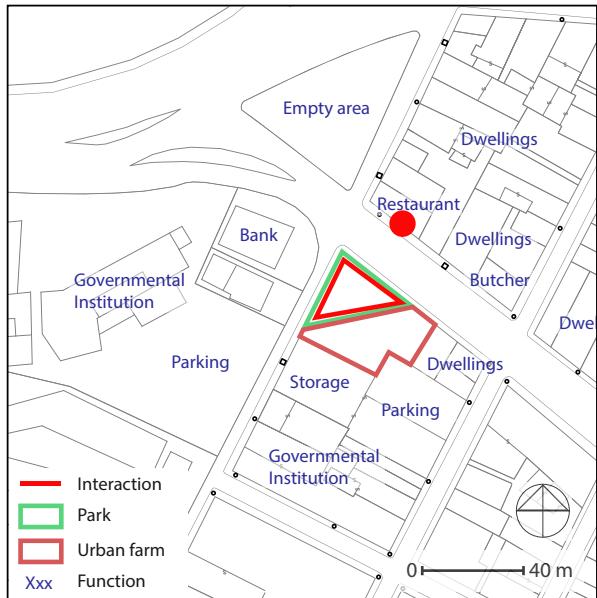
This site contains both an urban farm and a park, it is located in a denser area in the northern part of the Cerro municipality. The urban farm is small and squeezed in at the back of the park. The site is surrounded by a mix of high and low buildings, hosting both offices, dwellings and some commercial activities, and two fairly busy streets. The area feels vibrant, is close to Centro Habana but still outside of the most central parts of the city. Plaza de la Revolución is just a short walk West of the site. The cars are very present and dominating both visually and audibly.



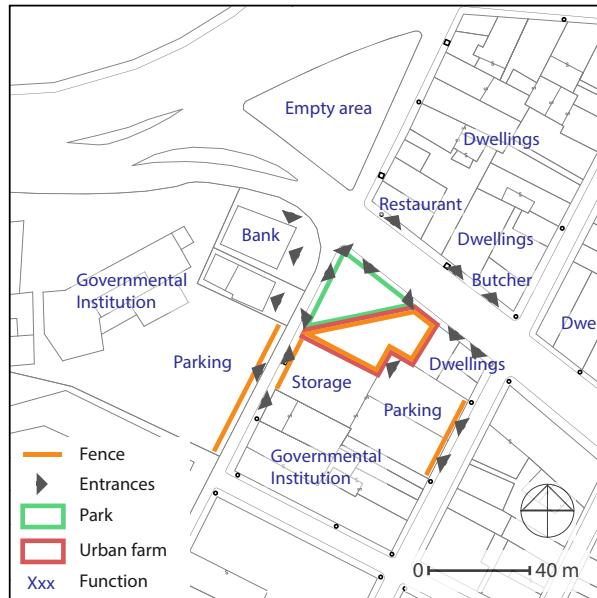
The site is located in an average active area on the edge between a denser residential area and the more sprawled Plaza de La Revolución. The layout of the area directs people to move on the sidewalks and the streets but the small park offers a short cut. The park is also the only public place inviting people to stay and therefore the only place host interaction together with the semi-private restaurant opposite of the street. The urban farm is not integrated at all with the surroundings, It got a high slightly transparent wall around it with only one entrance, from the back. The park is open and transparent inviting people and generating a relation with the street due to the soft edge.



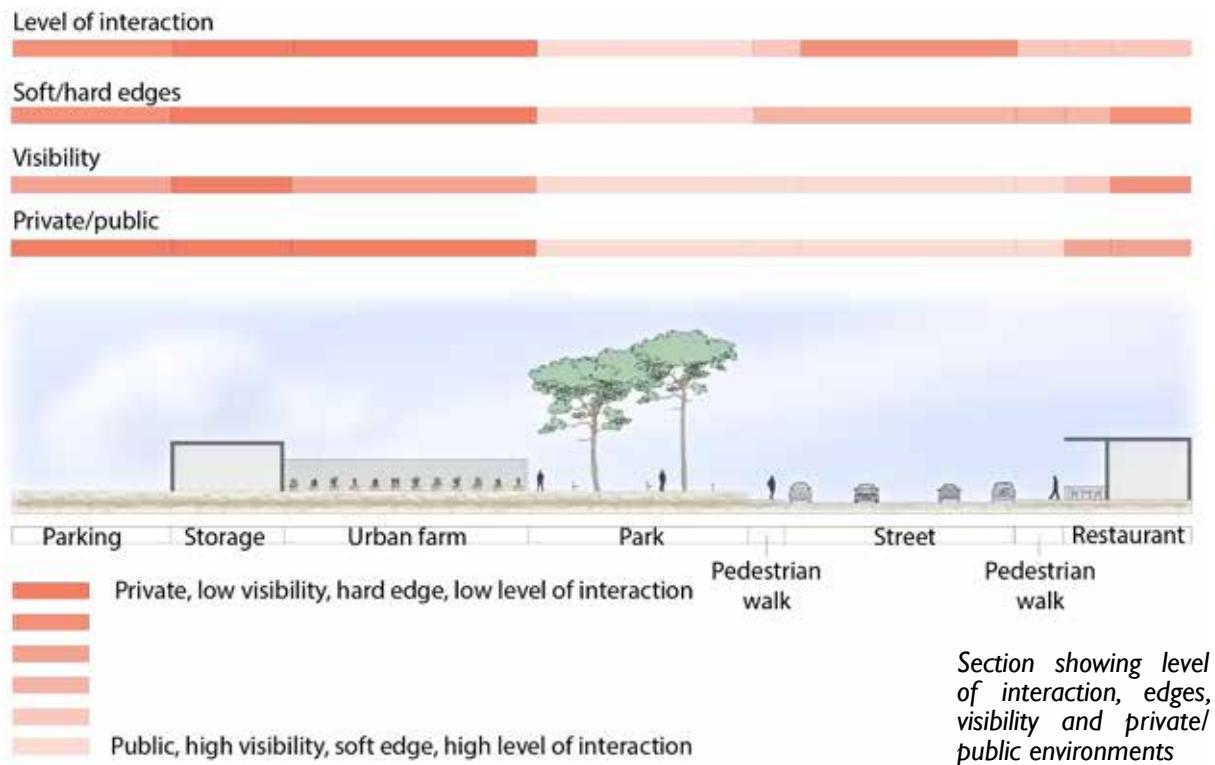
Movement



Activity and interaction



Entrances and fences



The section is showing the distinct contrast between the enclosed parts of the area and the more open. Most interaction take place in the park and on the sidewalks. The urban farm is not contributing to any interaction or integration with its surroundings.

#### 30 min observation. Weekday, Sunday and one evening

	Weekday	Sunday	Evening
Walking on the street	43	108	57
Walking in the park	36	46	12
Working in the farm	0	0	0
Sitting down	12	16	6
Stopping/chatting	5	6	2
Other activity	5	0	0

## Coherence

### Social and spatial context

The area is fairly dense and got a clear grid pattern. The urban farm and the park are divided into two triangular shapes sharing a square in the grid. While the park faces the surrounding streets and opens up towards the people passing by the urban farm is completely sealed off with a high, slightly transparent wall. The entrance is located on the backside, there is no shop and poor visual connection. It got no relation to either the park or the dwellings in the surrounding. Pedestrians are passing by in the park and on the sidewalks. The park is a green oasis in the rather hard and car dominated area. While sitting in the park you can passively take part in what is going on in the streets, and opposite you can easily see what is going on in the park when passing by on the street.

### Connections

There are two big streets passing the area, Calle Ayestrán and Calle 20 de Mayo, which both hosts much cars, buses and bicycles. 20 de Mayo going East-West connecting the site with Plaza de la Revolución and Ayestrán going North-South connecting with Centro Habana. To access the urban farm it is needed to go around the block and cross a private parking area.

### Variety, mixture and continuity

The site feels urban with a variety of building height from one to seven floors, a programmed greenery, busy streets, a restaurant, an urban farm and a mix of dwellings and offices.

### Safety

The neighborhood is lively and a lot of people are passing by and lingering on the site. It is an open space



*The urban farm is sealed off from the park by a slightly transparent wall. There is no entrance towards the park, it is located in the back.*



*The park is open towards the street with a soft edge and good visibility. There are several entrances connecting the park with the street.*



*The park and farm is surrounded by streets forming a grid pattern and buildings in various heights and with various uses.*



*The park is open in its layout with no hidden places and always presence of people creating a safe feeling.*



*Meetings often take place in the park on the edge towards the street. The park is well integrated with street spilling over in activities.*



*The park functions as a common arena where people can come to relax, play music, meet or just watch people. There is no certain behavior pattern.*

with good visibility, creating a safe feeling. The houses have fences and/or closed facades.

## Interaction

### Integration

The park is well integrated with the streets, it is easy to access and has good visibility inviting people to enter and still remain connected with the streets. The streets are wide and host heavy traffic creating barriers. The urban farm is totally excluded due to the wall and lack of entrance and clear visual connection, no one is entering and no integration with the farm is found.

### Meetings and contact

People meet in the park, either to relax, talk, play music, read a paper or just observe other people. Some are just passing by, some stay for a few minutes and some stay for more than an hour. There are no meetings or contacts in the urban farm.

### Participation

None that can be seen from the observations.

### Common arena

The park functions as a common arena where people act as they like, playing music, lying on a bench, sitting on the low walls, picking leaves etc. The streets are dominated by cars but the sidewalks are also a place where people can be free, e.g. selling nuts, fixing a car, walking etc.

### Private and public space

The private and public spaces are clearly distinguished by hard edges such as fences, walls, hedges and closed facades. The only soft edge is to be found at the restaurant hosting an inviting entrance and outdoor seating area. The public spaces consist of the streets

and the park, and the private spaces of dwellings, the urban farm, offices and parking areas.

### Orientability

The orientation on the site is clear due to the grid pattern and the hard edges between private and public space. The public spaces are also well defined in its use (e.g. pedestrian, car, greenery). This makes it clear where it is possible to walk, drive and stop. The possible directions for movement are limited by the street pattern, East-West and North-South.



*A lot of the public space is occupied by cars. The pedestrians are left with narrow sidewalks and the fairly small park.*

## Everyday activities

### Use

The park is used for meetings and recreation. Sidewalks and streets are mainly for transport with cars, bicycles or by foot. The urban farm is only producing food, there is no sign of any other activity in there. For being a dense neighborhood there are not a lot of commercial activity.



*Even though the edge between the park and the street is soft, there is a clear distinction where the park ends and the sidewalk begins.*

### Different needs and life situations

Since there is mostly multistories buildings there are no private gardens and the people are left with the little park for recreation. My perception is that the area is a middle-working class area.



*The urban farm is designed to produce food and nothing else. The site looks abandon even though food is growing.*

### Availability

The public spaces are easy to access and are free and open for everyone. It was mostly men in the park but specific reason in the physical environment could be found.



*The public spaces are available for everyone. The private areas including the urban farm is sealed off and the entrance (picture) is hidden in the back.*

## **Conclusion - Cerro Norte Urban farm**

The urban farm in Cerro Norte is completely isolated and has no connection at all to the surroundings. Food access and employment are the only social aspects responded to according the analysis. Safety is noted as an aspect responded to but it is the safety of the food crops that is addressed.

### **Food access**

The urban farm in Cerro Norte has a clear purpose to produce food in an empty lot, making the *use* promote food access.

### **Employment**

Even though none were seen working in the farm during any of the observations I assume that it is maintained by someone. The *use* promotes employment.

### **Safety**

The limited *availability* promotes the aspect of safety.

Social gain, sense of place, recreation, morale and solidarity, empowerment, safety and community pride where not responded to according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.

### Coherence

Social and spatial contexts-  
Connections-  
Variety and mixture-  
Continuity-  
Location of public functions-  
(Health)-  
(Safety)-

### Social aspects

Food access  
Employment

### Interaction

Integration-  
Meetings and contacts-  
Participation-  
Common arena-  
Private - public environments-  
Orientability-  
(Security)-

Social gain  
Recreation  
Sense of place  
Community pride  
Morale/solidarity  
Empowerment

### Everyday activities

Use-  
Location-  
Different needs, life situations-  
Range and variety-  
Service and activities-  
Availability-  
Range and proximity-  
(Safety)-

Safety

## **Conclusion - Cerro Norte Park**

The park in Cerro Norte is due to its small size influencing some of the social aspects targeted with the analysis. The influence was very similar to the other parks and it is the soft aspects of social sustainability that are most affected by the park.

### **Employment**

Employment is promoted by the *use* on the site and need for maintenance.

### **Social gain**

The park is due to its *public environment*, open layout and functioning as a *common arena* for *meetings* and *integrations*. Because of its recreational *use*, good *connections* and *social and spatial context* with the surrounding it attracts people and promotes the social gain in the area.

### **Recreation**

Recreation is according to the analysis the main *use* of the park. It is functioning as a *common arena* where people *meet* and *integrate* due to its state as a *public environment* with open spaces, greenery and seating possibilities, that it is well *connected* with its surroundings and got good *social and spatial contexts* with the streets through soft edges and good visibility. These factors promotes the aspect of recreation.

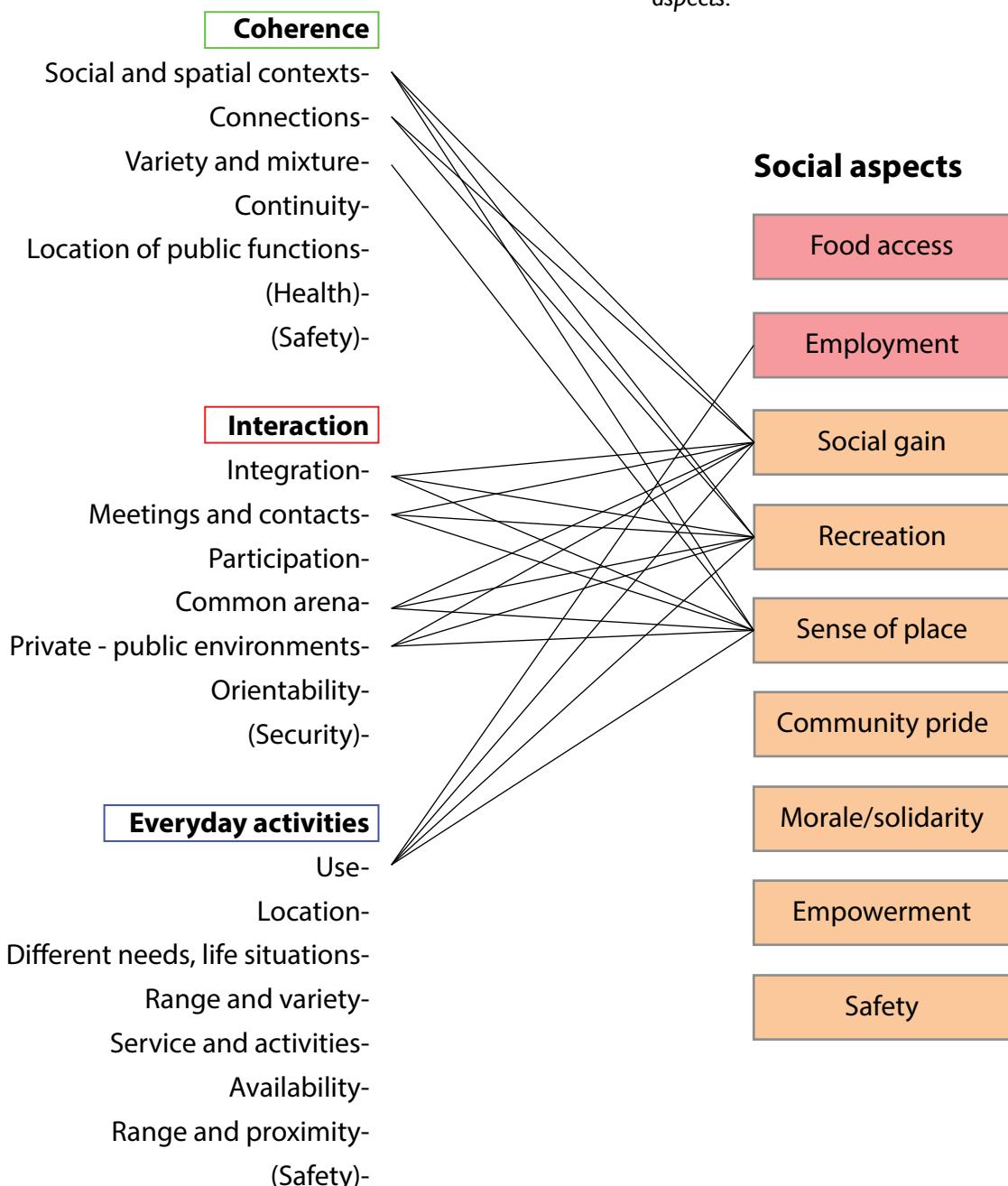
### **Sense of place**

The park creates a visual impression because of its *use* and *variety/mixture*, the park is a green element breaking the pattern of houses and streets in the area, promoting a sense of place. The park also functions as a place for *meetings* and *integration* and is one of the few *public environments* in the area, which distinguish the park from the surrounding elements, strengthening the sense of place.

Food access, morale and solidarity, empowerment, safety and community pride where not responded to according to the analysis.

## Social impact assessment

The graph shows the relations on the site between the SIA and the social aspects.



### 3.3 Overall conclusion of site analysis - Urban farms

The social aspects responded to according to the analysis was Food access, employment, social gain, sense of place and safety.

#### **Food access**

All three farms were promoting the aspect of food access due to their main *use*, growing food. The farms in Nuevo Vedado and 24 de Febrero increased the food access offering a *service* with their shops, also selling the food in the area. The shops were well *connected* with the surroundings creating a good *availability*. The urban farm in Cerro Norte did not have a shop and therefore lacked this increased aspect of food access.

#### **Employment**

All three farms responded to the aspect of employment by having food production as their *use*. The two farms selling the food also had more activity and people working there, increasing the level of employment.

#### **Social gain**

The two farms having shops were the only ones responding to the aspect of social gain. The shops function as links between the farms and the surroundings, created a *social and spatial context*. They attracted people in their everyday activities by offering *services* which lead to *meetings and integration*. The shop in Nuevo Vedado was also facing a fairly busy conjunction with a café and school, creating a small hub of *public functions* increasing the level of *meetings and integration* and further on the social gain.

#### **Sense of place**

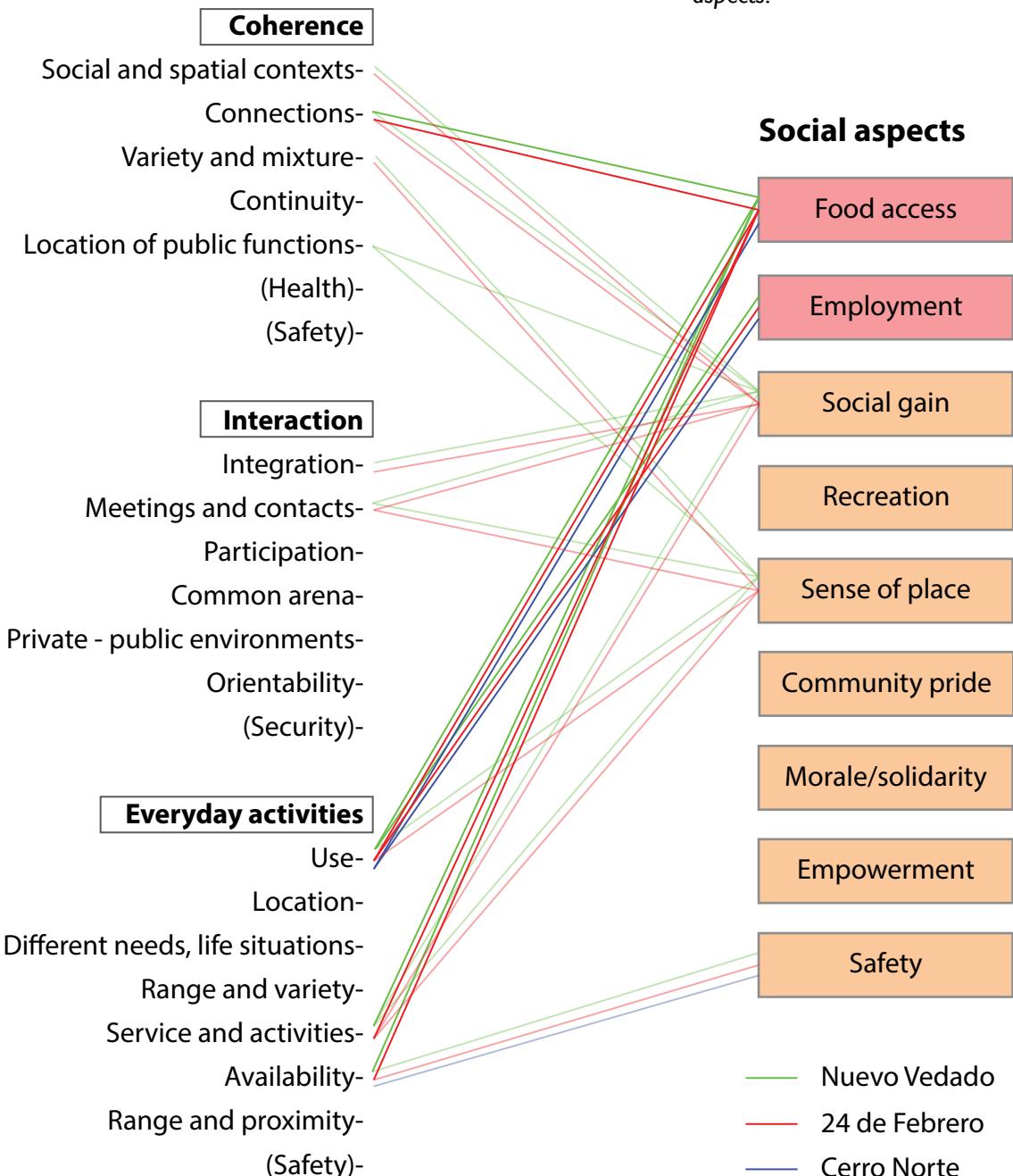
The visual impression of the green and open urban farms in Nuevo Vedado and 24 de Febrero created a *variety and mixture* in the areas promoting the aspect of sense of place. The *use* of the urban farms, growing food and selling it in the area, creating a *service* and different *activity* also promoted the sense of place. The location of the shop in Nuevo Vedado, together with the other *public functions*, creates a small hub and *meetings*, also promoting the sense of place in the area.

#### **Safety**

All three farms were responding to the aspect of safety, concerning the food crops, by being sealed off.

## Social impact assessment

The graph shows the relations on the sites between the SIA and the social aspects.



## 3.4 Overall conclusion of site analysis - Parks

The parks studied in the site analysis were found to respond to the social aspects of employment, social gain, recreation and sense of place.

### Employment

The *use* of the parks as public environments lead to a need of maintenance and employment.

### Social gain

The parks open layouts and *connections* created a *social and spatial context* with the surrounding streets inviting people to enter, take part and see what is going on, which in the long run promoted the social gain in the area. The *use* of the parks as *public environments* and *common arenas* with open and unprogrammed spaces attracted different types of people leading to *integration* and *meetings* all in the end promoting social gain. In Parque de La Normal the *location* next to Calzada Infanta was found to increase the activity in the park also increasing the social gain in the area,

### Recreation

The main *use* of the parks is (except maybe for transportation/passing by) recreation. People were able to access the parks due to good *connections* and a clear *social and spatial context* with the surroundings, mainly the streets, promoting the aspect of recreation. This is also linked to the parks as *common arenas* and *public environments* making it possible for everyone to use the parks for different types of recreation. Also the possibilities for *meetings*, influx of people and *integration* attracted people to the parks promoting the aspect of recreation. And finally the *location* of Parque de La Normal increased the amount of people using the park leading to more recreation.

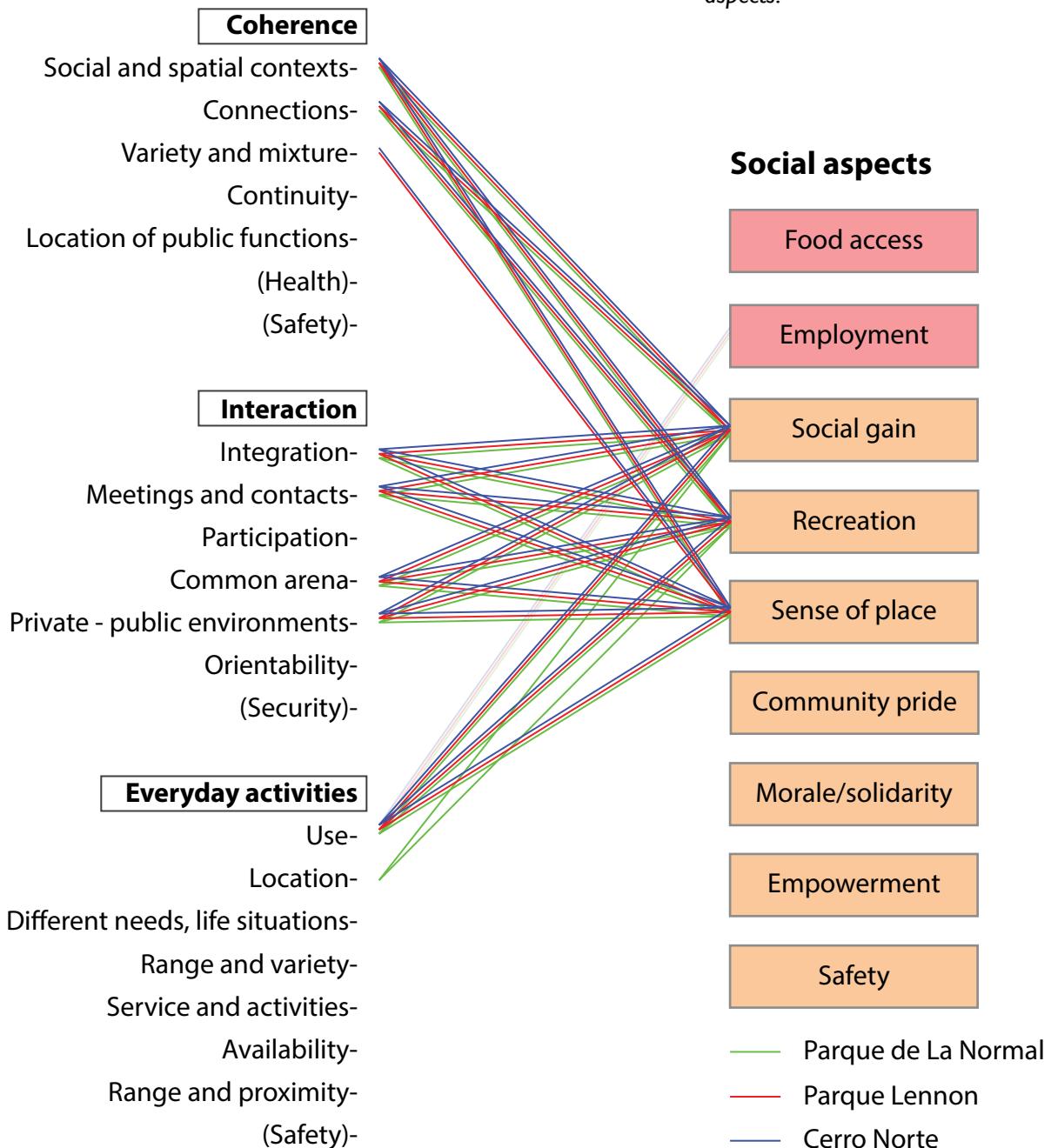
### Sense of place

Parque Lennon and the park in Cerro Norte were both distinguished from the surroundings by their green elements and open layouts, creating a variety and mixture in both *use* and visual impression, promoting the sense of place. Parque de La Normal was located in an area with two parks and a good variety of functions making the park blend in more. The use of the parks as *common arenas*, *public environments* and places where people *meet, interact and integrate* distinguish the parks from the surroundings promoting a sense of place in each park.

Food access, community pride, morale, solidarity, empowerment and safety were not responded to according to the analysis.

## Social impact assessment

The graph shows the relations on the sites between the SIA and the social aspects.



## 3.5 Overall conclusion of site analysis: Missing aspects

The aspects not responded to according to the analysis were community pride, morale, solidarity, and empowerment. I have also included safety in this part of the report. The general aspect of safety, meaning the aspect of safety for the people in the area, was not particularly responded to in any of the site analysis. The type of safety or security that was responded to was concerning the food crops in the urban farms with fencing, which also was found to work as major barriers in the areas influencing the other social aspects in a negative way. I will present potential reasons and ideas, based on what I learned from the analysis, of why these social aspects were not responded to and what factors that could promote a difference.

### Community pride

A important factor that could promote the aspect of community pride is *participation*. There are also two other factors not included in the SIA that was found missing in the site analysis, ownership and aesthetics. Potentially an increase of participation would involve the community in their surrounding environment promoting the community pride. This could also be linked to ownership as a factor. Ownership and participation are close and if the ownership could include the people living in the area they could feel more involved and a potential increase of community pride is possible. Aesthetics was something that was found to be under-prioritized in all areas analyzed. The aesthetics is a value that can increase the aspect of pride, especially if you are involved in the creation.

### Morale and solidarity

The aspects of morale and solidarity could potentially be linked to two of the same factors as in the aspect of community pride. Participation and ownership of the common arenas involves people in the creation and the outcome. By being involved and a part of your surroundings the morale and solidarity can potentially be increased.

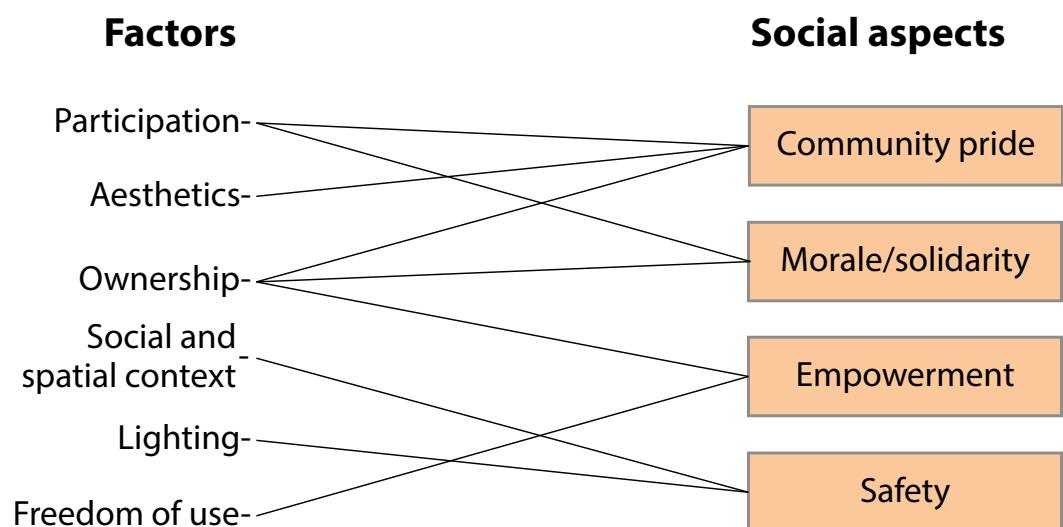
### Empowerment

Empowerment is specifically linked to the factor ownership. By owning and running your own urban farm gives the possibility to develop and benefit from the farm as much as you wish. This could lead to income, food access and employment, promoting the aspect of empowerment. It also connects to the issue of freedom of use in the public environment.

### Safety

When it comes to general safety in the areas the result from the site analysis were rather disappointing.

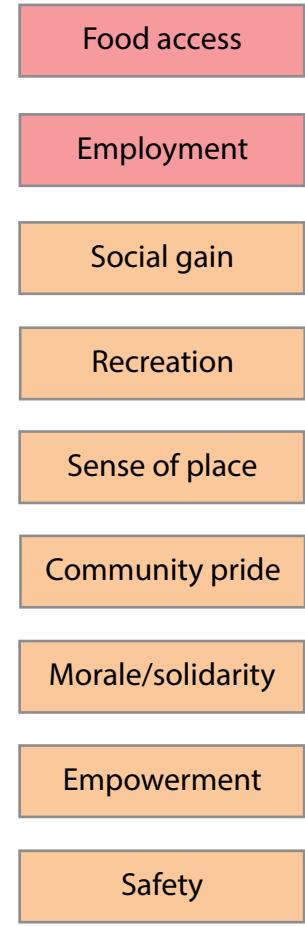
Proper lighting were missing and many of the places were dark and felt disconnected with the rest of the area. The factor social and spatial contexts could potentially benefit the aspect of safety by creating activity and make darker and less populated areas better connected with the surroundings. These factors could also benefit the safety of the food crops, without fences.



*The graph shows the potential relations between the factors and the social aspects.*

## 3.6 Design criteria

The design criteria aims to promote the social aspects targeted in this report. The site analysis, which are explaining the relations between the physical environment and the social aspects, creates a foundation for the first part of the criteria with solutions observed on site that promoted the social aspects targeted. The first part will therefore be seen as validated by the observations and should be most emphasized in the design. The second part of the criteria are shaped by the social aspects not promoted in any of the sites analyzed. I have assumptions about why the aspects is not responded to, but these criteria are not validated by the analysis and is therefore to be seen as more experimental in the design. Despite the lack of information from the analysis in these cases I still found it import to incorporate these aspects in the design and will therefore try to form design criteria with what little I learned from the analysis. Both parts of the design criteria are presented with a short backtrack to the conclusions and then the criteria. They are kept short and distinct to not be a repetition of the analysis and the conclusions.



## **Part I:Validated by the analysis**

### **Social gain**

Context,connections and public environments were stated as important features in the analysis, this together with meetings and integration form the criteria.

*The design should...*

... Open up towards and correlate to the surroundings, invite people and generate bigger and smaller meeting places.

### **Sense of place**

Public functions, services, activities and meetings were important features in the analysis. This together with visual impression and variety form the criteria.

... Promote visibility, host public functions, activities, meetings and gently break monotone patterns in the area.

### **Food access**

The use of the urban farms were found crucial for the food access, both production and sale form the criteria.

... Focus on promoting food production and sale in order to secure the food access in the area.

### **Recreation**

Context, connections and common arenas were stated as important features in the analysis. This together with meetings and open creative uses form the criteria.

... Promote recreational use, public spaces and social and spatial contexts leaving space open for creativity and free use.

### **Employment**

The use of both the parks and the urban farms generated employment.

... Promote food production, sale facilities as well as public environments generating employment.

## **Part 2: Not validated by the analysis**

*The design should...*

### **Morale/solidarity**

Participation and ownership were two important factors stated in the conclusion and together they form the criteria.

... Promote participation and cooperation when possible. Ownership should be close to or in the neighborhood.

### **Empowerment**

Ownership was stated as the main factor promoting empowerment. Together with freedom of use in public environment they form the criteria.

... Promote sense of ownership in the community, freedom of use and individual benefits.

### **Community pride**

Participation and ownership were stated as the two most important factors in the conclusion. This together with aesthetics form the criteria.

... Promote pride through participation, cooperation and ownership and by strengthening aesthetics.

### **Safety**

Activity, promoted by social and spatial context, together with lighting were stated as important factors. This together with safety of the food crops form the criteria.

... Promote safe installations of the food crops, an open and connected layout and good lighting in the area.

# 4.0 Design



## 4.1 Introduction to the design

The aim with the design is to show examples of how the information and findings from the analysis can be used in a design. The design is not only to be read as a design proposal for the specific site, instead rather as a toolbox or experimental design showing how the design criteria can be used and transformed into specific proposals in different contexts. Since it is very hard to argue that something that is designed will lead to specific qualities and achievements I consider the design to be a foundation for discussion and evaluation of the analysis and theory in this report. It is important to state that the design is based on the analysis to function, but not *proven* to function.

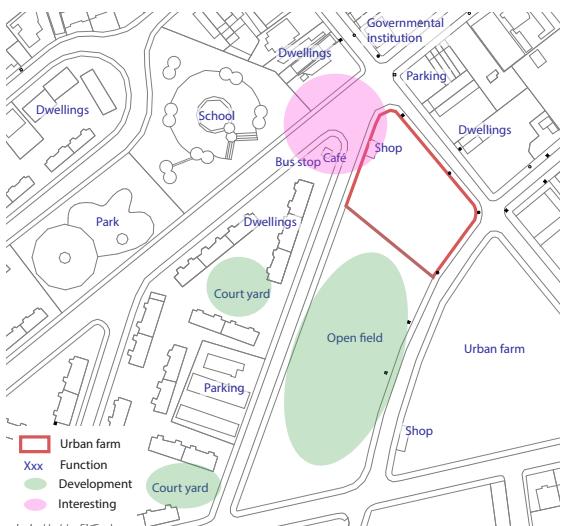
The design is first shortly presented as one whole plan with strategies and then zoomed in on different parts to further argue how the design criteria has been implemented and what social aspects that it aims to respond to and potentially can promote. In the end it is finally concluded as one whole proposal with general strategies concerning the whole area.

## 4.2 Site; Organopónico Nuevo Vedado

The reason for choosing this site for the design is that it has a good foundation to start of with and has possibilities for development. The site is not too dense, not restraining the possibilities to implement and elaborate with the design criteria, and have some small activities to start of from and develop. It is a relatively central location offering both challenges and possibilities.



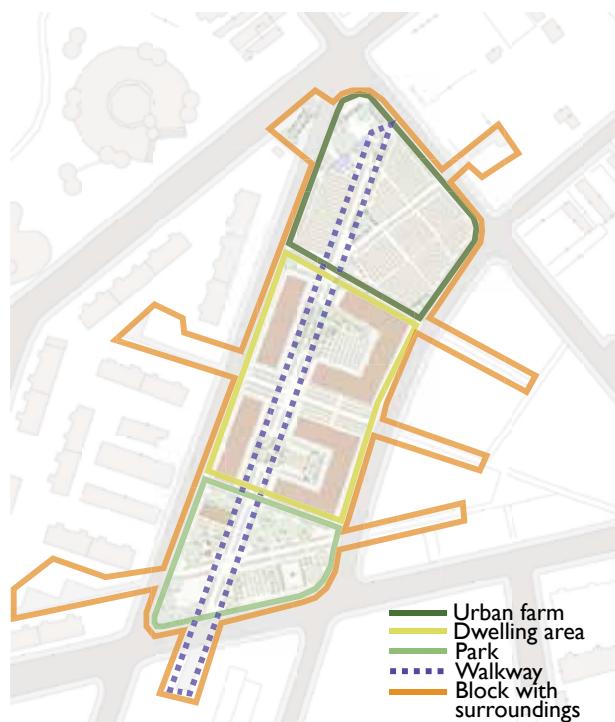
## 4.3 Design strategy

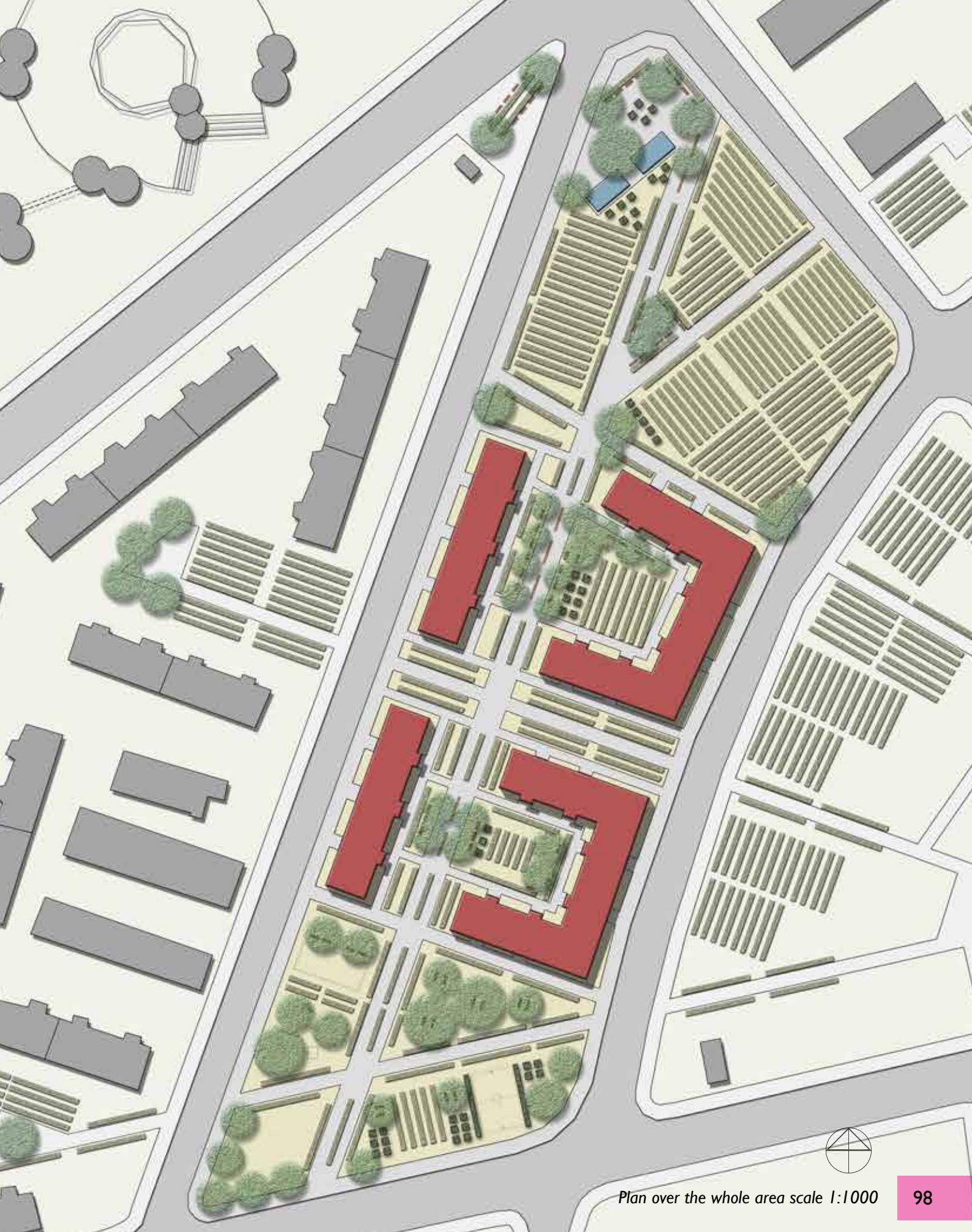


The idea and reason for choosing this specific site is because of its potential. The present urban farm is located in the Northern part of the block and the rest of it consists of an empty field without any specific programme. This gives opportunities for development and space to elaborate with and implement the design criteria. The residential area west of the urban farm got some open spaces that can be connected as well. In the conjunction were the café and the shop is located a concentration of activity were found in the analysis, something that has been interesting to build upon.

The design criteria has been implemented in several contexts to show a variety. This has led to five different parts of the design, each presented in a "zoom in". The different parts presented with "zoom ins" are: urban farm, dwelling area, park, walkway and last as a full block with surroundings. The areas zoomed in at can be seen on the map above. A few aspects have been lifted out from the "zoom ins" and are treated separately in the chapter "Further concerns".

The design is focusing on the social aspects of urban agriculture due to the topic of this thesis. This means that other aspects of urban agriculture has not been touched upon, such as cycle effects, efficiency of the food production etc. The cultivation methods used at the urban farms analyzed are the methods used in the design.





Plan over the whole area scale 1:1000

## 4.4 Urban farm

The main targets with the design are presented by connecting the design with the social aspects targeted by the design criteria. They are then further described in the plan, section and illustration.

Three new walkways, open for the public, have been added in the urban farm to invite people to enter. Farming is still the main activity but a new square and extended sale functions are found in the North corner, facing the active conjunction and creating a bigger public space. Also a new smaller meeting place is located in the core of the urban farm.

**Food access:** Food production is kept as the main function of the urban farm and the sale facilities have been extended on the new square.

**Employment:** By keeping the food production and extending the sale, employment is further promoted.

**Social gain:** The site has been modified with three new walkways connecting the farm with the surroundings and making it more open. A bigger square together with a smaller meeting place in the middle promote meetings, contacts, leads people in to the core of the farm and creates a soft edge towards the streets.

**Recreation:** Recreational use has been made possible by making the farm more public, inviting people, connect it with the surroundings and leaving walkways, the square and the smaller meeting place open for leisure and other activities.

**Sense of place:** The farm itself is promoting a visual impression due to its open layout and green elements. The public functions have been strengthen around the square and together with the smaller meeting place they generate a social and spatial context and make the farm a part of the neighborhood.

**Morale/solidarity:** By inviting the people in to the farm the sense of common ownership and freedom of use increases slightly. Possible cooperation between the municipal run urban farm and the private organizations also increases the sense of morale and solidarity.

**Empowerment:** By adding public functions and environments in the urban farm the freedom of use and individual benefits increases.

**Community pride:** By adding public environments in the farm the sense of ownership increases and together with making the cultivation a part of the spatiality aesthetics is increased, both promote the community pride.

**Safety:** More activity in the farm along with increased morale/solidarity and community pride can increase the safety. Also other potential options is presented under the heading “Further concerns”.

Extended square and sale function

A-A

P I

Three new walkways with  
better connections

A-A

New meeting place

The main idea is to invite people in to the farm by creating a better spatial and social relation with the surroundings. New entrances are placed out around the farm making it possible to pass through and stay within the farm. The shop facilities has been extended to two shops, making it possible for the surrounding communities to also sell their food. The new square creates a soft edge between the busy conjunction and the urban farm generating meetings and inviting people to stay longer on the site. The new square together with the café on the opposite side of the street will create a small hub and take advantage of the location close to the active conjunction. By bringing the cultivation boxes in to the square a softer transition between the food production and the public spaces is created. The cultivation boxes also help framing the square and walkways, creating spatial values and promoting aesthetics

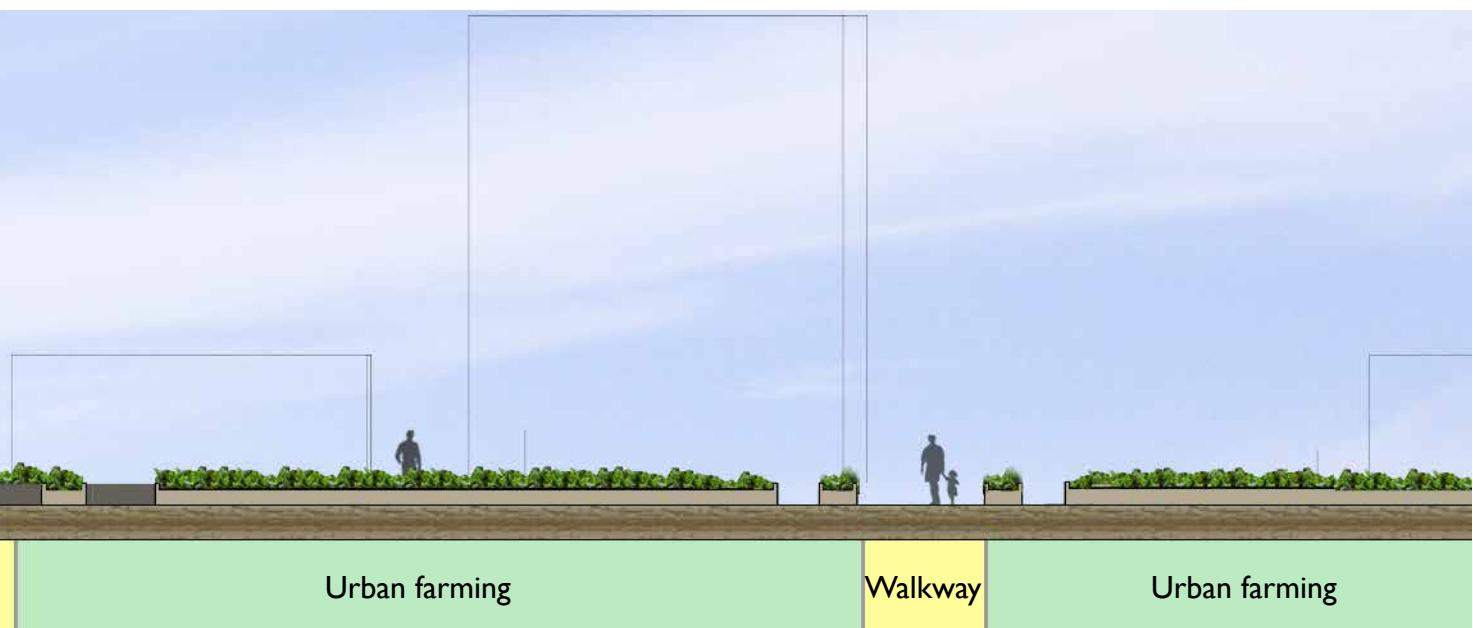
The section is showing that food production is still the main function of the site. Though it has been opened up, letting people in to the farm and the square is creating a soft transition between the urban farm, shop and the streets.



Section (A-A) showing different functions and the relation between them. Scale 1:200.



*Illustration (P 1, seen from the street) showing the new square, shops and relation between the streets and the urban farm.*



## 4.5 Dwelling area

Four new buildings are proposed in the dwelling area. Cultivation is introduced on the two main court yards and around the walkways in the area. The main idea is to mix cultivation with other common activities that usually take place on court yards, such as meetings, play and recreation. The court yards go from a more private atmosphere closer to the buildings and open up towards the public walkway with integration through the meeting places.

Food access: By adding farming activity in to the dwelling areas an increase of food access will take place.

Employment: The urban farms will not generate official employment but will give the people living in the neighborhood a chance to increase their income or reduce their expenses by either selling the food or use it themselves.

Social gain: The open layout towards the more public walkway functions as a way to mix people passing by with people on the court yards by two common meeting places right on the edges of the two different areas (walkway and court yards). The mix of functions, play, recreation, transportation and farming will create opportunities for meetings and integration within the court yard.

Recreation: The layout of the cultivation boxes gives room for recreation, helps shaping the spatial qualities of the court yards and contribute with aesthetics. It will be a soft transition from the more semi-private parts close to the buildings and towards the public walkway in the middle. The court yards will host a variety of functions to suit different types of recreation.

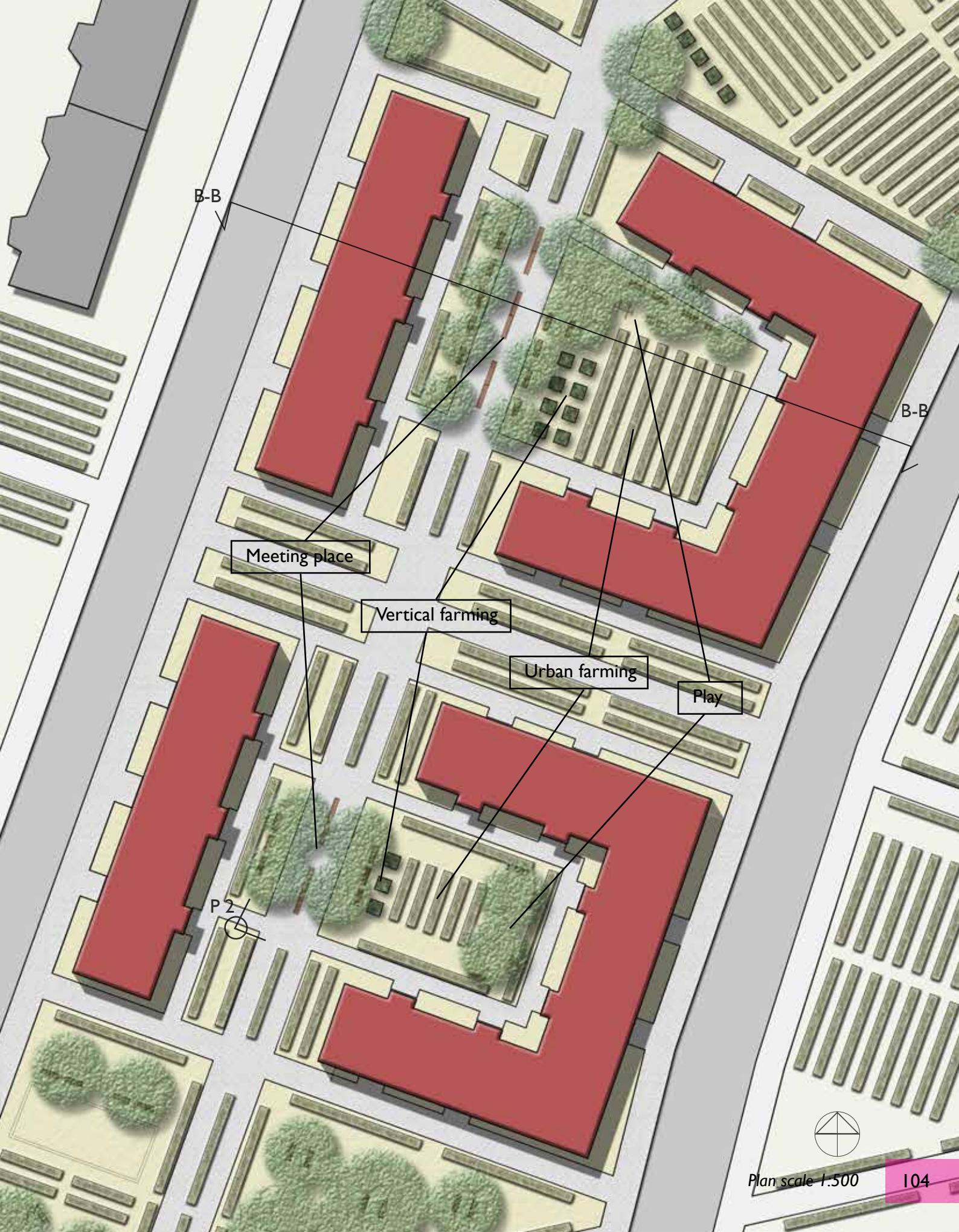
Sense of place: By adding a variety of functions and activities in the court yards meetings and integration will appear. This together with visual impressions from the cultivation will promote the sense of place.

Morale/solidarity: The common ownership of the agriculture and participation within the community and with the municipality increases the aspect of morale and solidarity.

Empowerment: With the people living in the neighborhood being the ones owning the agriculture and by that being a part in shaping their own environments and gain individual benefits the aspect of empowerment will be promoted.

Community pride: The ownership within the community and participation among neighbors along with aesthetic qualities will promote the community pride.

Safety: More activity in the court yards along with common ownership and higher morale and solidarity will promote the aspect of safety in the area. Other options are presented under the heading "Further concerns".



The dwelling areas will be a mix of cultivation, play, meetings and transportation (walking and biking). The cultivation boxes, seen in the illustration to the right, are framing a space in the middle of the court yard and opening up towards the public walkway. On the edges between the public walkway and the court yards meeting places are found under the shadows of the trees.

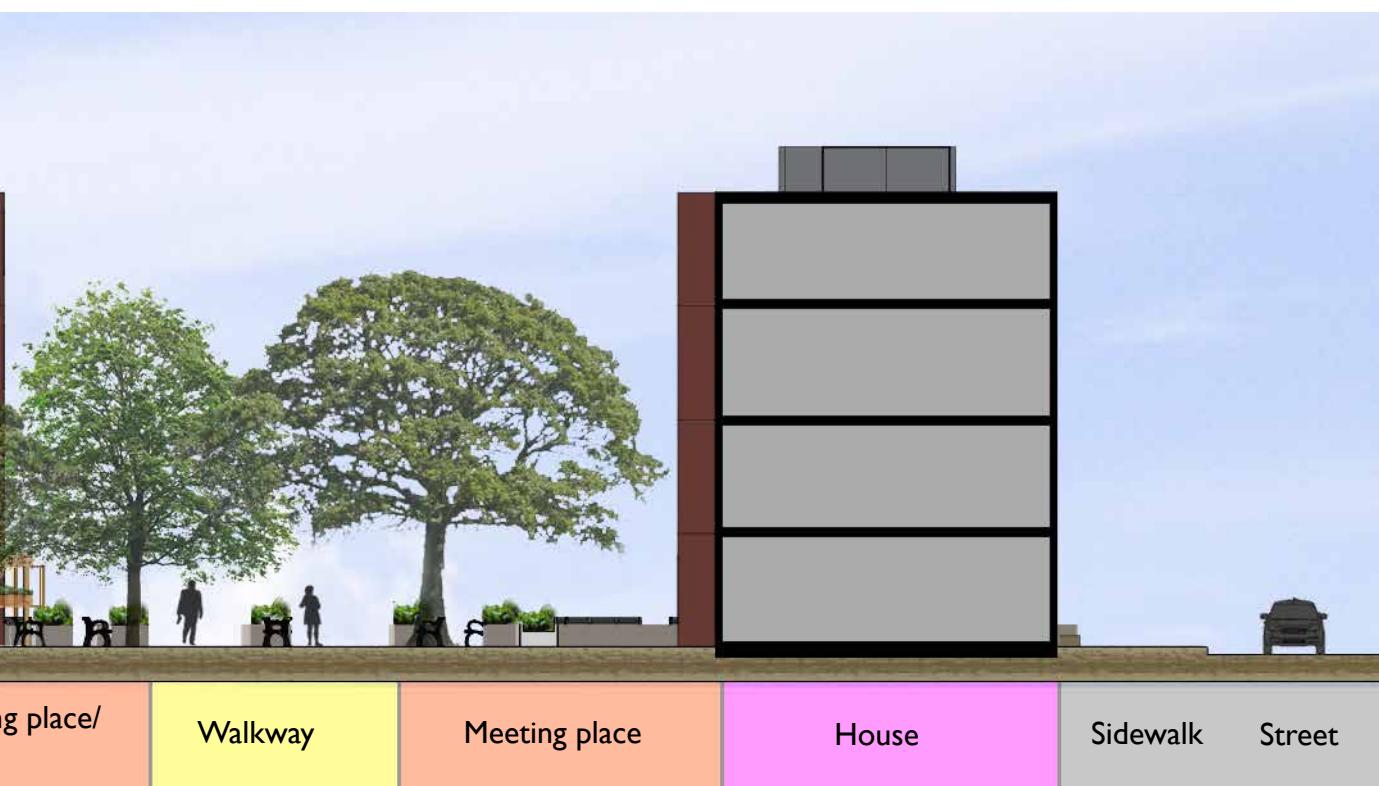
The layout is meant to be create a variety of functions to activate different types of people and meetings and at the same time promote food access. The section is showing the whole Northern court yard from building to building, with the public walkway in between.



Section (B-B) showing different functions in the design and the relation between them. Scale 1:200.



Illustration (P 2) showing the Southern court yard, walkway and the relation in between.



## 4.6 Park

The park has a clear focus on recreation, leisure, play and exercise. Cultivation is brought in as a new park element to contribute to the food production, recreation and give spatial qualities and aesthetics. The area is divided in four parts with walkways crossing the area and going around to generate movement and activity. Open spaces alternates with programmed spaces to create variety, activity and freedom of use.

**Food access:** Parks are in general not productive areas. By introducing agricultural activities in a park the level of food access will increase.

**Employment:** The park is a public area run by the municipality creating working opportunities with its management. Growing food in the park will need more management, either from the people living in the neighborhood or from the municipality, but also create a profit from the production, increasing the level of employment.

**Social gain:** The park is an open public environment inviting people to either pass by or stay longer generating meetings and interaction. By adding functions in the park, such as play, sport, agriculture and leisure, more people will be attracted leading to more meetings and integration.

**Recreation:** By making the park public and connect and relate it to the surroundings by many entrances the recreational use is promoted. The variety of functions makes it suitable to different types of recreation and freedom of use. Cultivation could also be seen as recreation and therefore seen to promote the recreational use as well.

**Sense of place:** The park is hosting a variety of public functions and meetings in its recreational use. As a green element and with an open layout the park will generate a visual impression that together with its use will promote the sense of place.

**Morale/solidarity:** A potential common ownership, cooperation and participation between the municipality and the community increase the aspect of morale and solidarity.

**Empowerment:** The park as a public environment with open spaces creates freedom of use and individual benefits. This together with a potential community owned food production increases the sense of ownership and promotes the empowerment.

**Community pride:** The park as a public environment will create a sense of ownership. The cultivation will generate participation, potential ownership and aesthetics, together promoting the community pride.

**Safety:** With an increased presence of people, both working, playing, relaxing and passing by the safety will be increased. For further options see "Further concerns".

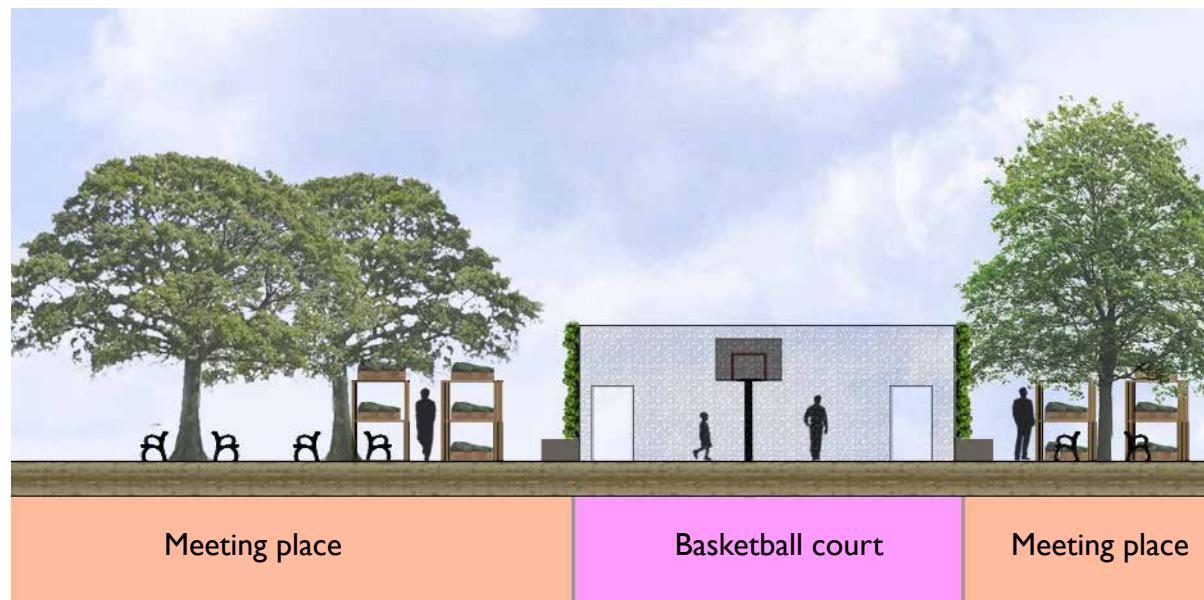


Plan scale 1:500

108

The main idea with the park is to create a public environment with a variety of functions including food production and cultivation. Different functions are placed out in the park to attract a variety of people. The four different areas are framed by cultivation boxes to create spatiality and to promote food production. The illustration to the right is showing one of the walkways, some of the functions and how they relate.

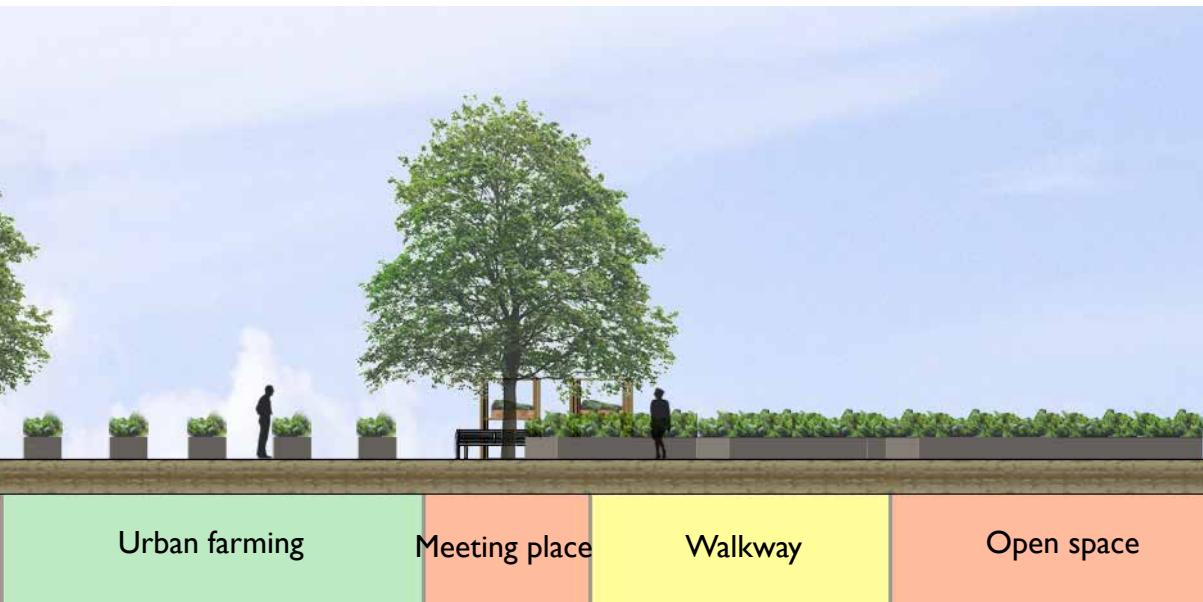
In the section it can clearly be seen that the priority of the park is not food production, it is a complementary function. The main focus is recreation, meetings and play. The agriculture is added as a function to both generate food access but also create spatiality and promote recreation and integration.



Section (C-C) showing different functions and the relation between them. Scale 1:200.



Illustration (P 3) showing one of the walkways going through the park framed by cultivation boxes, the basketball court and vertical farming



## 4.7 Public walkway

The public walkway stretches through the whole area and connects the different parts with each other. The cultivation boxes function as a sign of identification giving a soft transition between the different parts, a clear spatiality and contributes with aesthetics. Three new meeting places are placed along the walkway, connecting to the two court yards and the urban farm. The cultivation boxes are placed with a gap in between to create relations and entrances between the walkway and the park, court yards and urban farm. The walkway can also be further developed and connected with the neighborhood south of the area.

**Food access:** By introducing agriculture as an important element in the walkway food access is promoted.

**Employment:** The walkway as a public environment with agriculture activity that will need maintenance promoting the aspects of employment.

**Social gain:** The walkway will function as a link between the different areas, connecting and inviting people to cross borders and integrate, especially around the three meeting places.

**Recreation:** The walkway itself promotes recreation by its use. The added agricultural functions together with the meeting places increases the aspect of recreation as well.

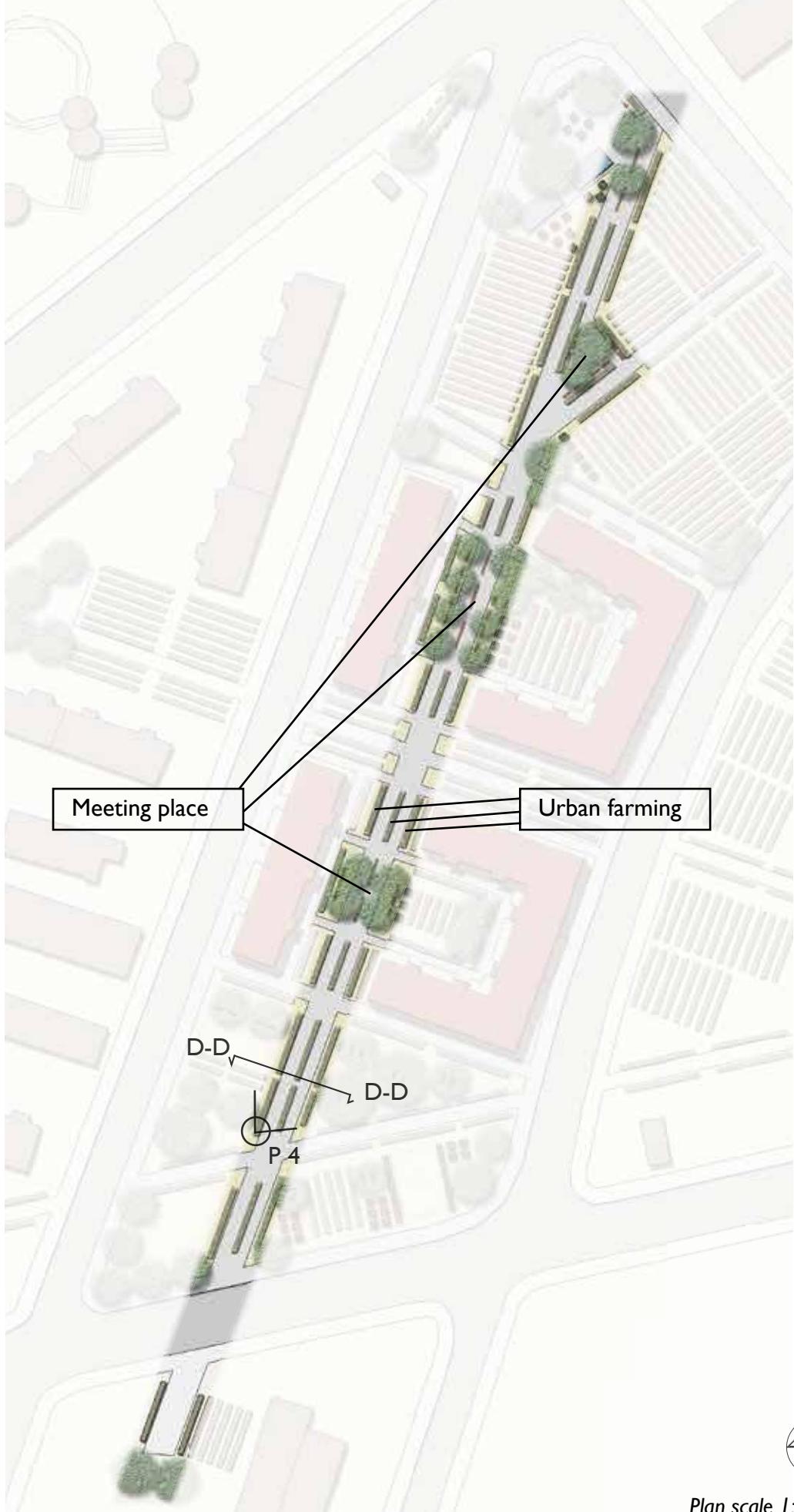
**Sense of place:** The stretch of the walkway goes through four different areas making it the glue holding the block together and also promoting a sense of place for the whole block. It generates meetings and contacts and creates a visual impression with the cultivation.

**Morale/solidarity:** By connecting different areas the possibilities for participation and cooperation will increase, leading to a higher morale and solidarity.

**Empowerment:** The public environment will generate freedom of use and together with the agricultural elements they will create individual benefits and promote a sense of ownership, increasing the empowerment in the area.

**Community pride:** By connecting the different areas participation and cooperation will increase, generating a stronger community and community pride.

**Safety:** Increased presence of people, both working, and passing by will promote the safety. For more ideas see "Further concerns".



Plan scale 1:1000

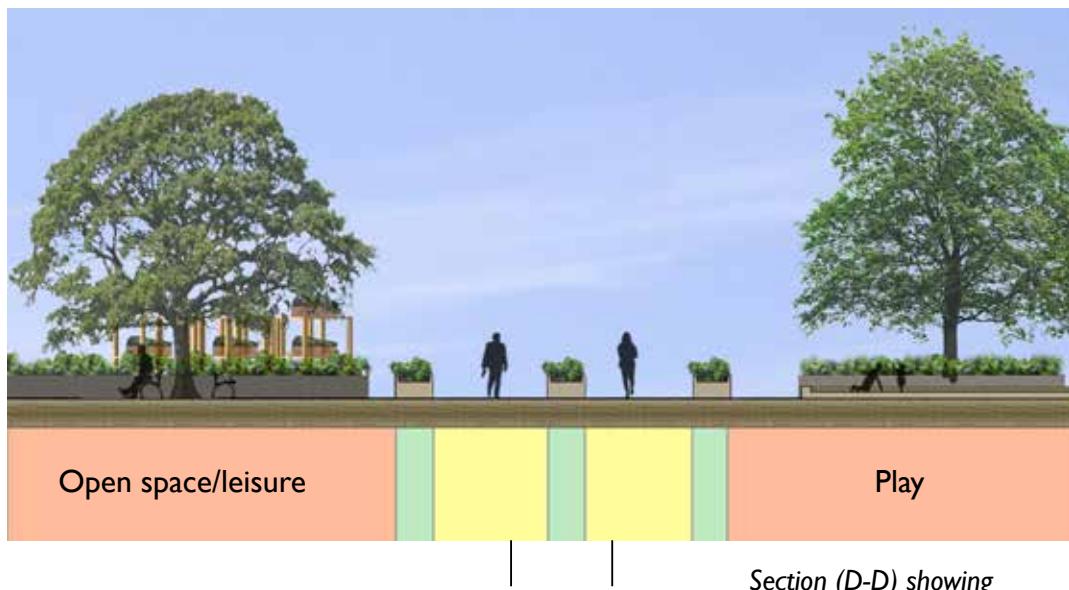
112

The main idea with the walkway is to connect the different areas. The agriculture element functions as a visual connection through the whole area, produces food and creates spatial qualities by framing the walkway. The gap between the cultivation boxes creates many small entrances between the walkway and the surroundings giving it a soft edge that promotes integration and interaction. Meeting places are placed in the crossings at the court yards and in the urban farm.

The illustration and the section is showing the walkway, the edge towards the surroundings and the layout of the agriculture in relation to the other elements.



*Illustration (P 4) showing the main public walkway framed with cultivation boxes and the relation between the park and the walkway.*



## 4.8 Block and surroundings

When the four different parts are added to one piece it creates a full block. The area is not to be seen as an lonely island of urban agriculture and is therefore designed with open endings (walkways) that connects with the surrounding areas so that the design and idea can easily be build upon and developed further in the surrounding neighborhoods. The elevation and heights of the buildings are in relation with the nearby surroundings. Food production has been heavily increased in the area together with public functions, dwellings, recreation and meetings.

Food access: Looking upon the whole area the food production has been increased significantly.

Employment: By adding more food production and more public space the aspect of employment has been promoted.

Social gain: The area is well connected within and with the surroundings by walkways and agriculture as a common identification. Many new meeting places have been implemented in public environments inviting people to pass by or join in.

Recreation: Recreational use has been implemented in all new areas. Together with a public orientation of the environment, open spaces and good connections the aspect of recreation will be increased.

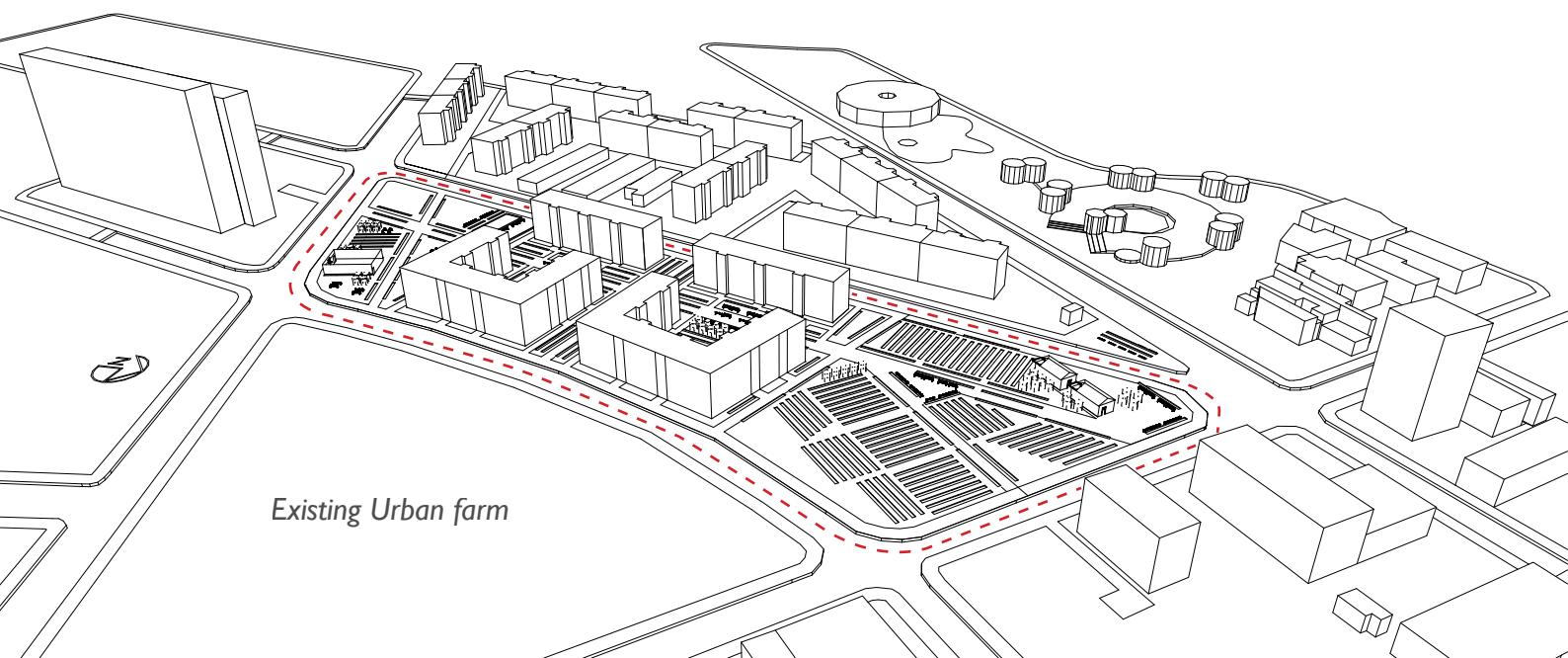
Sense of place: The whole area has an increased amount of public functions and public space. Previous empty areas have been programmed and activated. By mixing the functions and making the area more public meetings and contacts are promoted. This along with an increased visual impression of the farming activity will promote the sense of place.

Morale/solidarity: By connecting the different areas and neighborhoods with agriculture as a common feature participation and cooperation can grow and promote the morale and solidarity between and in the areas and in the neighborhoods.

Empowerment: The agriculture is divided in different ownerships between the municipality, communities and the school. Spreading the ownership together with an increase of public environments and freedom of use promotes empowerment.

Community pride: The agriculture is to work as a foundation for the whole block, connecting people in participation and cooperation, being productive, beautiful and give a sense of ownership. All promoting the community pride.

Safety: By raising the level of participation and cooperation together with raising the level of activity in the area safety increases. For more ideas see "Further concerns".



The area will blend in well with the surroundings when it comes to elevation and density. The mix of residential areas and open spaces leaves space for both living, relaxation and food production.



The ownership will be divided between the municipality, school and the communities. The aim with this is to create cooperation and participation increasing the morale, solidarity and empowerment. The urban farm(s) will be run by the municipality, the park can start of by being run by the municipality to later on be incorporated in the communities, and the agriculture close to the dwellings will be run by the communities.

The map to the right shows how the block potentially can be connected to the surroundings and how the surroundings can be incorporated in the design with good connections and the agricultural elements.



Plan showing connections with surroundings, scale 1:1000

## 4.9 Further concerns - Safety

The issue of safety was hard to analyze and also hard to design for. The main aim is that a higher level of participation and sense of ownership together with a general progress against poverty in Cuba would decrease any potential threats of theft and promote the aspect of safety of the food crops. Since no specific threats against the food crops were found in the analysis except for the fact that all urban farms had fences (even if they in some cases were close to useless) it is hard to argue the importance of it. Another main factor in this issue is that putting fences around the agriculture would affect most of the other social aspects negatively, and therefore the used methods of fencing is not an option in this design.

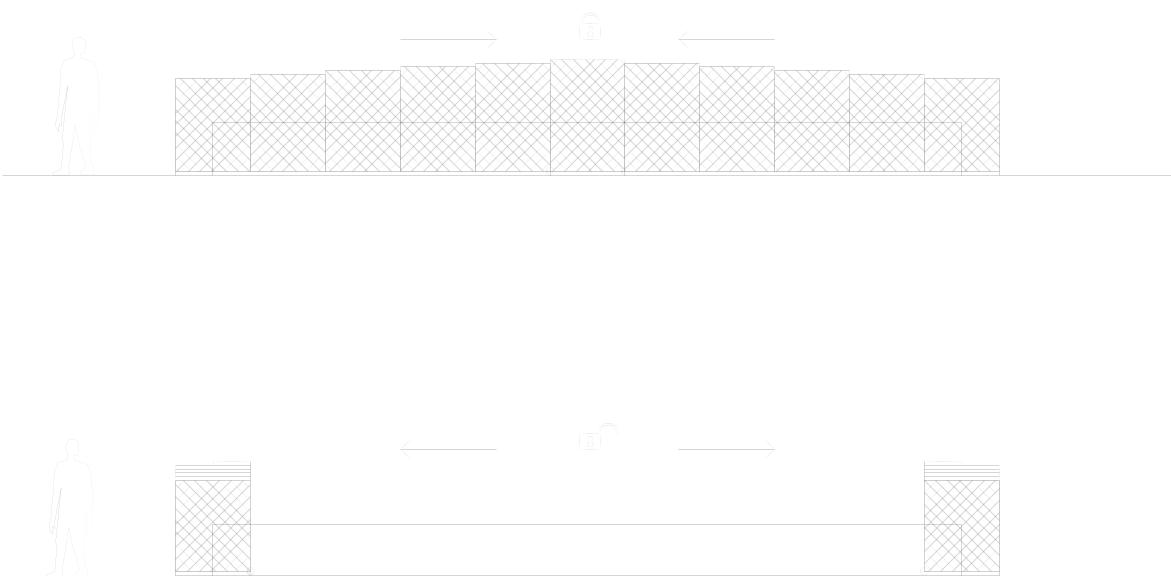
To not leave the issue hanging two other options are presented that can be implemented in the design if necessary and will then increase the safety of the food crops without working against the other social aspects.

1



*Lighting was seen in the urban farm in Cerro Norte. Light can prevent theft by making the food crops visible, exposing thieves, also in the night.*

2



*An individual cage or net for each cultivation box that can be opened in the morning and closed in the night would prevent theft and keep the food crops safe.*



# 5.0 Conclusion

## 5.1 Conclusion and discussion

In the conclusion and discussion I try to keep the chronological order of the report, starting off with the method and desk research to move on to the analysis, design criteria and finally the design. The aim with this chapter is to share my own thoughts of the work I have done and to criticize and shed light over the parts I find weaker, more difficult or more interesting.

### Societal problem - social aspects in Cuba

I found it complex to come to some sort of conclusion of the situation of social sustainability in Cuba. The country is yet a developing country and faced a severe crisis as late as in the 90's causing starvation and put parts of the society on hold for years. The crises have passed, but the urban agriculture development is still in some ways closely linked or associated with the crisis. When reading the Human Development Index (HDI) from the UNDP Cuba was found fairly high on that chart with very good statistics in especially health and education and starvation is not any longer a problem in the country. The ambiguous sources made it hard to know what type of social sustainability that was in need of focus, the hard or the soft social sustainability. I came to the conclusion that the issue of food access and employment (the two hard aspects of social sustainability analyzed in the report) is something that is still necessary to emphasize and is something that is worked with even in the developed world, even though in a different way. This means that even if Cuba is in a transition from shortage of food and employment and is stabilizing, these issues are important to address anyway and can in a long term perspective influence both economical and environmental sustainability, as well as the social aspect. The next step is to figure out what Cuba is facing in the future, if they are to be found in this transition period now, what will come next? Before going to Cuba all I had to rely on was the literature, and since literature focused on the past and mainly the hard aspects I did not know if it would be relevant to bring up the soft aspects. Here I came to the conclusion that the soft aspects of social sustainability is likely to play an important role in the future, leaning on the result from in HDI from the UN. When I arrived in Havana and started my field work I made my own observations, just by doing my everyday activities and getting to know the country by experience, and from what I could see the standard of living was higher than I expected, which made my decision of including the soft social aspects grow stronger. I personally believe after living there for two months that Cuba is developing and got good potential to keep on doing that. So even if the HDI was in fact the only support I got from the literature saying that the soft aspects should be incorporated in the analysis, my experience afterwards also tells me it was right to incorporate them. In fact I believe this report is coming in a very good time, when the urban agricultural movement has in some places slowly been phased out the report shows other angles of its use that can strengthen the value of urban agriculture preventing it to be phased out, both for social, economic and environmental reasons.

*The next step is to figure out  
what Cuba is facing in the  
future...*

The social aspects I chose to target with my analysis was stated in the literature as potential social aspects that could be promoted by urban agriculture. I believe it worked out very good for the analysis part to state the aspects ahead to make clear what I was looking for. I believed that the aspects targeted was sufficient and that no relevant aspects were left out. It was first in the design step I discovered that more social aspects for sure can be linked to urban agriculture, such as education and play. The reason for this I believe is the poor outcome of the analysis in general, but it should also be seen as a weakness in the method/process to have stated the social aspects targeted that early. These aspects will only be mentioned here since they came in very late in the process, also creating a weakness in the outcome of the report.

### **Methodology**

By using abduction as a method together with the social impact assessment (later discussed in this chapter) as a framework for the method created some potential risks. The framework and the method are rather broad and general in their embodiments, which was one of the reasons for choosing them, but to link the abduction/observation with the framework a sort of translation is needed. I believe that if different people would do the same observations with the same framework and method they would come to slightly different conclusions. What this means is that my background, education, previous experiences and somewhat also belief or opinion when it comes to urban planning and design has most likely affected the translation and therefore also the outcome of the analysis. This fact can be angled in different ways as well. I can argue that my education and previous experience is very important to be able to conduct the observations properly and use the outcome of the observations and analysis to form valuable conclusions.

Without my knowledge I probably would not know what to look for and what is important, thereby not be able to link the observations with the framework. On the other hand my background, coming from a Swedish context with a certain idea and expectation, and my belief or opinion concerning urban planning and design is most likely to color the outcome as well, which makes it in a way biased. The conclusion of this issue is that I am not presenting the truth with my analysis, I am only presenting one way to look at it, a potential truth or one angel of the truth. If other people would look at the same research problem and questions, using the same method and framework, it would most likely end up with a slightly different angel or result.

*... if different people would do the same observations with the same framework and method they would come to slightly different conclusions.*

The methodology is not covering every aspect of social sustainability either. Interviews would have been a strong tool to use to really understand the sites and the way the Cuban people look at them. This would also counteract the fact that the analysis is affected by my background, education, experiences and belief and instead lift up the opinions of the people actually living on or using the sites. Not being able to do

interviews (mainly time constrain and poor language knowledge) also forced me to drop one part of the social impact assessment (identity). Interviews would have added stronger local knowledge and weighed up my individual observations in a good way which would have added a dimension to the analysis and conclusion that unfortunately is not existing in this material.

### Social impact assessment

The framework for my analysis has been the social impact assessment (SIA), developed in Göteborg, Sweden. I believe it is important to state that it was used as a framework and not a method. The reason for using this framework is because it is wide in its terms and covers a lot of factors in urban planning and design, which helped me to focus on specific factors and translate what I observed when doing the field study. The SIA was tried in the Cuban context to see if it worked and was also flexible and could be extended or reduced if needed. I found it suitable in its use when doing the field study mostly because of its wide terms and good cover. The factors in the SIA was basically used to describe relations on the sites, the geographical location did not really matter. However I sometimes found it difficult to point out the specific relations between the factors in the SIA and the social aspects. It was hard to argue what specific factors in the SIA that affected the social aspects and it was often different factors affecting each other and then in the third step affecting the social aspect. What this means is that the method and framework set up for the observations is likely to be too simple to describe such complex relations. For some of the aspects targeted with the analysis I found the SIA to be insufficient. I then simply added factors (ownership, aesthetics, freedom of use and lighting) that were missing in the SIA and that I found from the observations could promote the social aspects targeted. This is also interesting for the development of the SIA as a method and framework used in urban planning and design, which I consider to be a dynamic document that should constantly be developed. I will also touch upon another potential risk with using the SIA as a framework. For the observations to take part from a rather strict framework it risks missing out on angels or in this case factors that are not included in the framework. This happened during my analysis, but fairly late in the process. The question is if the outcome would have been different if had not used such a strict framework and instead would have described what I saw more freely. A question I'm not able to answer.

*It was hard to argue what specific factors in the SIA that affected the social aspects...*

### Site analysis

When starting of the site analysis a few challenges appeared. First it was much harder than I thought it would be to find suitable sites for my analysis. The urban agriculture was not as widespread as I thought it would be, an expectation I got mainly from the literature, and foremost the sites were very similar in their layout and function. I wanted different types of sites to analyze to make the outcome as rich as possible,

but the sites I was able to find and visit did not offer that. One reason for this was that my visa application took very long time and the urban agriculture foundation, Antonio Nuñez Jimenez, in Havana refused to help me without my academic visa. They had contact with different organizations that would have been very interesting to visit, but since I did not have any contact information or address I was not able to. This led to that I visited the municipal run urban farms that I found in Havana, mainly from walking around in different neighborhoods but also looking at satellite photos to find them and then go out to visit them. The aim was to include urban farms from different types of urban context, such as density and demography. What I found after several visits was that the urban farms were very similar in their layout and function. There was no reason to analyze all of them due the similarity and likely to be similar outcome. To broaden my analysis to be able to enrich the outcome I chose, after a discussion with my supervisor, to include other green elements in the city and see how they were used and what type of social aspects that came from them. It ended up with that I analyzed parks that were located close to the three urban farms. This gave the analysis another dimension and a more interesting outcome. When it comes to the number of site analysis I will argue that three urban farms and three parks were sufficient because of the similar result found in both the parks and the urban farms. More sites would probably not have given a different outcome. Different types of urban farms, such as spontaneous urban agriculture, would though probably have given a different outcome, and is something to be considered missing in this report.

*... it was much harder than I thought it would be to find suitable sites for my analysis.*

### **Design criteria**

Another assessment influenced by me is the translation of the analysis into design criteria. In this state of the process no clear method or tool was used. This leads to the conclusion that again the outcome of the design criteria is most likely to be influenced by me even though it was based on the analysis.

### **Design**

Including design in a research process could be seen as risky since design can not be fully validated. But on the other hand design can be seen as the most powerful result of research due to the fact that it often aim to make change or progress in a specific matter. Design is one way to propose change or progress and gives the opportunity to not stop at the point of shedding light on what is good/working and what is not good/not working, but instead show potential ways of implementing what is good and change what is bad.

When it comes to the design made in this report the focus came to be on integration of the urban agriculture in to urban fabric. The urban farms studied were found to be very isolated from the surroundings, single-functional and kind of left behind in the general urban development. From what I could see during the field work, urban farming is seen as pure food production with no other value. It is clear that this point of view can be linked to the food crisis and the beginning of the major development of urban farming during

that time. But time has changed, urban farms were in some case found be abandoned for other urban development and I believe that if urban agriculture is to be a present and growing element in Havana and Cuba a change is needed. A big problem, as I see it, is the general perception of urban agriculture as food production, working landscape and also food scarcity. The mental picture must be changed to a more multi-functional element, which is promoting social gain, sense of place and recreation, and for this to happen I believe integration with the surroundings is necessary. If this does not happen neither of the dimensions of sustainability will be promoted because the urban agriculture movement is likely to disappear. This means that the social aspects are crucial for its survival of today.

I had this discussion with my supervisor in Cuba, Dr. Dania Gonzalez Courret, and she said that there is a major difference in the perception of urban farming in developing countries and developed countries. That we in Sweden, as an example, choose to develop this element because we believe in it, maybe foremost because it creates environmental or social values, and that the Cuban people have been forced to develop it to survive. This of course creates a major difference of perception, something that for me is hard to place myself in. I have chosen in this report to stay at my perception of urban agriculture as something more than just survival. The reason for this is based on the facts that Cuba is developing and that the standard of living is high according the HDI, urban agriculture in Cuba is not only about surviving anymore. This fact was also strengthen by my own experience and that I found from studying old maps

*A big problem, as I see it, is the general perception of urban agriculture as food production, working landscape and also food scarcity*

that a lot of the urban farms have been replaced in favor for other elements, from which the conclusion can be made that food scarcity is not a major problem anymore.

The result of the design is not complete according to me. There are much more aspects to study to be able to deliver a proper design proposal. The agriculture method and the environmental cycle of food production, waste and energy to give some important examples. This was not the aim to investigate in this thesis, even though I would have been more than happy do to so, and has therefore not been touched

upon at all. Instead the present methods of the urban farms studied have been used in the design. The reason for this is mainly because I believe that if other aspects than the social should be incorporated in the thesis it should have been properly made with an equally strong foundation as the social aspects, which was not possible due to the time constrains. Rather I see it as something that can be further investigated, maybe a PhD extending the social aspects and incorporate them with other aspects and dimensions of sustainability, or another master thesis focusing on other aspects of urban agriculture.

If we go more into detail in the design a few question marks and issues are worth bringing up for discussion. The first one is the general lack of multi-functional urban elements in Havana, Cuba. Streets are designed

for transportation/cars, sidewalks for pedestrian, a park is strictly a park, an apartments building consists of apartments, the revolutionary square (huge square in Havana) is used only on Labor Day and maybe some other special occasions, etc. This observation was done by me in general and should not be taken as a fact, but it does though reflect very well with the observations I did of the urban farms and the parks. The urban farms, as well as the parks, only had one function. The reason for this would also be very interesting to study, to know how Cuban planners and architects think about designing urban elements and integration. Another issue worth bringing up in the discussion is the issue of safety and theft. It was seen in the site analysis that not only the urban farms but also a majority of the private residences were sealed off by fences. Investigating the actual level of crimes were very hard with the chosen method. What could be seen though was that in some cases the fences were in such a bad shape that they would probably not prevent anyone from entering the site stealing if they wanted to. Rather it worked as a barrier and a sign for regular people to not enter without permission. The question is whether the issue of theft and safety of the food crops is as relevant today as it was during the crisis in the 90's when people were starving. This does not mean that it should be ignored, rather that the level of safety needed could be discussed and also tried out differently to be able to promote other aspects.

*The result of the design is not complete according to me.*

If I would conclude the design I believe it shows relatively simple methods of potentially promoting the social aspects through urban agriculture. The strength is the width of the design, bringing up different contexts and aspects of how to integrate urban agriculture with the surrounding urban fabric and the weakness is the lack of detail in the actual urban farming techniques and methods. I consider safety of the food crops to be one specific threat to the design. If my conclusions concerning that issue turn out to be wrong, changes need to be done that will most likely affect the social aspects.

### **General outcome of the thesis**

In the last part of the conclusion and discussion I want to reconnect to the beginning and the aim of this thesis. The aim was foremost to study the social aspects of urban agriculture and then try to see if and how they could be improved, taking parts from two research questions:

- How does social sustainability appear/perform through the urban agriculture development in Cuba?
- How can social sustainability potentially be improved trough urban agriculture in Cuba?

I would argue that the thesis based on the objectives was partly successful. Social aspects of the urban agriculture have been mapped out and an educational design, based on the outcome of the first research

question, presenting potential ways of improvement has also been presented. The outcome of the thesis could though be seen as unsuccessful in some ways as well. The aim was to study different types of urban agriculture to get a broad view of the situation. This was unsuccessful. Which also lead to a fairly narrow analysis of the urban agriculture, which was not the aim from the beginning. As a matter of fact the analysis in general gave a weaker result than expected, with a lot of similar results and weak promotion of the social aspects on the different sites. This is not necessarily to be seen as a failure, rather as a disappointment of the reality. My expectations were high and my findings did not match them.

I have also criticized the methodology and framework in this thesis. I'm aware that I'm not presenting the truth, but rather one way to look at the truth (the analysis) and one potential

*The strength is  
the width of the  
design...*

way of looking at the truth (the design). The method of combining theory and design in this thesis is something that I found successful. I strongly believe it is important to not only conduct research spreading light over the present situation (building theory and analysis), but also aim forward and develop

ideas of improvement (design), and I consider this to be important for both the practice and the academic side of the profession of urban planning and architecture. My hope is that this thesis will spread light over the issues brought up and especially add to the debate of urban agriculture as an integrated urban element, important for aspects of sustainability, not only environmental, but also social and economic aspects. I also hope that the work is presenting a good example of how to conduct analysis and bring in theory in the design work, and that it was a pleasure to read.



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## **Reclaiming social aspects in sustainable development - Urban agriculture in Cuba**

The state of the world's cities today forces us to address the issue of sustainability. More people are moving in to the cities and urban planners and designers are put to a challenge of dealing with this by creating a livable environment. Social aspects of sustainability within urban planning and design have been less acknowledged than the environmental and economical aspects. In Cuba a movement of urban agriculture sprung to reduce food crises in the early 90's and has now created new elements in the townscape. At the same time movements in many developed countries have started urban farming activities as well, mainly due to social and environmental reasons. This thesis focuses on the appearance of social aspects in municipal urban agriculture in Havana, Cuba. The method used is abduction through observations on five sites in Havana, Cuba. To narrow it down and make the analysis concrete Social Impact Assessment is used as a framework for the observation. The thesis reveals a number of social aspects that are promoted through the municipal urban agriculture in Havana, such as food access, employment, social gain and sense of place. It distinguishes what factors in the physical environment that promotes the social aspects, such as social and spatial context, connections, use and integration. It also reveals that the soft aspects of social sustainability are weakly promoted by the urban farms analyzed. Finally it presents a design proposal of how the social aspects can be further increased through urban agriculture by enhancing the factors found important in the analysis, such as public environments, integrating different functions and connecting the farms with the urban fabric.

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