

The background image shows a rooftop garden with various plants and a large glass structure. In the distance, a construction crane is visible against a cloudy sky. The overall scene is a blend of urban development and green space.

# The Common Foodscape

Improving the liveability of the city through  
urban agriculture

Reflection

Graduation project

City of the Future

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The common foodscape focuses on the different implementations of urban agriculture and the effect these types have on the liveability of the city. The project consists of two parts: a research and a design proposal.

The research creates an understanding of the food system, urban agriculture and liveability, and elaborates on different types and strategies of urban agriculture and the various effects these can have on the food system and the liveability of our food system. It resulted in concept definitions on the food system, liveability and urban agriculture; a liveability index, a series of urban agriculture experiments on neighbourhood scale; and a conclusion on the effects of urban agriculture on liveability.

The design proposal expands on this research by developing a new architectural language for urban agriculture and optimizing strategies to come to a resilient and sustainable food system as well as a liveable environment. The results consist of a toolbox with urban agriculture interventions and components of urban agriculture; an urban masterplan; an infrastructure system; and a building with an urban agricultural program that forms a core element of the local common foodscape.

Central throughout this project have been the concepts urban agriculture and liveability and their relation to our environmental and socio-economic systems.

## Reflection on topic

### Studio City of the Future

City of the Future tackles the problems of today and tomorrow using a multi-disciplinary approach. Problems, that will only increase with the growing population inside cities. Urban Oasis focuses on the problems surrounding our food system. Not only, does our growing population significantly increase the need for food, so does our consumption behaviour. With climate change looming over us and global instabilities increasing, food security and accessibility are decreasing. Urban agriculture is named as a possible solution to the problems in our food system. It would lead to a more interactive, local, sustainable and stable system. However, the interaction between urban agriculture and our city network is often ignored.

The studio City of the Future does not only focus on creating future-proof cities, it strives to do this in a way that strengthens the spatial quality of the city and improves the well-being for those that live in it. The project researches the effect of urban agriculture on liveability. In the design project, the foundation of design choices was that they should increase food production inside the city, while maintaining or improving the quality of life for those in its direct surroundings. In the foundation of this project, a future-proof food system with a liveable city was placed central.

Lastly, the multi-disciplinary character of urban agriculture also fits well with the cross-domain approach of the studio. The research and design

show the importance of infrastructure and how the liveability and the effectiveness of an urban agriculture site depends on a well-functioning, clean infrastructure. Urban agriculture has the potential to become well integrated into the existing energy, water and waste network of the city. For this, infrastructure is also key. Next to that, the different management strategies and economic systems of production sites matter for the social interaction and the production scale of the sites.

## Master track Architecture

Urban agriculture is a new function inside the city, as such, its program and architecture are still undefined. Specifically the relation between a more industrial program; its noise, infrastructure, smell and disruption, and the residential program is one to be further discovered. Where a lot has

been written on the functioning and the technical detailing of urban agriculture, much less has been researched on the network, the space, atmosphere, and context of this new program. The challenge of urban agriculture inside the master track Architecture is that, of defining these characteristics. The project researches whether we can step away from the more often used vernacular design of small scale urban agriculture, without creating a high-tech context-independent, technologically optimized design of larger scale utopian urban agriculture, to come to a context dependent, sustainable design, which improves the spatial quality of the direct surroundings.

## Master Architecture, Urbanism and Building Sciences

The master Architecture, Urbanism and Building

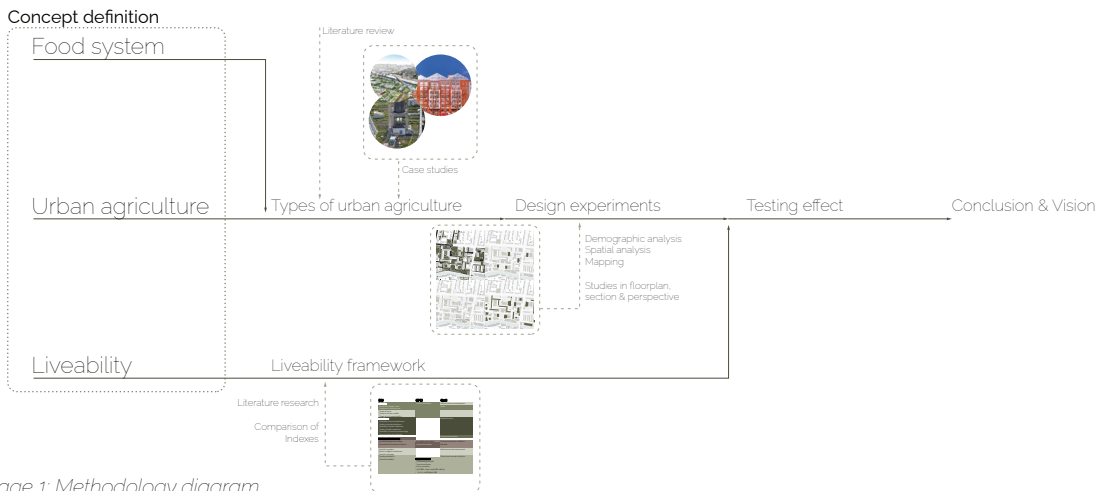


Image 1: Methodology diagram



Sciences does not only tackle architectural form or function. The master concerns the integration of new design not only in the spatial context, but also the social and economic structures in place. As discussed urban agriculture is a multi-disciplinary concept. It contains a new program and way of living that strongly influence social norms and economic structures. In its definition, urban agriculture is integrated into the socio-economic context of the city, if not it would just consist of agriculture in the city. However, the means of integration in these invisible layers of design are partly dependent on the spatial design, on the openness of the building, on the accessibility and on the program in place. Urban agriculture can be used to create as high of a production as possible inside completely closed off and independent production centres inside the city, but if this does not relate to the context, it will not strengthen the liveability of the city or the community. At the same time, many bottom-up urban agriculture sites, while embraced by the community and integrated into the spatial context, do little to nothing for a more sustainable food system. The project strives to design on the balance between these two extremes. To do so, designing through the different layers of the city, both tangible and intangible is necessary.

## Reflection on methods

The research is split up into three parallel defining researches, that come together into one experimental and comparative research (image 1). The research into the food system is necessary

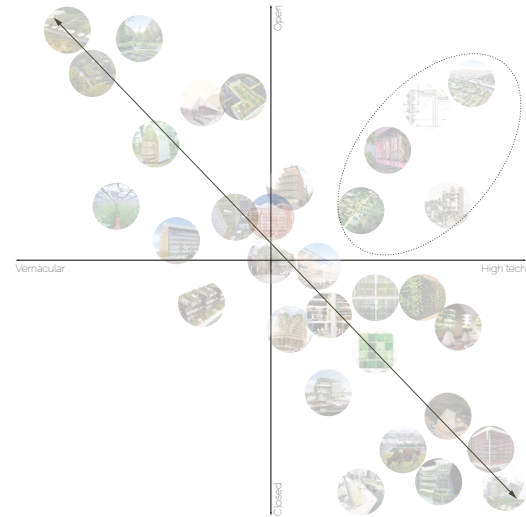


Image 2: Example of case study comparison



Image 3: Collection of case studies

to have a basic knowledge on the current system, the effects and problems, as well as the interaction urban agriculture has with the system. The other two concepts of "urban agriculture" and "liveability", have a central role in the research. To define all concepts literature research is used.

As urban agriculture is more often referred to as an urban design, and little attention is spend on the architectural scale, I further strengthened the definition of urban agriculture by using case studies. These formed an important part in organising the types of urban agriculture, as well as defining the executability and the measured effects of urban agriculture. Reorganising the different examples of urban agriculture showcased different patterns in urban agriculture as can be seen in the London

context. The case studies were originally used as an orientation into the possibilities of urban agriculture. Therefore, they do not perse contain the most famous examples or a clear reasoning for each example choice. They are more used as a general overview, and their wide range helps showcase the different patterns of design in urban agriculture (image 2&3).

Lastly, during my visit in London, I carried out multiple interviews on different urban agricultural



Image 4: Example schematic diagrams design proposal

sites. The goal of these interviews was to gain an overview of the stakeholders, the functioning of sites, the economic and management systems and the motivation of owners and users. The interviews were mainly focused on the social and educational sites as site visits and interviews on high-yield production sites were not possible. This leads to a general biased overview of urban farming in London as a social activity. Nonetheless, it also showcased the closed character of those sites that do focus on high-production rates. I combined this information, with literature that also stated one of the main challenges in indoor food production is the lack of exchange of knowledge between

privatized companies. Therefore, I could conclude that these sites do not have a social character and are profit focused. It also lead to an important key point in the design which is education, research and exchange. Furthermore, it showed that the ownership and management of said production site and building should not be in the hands of a private, profit focused company. This would block the further development of urban agriculture as well as the exchange with the neighbourhood.

The literature review on liveability showed that it was mainly a policy goal. It is not as much a global concept, but a context and topic dependent

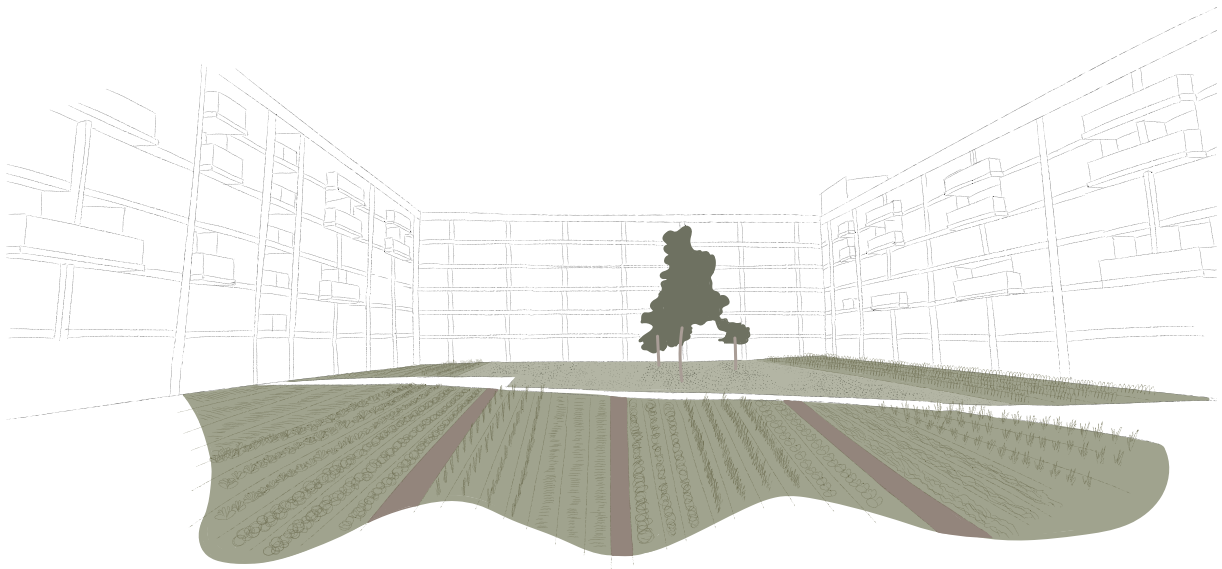


Image 5: Example 3D drawings design

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framework. In this, liveability concerns everything that defines a quality of living, but these factors are cultural and value dependent. Therefore, I used policy research as a second method, to come to more clear characteristics and definitions of liveability. This included reviewing different existing, and fitting into the context of London, liveability frameworks.

Research by design formed the main method as it helped spatialize the characteristics of urban agriculture and draw it away from a theoretical concept into a tangible proposal of which the effects on liveability can be estimated. The research by design consists of multiple experiments. These experiments are divided by the different strategies to create some sort of structure and be able to differentiate between different types of urban agriculture. In the beginning I worked through these experiments in diagrammatic sections and floorplans (image 4). This gave me a clear understanding of the strategies and how they could be implemented, but these drawings did not help convey the effect on liveability. As liveability is a subjective topic, I wanted to give the reader the possibility to see at least the spatial effects of the design to be able to follow the conclusions I have drawn from the experiments and to be able to determine whether they would draw the same conclusions from them (image 5). The addition of the perspective sketches helped achieve this, even though it is a very general and still quite schematic overview. I have considered making sketches from more viewpoints, and using different media such

as renders or collages to clarify the experiments further, but time constraints made this impossible. However, less, more detailed experiments would have created more depth in the research.

## Considerations research

The research consisted of two main challenges: Dealing with the duality of urban agriculture and the subjectivity of liveability.

### Duality of urban agriculture

The duality of urban agriculture is most present in the battle between social production and economic production. In this social production is not about the production of food, but about creating a community, educating users or working on mental and physical health. Economic production has as goal to create sustainable food, for which it needs a profit. With the current technology in food production not yet having reached an economic sustainable production level. Food produced in these centres is often expensive and thus inaccessible for many inhabitants of the city. On top of this, the food produced on these sites is mostly leafy greens or micro greens. As such, current urban agriculture sites do not produce a variety large enough to cover a healthy diet. These sites are working on profit and need a closed production environment to reach a stable production process. As a consequence, even though these food production sites are inside the city, they miss connection with the inhabitants. Thus when working with different types of urban agriculture and defining the effect urban agriculture has on

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liveability and the problems in the food system, these different goals of urban agriculture should not be intertwined. In the research I covered this by defined the "goal" as an important part in the typology of urban agriculture. The strategies I found based on literature also emphasized this. However, you cannot one-on-one translate the goal into a strategy. For example vertical city farming directly translates into a closed, economic based system, whereas transformation is almost always bottom-up and thus more social oriented. However, the smart city can focus on either one of those goals depending on the goal. Overall, the different strategies helped define different forms of urban agriculture, while also monitoring their effect on the problems in the food system in relation to liveability. The strategies formed a foundation of the design experiments and created a more nuanced overview of urban agriculture.

Next to the duality, which was something I did not want to avoid, but instead embrace as an important qualification in urban agriculture, I made two other important choices to frame the concept of urban agriculture. First off, most research focuses on horticulture when they discuss urban agriculture, livestock, agroforestry or aquaculture are more often ignored. I suspect this is as these functions need more space, but also influence their surroundings more. Holding kettle on a square creates noise and smell. The animals need daily care, vets and are a longer term investment. Then there is the ethical and moral questions surrounding animals. Whereas growing carrots

in the same place influences the surroundings much less and also involves less money and skill. Therefore, specifically livestock is not implemented much in the western context. At the beginning of my research I chose not to focus on a specific product or production method, instead in the design experiments I wanted to implemented what made sense in the surroundings and what was used more often in that specific context. On top of that, the design choices were made with the purpose to improve the liveability. As a consequence I automatically stayed away from livestock. Forestry was implemented in the design experiments, but I stayed to horticulture most of the time. This was most defined in literature and the effects were described. Consequently I missed the chance to research to what extend livestock and aquaculture can be kept in this context. It also meant I did not as critically research the effect of urban agriculture on liveability as I could have, as I believe that these specific production methods have more effect than horticulture on the physical context. In the end I concluded that for this research I focused on horticulture as a production method of urban agriculture and that it is important to state this as such in the research, to frame the research better and emphasize the importance of production methods on the quality of the surroundings.

Lastly, urban agriculture is not limited to food production. It also contains production of materials. Yet, this term is the best for this specific research, as the focus is not only on production of food, but



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also on the other steps in the food system. This makes terms like urban farming less useful. I did decide against material production as part of the research as it fell out of the scope of the problem statement and would make the research too broad. This kept a clear research line from problem statement to conclusion.

### Subjectivity of liveability

At the start of my research I decided to focus on the effect of urban agriculture on liveability as I felt this was an important missing link in the current literature. I felt that often, the effect was overestimated or the negative spatial effects of an industry inside the city were overlooked to paint urban agriculture in a more positive light. I wanted to create a realistic overview of the possibilities, the effects on the food system and the spatial effects. Therefore, the concept "liveability" made sense. It is a term used often in urban design and in policy documents in the Netherlands. At the beginning of the research I mainly focused on the effect on liveability via ecosystem services. However, this meant only the environmental aspects were reviewed, the social and economic side of liveability was ignored. Hence, I decided to read more into existing frameworks of liveability to come to a better overview. This also strengthened my idea that, large parts of liveability were ignored when referring to the effects of urban agriculture on liveability. On the other hand, it also meant that I suddenly had a wide range of frameworks that were all different, showcasing the subjectivity of liveability. Therefore I spent a lot of time on

merging the different frameworks into one, that was not specific to urban agriculture, or showed a positive or negative bias towards urban agriculture. This I found specifically difficult as the different frameworks are cultural, context and goal dependent. Therefore, almost half of the liveability framework was irrelevant to urban agriculture.

Next to that, was the measuring of liveability in the design experiments. I did so using the case studies, literature and the effects I determined based on logic. However, throughout the project I have strongly doubted whether this was a scientific method. In the end I have added an eye-level perspective to showcase the effects better and allow the reader to also draw their own conclusions based on the scenario drawn. I stepped away from the "exact" measurements and framework to a more general estimation, as to not give the idea of exact or scientific results that I could not argue. I believe this was an important step in the process to give me more confidence in the correctness of my research, but I have still doubt whether using a framework is reasonable given the design experiments all consist of hypothetical scenarios of which the effect can only partly be predicted. The framework, has given a clearer overview of the wide range of liveability, and also shown that we should be critical on urban agriculture and not simply assume it will improve the liveability of a site.

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## Link research and design

Following the research, there were some clear starting points: the program, the foodscape, infrastructure and the main architectural styles.

### Program

The program was most clearly defined by the research. I strongly based it on the vertical city farming strategy as this was the method that created the highest yield. It is also the strategy that I believe we need most to change our food system. From the other strategies I collected different program parts to embed the design better in the surroundings and to work on the social transition that is needed to change our relation to food. The only part of the program not related to the research were the residences. These were my intervention as I wanted to showcase that food production and living are closely related and can strengthen and improve each other. This is also closely related to the foodscape.

### Foodscape

The foodscape is a concept I only discovered near the end of my research. As I from the start focused on urban agriculture, this was my main search term in literature. During my research I discovered the importance of places where we meet, in relation to food, this can be a communal garden, a restaurant, a market, a kitchen or dining table. I defined this as the common food place and stated that to create a new food system, we would need to work with an continuous landscape of these different common food places. From this I searched

whether there was more research relating to this type of program or space. Here I discovered the theory of the foodscape. The foodscape is the spatial combination of all food related functions. As such I defined urban agriculture needed to be a part of this foodscape, but so would the building. Therefore, I reviewed the building as a hub or central place in this foodscape where different functions came together. Next to that, different types of "common food places" needed to be integrated all throughout the neighbourhood to come to a coherent design. This formed the foundation of the toolbox. Instead there were not only types of urban agriculture interventions based on the case studies, or social spaces, but also forms of infrastructure that formed the more invisible basis of the foodscape.

### Infrastructure

The research showed that one of the biggest negative effects on liveability was caused by infrastructure. Specifically trucks driving in and out to locally produced goods on a larger scale. To reduce the need for this form of transport and reduce the noise, pollution and smell related to it, I decided goods needed to be sold on site. However, there was still need for import of goods not produced on site, removal of biowaste, as transforming it into compost or energy on site was still strongly reducing the liveability, and the import of materials for production. Therefore, a new infrastructure system was key in the design. Next to this, the use of car on site needed to be reduced as the amount of space allocated for the

car meant less space for food production. Not only directly via other use, but the exhaust of heavy metals made it impossible to produce food near the roads. I translated this in the design by making the complete neighbourhood car-free. This was possible to the good public transport and the London strategy to increase bike usage. For the food production related transport, I made use of the existing canal as a shipping track instead of the roads. This clashed with the orientation of the building to the sun and public space. Instead, a bigger distribution centre was designed further along the water line, and I designed an electric railway system all throughout the neighbourhood to move produce in and out. Creating a more flexible system, which needs less space and does not have the infrastructure problems that reduced living quality in the research.

## Styles

Urban agriculture in itself does not have a defined form or shape. However, following the case

studies, I could define two main styles (image 6): "Vernacular" and "high tech". Neither of these styles felt fitting in the context of my design site, as such, it felt like my research left the architectural form completely open. When I look back at image 3, this challenge, finding the style in-between, is one that other students and designers have worked on. Most of the case studies in-between the two styles and specifically the case studies combining an open and accessible design with a more high-rate production centre, are research projects or design studies. As such, this project can be seen as an extension and a different iteration on this challenge. This, however, did not solve my direct problems, as I could still not argue my design choices.

To solve this, I focused on designing with bio-based materials. This came from the perspective that these materials could then in their turn again be grown in urban agriculture sites, and as such contribute to a circular system. Where, this choice

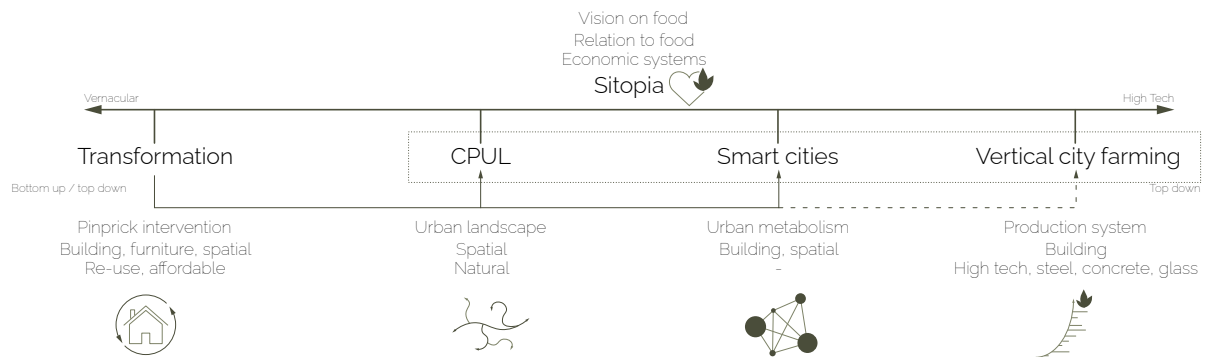


Image 6: Comparison of strategies in relation to styles

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has given me support, bio-based materials are also significantly more expensive. As the food production program in itself does not have a high production yield, the more expensive material choice makes the produced food more expensive and thus inaccessible for the inhabitants of the area. While the starting point of the design was to create an accessible food system for all inhabitants of the city.

For the mass and shape of the building, I used a model and mass studies to be able to argue the choices made here. The stepped building shape was quickly defined as it created a productive roofscape. The orientation to the sun and opening towards the neighbourhood were more difficult as the building as placed on the South side of the neighbourhood. In this the placement of distribution centre and infrastructure also were key. In the end, I balanced here the different options, and as the sun orientation was more important to me, as it is critical for food production and also created a higher quality public space and residences. This became key in the massing.

## Reflection on ethics and limitations

The Beauvoir Estate was chosen as design area, as the liveability in this area is currently low, which is also caused by low income and high unemployment rates. The estate itself consists of council homes. It is important that urban agriculture in these cases is not used as a means to gentrify, to replace the existing inhabitants to

come to a higher liveability rate. Instead the design should encourage a socio-economic boost for the existing residents as well as a higher quality spatial environment. Even though the project focuses on urban agriculture a consistent design to improve the liveability of an environment should include a range of interventions based on the low rated dimensions of liveability. In the design I have strived to achieve this by maintaining the existing residences and maintaining important social functions in the urban masterplan such as the allotments and playgrounds. By integrating social and open functions into the new building, I promoted interaction between new inhabitants and the existing residents. The scale of the new building as well as the surrounding new public space, were also important aspects of the integration into the existing neighbourhood.

Altogether, the goal of the project is to create a more accessible food system, where independent of your income, you can have access to nutritious food. The research has shown that simply implementing agriculture is not enough to achieve this, instead governmental input is also necessary to allow low food prices and sustainable production methods at the same time. All stakeholders in the food system have their role in creating a more sustainable, accessible food system. Consumers can do so through diet and food waste reduction. Producers can use more sustainable production methods, with lower resources, whereas shops can sell less processed food, to reduce food waste earlier in the chain. Urban agriculture can have a

role as an educative element to the food system and as a more local integrated production system, but relying on urban agriculture to produce food for all city inhabitants, or expect residents to become self-sufficient in food production seems impossible and does not .

A last limitation is that of the design experiments. Where they can help estimate the effect of different strategies, their actual effect will depend on the context, its climate, the users, whether or not the new program is embraced by or separated from the community and the type of production and produce on site. Therefore, measuring an exact effect on the liveability is impossible. We can only draw general conclusions on urban agricultural strategies and the expected results on our physical environment, social cohesion and facilities. The same is true from the toolbox interventions. The exact execution, materialisation, design, context and stakeholders are all critical for its functioning and effectiveness. That does not mean that the toolbox cannot form a starting point to define what could generally work on which site, but designing will remain research and detailing.

## Process reflection

### Integration different disciplines

*How do you translate the different disciplines as discussed in the studio in both the research and the design process?*

As discussed before, urban agriculture is a fitting topic for the studio city of the future, due to its multi-disciplinarity. At the beginning of the studio, multiple disciplines were introduced, with

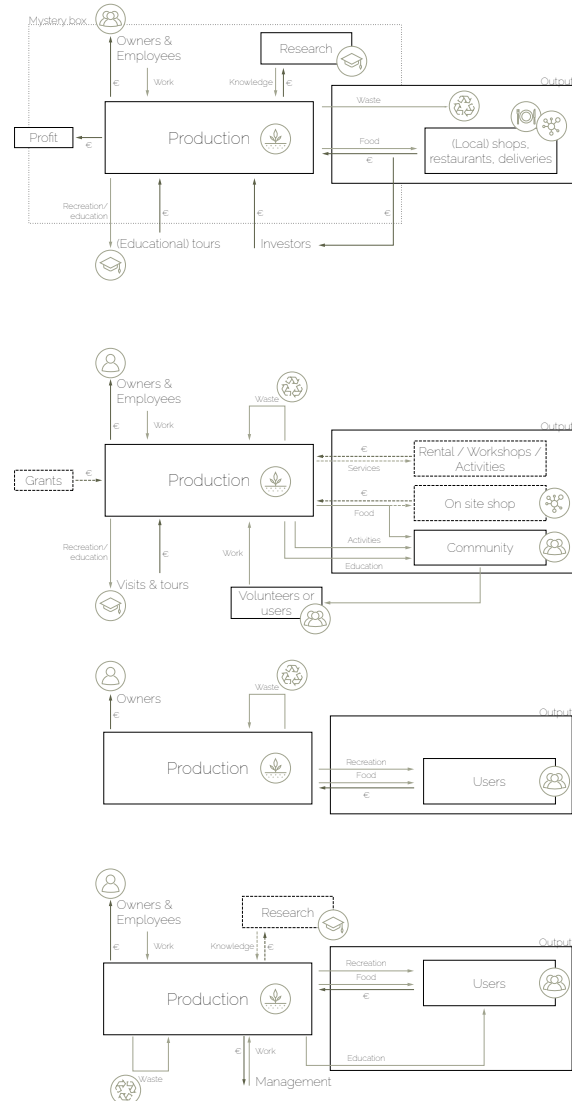


Image 7: Analysis management systems



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management and stakeholder involvement; and infrastructure being the two topics that stuck with me most. Of course, urban agriculture and my project also have a clear relation to the larger scale of the city and the public space, but this felt as a logical consequence that came with the topic. In the research, most design experiments focus on urban interventions. In the design process, urban analysis were used as well as a masterplan, but in the end I did not develop an idea of what urban agriculture would mean on the city scale of London.

What I did not expect was the importance of both infrastructure and management. I already discussed before how infrastructure became an important part of the design due to its major influence on liveability. However, I spend less attention on management, as this is something I felt less familiar in. Next to that, I only discovered the importance of the management system for the influence on liveability and the survival of urban agriculture projects when comparing my interviews to the literature (image 7). It is difficult for urban agriculture sites to maintain themselves. The high-yield production centres focus on organic and expensive leafy greens, as creating cheaper food like grains would make it impossible to sustain themselves. The social projects live of donations, activities and government funds. This insight in the economic systems of urban agriculture, was quite demotivating as it showed that even when projects were developed in a low-cost manner, companies would shut down after a

few years, and would only be able to target specific foods. When I first discovered this, my thought process was to create as low-cost of a building as possible. However, throughout the process the building became more and more complex, while I also lost sight of this idea. What I did take with me from the management perspective was the need to define which stakeholder maintains which sites. Whereas the production sites might be run by companies, they are supported by government and as such should exchange knowledge and resources. At the same time, the communal sites are maintained by the inhabitants. On a daily basis this is done by a manager, placed in charge by the community. Whereas, policy an decision making is done by the residents. Throughout the design process, I kept forgetting about the stakeholders involved in the using of the building, as they are not visible in the drawings made. However, when I would start defining routing and access, questions regarding, who owns and maintains what, kept popping up. I think in the end, the management system is something I would have liked to develop a bit further, as it is a critical success factor in the further development of urban agriculture.

## Utopia vs practicality

*How do you balance between the utopian idea of a self-sufficient city and the practical limitations of a city and urban agriculture?*

Urban agriculture in literature, and specifically in research and design projects, is often framed as an ultimate solution to all problems in the food system. It should create a closer connection between people and food, restore ecosystems surrounding

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the city and cities should be able to become self-sufficient. However, throughout my research and design process I kept running into the practical limitations of urban agriculture. The amount of space we need to produce to meet our dietary needs (330 m<sup>2</sup> per person), in combination with the battle of space inside the city already makes the dream of the self-sufficient city impossible. Not even new advanced technologies used in indoor farming can solve this spatial limitation. Next to that, I already had a practical perspective on urban agriculture by researching its relation on liveability. Thus, each design intervention I came up with had its positive and negative effects on the liveability of the city. As I, above all wanted to prevent a negative impact of my design and urban agriculture on the liveability of the surroundings, I limited myself in the possible interventions. This led to small scale interventions, which had little effect on the larger problem statement I created at the beginning of this research. Therefore, I decided to use my design more as an experimental grounds for the possibilities of urban agriculture, and instead chose some big gestures to step out of my own comfort zone. Examples of these are the shape of the building which is in sharp contrast with the grid of the existing buildings, the creation of one extensive commercial productive landscape throughout the neighbourhood and the removal of all cars in the neighbourhood. These were choices that remained throughout the process, and even though they became more nuanced throughout the process, they helped create a design that was more than would be

done as a social or educational form of urban agriculture in our current practice. There are also design choices that I, due to practical reasons, or the effect they had on liveability in the end abandoned. An important example of this was completely closed Northern façade to optimize climate needs in the production centre. Whereas this façade was interesting as a large production façade, and thus another implementation of urban agriculture. The complexity of the outdoor system, the disturbance for the direct neighbours and the aesthetics in the end changed the materialisation to a simple moss façade. Even though not optimal for the program, the façade was opened up to create both an architectural and a programmatic connection between the inhabitants. This was necessary as the North façade formed the main connection to the surrounding residents.

## Adaptability, further research and design development

### Adaptability

The research frames an overview of the types of spatial types of urban agriculture as well as the main strategies in these cases. Specifically the toolbox can form a basis for others wanting to design or work with urban agriculture. The project showcases the need of a top-down, integrated approach in combination with bottom-up input. When only based on bottom-up a big part of the inhabitants will not be included, however without the bottom-up intervention, participation of inhabitants will be less. Lastly, the research

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shows that the implementation of allotments and communal gardens, even though socially sustainable and valuable, have little impact on the environment and food system. Therefore, it pushes future design into a more industrial scale urban agriculture.

### Further research

Where I strived with my research to reach an overview of urban agriculture and its effects on liveability, I made some choices to frame the research scope to fit the time frame. Therefore, only the effects of horticulture were reviewed. Even though the toolbox has some small livestock and aquaculture interventions, these are interesting production forms of which the effect on liveability can be further researched.

Throughout the design process I searched a balance between a high-yield production and the social qualities of food and food production. In this food is placed central in all inhabitants lives. Further research can be done in the role food should have in our lives. Should we all go back to (partly) producing our own food, or do we need the efficiency of agro-giants.

The research and design focus on a neighbourhood scale. I placed here a food central community, however, the relation to the scale of the city is ignored. The effect of these partly self-sufficient hubs on the city should be reviewed. It should be questioned whether all neighbourhoods can and should be designed like this, or if we need some

central city places that are solely focused on food production. How would these places relate to the existing infrastructure and what would happen if we need to scale up the food infrastructure system. Altogether, there is much to be discovered in the relation to city scale, urban agriculture and infrastructure.

### Design development

For the upcoming weeks I would like to further work in implementing the designed toolbox into the neighbourhood, with a specific focus on the infrastructure types and the different common food places. The usage of these infrastructure interventions will also form the foundation of the circular system of the building. Taking into account the water, waste and energy system. Special attention will be paid to the atrium and its role in the climate system of the building and the way this can strengthen the complex climate installation of the production site. The energy production on site will need to be defined further, as will the relation of inhabitants to the railway system. Can they use this as well, cross over, or walk along the tracks

Next to that, the management system will be defined. What will be the actual use of the outdoor production sites; to whom do they belong; are all inhabitants forced to produce their own food; what happens to those already living on site; who will live here after the new interventions; and how will the new food system improve the accessibility of food on site.