



AGRI- ACTIVE NEIGHBOURHOOD

AN EXPLORATION OF NEIGHBOURHOOD
CULTIVATION THROUGH URBAN AGRICULTURE
AND DEVELOPMENT STRATEGIES

PRELIMINARY WORK MASTER THESIS

NTNU SPRING 2018

KAMRAN SURIZEHI MAHAN SALIM

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ABSTRACT

Today, most of the world's population live in cities. These urban areas are hubs of innovation, communication and production, but they lack a connection with a crucial aspect of human life that has always been there, nature. If today's cities are separated from nature, how can tomorrow's cities be integrated with it? This master thesis will focus on improving the quality of life in urban areas, by using agriculture as a tool to create communities, social places and interact with nature on a deeper level.

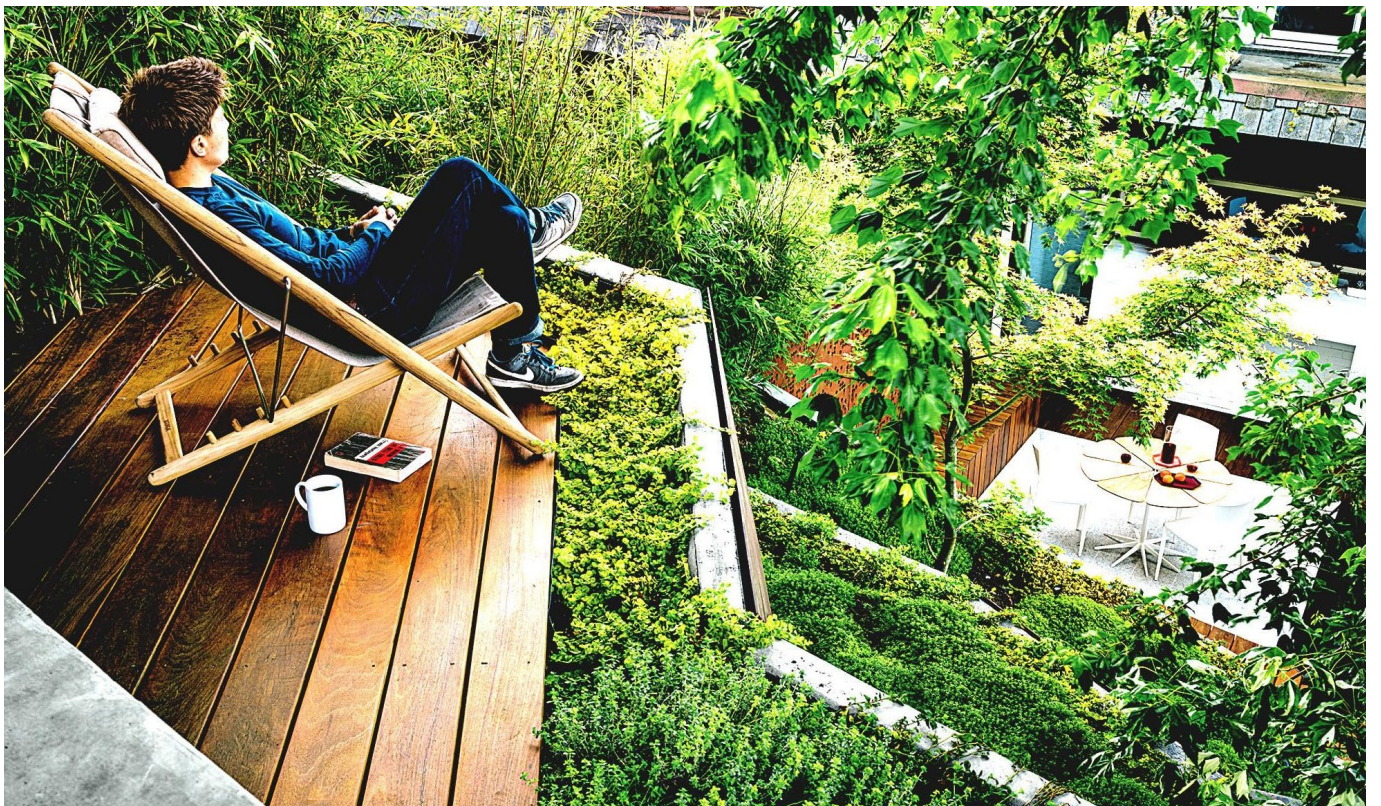


Figure 01

INITIAL THOUGHTS

Formulating our thesis was somewhat problematic throughout the project. We saw the thesis as an opportunity to explore our roles as future architects and in what ways we want to contribute in forming our cities. We also saw the thesis as an opportunity to explore our own interests. We had to look at ourselves and examine how we live, what is contributing to the greater whole, what is damaging to our surroundings and what we can do differently in our own lives.

As living beings we have an innate connection with nature, at the same time, we are creatures of comfort. It might be self-explanatory to some that nature, in general, is good for us. It literally sustains us. If you spend time away from the chaotic city life, you feel refreshed. If you go for a walk in the woods, you feel nice. Trees and flowers are good, concrete and steel towers are bad. Yet, cities are, and will continue to be attractive places for people to live. But how can we bridge the gap between the benefits of living in rural areas and in urban areas in today's society? This is a topic that has been explored in different ways in the past and is just as relevant today. We want to partake in the discussion by questioning the sentiment that a hybrid nature- city is doomed to remain a utopian dream. Can such a city exist in the real world? And more importantly, why would people want to live there?

"IT IS VERY CLEAR THAT OUR EXPERIENCE OF THE WORLD IS CHANGING DRAMATICALLY, BUT AS HUMAN BEINGS WE ARE BIOLOGICAL CREATURES AND CULTURAL CREATURES AT THE SAME TIME.

A BIOLOGICAL CREATURE DEVELOPS VERY SLOWLY;

OUR GENETIC CONSTITUTION IS MILLIONS OF YEARS OLD AND ARCHITECTURE HAS TO RESPOND ALSO TO THAT GENETICALLY DERIVED BEHAVIOUR, AND NOT ONLY TO WHAT TODAY'S TECHNOLOGICAL WORLD CAN OFFER US"

- JUHANI PALLASMAA

BACKGROUND

According to an article published by the United Nations in 2014, over 50 % of the World's population live in urban areas, and is expected to rise to 66 % by 2050 (UN, 2014). At the same time as the rural population is expected to decrease as more people migrate to urban areas.

Manmade environments are often thought of as separate from nature. Although cities around the world have different relationships with their surroundings and vary in the level of density, in general they have a limited amount of greenery. Even countries that are thought of as green such as Norway have limited green structures within the cities. In Norway the built environment accumulates to only 2 % of the total land area and has according to a survey published by SSB (Statistisk Sentralbyrå) an average of 4 % greenery and recreational areas built into the cities (SSB, 2015).

Another important aspect of nature that contributed to form human society, that is removed from urban environments is the production of food. Fruits and vegetables appear in grocery stores out of nowhere and are available for consumption throughout the year. The life cycle, the area the fruit originated and the labour it took to get it conveniently placed on our way to work is all reduced to a sticker. The role of the urban citizens has been reduced to the consumer and people who produce the food are kept almost anonymous.

As people migrate to cities, agriculture is left behind in the rural areas along with some of our

knowledge, traditions and culture.

In recent years there has been a growing trend in our society brought on by a rising awareness of climate change. As the consequences of climate change become more fact than a hypothetical future it is leading people to question the way they buy their food, their clothes and in general the impact their lifestyle can have on their surroundings. We are getting more aware of our choices, but does architecture in the urban environment or society as whole facilitate the conditions for us to change our living patterns?



Figure 02

Utopia

From Greek

eu (good) + topos (place)

ou (no) + topos (place)

The idea of a better society is nothing new. In 1898, as the world was becoming industrialized, Sir Ebenezer Howard envisioned in his book "Tomorrow: A Peaceful Path To Social Reform" an ideal society that would bridge the gap between the countryside and the city. Howard republished his vision in 1902 as "Garden Cities of To- Morrow" in which his detailed concepts encompassed everything from physical scale, zoning, ownership and economy. Howard's vision consisted of a series of smaller city-states distributed around a larger central city with a limited population of 60 000 inhabitants. The cities that in total would occupy 1000 acres were to be interconnected by railway in a 5000-acre agrarian landscape. It was a response not only to the rapid, uncontrolled growth of cities, but also to the demand of a higher quality of urban life.

Only a limited version of Sir Ebenezer Howard's actual vision was ever built, with little success. Instead Howard had an immense impact on town planning known as the garden city movement that Carolyn Steel in the book "Hungry City" published in 2009 describes as a misinterpretation of his vision (Steel, 2008, p. 299). The semi-independent cities that were distributed in a way that both the individual and the city benefitted from nature were instead misinterpreted into suburbs. A hybrid that

was realized because of transportation technologies that allowed the occupants to live and work in separate areas.

The societies envisioned by those such as Sir Ebenezer Howard are often seen as utopias, defined by the Oxford Dictionary as "an imagined place or state of things in which everything is perfect" (Oxford Dictionaries, 2018). Carolyn Steel argues in "Hungry City" that the problem with utopias lies in the nature of utopia itself. Sir Thomas More, who coined the term in 1516 in "Utopia", deliberately used the word since it has a double meaning. The term is derived from Greek and can either be interpreted as a "good place" or a "no place".

"That way lies delusion; the belief that human existence can be manipulated as easily as, say, cars at a roundabout" (Steel, 2008, p. 306).

Instead Steel suggests the term "Sitopia". A term derived from the Greek word sitos (food) and topos (place), meaning "Food Place" (Steel, 2008, p. 307). Rather than something that is on the periphery of urban life, Steel suggests to use food actively as a tool to shape our cities. At its heart, sitopia consists of concepts that we are already familiar with. Cooking with our family. Buying groceries at our local shops. Educating children about food so that they can trust their senses instead of stickers on a packet. Growing our own food, or at least parts of it, within our cities with urban agriculture.

DEFINITIONS

And most importantly, how we all need to take more responsibility for the way we sustain ourselves not just for the sake of the environment, but so that cities can continue to be healthy places for people to live.

“A city designed through food, in its ideal form, is clearly utopia. But we don't have to aim at perfection. By just seeing through food, we can go a long way. Sitopia is utopia grounded in reality” (Steel, 2009, p. 322).

Urban

In, relating to, or characteristic of town or city (Oxford Dictionaries, 2018).

The term is used synonymously with city and therefor the criteria that define a city can vary. In Norway a municipalities with over 5000 inhabitants can use the title city, if the municipality has an urban settlement with commercial functions, service facilities and a densely concentrated built area, (Kommuneloven, § 3, 5 Ledd, 1997, own translation).

Interestingly, according to “Store Norske Leksikon” a city's economy shall be urban, and by definition not related to agriculture (SNL, 2018).

Nature

The phenomena of the physical world collectively, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creations (Oxford Dictionaries, 2018).

Urban Agriculture

Urban agriculture can be defined as forestry and other agricultural activities in urban and densely populated areas. The term also describes raising of animals, aquaculture and other forms of farming (Urbant landbruk: bærekraftig, synlig og verdsatt 2014, own translation).

PROBLEM STATEMENT & CHALLENGES

It is clear that in an effort to reduce the impact on the climate, nature needs to be better integrated into the built environment. According to FOA, urban agriculture has the potential to contribute to food security especially in low-income households. Additionally urban agriculture reduces the impact on the environment as the need for transportation is reduced (FAO, 2017).

Urban agriculture has the potential to solve far more urban issues than just environmental sustainability. In this master thesis we will explore the potential that agriculture has as a tool to improve the quality of life of people in urban areas. The aim of the project is to bring agriculture closer to people, and by doing so, help people invest in their immediate surroundings, support local communities and most importantly provide a more intimate way of interacting with nature.

Research question:

How can urban agriculture and architecture be integrated in order to enhance quality of daily life in Oslo?

Sub- question:

How can urban agriculture be used as a tool in urban development projects?

In order to explore how agriculture can be adapted for urban environments, it is important to understand the role agriculture can play in the lives of citizens. It is not our intention to move backwards chasing a romantic idea of the past. Therefore it is crucial to explore the ways in which agriculture can be less labour intensive so that it does not feel like a second fulltime job. Working with nature should benefit the users as much as possible. We are not going to be focusing on how much food we can produce with our proposals or how to make a selected area self-sufficient, but to gain the effects that it creates such as social interaction, activity, awareness of food production. Some of the issues we will be investigating are topics such as:

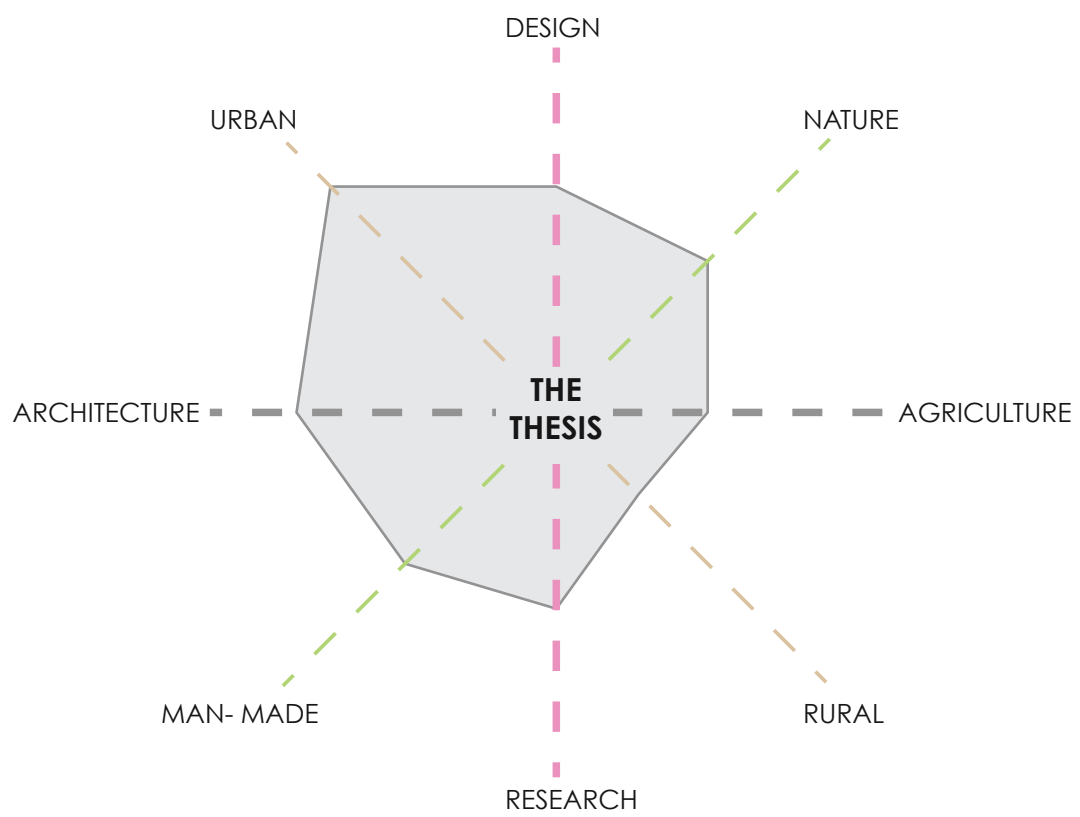
Can urban agriculture improve the quality of life?

How can agriculture be used to encourage participation in local communities?

How can agriculture and farming be adapted for urban environments?

Can we explore other ways of living together?

Why should agriculture be a bigger part of the urban life?



APPROACH

During our initial research it became clear that we did not know enough about urban agriculture. As we dug deeper we found that we were not the only ones and that there is a need for a better overview of how we can use urban agriculture in Oslo and in Norway in general. Therefore we made the decision to structure the thesis in a way that allowed us to begin independent of site or users. Since urban agriculture can mean a lot of different things we wanted to wait with selecting a site and users until after we had obtained some foreknowledge about the way agriculture can contribute in urban environments.

Our first task is to simply get a better understanding of urban agriculture and explore the potential of the different kinds of urban agriculture. What kinds of urban agriculture are there? What are the positive and negative sides to urban agriculture? How are they organized in other countries? What is the status of urban agriculture in Oslo today? What are they used for? What types of urban agriculture is suited for Oslo's weather and climate? The information will be collected into a general overview that will serve as a toolbox for the next part.

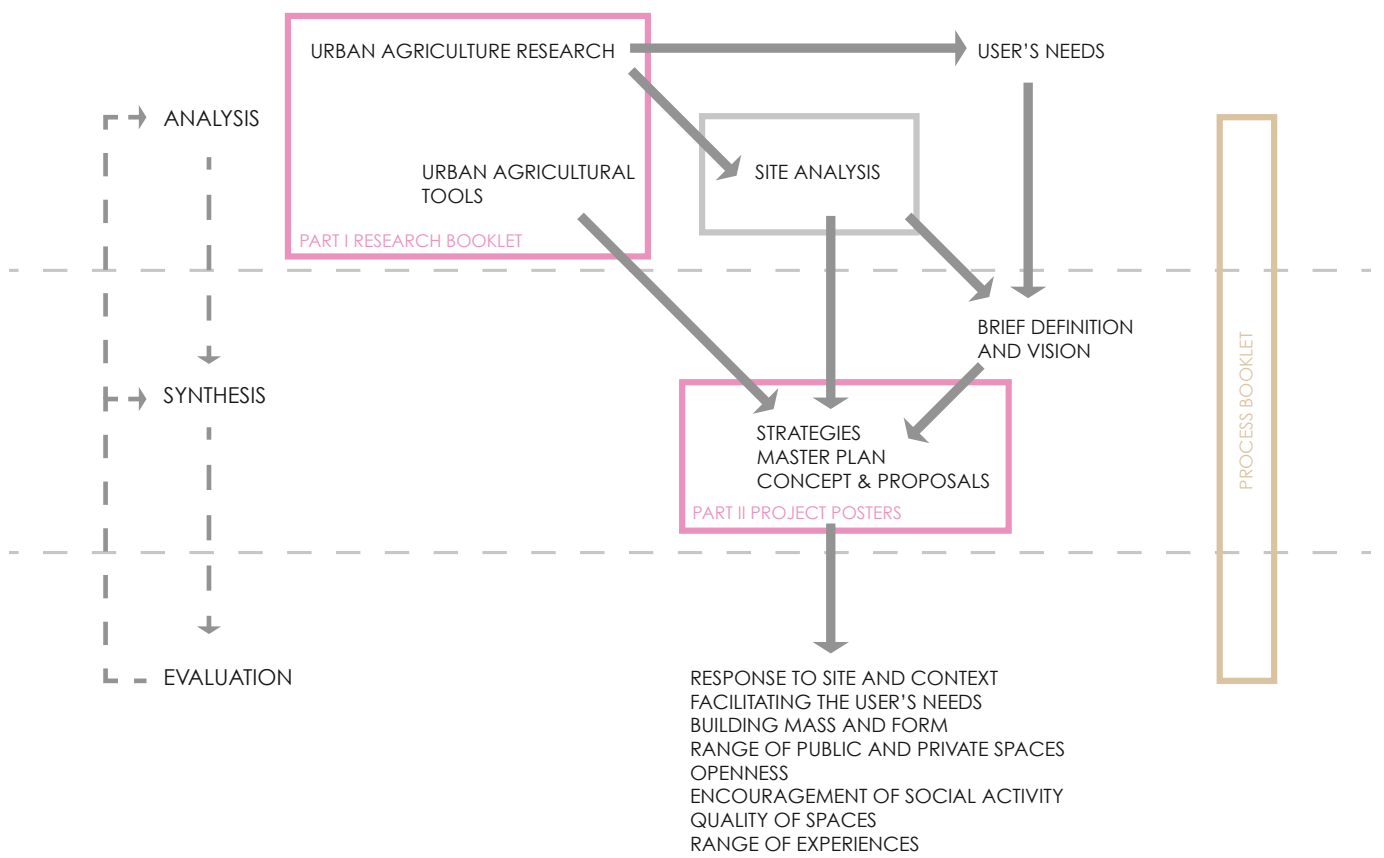
Based on our analysis in PART I we will choose focus groups and a site that can benefit from urban agricultural intervention. When picking the site we will also consider municipal plans, history, density, and existing buildings that can be utilized. Our next task will be to develop strategies using the urban agricultural tools we researched in PART I and facilitate the needs of the users and site.

METHOD

Research is often thought of as investigation and design as creation and therefore they can seem as polar opposites, but as Groat & Wang describe in "Architectural Research Methods" they are complementing sides of the same coin and have many similarities (Groat, Wang, 2013, p. 26). They use models of reconstructed logic such as the scientific method or systematic design process, work in multiple scales and use different types of reasoning such as abductive reasoning, deductive reasoning and inductive reasoning.

Therefore we have chosen to follow Abraham Kaplan's systematic design model that was introduced in 1964. Systematic design model is a process that implements design and research in a cycle that can be divided into analysis, synthesis and evaluation. The analysis will be executed through a series of interviews with architects and other professionals that are developing and are involved in similar projects. Another method that will be heavily utilized is mapping. By mapping we can abstract the city for what we want to focus on.

By synthesis we mean interpreting the analysis through sketching and collages. By freely exploring different three-dimensional qualities either through modelling or simulation, we can identify what factors in the analysis should be emphasized. And finally we can evaluate the different proposals in relation to predetermined goals and objectives to understand which proposal fulfil the requirements in the best way. This iterative cycle can then be repeated until the desired outcome has been achieved.



SITE & BRIEF

Site Criteria

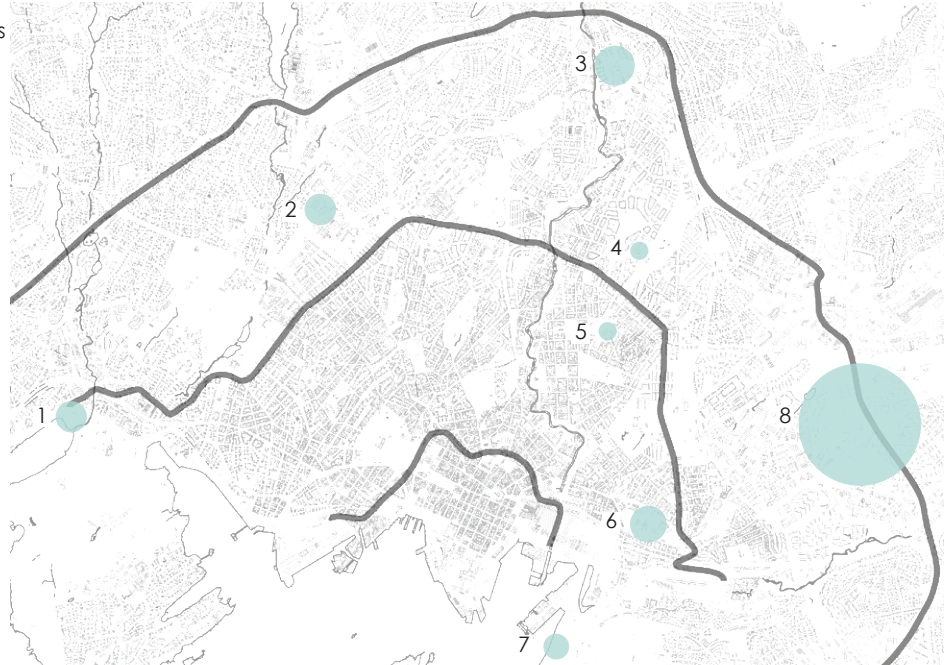
According to 'Kommuneplanen for Oslo, Vår by – Vår fremtid ' dated April 2017, Oslo's population is expected to reach 900 000 thousand inhabitants by 2040. For us, this is a great possibility to investigate and propose housing alternatives for our new neighbours. Following are areas we are considering as potential sites to develop, based on the municipalities development plan. We have limited the options to inner city of Oslo, within Ring 3, where the density is higher and people have less access to their own gardens. We are going to decide our final site later in the process based on the analysis in PART I so that the users we want to focus on are in some proximity to the chosen site.

- 1 Skøyen
- 2 Marienlyst
- 3 Nydalen
- 4 Thorsoy
- 5 Rodeløkka
- 6 Botsen/Grønland
- 7 Sydhavna
- 8 Hovinbyen

Brief criteria

Since the users and site are selected later in the process the brief will remain flexible until the site and users are identified. The program however is more fixed in the sense that our proposal will be a mix of housing, commercial and recreational functions. One of the major focuses of the project will be how exactly these functions are connected to the agricultural facilities. Our goal is to develop the area in a way that encourages social interactions so that people are able to invest themselves into their surroundings and have the option to grow old in the same area.

Figure 03: Map of potential sites



KOMMUNEPLAN FOR OSLO
AREALSTRATEGI MOT 2040

- KOLLEKTIVKUTEPUNKT**
Område med potensial for bymessig utvikling og kobling av to eller flere baneløstasjoner i/lage. Hey analutryttelse.
- PRIORITERTE STASJONSOMRÅDER**
Område med i-banelyne, tog, busslyne og senterfunksjon, samt arealpotensial. Heyere analutryttelse vurderes.
- UTVIKLINGSOMRÅDER I INDRE BY**
Område for bymessig utvikling. Areal: juridisk ansluttet som transformasjons- eller utviklingsområde. Hey analutryttelse.
- UTVIKLINGSOMRÅDER I YTRE BY KAT. A**
Område for bymessig utvikling med eksisterende nærings- og industribebyggelse. Hey analutryttelse.
- UTVIKLINGSOMRÅDER I YTRE BY KAT. B**
Område for bymessig utvikling med eksisterende småturbefbyggelse. Arealutryttelse skal vurderes i samsvar med områdeplan.
- TERMINAL- OG HAVNEOMRÅDER**
- EKSISTERENDE / NY TOG**
- ROMERIKSPORTEN/FOLLOBANE I TUNNEL**
- EKSISTERENDE / NY T-BANE**
- EKSISTERENDE / NY TRIKK**
- NYE KOLLEKTIVFORBINDELSER**
- HOVEDVEINETT MED KOLLEKTIVFELT**
- NYE VEITUNNELER/DIAGONALER**
- GRØNNSTRUKTUR**
- MARKA**
- BÅTLINJER**
- ELVER**

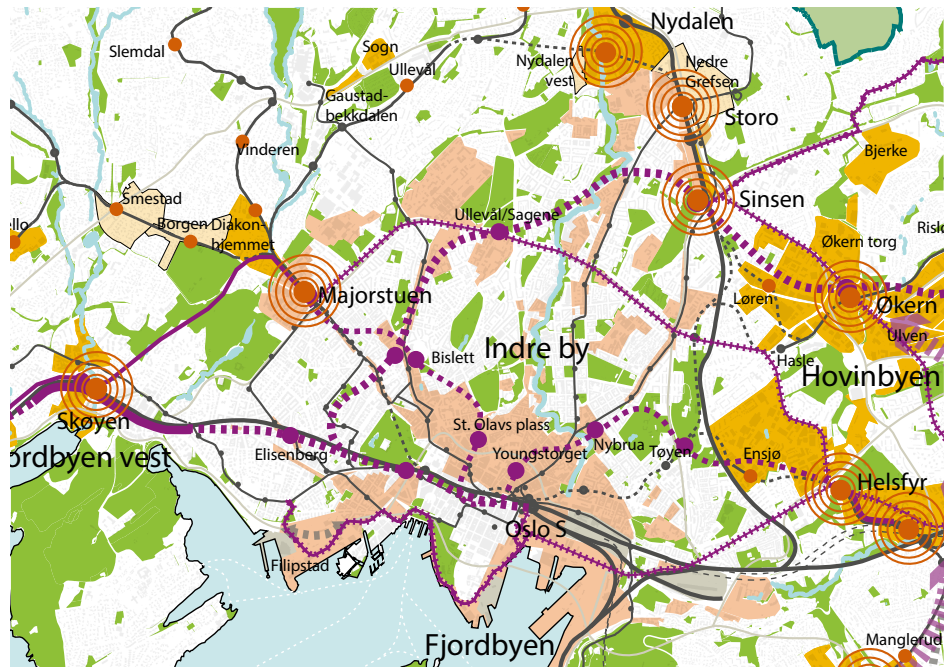
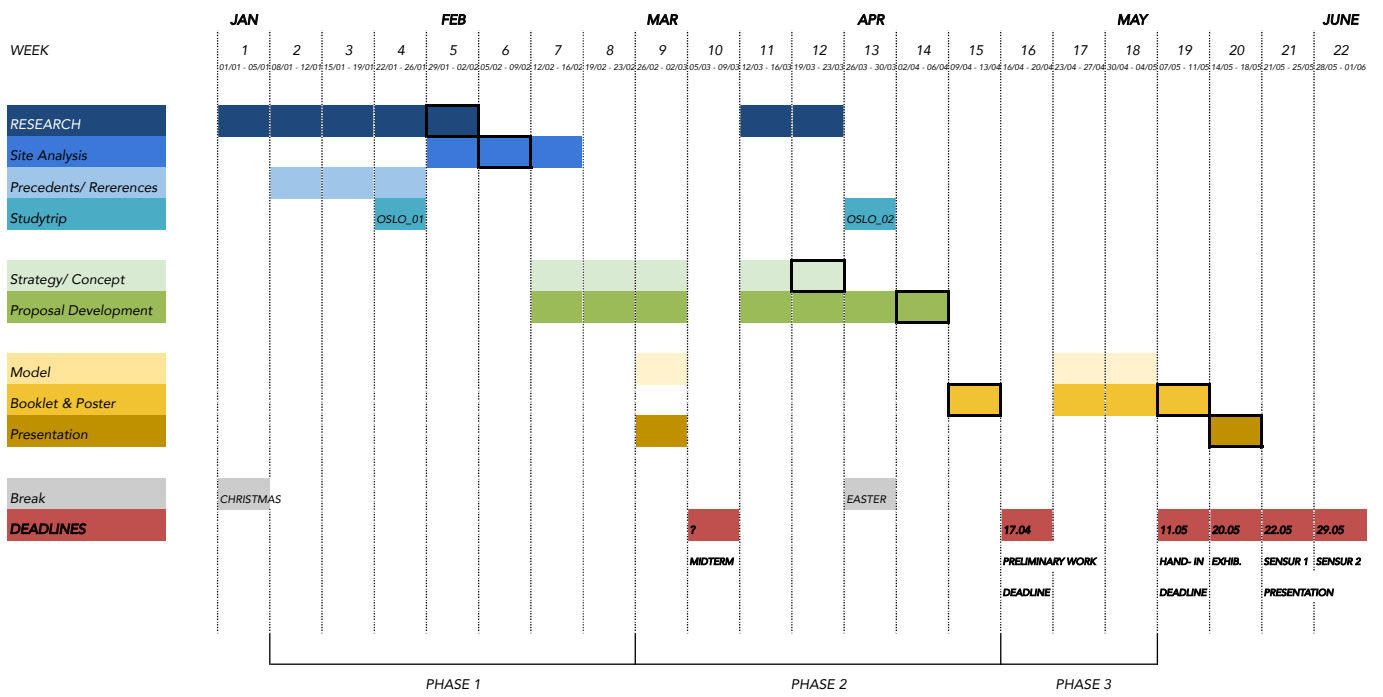


Figure 04: Oslo municipality plan

SCHEDULE

We can divide our master thesis in two phases. A portion of our time will be reserved for finalizing drawings, posters and booklets while the rest of our time will in general be split evenly between research and design. We will spend January – February researching urban agriculture. We will try to meet and interview professionals early in the process so that the knowledge we obtain can inform the rest of the process. Our goal is to have selected a site by the end of the research period so that we can spend February until the midterm presentation analysing the site and start the design process. We will then refine our proposals up until the final deadline of the preliminary work and reserve the rest of the time for the presentation.



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