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## Densifying suburbia

Pre-diploma report

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## Thesis

The project will investigate the phenomenon of villa housing densification in Oslo. What makes villa districts successful and attractive to a substantial part of the city's inhabitants today? What are the qualities and disadvantages of having large villa districts in a big city? Is it possible to develop a strategy for substantially increasing the density and land use efficiency of such places, while at the same time preserving and enhancing qualities identified within them?

The task will involve developing a series of new typologies and strategies for a few typical villa blocks at Borgen: a low density housing area located close to the public transportation hub of Majorstua and downtown Oslo. The project will develop new plan as a 1:100 scale architecture project, to showcase alternative ways of densifying Oslo.

## Background

### *The history of the villa*

The concept of the villa first appeared during the Roman Republic, where it functioned as a farm house estate which could be used as a weekend retreat for the very upper echelons of Roman society.<sup>1</sup> Following an increased lawlessness on the countryside during the fall of the Western Roman Empire, the typology seems to have gone briefly out of fashion, until it reappeared during the late medieval ages and renaissance with a new splendishness and luxury, such as in the case of the Medici villas in Italy.<sup>2</sup>

However, the true history of suburban villa districts began in the late 1700s, when the typology was slowly imitated and reproduced by an increasingly self confident and powerful bourgeois merchant class in the UK.<sup>3</sup> Rather than functioning as an economical center within a large country estate for the aristocracy, the new villa districts were, in the words of urbanist Robert Fishman, built on an idea of segregation between work and private life, lower and upper classes, and "nature for consumption" (viewing) rather than production.<sup>4</sup>

### *The ideology of the villa*

According to Fishman, historical cities were not built on the principle of segregation. Work and private life was intimately mixed as family and business went hand in hand. Family houses were just as much office buildings as they were homes. They were built in a manner which was open to the city, in order to facilitate the coming and going of clients and extended families, while the idea of class segregation within districts was foreign.<sup>5</sup> According to Fishman, the rich and poor lived literally on top of each other, and even though ancient cities probably suffered a host of social problems and hygiene challenges, this was accepted by it's inhabitants as a part of life.

Fishman makes a series of arguments for why this all began to gradually change during the late 1700s/early 1800s. Perhaps most compelling is the argument that the idea of family began to

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<sup>1</sup>Wikipedia - Villa

<sup>2</sup>ibid

<sup>3</sup> Fishman (1987), p. 3 - 17

<sup>4</sup> Fishman (1987), p. 49

<sup>5</sup> Fishman (1987), p. 39 - 41



eventually New York, Los Angeles and many more American cities. There they attained an even higher degree of popularity and success than in the UK. With the advent of commuter train lines and the automobile, the amount of available land for suburbanization was substantially increased and in such cases as Los Angeles, the rapid expansion only stopped when all the land mass in a massive area surrounding the city had been fully exploited.<sup>8</sup>

Fishman however believes that the phenomenon of suburbanization was not an inevitable response to the revolution of transportation and industrialization. He points to the fact that in such cities as Paris, which would later serve as a model and inspiration for many other major cities around the world, an alternative path was chosen. The rebuilding of central Paris by baron Haussmann in the 1800s allowed the middle class there to pursue a segregated and domestic lifestyle in an urban setting. Instead it was the working class which was confined to periphery. Fishman therefore believes that the phenomenon of suburbanization was driven chiefly by cultural values and circumstance, mainly in the anglo-saxon world.<sup>9</sup>



Los Angeles sprawl

### *Villa districts in Oslo*

Even though it's difficult to give a precise measurement of the true extension of villa districts in Oslo, it's safe to assume that it forms a substantial part of the city. If one divides the built area of Oslo into the following: high density zones, industrial zones, tower and terrace block zones and low density residential zones, slightly below 50 % of the total area falls under the latter category. Yet according to SSB, only about 10% of the city's inhabitants live in such areas.<sup>10</sup>

Furthermore, if one includes the entire metropolitan area of Oslo (some 1,5 million people), with such places as Asker, Bærum, Lillestrøm, Kolbotn, Drammen, Ski, where a large majority of buildings fall under the villa/suburban category, it seems evident that the suburban house is a highly prevalent

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<sup>8</sup> Fishman (1987), p. 155

<sup>9</sup> Fishman (1987), p. 107

<sup>10</sup> SSB, Folke- og boligtellingen, boliger, 19. november 2011

housing typology for the inhabitants of the Oslo area. If one looks at the country as a whole, about 70 % of the entire population lives in a single house (enebolig - 50 %) or row house (rekkehus - 20%).<sup>11</sup> Yet, despite being such an integral part to the modern Norwegian lifestyle, and in many cases the subject of strong local patriotism and emotions, very little seems to have been written about the history and origin of this housing revolution in Norway.

Even though Fishman does not bring much mention to Scandinavia in his book about the suburbs, the history of the suburban districts of Oslo follows a very similar path to that of London, though delayed by a few decades. Historical Oslo was, as London, a compact trading and administration city where all classes of the relatively small population lived, mostly confined within the city walls in Kvadraturen.<sup>12</sup> When industrialization kicked off in the late 1800s the city grew rapidly. At one point by about 10% each year.<sup>13</sup> A series of new districts were established beyond the former city walls. Some of these districts such as Frogner and Majorstua became upper class areas and shows the same pattern for segregation in an urbanized form which took place in Paris, while the districts of Sagene, Grunerløkka and Tøyen became worker class areas. However, some years earlier the very first villa district in Scandinavia was established behind the royal palace in Oslo. Without any connection to any farming estate, the district of Homansbyen was established in the 1850s for Oslo's wealthiest inhabitants, to imitate to lifestyle of the country estates of the aristocracy, very much like the early villa district of Clapham in London.<sup>14</sup>



Homansbyen - the first villa district in Scandinavia

Just like London and Manchester, a wide area of relatively cheap farmland surrounding the historical city made the process of investing in the booming villa market incredibly lucrative in Oslo.<sup>15</sup> The activity seems to have been greatly encouraged by local authorities, as it offered a simple and largely

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<sup>11</sup>E24, Ny SSB-statistikk: slik bor vi

<sup>12</sup> Wikipedia - Østkant og vestkant i Oslo

<sup>13</sup> ibid

<sup>14</sup> Fishman (1987), p. 51

<sup>15</sup> Aker historielag, Aker - bygda som ble en hybrid

self-financed answer to the general lack of housing.<sup>16</sup> The idea of a secluded, domestic life, in close contact with nature also seems to have been just as attractive to Norwegians as in the anglo-saxon world. With the advent of an electrified tramway in 1894, a series of tram lines were built into the countryside and along their stations a two to three kilometer belt of villa districts began to grow, surrounding the urbanized part of Oslo.<sup>17</sup> New areas such as Grefsen, Smedstad, Ullevål and Tåsen appeared, which to this day roughly separates urban and suburban Oslo.

Contemporary discussion about development in Oslo often refer to the concept behind these villa districts in a somewhat eulogized manner, but their origin and conception was in fact highly disorganized and lackluster. According to Aker historielag, the focus was mainly on quantity, not quality. Preservation of the historical farmland around Oslo, which formed some of the best farming soil in the country, was a priority in the beginning and some of the new houses were built with high architectural aspirations.<sup>18</sup> But the tendency eventually shifted more and more to ready-packaged low-cost housing, which were built in a quickly planned repeating pattern. Most of the historical farming land in Aker county had completely disappeared by the time it was integrated with Oslo in 1948, much to the detriment of the people who originally lived there.<sup>19</sup>



Aerial photo above Blindern, 1947, showing the spread of the new villa districts

In the mid 1930s, the authorities of Oslo came to a realization that there were serious economical and infrastructural challenges involved with an ever increasing footprint, and the forest boundary ("*markagrensa*") was established put an end to the sprawl.<sup>20</sup> In the years since, this has contributed

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<sup>16</sup> Aker historielag, Aker - bygda som ble en hybrid

<sup>17</sup> ibid

<sup>18</sup> ibid

<sup>19</sup> ibid

<sup>20</sup> Lokalthistoriewiki, markagrensa

partly to a densification within the urban parts of Oslo, a further loss of public and farming space within the villa districts themselves, but also a rapid growth of the satellite cities around Oslo, where one can still afford the dream of a villa house at a relatively low cost, in return for long commutes.<sup>21</sup>

## **Strategy**

### *The success of villa districts in Oslo today*

The attraction of living in a villa house, in close proximity to the labour markets of Oslo, is probably not much different today than 100 years ago.

The concept of the nuclear family, a safe space for children, closeness to nature, need for privacy and open space are probably still relevant themes in the mindset of many who seek this mode of life. At the same time, one can speculate if other motivations that Fishman suggests in his analysis of the suburbs, such as the wish to keep women sheltered in a domestic mode of life, are less important today than they might have been earlier. For example, overall female participation in the working community in Norway is high, at about 90%, despite many of the country's families living in suburban districts.<sup>22</sup>

As for the wish for segregation, it's conceivable that this is still an aspect which attracts some villa owners today. While the class consciousness of Norwegians is probably less important, due to the almost complete disappearance of a working class, the question of ethnicity is now an important motivation for where people chose to live.<sup>23</sup> This is showcased by the so called white flight from districts with a high proportion of immigrants. Since villa districts within the city limits occupy a large part of the total available area, but have a relatively low density, they have naturally become expensive, and therefore out of reach for many newly established immigrant families in Oslo, that have limited means. School districts with a high proportion of ethnic Norwegian children are considered among many to be an attractive aspect of a neighbourhood.<sup>24</sup>

### *The case for densification*

The argument I would like to make for why some of the villa districts of Oslo should undergo a process of densification is split into three parts. The first relates to social justice.

A small proportion of the city's population should not be entitled to a large proportion of the city's limited space. The resulting outcome has been and continues to be that those areas of the city that are already compactly built will bear the brunt of further densification, to the detriment of the quality of its public and living space. Those on the other hand who can not afford living within the city at all, due to the overall poor utilization of space are pushed out entirely, to be culturally, politically and socially isolated, with long commutes. In Tokyo, where space is politically treated as a highly limited resource, the rationalization of zoning laws means that an average family can afford a family house within the city proper (about 30 minutes commute from downtown Shinjuku) on an

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<sup>21</sup> Hegnar, de 10 sterkeste boligmarkedene utenfor Oslo

<sup>22</sup> SSB, Folke- og bolig tellingen, boliger, 19. november 2011

<sup>23</sup> Sundell, Hvit flukt blant norske barnefamilier i Oslo? : en kvantitativ studie

<sup>24</sup> ibid



annual mean income (350 000 \$ in Japan).<sup>25</sup> This is in spite of Tokyo's extremely high population and cost level. One could also make the argument that, just as with the business elite in the 1800s, it is also today morally questionable that the financial and political elite are able to live economically segregated within the society which they lead.

In any case, I would argue that the right to possess a large part of the city's limited space should at the very least not be legally and politically protected, as it is in practise today through "*småhusplanen*"; a legal framework which effectively puts severe limits on further densification in the villa districts. Even though *småhusplanen* has many well-intentioned points in trying to prevent low-quality, speculative development within villa districts, it is in my opinion fundamentally too restrictive in terms of building size and in-between distances to allow for any efficient use of the space. The people who live in areas governed by the plan are also some of the wealthiest in Norway, and only stand to gain financially through the limitations, while the city around them continues to grow.



Typical example of contemporary attempts at densification in Oslo's villa districts (near Røa)

The second argument relates to the environment. Villa districts can be seen as highly inefficient and wasteful in the utilization of the sparse resource of space. In particular, when the districts are located within close walking distance to high pressure densification areas or public transportations hubs, such as Nedre Grefsen, Smedstad, Vinderen and Tåsen. Villa districts also incentivise extensive car usage, sprawling infrastructure, shopping malls and high heating costs. When a majority of the city's growth is forced to take place outside the city limits, these tendencies are further exacerbated. I suspect that the overall environmental gains that could be achieved by building more compact and efficient cities vastly outweigh the potential of passive housing standards or the introduction of renewable power sources in villa districts.

The final argument relates to why the villa districts should undergo a process of transformation, rather than demolition and replacement. Even though the origin of the villa districts was chaotic and in some cases poorly planned, they have unquestionably become an important part of the city's

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<sup>25</sup> Life Where I'm From, How an Average Family in Tokyo Can Buy a New Home

identity. In such cities as Beijing and Shanghai, the majority of the low density historical heritage has been almost completely removed to make way for modern redevelopment, to the almost complete loss of character, distinctiveness and quality in the districts where this has taken place.

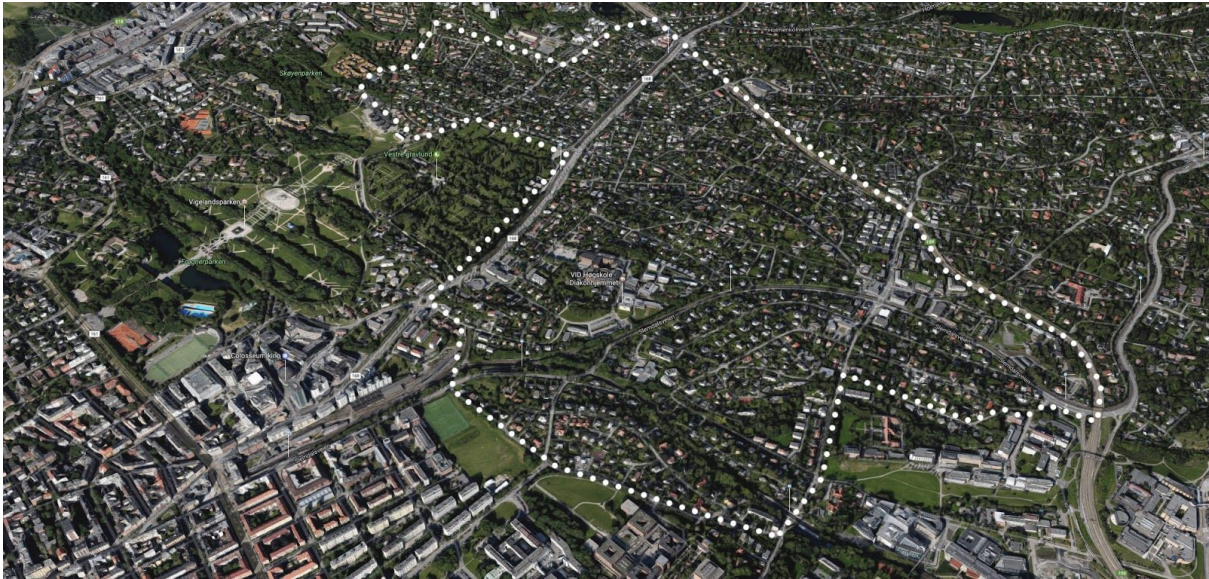
Furthermore, the immense grid of garden space around Oslo contribute greatly to the perception of Oslo as a green city. Even though the villa districts originally displaced some of the best farming soil in Norway (the Oslo field), the connected gardens continue to function as one of the most important sites of biological diversity in the country, due to the presence of mineral rich soil. The preservation of this green belt, along with the villas, streets and public spaces that possess a high degree of architectural or landscaping quality, is in my opinion important enough to justify a strategy of transformation. Furthermore, many of the qualities the districts possess as a whole, such as privacy, low traffic environments, garden space and child friendly neighbourhoods are unquestionably sought after. Many of the districts evoke strong feelings among the people who have lived there for close to a generation, and complete demolition is both politically and legally close to impossible. The question then becomes: is it possible to preserve or enhance these qualities, whilst at the same time substantially increasing the number of inhabitants, to address the issues of social justice and environmentalism?

### *Approach*

The strategy should be open about the fact not everything can be preserved as is. In some cases, as with the concept of segregation, the project might actively try to encourage a greater diversity. In other cases, there might be loss of qualities which can be compensated by the introduction of new ones. Overall, the strategy should show that it's possible to substantially increase the density of selected city blocks at Borgen under the following criteria:

- *The plan should show that it's possible to preserve the most important qualities of living in the existing houses (privacy, road access, limited amount of garden space), but also introduce new houses that possess similar qualities.*
- *The plan should show that it's possible to preserve a green belt, as a shared public space, through the district, with easy access for both new and existing houses.*
- *The plan should show that it is possible to preserve most or all of the existing villas and valuable local artifacts, such as rivers, old trees and historical places.*
- *The plan should discourage increased traffic.*
- *The plan should show a high degree of architectural quality and offer new street environments and public spaces that make the area attractive to live in and visit.*
- *The plan should contain a larger variation of typologies, to encourage a higher diversity of age groups, family compositions and socioeconomic status.*

Site:  
Borgen - Smestad - Vinderen (Oslo)



## Reference projects

Oyodonaka district  
Osaka, Japan



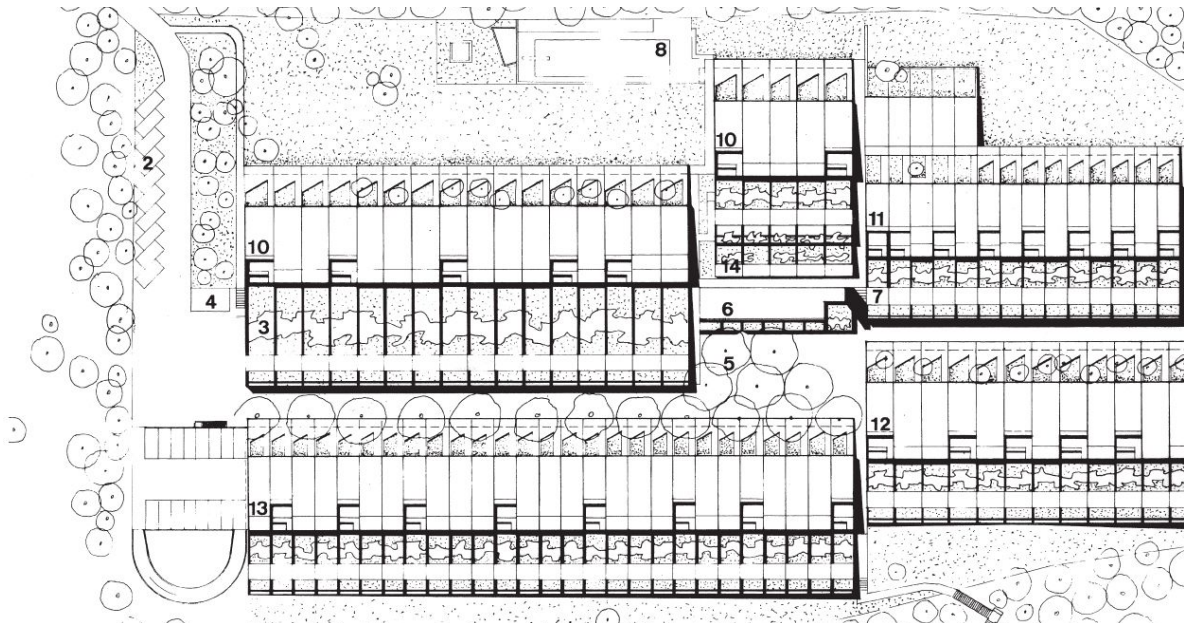
**Density:** 1-2 floor area ratio (far)

**Relevance:** small footprint zoning, much more efficient street space

**Qualities:** low rise, human scale, efficiency, privacy

**Disadvantages:** almost no green space, limited public space, limited sunlight

Siedlung Halen  
Bern, Switzerland



**Density:** 0,5 - 1 FAR

**Relevance:** long/narrow plots, private and shared green space

**Qualities:** attractive yet small apartment plans, good shared and private green spaces

**Disadvantages:** limited road access, typological lack of flexibility

Bedford park  
London, UK



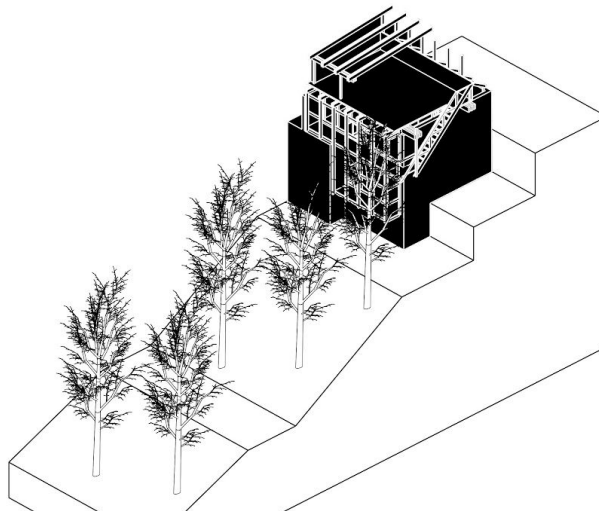
**Density:** 0,5-0,8 FAR

**Relevance:** continues green belt, shared/private green space

**Qualities:** urban street space, green shared space

**Disadvantages:** medium density, variable apartment quality, monotony of some building layouts

Terje Moes hus  
Bygdøy, Oslo



**Relevance:** parasitic approach to villa densification

**Qualities:** attractive and efficient apartment layout, roof space

**Disadvantages:** privacy within the home, only reproducible under specific circumstances

*Space block*  
Hanoi, Vietnam



**Density:** 1,7 FAR

**Relevance:** privacy approach to high density environment by the use of buffer space

**Qualities:** high density, attractive outdoor balcony space, natural lighting

**Disadvantages:** limited view, verticality of apartments

Dunboyne road  
London, UK



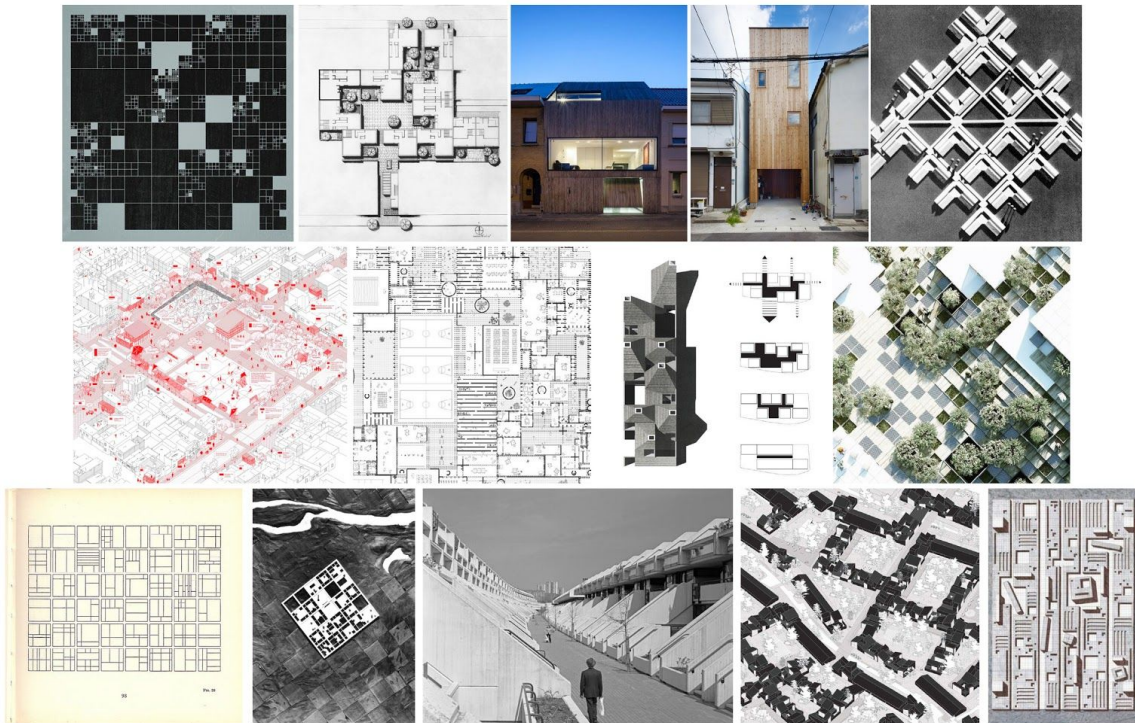
**Density:** 2 FAR

**Relevance:** combination of shared and private garden space, flexible/attractive apartment layouts

**Qualities:** mix of apartment sizes, private gardens, high efficiency, light conditions

**Disadvantages:** attractiveness/utilization of shared and public space

Further inspiration



## Schedule

*first week* - mapping exercise and identifying areas to develop

*first month* - sketching exercises

*october 1.* - urban plan presentation and model

*october - november* - 1:100 typology and block development

*october 30.* - 1:100 typology and block development midterm presentation

*november 30.* - 1:100 typology and block development finalization

*december* - final presentation development

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