In this reflection I will look back on the graduation process of the past year. Here we look at the relationship between research, design, task, studio and social context.

**Relationship research and design**
The choice to focus on the public space is mainly caused by writing my history thesis. The subject of this thesis was the development of high-rise buildings in Rotterdam. This research showed that the city of Rotterdam had to deal with an uncontrolled high-rise explosion. The period of economic growth and the desire to create a city of international stature has led to a high-rise boom. However, it appears that the negative impact of these buildings on the urban fabric and the quality of life in the city is larger than expected. These iconic buildings do not connect with the existing urban fabric. Thereby the closed typology has contributed to the alienation of the city. The rare available public space in these cities will be occupied by these buildings. The rapid development of a high-rise downtown has not led to the desired city center, but led to alienation.

In my opinion this is mainly due to the design approach. High-rise does not necessarily lead to alienation. On the contrary, high-rise buildings may actually increase the attractiveness of an urban area. High-rise should be seen as a typology which makes best use of limited space. A big program and the livability of the city should be combined. The public domain should be leading!

At the beginning of this graduation project, the High-Rise Workshop, the focus was all about creating an icon for the European Union. The design was based on the desire to create a program mix what should represent the complexity of the European Union. This was represented in a vertical city. The building could be seen as a city within a city.

This design and my history thesis showed that the lack of a connection with the urban fabric have led to the dysfunction of the urban environment. In both cases, high-rise is developed as a stand-alone building without a connection with the urban environment.

Based on field research in Rotterdam, Amsterdam and Brussels, I looked at the integration of high-rise projects in the urban fabric. This study clearly showed the realization of these projects as icons. Here the appearance of the building is the key element. The connection to the urban fabric mainly consists of paved areas where the human scale is completely lost. This public space is characterized by emptiness. Also the plinth has a negative impact on the quality of life in the city. In most cases, the plinth has a closed character and does not offer any space for public functions that improves the quality of the urban fabric.

The integration of high-rise in the urban fabric will hardly takes places. High-rise can be seen as an "alien in the city". This approach appears to lead to the alienation of the city center and indirectly leads to a reduced quality of life in the city. This trend must be broken through the creation of a new design strategy for high-rise projects in an urban environment.
The research towards several high-rise projects and a critical reflection on the P1-design has led to the development of a problem statement and research question. This problem statement is based on a new design strategy.

Problem statement:
*Public space around high-rise is rarely used!*

Research question:
*Why is public space around high-rise rarely used?*

This problem statement and research question have guided me throughout the graduation process. Feedback in every design phase was necessary. The research and design are based on public space and the connection with the urban environment.

The focus on the integration of the building into the urban fabric, has determined the direction of my research. Initially I based my research on public space in general. What kind of public space works and what typology is associated? The European square is one of the oldest typologies of public space that still works. The quality of this public space can mainly be explained by the combination of enclosed low-rise, program mix and the preservation of the human scale. My design concept is based on this typology.

The combination of this old typology, the European Square, and the new typology of high-rise, formed a complex task. The biggest challenge was the preservation of human scale. The closed block needed to ensure the quality of the square and had to make a connection with the existing urban fabric. The high-rise complex had to determine the shape and location of the public space. The combination of these two typologies has led to a new type of contemporary public space.

The European Square

In my opinion, this new design strategy, the combination of two typologies, is a requirement for the integration of high-rise buildings in an urban environment. The qualities of the design derive from the strengths of these typologies. For example the combination of low-rise, program mix and human scale. These elements ensure the preservation of the quality of the public space. The high-rise building provides the layout of the public space and is positioned in a way that the building does not weaken the qualities of the public space. The plinth of the building provides in a connection between the typologies. The complete public plinth connects the different public spaces and ensures the meeting of different groups of peoples. The program mix provides a 24-hour activity.

The entire complex works together. Without the high-rise building, the public space loses the human scale, and without the low-rise the high-rise building will lose the connection with the urban fabric.

In my opinion, the mix of these different typologies leads to a new design strategy for high-rise buildings in highly urban environments. It is a design strategy in which the iconic approach makes place for a public approach. A design strategy in which high-rise adds quality to the existing situation. Alienation of the city is prevented. Therefore, this design strategy can contribute to solving the problems that are caused by high-rise buildings in urban environments.

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**Relationship theme of the studio and subject**

The graduation task was to design a new headquarters for the European Union in the European Quarter in Brussels. This building should be part of the master plan of Portzamparc for the reorganization of the European Quarter. The design task involves the development of a high-rise complex of 220,000 m².

The design of a Headquarters for the European Union is a major design challenge. The European Union is an organ that has significant effects on Brussels, Belgium and Europe. This organization determines largely towards the development of Europe. The European Union is an organization for the public, for the Europeans. Therefore the European Union is public, but the actual public character is hardly reflected in the current situation. Transparency is missing. The European Quarter is characterized by closed, stately buildings. The publicity is completely gone and a connection to the city is hardly there. This development has led to the creation of an "alien in the city". The European quarter is not seen as part of the city.

With a new master plan for the area the municipality of Brussels and the European Union are trying to connect the area with the city. The area has to house not just office space. In the future it should provide more public functions such as housing, shopping and recreational space. This new headquarters of the European Union should be seen as the beginning of this development and can be seen as a catalyst for the area.

My research direction is in line with the wishes of the city of Brussels by connecting the area with the city. The creation of a high-rise complex that connects to the urban fabric and offers quality to the environment is essential for the success of the master plan. The creation of public space plays the main role. The choice of this typology is primarily based on the lack of public space in the district, the desire for more public space, and the essence of public space to optimally integrate the high-rise complex into the urban environment.

Public space plays an important role in the city of Brussels. Characteristic of Brussels is the large variety of public spaces. Huge public city parks are found in the center and in the surrounding neighborhoods. These public spaces are optimally used by the residents. They enhance the quality of life in the city and create a place for recreation and meeting. In combination with a program mix of living, working and retail these spaces creates quality.
However, it is lacking any kind of public space in the European quarter. Therefore, the creation of a public space in combination with high-rise complex is obvious. The public space should reflect the public nature of the European Union. The headquarters could be part of the public heart of the area. A public heart that truly is publicly accessible for everyone and that shows the openness of the European Union. The European Union is thus tangible and understandable without the loss of the private character and functioning of the institute. The public space makes the concept of the building stronger. Firstly, the public space creates a connection with the urban fabric. A central public space in the area provides a connection of different audiences. In addition, the public space provides a connection of the high-rise building on the low rise. The plinth of the building connects the two typologies. The design shows that it is possible to create a high-rise complex without compromising on the environment. It shows that interaction between low-rise, high-rise buildings and public space is not impossible. It shows a new design strategy that can provide livable cities.

**Relationship methodical line of approach and chosen method**

The methodological approach of the studio was mainly based on systematic research. Scientific research formed the guidance for the design process which led to creating a concept, problem statement and research question.

Research has been leading to all points within the design process. Especially field research and analysis of reference projects have been an important part. Analyzing many high-rise projects has led to knowledge related to all elements of a high-rise design. For example technical parts such as core research, structural systems, facade systems and programmatic studies.

By analyzing many different projects, many possible scenarios came over. By comparing different possibilities, I tried to get to an optimal design. Personally, visiting high-rise projects has been very important. Actually visiting the public space around high-rise buildings gave me the best image of the situation. Human scale and identity must be experienced. This is possible only through field research. Visiting different types of public spaces has provided a lot of information. The qualities and characteristics of these areas have had a large part in the development of public space in my design. Comparing the visited projects to the given location has led to a clear awareness of scale. This was one of the key elements for creating a successful public space.

Examining all different designs took a lot of time. In some cases it was not easy to provide necessary information. At various points in the design process this has led to frustration. However, this research has led to a good design. I started my studies with the High-Rise-Workshop-design. By critical reflection and research into public space I came to the conclusion that the design was not optimal. The choice to completely start over took a lot of time, but this clear research has led to a strong scientific foundation of my design. Translating the research into a design after the P2-presentation was a difficult phase. The design did not connect to the drawn conclusions. By starting over and use the full research as the foundation for the design, I finally came to this design.

Translating the research and conclusions into a design caused me a lot of time and trouble. This approach was also relatively new and not comparable with previous projects. Ultimately, I am very satisfied with the process and the scientific foundation. The chosen methodological approach of the studio helped me to get to this final result.
Relationship project and wider social context

My chosen research is not just focused on the given assignment, but is also a recommendation for the development of new high-rise projects in general. Different field studies showed that in many cases the relationship between high-rise and the environment is a neglected element. Often new high-rise buildings are realized without any relationship with the environment. The iconic value of the building is leading. These buildings initially are taking much space in the urban fabric. Additionally, the height and mass of these projects causes many negative side effects, for example shading, blocked views and a closed plinth. In few designs is actually looked at the connection of the building, and then in particular the base, to the urban fabric.

The plinth is the most important element of a high-rise design. Where in standard low-rise the connection with urban fabric can be realized immediately, this task is more difficult in a high-rise complex. The connection with the environment can only be realized in the relatively compact plinth. The other floors are lacking a connection to the city. Visitors will only experience the plinth. Field research showed that in many high-rise cases the plinth is closed and is not publicly accessible. It lacks quality and a connection to the public domain.

By adapting the design of the plinth to the needs of the environment, a high-rise design can be realized that adds quality to the urban environment. This could include the addition of public functions such as shops, restaurants and sports facilities. Furthermore, the addition of public space can improve the quality in the area. However, the human scale is the main design element in the development of the plinth. This design task consists of different scales. Firstly, the scale of the high-rise building, a large building where the human scale is not that important. Secondly, the plinth where the human scale is leading. The scale of the plinth must connect to the urban environment and the high-rise building itself. The public function must remain at all times.

Due to focusing on public space and the integration into the urban fabric I tried to realize a design that adds quality to the environment. The plinth and the public areas are of immense importance in this connection.

The design was chosen for a full public plinth. This plinth is filled with various public functions that improve the viability of the area. Several studies towards the desired and necessary functions have led to a program for the plinth. The plinth consists of a combination of retail, entertainment and sports. The addition of these features will add activity on street level. By adding housing and a hotel, a 24-hour activity of the project is realized. In combination with the office program of the European Union this design can be seen as the new central heart of the district.

The public space is created by the low-rise and is based on the typical Brussels closed block. In this respect, the plinth creates a connection with the surrounding historical low-rise buildings. The closed block creates together with the high-rise part three public spaces, two squares and public atria. These spaces are all publicly accessible.

Public access to these areas is important for the proper functioning of these spaces. There is a small amount of public space in the EU-area and the large public parks are too far away. The attractivity of public space is enhanced by the selected program mix and the orientation related to the sun. The closed blocks provide a barrier to the surrounding streets.
The development of the plinth is mainly based on the character of the European Union. The European Union is the governing institution of all Europeans and defined broadly the development of Europe. The impact on the public is not reflected in the EU-area. The closed and identity-free buildings are forming a barrier rather than a connection. To express the public character of the European Union has been chosen for a complete public plinth where the political and public can interact. The plinth is a space for meeting and recreation. The building needs to connect the city and the EU-area.

However, this approach can also be applied in other urban centers. Firstly, in relation to the urban environment. What elements are characteristic for the area? Which functions are needed? How can the public space be integrated in the design and the urban environment? By systematic analysis of the environment can be searched for a type of public space that can connect a high-rise building to the environment. The success of the project depends on the integration of public space and the plinth into the urban context.

The design can be seen as an example of designing a high-rise project in urban areas where space is scarce, and the demand for public activities is large. The design of a high-rise project should be based on the connection on ground level where the public space is leading, can prevent the loss of viability of the urban areas. The public space and social viability should be leading in any high-rise design. A public plinth and public space are necessary for the success of a high-rise project in an urban environment.