

The Reflection Paper

Heritage and Architecture Graduation Studio

Rotterdam Industrial Harbor

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The reflection paper consists of 5 parts:

- The relationship between the graduation topic, the master track of architecture, and the master program (MSc AUBS).
- Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.
- The relationship between research and design.
- Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.
- Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

The relationship between the graduation topic, the master track of architecture, and the master program (MSc AUBS).

The studio of “Heritage and Architecture” focuses on revitalization of existing values and the new introduced programs rather than merely preservation. The issues of the project have been tackled and analyzed from the larger scale to the smaller scale: urban level, site level, building level. Especially under the track of Architecture, the focuses of the graduation project fall both on building level, and realization of detailing to elaborate where old and new elements meet.

The starting points of the intervention always derive from the existing context. Under this framework, the building transformation not only inherits a richer historical background combined with cultural value, but it also increases the diversity of the city development. Moreover, the transformation of the existing building gives an opportunity of reuse capacity instead of demolition in the urban context. The aim of the studio provides a strong approach to give a second life of the building and its continuation. This method can be seen as a sustainable approach that should be emphasized nowadays.

The name of the graduation project is **Fenix II- the innovation cluster in Rotterdam**. The aim of the project is to find the position regarding to the values of the existing building, possible transformation, and re-introduce the correct programs under current city context. The first part of programs reflects on the great attention of historical layers: exhibition space of Fenix II and Rotterdam industrial harbor, and also current urban issues. The second part of programs addresses the emerging topic as circular economy network: research labs, harvest hubs, and explore labs. Moreover, buffer zone is introduced and plays an important role of the project, in order to preserve high existing values of Fenix II and at the same time to achieve high building performance and space quality, by using natural elements as plants and water to form recreation space, namely Green Central and Green Way.

The interventions reflect on the historical layers of Fenix II, where and which parts of the building should be preserved. The project can be seen as an example of dealing with the existing building under the specific cultural importance. The applied methodology of buffer zone in the project can be implemented to another building. The result of this project can be a catalyst from the south bank of New Maas River and spreads the influence to a larger scale of the city expansion in the coming future.

Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

There are 3 major parts of analyses: architectural analysis, building technology, and cultural values. In order to have comprehensive overall understanding, the architectural and the cultural value analyses contain 3 different scales, starting from: urban level, site level, and building level, while the building technology analysis focuses on building level with technical aspect and materialization. Another important aspect of analyses is the personal experience of the building. In my opinion, it is crucial to visit several times under different conditions. This gives deeper understanding of the character and the potential of the building, such as spatial quality, natural daylight, materialization, and current use.

Within the analysis of cultural values, tools as Cultural Value Matrix and Chronomapping have also been applied. These tools provide the frameworks to analyze and give the hierarchy of values in different aspects: from the past to the present, and from tangible physical facts to intangible historical layers and spatial experience.

The outcome of three parts of analyses are used as the foundation for intervention; it provides a full understating of the building essence in different perspectives. The hierarchy of values leads to the coming intervention and discussion possibilities: preserving the highest existing values, possible

opportunities integration, and demolition decision.

In order to implement the correct new programs to Fenix II, a research of the current city and site situation was made. Rotterdam harbor once hosted vibrant industrial activities. However, these activities have been shifted away from current city context. Circular economy can be seen as a new phase of industrial activity and bring back the liveliness of production atmosphere. The current programs as Tropicana and RTM Campus in Rotterdam establish a good foundation of circular economy topic. However, the urban network is not completed and linked. With the advantages of existing public functions on Kop van Zuid, Fenix II has a great potential to attract visitors, influences as cluster-effect, and create a better relation with the city center again. Therefore, Fenix II requires public programs in aspects of culture and education, which will act as catalyst from the south bank of New Maas River, bring back liveliness, and relink the missing relations of the current city center and the waterfront. The goal of circular economy community within the building is suitable under the current and future urban demands. The new programs can be realized with research labs, workshops, greenery, and exhibitions.

Moreover, case study of relevant projects on site was also an important input within the research: experiencing the actual space arrangement within site level and building level, applied materials, and intangible atmosphere. These are indeed useful inspiration for the intervention.

The relationship between research and design.

The analytical results and defined values found within the research form the foundation of the intervention. This foundation is the guide line during the design process. The starting points of the design always come from the existing. The current situation can be described in following: the previous glory of lively activities no longer exists; the connection with city center and use of waterfront are missing; the integration with natural environment is missing; the entirety of San Francisco warehouse should be addressed and shown under historical layers. Therefore, the starting points can be defined as continuity and entirety. This leads to the design question: **“How can Fenix II act as a catalyst to revitalize the glory historical layers of liveliness form previous industrial harbor?”**

During the design process, the decision was made to preserve as much of the original elements as possible, since they express the essential character of Fenix II. This also leads to the personal position within heritage architecture: what is the most important and essential design gesture can be made without interrupting the high cultural values, and meanwhile providing new values during intervention? Some dilemmas inevitably appeared during the design process. However, the existing building does not stand absolutely unchangeable. The most important goal is to achieve a coherent and consistent

integration of different domains with the existing elements and the intended design. The process of research and design is not linear. “How and why” is an important step to review the design decisions. It is crucial to re-examine and re-evaluate the relation between existing and intervention.

Along with, the personal design fascination is to integrate natural elements within city context. The current situation of natural environment is very little. It has been proven that increasing natural element within city context will increase overall public health. These natural elements have been proceeded along with interventions, such as Central Green, roof, waterfront, and light plaza in between Fenix I and II. In addition, the possibility of a reconnection of Fenix I and Fenix II is addressed with soft elements with trees, in order to emphasize the historical layers as an entirety, and create a new phase of continuation.

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

The aim of the project is to take position of treating existing with high historical values and give a new identity of Fenix II to revitalize the industrial glory. With the new introduced cultural and educational programs along with greenery scheme, Fenix II can act as catalyst to revitalize the current urban condition, influencing from the south side of New Maas River. The intervention provides the possible solution to the current urban issues of Rotterdam and reveal the new position of Fenix II: urban issues have been shown to the public in exhibitions; research labs act as knowledge bank and gathering different emerging fields to work together; workshops are the knowledge distributing points for the public; the integration with natural elements increases public health physically and mentally; the space quality of the waterfront and Deliplein will be also increased to create closer relation with natural elements; the missing connections have been relinked in terms of historical layers, natural elements, urban issues. Moreover, Fenix II can be an example of integration with natural elements within an industrial legacy and the city context, which can be duplicated in the city to increase overall natural elements in the future.

For future projects of existing building renovation, these analytical processes can be also applied to understand different scales and layers. The applied methods mentioned previously set up a foundation: understanding the aimed building comprehensively. The results from these methods will be used as a guide line with evaluated values, and then applied to later interventions.

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

Within the existing building, the dilemmas occur when interventions meet the highly valued original elements, such as facade elements and structure system. The intervention should provide a good integration within the aspects of architecture, cultural values, and building technology. This is the phase within the design process where strong arguments should be presented.

During the intervention, the middle part of Fenix II has been transformed and re-opened to create Central Green. However, in order to achieve this, there are several issues concerned within aspects of cultural values and building technology: partial structure with high values are demolished, repetitive spatial quality is divided, and stability of the building needs further examined and design. The argument is that Fenix II was mainly functioned as warehouse for goods, without consideration of other functions. In order to provide a new life within the existing building for public functions, different scale of space quality is required; visual connections and suitable divisions are needed. Therefore, the newly provide spatial quality of Central Green should be seen as an added values. Moreover, the trace of original spatial quality, original elements and previous use are still remained and seen in the rest parts of the building. The character of Fenix II has been transformed into public building as a catalyst in Rotterdam; the new implemented open space serves for a better integration and provides a possibility to host potential public programs.

Within the design process, these questions also occur: where the intervention meets the balance of new addition and the existing context? What can be the minimum of an intervention? What will be the future of the intervention? The intervention will represent as a possible solution, rather than a definite answer.