# REFLECTION PAPER

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Project: Adapting 20C Heritage
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Fig 1 the first building in the area, photo was taken in 1982 by unknown

## 1. Introduction

The graduation project is a transformation and reuse design of a previous office building, De Beurs, in Almere Stad. De Beursgebouw was designed by E.D. Partnership of architects and engineers Amersfoort in 1979 and finished in 1981 as the first building constructed in this area (Fig 1), and Almere is a New Town established around 1970s in Flevo Polder. De Beursgebouw located on the north of Almere Central Station, surrounded by two high speed main roads on the south and east side. The Almere center is in the south side of station.

De Beursgebouw has been empty for around 10 years since economic crisis in 2008. Because it was one of the city growth witness, citizens of Almere share a common memory of it, especially about its unique façade form, iconic big metal machine on the roof and the unusual ramps and stairs at entrance.

In my case, the building, together with its neighbor abandoned office building on the north, are transferred into an amateur art center as a citizen gathering place with creative entertaining and catering venue.

## 2. Reflection

*2.1 the relationship between research and design.*

During the process of my graduation project, design always relies on research methods and results, meanwhile, the research process is led by design requirement. And the proportion of research and design differs in different sessions of graduation phase.

In Q1, substantial research about De Beursgebouw and its setting is conducted based on methodology of Heritage Architecture studio through site visiting, data collecting and analyzing. My personal fascination on the target building is then generated and developed.

The research work in Q2 phase is focused on program and intervention strategy. After literal research on literal reports about Almere citizens' cultural life and living environment in recent years, and several times site visiting, I gained a more comprehensive understanding of the dilemma I noticed in Q1. Considering together the location and cultural value essence of De Beursgebouw, I decided to convert the previous office building into a citizen amateur art center. The intention is to create a common area which is easily accessible for inhabitants as an informal entertainment venue and supplement program for the tedious and formal city center. People with same hobbies and interests are encouraged to get together, share and communicate, especially for teenagers and the elderly.
To enrich the publicness and the relation among three most unique parts of the building, an inner staircase, which also works as an exhibition space of the students' craft works, connects all floors together (Fig 2). In order to know how art studio and craft workshop runs, I researched several European reference cases, and generated my own program and sketchy plans.

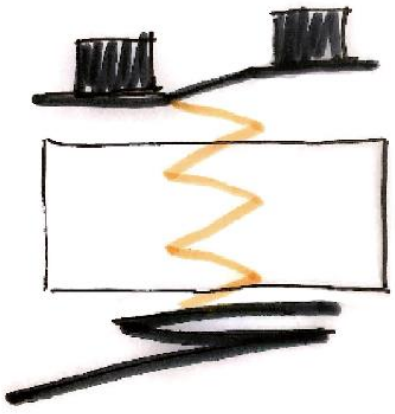


Fig 2 intervention strategy diagram, by unknown

In summary, the research work in Q2 phase largely drove the design process, and the scope of it changed from big scale to small scale, vague to precise.

During Q3 and Q4, I worked consistently on materializing and specifying the strategy I proposed in P2 presentation. Design decision during this phase both resulted in and from the research work. To make most use of the existing building and provide a sustainable plan, exact research of structure

and space potentials and possibilities was conducted first. Structure study consisted of both literal research and physical model experiment. Afterwards, specific spatial and structure intervention strategy was proposed and accommodated further. For example, when I was designing the new steel structural core, basic principle of steel bracing structure was studied first (Fig 3.1) and a logical form modification was carried out according to spatial requirement (Fig 3.2), ultimately, after simplification of the structure, the final result performed well both in structure and spatial aspects (Fig 3.3). With spatial strategy having been specified, research after P3 focused mainly on building technology, detailing in a smaller scale and typical space atmosphere study, including study and drawings of material, space dimension, façade proportion, piping and so on.

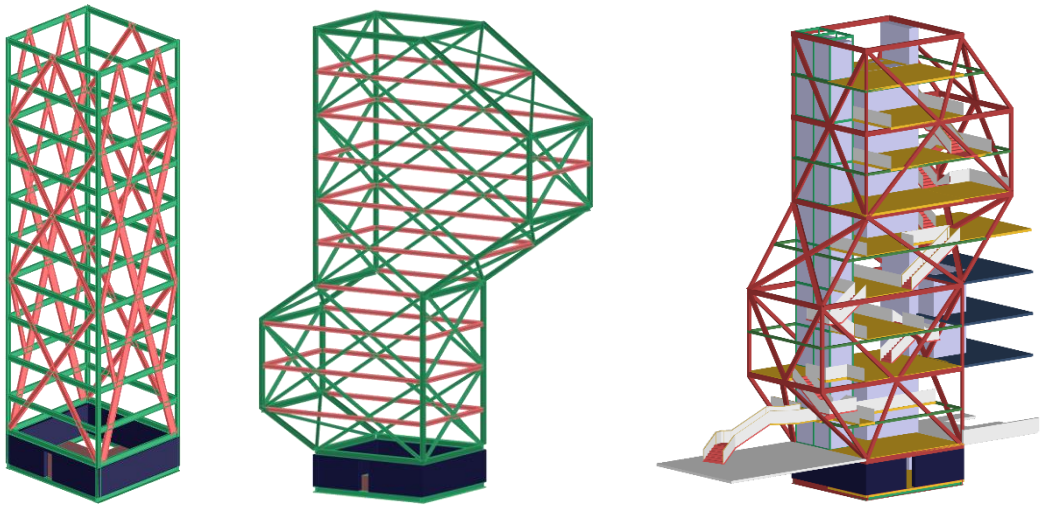


Fig 3.1 (left) step 1: basic form of steel core structure, by author

Fig 3.2 (middle) step 2: deformation of basic form according to circulation, by author

Fig 3.3 (right) step 3: simplification of structure in step 2 as the final form, by author

In conclusion, research process runs closely together with design development during the whole graduation year in my case, both scoping from vagueness to definiteness.

## 2.2 *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 argumentative design process, as Heritage Architecture Studio insists, requires us to have a basis for each decision we make. I believe that we are supposed be conscious of our responsibility as mature architects by being asked for demonstration and proof of the design. In HA studio, the proof contains but not limited to: cultural value assessment, data, documents, cases and experiments which are relevant to either architectural or technology aspects. In my case, all my research work concentrated on these respects.

Firstly, intervention on existing construction is accordance with cultural value assessment as a tool. The value assessment has been adjusted and reflected on since the first version after P1, and it helped to make the work holistic and clear through the whole graduation year. Cultural value assessment is

the medium to make a balance between the new intervention and original building, and to let me have a conversation with the existing building. As for the other means of proof, literal research, case study and experiment were all conducted from time to time when needed. (Fig 4-9)





Fig 4 (left) case study of heritage transformation and Kal-wall translucent material

Fig 5 (right) case study of interior material of floor, steel window frame and ceiling



Fig 6 material test before P3, by author





Fig 6-7 material test after P3, by author

2.3 *the relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).*

*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 theme of "Adapting 20C Heritage" studio concerns urban renewal issues in Flevoland of Netherlands, and the discussion is established on Dutch reclamation culture in polder and new town phenomenon. The first generation of buildings, built half century ago and witness of city's growth, are degrading and being abandoned, and it is time to consider the future of these modern architectures. Such urban phenomena are related to the city's original planning concept, urban re-positioning, economic development, population structure and other factors. And my design theme tries to the answer to the Almere New Town issues in the above-mentioned aspects.

The main research question of my graduation project is: how to redefine "the boundary zone" in the middle of the city in the context of new town. The sense of detachment is one drawback of Almere's original planning, dividing city into pieces of function zones which I call the "Islands", because these zones have monotonous functions and isolated with each other by high speed roads and large green areas. As a new town, people could easily get lack of connection with other new dwellers and sense of identity. And according to an interview report of life in Almere, people do need more creative public facilities near their neighborhood, especially for teenagers and the elderly, who are leaving this city.[1] On the other hand, Almere positions itself in a clear way. With the identity of renovation and sustainability, Almere's cultural development have fallen behind. If Almere is going to be an international big city in coming decades, as conceived by municipality, the cultural education and recreational facility for citizens' daily needs is obligatory.[2] So how should we bridge between these islands in Almere socially and materially?

[1] Zhou, J. (2012, March). Urban Vitality in Dutch and Chinese New Towns: A comparative study between Almere and Tongzhou | TU Delft Repositories. Retrieved October 31, 2018, from https://repository.tudelft.nl/islandora/object/uuid%3Ad0781200-1e73-4b29-a451-219f3adf3a08

[2] Gemeente Almere. (2017, May 1). Ontwikkelstrategie Almere Centrumgebied. Retrieved from unknown

My graduation project intends to answer to these dilemmas during Almere's, or New Town's, urban development, by revitalizing an abandoned but memorable "boundary area" next to the city center.

Moreover, New Town is an international phenomenon nowadays, and the cities with no historical context are being built up all over the world. This is both challenge and opportunity in the field of urban planning and architecture. The discussion of quality and implementation of different urban theories are experimented in these New Town fields. Certainly, Almere is a positive example of New Town planning which is flexible and sustainable, whereas, the issues we spotted in this pioneer city could always be lessons for later planning and design. For example, the hard division of different function zones in city scale pulls away the distance between people, and reduces chances of accidental events that would encourage interaction among them. However, new residents without their own interpersonal relationship network need to be included in a neighborhood society immediately, and as far as I am concerned, the unscheduled or accidental events, which means informal functions, could bring people with similar interests closer together more easily. Therefore, the way how to scale down design from urban to neighborhood scale, and achieve both livability and efficiency in small scale living environment could be further studied referring this graduation project.

In addition, this heritage transformation design project provides a new possibility for modern office building conversion. There are more and more vacant office buildings appear not only in Netherlands but also in other parts of the world, because of economic reasons and transformation of people's way of work. These buildings, typically designed as outdated working space with exact window and ceiling height, precast concrete structure system and space layout, could be transferred into public use.

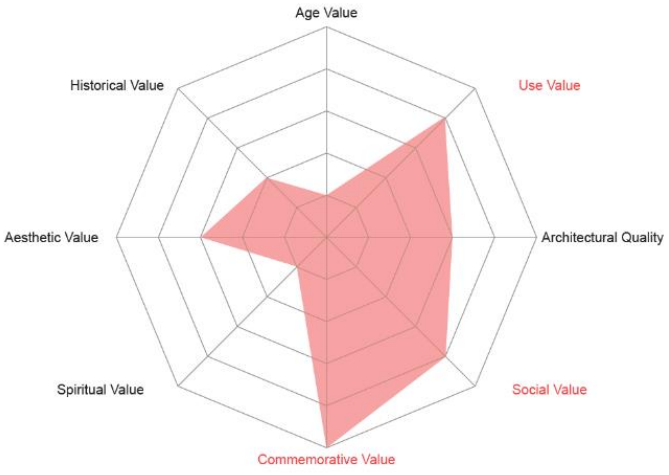



Fig 8 cultural value weight assessment of De Beursgebouw, by author

According to my cultural value assessment, the commemorative, social and use values of De Beursgebouw are of highest assessment. (Fig 8) The rest respects of values, such as its age, historical and spiritual values, are not as importance as its social impact on local people as a common memory. This values weight is same as to many other 20 century office buildings in other cities, and they usually act as the icons to demonstrate economy and technology improvement, just like De Beursgebouw. In my case, I valued the typical 20C precast concrete frame structure a lot in terms

of use and aesthetics. As shown in Fig 9-10, the original design showed respect to structure and constructive process already, and I strengthened the structure's expression in façade and interior further to give it another layer of meaning, as an impression of old time. Additionally, most of the recognizable precast massive concrete façade was kept, and vitality in these repeated module and indication of its constructive methods was introduced through replacement of two façade unit. As for the other two most commemorative parts of De Buersgebouw, the rooftop machine and the entrance stairs with ramps, because the use value of them were low, the intervention intends to transfer them into new iconic forms while regranting them up-to-date functions. In this way, the essential façade impression was kept in terms of commemorative and social meaning, in the meantime, use value was added and corresponded with inner functions.



Fig 9 original appearance of De Beursgebouw, by author



Fig 10 new appearance of De Beursgebouw after transformation, by author

Correspondingly, this project offers building another way to re-achieve its previous unimplemented ambition as a social hub of the city. De Beursgebouw was designed to be connected with a bicycle bridge across the main road on the east side, however, the municipal bridge was withdrawn and never established after De Beurs had constructed its own part of slope and bridge. The building was meant to be a social and traffic hub with refined big social stairs in the previous entrance, and this project makes it happen by moving the social part to the north, beside the latter constructed alternative bicycle lane. In this way, the urban square embraced by De Beurs and the bicycle lane becomes the new real social and traffic hub.

2.4 *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.*

As for the dilemmas during the research, the methods I used of research during the earlier phase could have been more diverse. Since the project is closely related to Almere residents' daily life and degree of satisfaction of public space and facilities, methods such as interview and questionnaire survey should have been done, so that first-hand information would be available. Instead, I studied a lot of literal report done by others, and research results were helpful but they were limited and interpreted already somehow. In conclusion, comprehensiveness and variety of research methods could be enhanced.

The other dilemma is the application possibility about replacement of the existing precast concrete core and the new steel core structure stability. Because there are few core replacement reference cases, this renovative strategy is still only possible theoretically via physical experiment and reasoning. Same as to the form of new steel bracing structure, dimension, form and even the feasibility still need further engineering consideration and calculation to ensure the reliability.

## 3. Conclusion

In general, the design and research work during my graduation project is coherent and increasingly in-depth. Although there is deficiency during each phase, the phased results are basically satisfactory. I combined my own position with the helpful set of tools Heritage architecture studio provides, and I believe this project represents my attitude to this heritage building.

In the final phase of graduation year, I'll mainly focus on finishing detailing work, visualizing the design in a better way and reflect more on P4 and the whole process then re-organize final presentation more clearly.