Chapter One
The position of Heritage architecture in the transformation to society

Why I choose heritage for my graduation project? One tutor in the heritage impressed me during a lecture last year. Though the theme of that lecture was sustainable architecture, since then, I began to think about the logic of design. When I was an undergraduate, in most cases, my university asked me to do an opportune design, but I never thought about the significance of architectural design. This point, in the process of preparing this project, I asked myself many times.
Heritage buildings are a type of architectural design that requires logic. No matter what type of architectural heritage, without being redefined, I think it is not much different from the garbage. However, blindly dismantling, refurbishing, or adding new features, I believe they will soon become garbage again.
I feel that my own position towards heritage design is the same as my position towards the garbage generated in life every day. At the moment when garbage is generated, it itself loses its value to the individual "me". But it doesn't mean that there is no value. Heritage buildings are the same for "human society". The value of the past, derived from time, is not applicable to the current society, so it is idle. In many cases, the reason for being idle is even that the owner of the house/government does not have excessive funds to renovate the land. Waste can be sorted, and I think heritage buildings also need to be sorted. The type of building, the structure of it, the parts that can be "recycled" inside the building which still holds value, and the parts that need to be irretrievably destroyed.

For architects, I think our position is divided into several steps. First of all, we have to sort the wastes of heritage buildings and pick out the parts that we can still use. In this part, I think there are intangible and tangible. The "recyclable", the intangible part is mainly the precipitation of society/history/culture. Architecture is the embodiment of life. Life is the carrier of human civilization. Buildings with different functions and from different periods have become the tangible "recyclable" part of human life in different cultures from different perspectives. For tangible parts mainly the well-preserved and still usable building components and site factors.

After confirming the completion of "garbage sorting", the architect's position should be " wake up the sleeping beauty's kiss". For the remaining valuable parts, we should think about how to give them a new life from the background of continuing the historical context. Just as the collected scrap metal can be melted and recast into new products, we should start from using our existing architectural elements and make them new products and sculptures of this era. During this process, various aspects of the site need to be researched and investigated. Many heritage buildings are designed for a specific function, but for the current social requirement, its function may need a huge change. In the process of transformation, it is a big problem in the design process if the existing architectural elements are

compromised and the tangible and intangible "recyclable elements" are used as much as possible.

After all, I think the architect's last position should be "sustainable development". I am not simply referring to the sustainability of buildings in terms of energy. As the name of my studio, our building today will be the legacy of the next century. So I think that when doing design, try to analyze the future as much as possible, and at the same time set aside flexibility to give future architects the possibility to transform the building, which is also our necessary thinking, although this is for me it's hard at the moment.

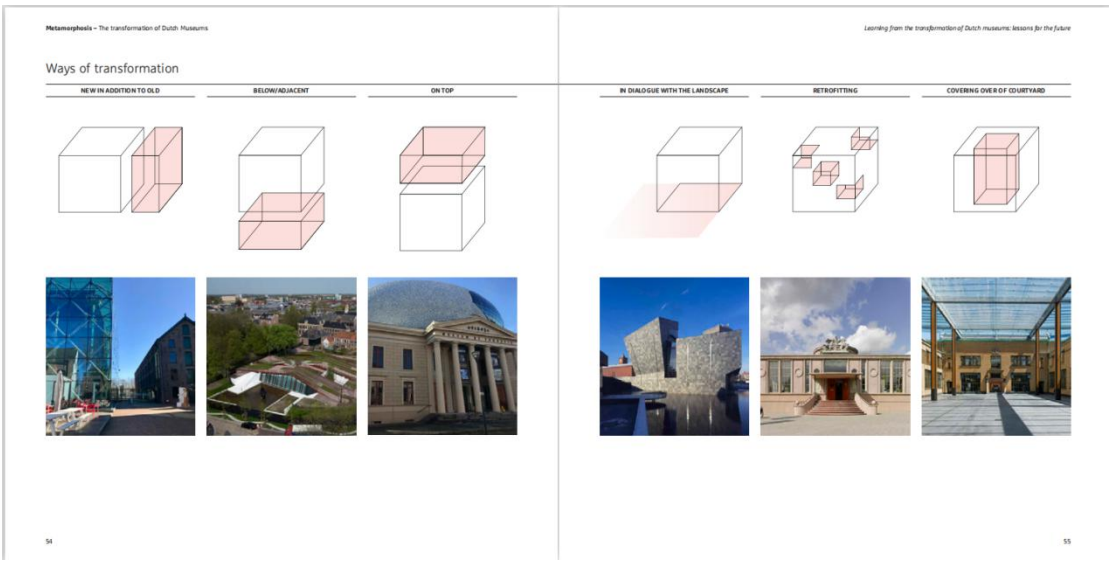
Chapter Two
The position of the industrial transformation project

I chose the textile factory as my project. One of the reasons is that I think the transformation of industrial heritage buildings is a worldwide problem.
China has a lot of industrial heritage waiting for transformation. This is already my second industrial heritage renovation project. Most industrial heritage buildings are now transformed into public buildings, such as libraries, museums, city rooms. There are also cases of becoming functional buildings, such as transforming into new studios or factories. Due to the industrial revolution of the last century, the location of factory buildings should be close to water and transportation. As the city develops and expands, they are destined to usher in different missions. Even in current society, new factories are being built every day. All kinds of factories have good building structure, large space span, and high storey height so that the vacant factory itself has great potential. With the evolution of the city, vacant industrial plants are often located in convenient areas in the city, so the new functions implanted in it should be based on the urban positioning of the surrounding plots, which needs to study what is missing or needed in this area. Abandoned factories should not be newly defined casually. It is a common practice to transform an industrial factory into a museum, but this is not the correct answer in every case. The large-scale grain storage factory in Shanghai Minsheng Terminal has been transformed into a museum, but as far as I know, there are very few people to visit except for the publicity period. There are many successful cases, and I will not cite them one by one here.

At the same time, I feel that heritage architecture design is a very contextualist school. The unique structure of the industrial building itself is the narrative body. But the mystery of industrial culture itself does not bring continuous commercial success. Therefore, when the museum is combined with it, the uniqueness of the project and the exhibition must be considered.

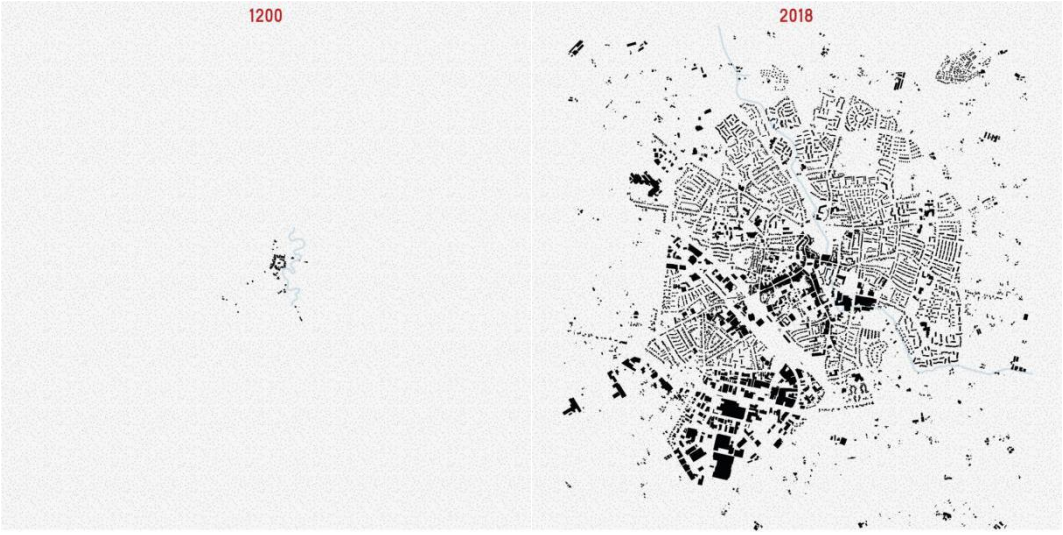
Under the premise of being suitable for the urban context, the museum of the industrial factory in transformation is very sustainable. The museum itself has a certain storage function. At the same time, for the sake of fun, the change of temporary exhibitions requires a large span of blank space. For these, museums and factories fit each other perfectly. The factory uses more modular systems to accommodate machines and production lines of different sizes, which will also bring certain constraints and opportunities to museum design.

Under the full analysis in the early stage, I suggest that for the transformation of industrial factory, especially for the design of museums, first use the available architectural elements and make some compromises on the surroundings (this is very necessary because the industrial building itself is not a public building, and there is no public distribution space); and then, through the existing shape, there are six main ways to transform in the following picture, then design the interior. At the same time, the flexibility of space should be kept as much as possible to provide the possibility for the future.

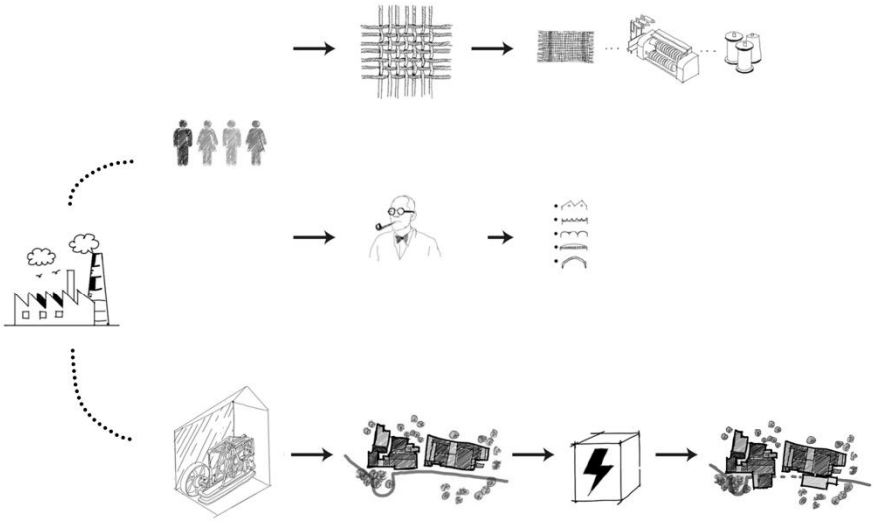


Chapter Three
P1-P2

During the p1 of my graduation project, my teammates and I conducted extensive research on Winterswijk and Morseport. From the historical background, I realized that the artificial river whemerbreek that is about to dry up has profound significance for the entire industrial zone and even the city.

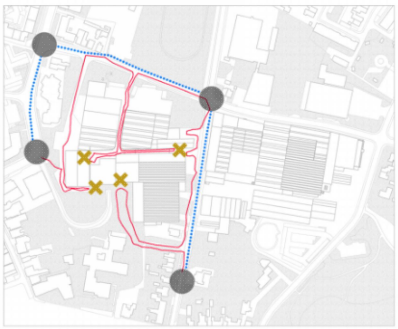


At the same time, the textile industry began to sprout along with the city several centuries ago. The evolution of the entire site is closely related to the progress of human society.

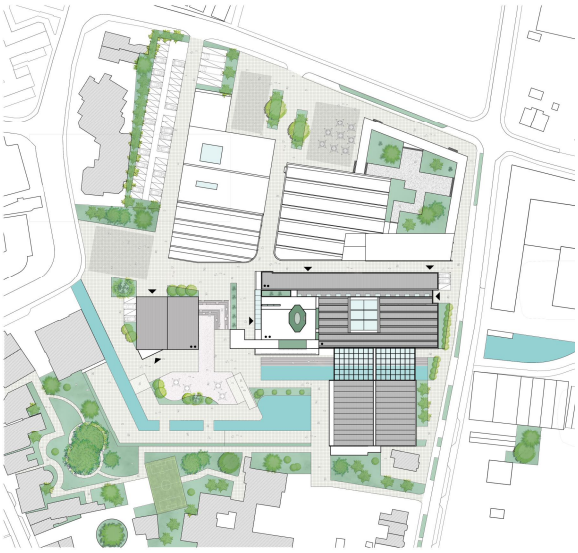


With the development of the two industrial revolutions, the industrial area has also grown vigorously like mushrooms, but with various social factors, the industrial zone now has been abandoned and the textile industry itself is no longer shining. Due to the lack of reasonable planning, the site began to become chaotic, industrial buildings are "form follows function", the coherence of the industrial production line itself makes the site more and more closed, and more and more rejected to the surrounding residents and the environment, finally caused the barren sight today.

During P2, I first clearly realized that the entire site was too closed. Opening it meant making him more public, then the necessary concessions had to be implemented.



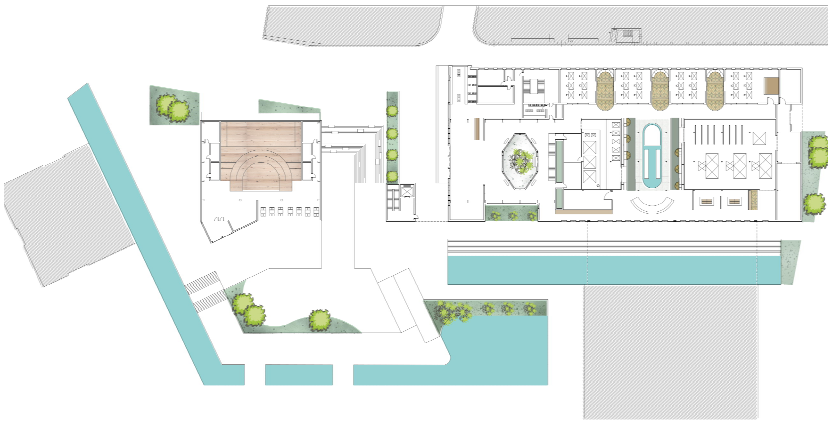
I researched and tested the closure of the site, and finally inferred which buildings must be demolished. Through the auxiliary research of environmental psychology, the new entrance is connected to the city main traffic, and the transition between architecture, landscape, and surrounding residential areas is also proposed. Most existing buildings are vacant or used as storage, which I call them “unactivated space”.



During P2, I did not have very reasonable suggestions for the function of the whole area. At the beginning of P3, I conducted a study on the entire city and the demography around this area and found that the city has a very obvious social aging tendency. In the next 20 years, there will be more elderly people, and the birth rate has been continuously decreasing. During my field research on this area, I also found old people who volunteer to work in the existing museum. After the elderly retire, it is difficult to redefine their position in society. They do not have a job, most of them stay at home, do some gardening or hobbies. Their social circle is also limited to their peers and family members. Out of consideration for the elderly, and Winterwsijk does not have a suitable chain for elderly services, so I advocate implanting this area into a series of functions for the elderly.
In view of the physical and mental health of the elderly, and their social needs, my main design will focus on the textile museum on the site.

P3-P4

P3 is a stage where I completed the main design. In order to reproduce the importance of the river to the context, I hope it can be a clue to guide pedestrians throughout the site. However, the junction of the river on the left side of the site is not an ideal space for people to walk. Therefore, the middle part of the river was converted into a small pond as a center for carrying a small park, and the second half of the river returned to the linear shape as a signpost to guide pedestrians. At the same time, the rhythm of the beam is repeated to form a sense of a passage. This is for the site design around the museum.



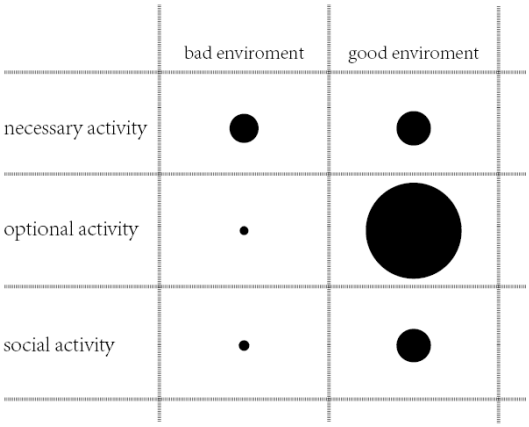
The ground floor plan

The Wheemerbreek corridor

For the museum itself, I think the meaning of the visit to the museum itself is complicated. Few people visit the museum simply to participate in the exhibition. If someone comes to the museum with friends, then the visit itself becomes a social behavior; if someone comes to the museum for taking pictures, then the museum ’s space itself is more valuable and meaningful to them, and they are likely to come to work; if someone comes to learn the history or the content of the exhibition, then the visit itself becomes learning; some people come to the museum only because of the loneliness, to integrate into the society, to find a sense of belonging ...
There are many ways to interpret this behavior of visiting a museum. While visiting the museum, human beings will produce more behaviors than the visit itself. At the same time, the museum has created a heterotopia compared to outer society. In the past, the museum was like a stage, telling the people in it another story from afar. Today, the definition of the museum has changed again. It is no longer a unilateral

information output from the museum, people will interact more with exhibitions. Compared to receiving information from a distance, people are now more willing to get up close and experience the culture by themselves. More in-depth participation will stimulate human senses and leave a deeper impression and feedback on culture.

Considering the proposal of this museum to improve the lives of the elderly, I hope that more seniors can work and visit in this museum, and at the same time, they can socialize in the museum to stimulate deeper benign human psychology and behavior. At the same time, good exhibitions and commerce are essential, as an economic source to support the museum. Referring to the Textile Museum in Tilburg, I think that the textile industry can be used as a part of the exhibition in the textile museum for people to visit. While getting close to the "once closed" industrial production line, the staff and visitors themselves also became part of the exhibition. In this process, people will talk to each other, learn, and exchange information becomes the main body of the exhibition. In addition to the exhibition itself, I hope to put social spaces in the museum. A good social space is to induce people to stay by providing a suitable environment, after which spontaneous behavior occurs naturally and randomly. So I propose to set up more space for staying in the museum. Referring to the museum's theory, between the exhibitions, warm-up and cool-down spaces are needed to connect the coherence of the overall narrative. In the museum, such transition space, I think it is the hall and corridor. Set an appropriate scale to make the hall and corridor more suitable for people to stay, so as to achieve my purpose of stimulating social behavior.



Relationship between activity and quality of environment

P4 is my biggest difficulty. In my planning, for P4, I will focus more on the construction of the design proposal. However, due to my suggestion of adding a new basement in P3, which is not optimistic. My design progress has been lagging, and due to the fact that I cannot make specific measurements on the base itself, I can only complete the speculation on the original structure through on-site investigations and photos. At the same time, due to the private reconstruction of the householder, many of the drawings are not corresponding with the actual situation,

which has become one of my problems. In addition, my design covers five buildings, and the workload is huge so that I can only make an in-depth design of one of the buildings, and the other four can only put forward my architectural proposal.
With the full use of the existing structure, I would like to propose to rebuild the shedroof according to its original design, and at the same time improve the insulation and waterproofing of the building complex. Through the ventilation of the shedroof itself, mechanical ventilation in the building is assisted to save energy as much as possible. Set up solar panels on the roof at the same time to collect natural energy as much as possible.

Model&reality of the exsiting shed roof structure

At the same time, for the sake of sustainable design, I think that the new structure added to the building should be a temporary structure within 50 years, as much as possible. So maybe in the future, when the textile industry is completely eliminated, this building may still have new possibilities.

After the second P4 presentation, I compared the European heritage design with the Chinese heritage design. In many projects in China, there are relatively few restrictions on the value of the heritage itself. In actual projects, I think the most important factor is cost. "Appropriate and reasonable use of the existing situation to make it more beautiful and functional, suitable for the current social situation." This is different from Europe that I think European schools are more likely to be"Maximize the use of existing conditions". One's values are more inclined to the timeliness of current functions, and the other is more inclined to maximize the effectiveness of existing functions. I think the heritage project in Europe is more tended to take heritage itself as a guiding line for the design process. Because there are some heritage projects in China, I don't even realize that it is not a purely new design.

I think neither of these is incorrect. However, if you purely yearn for new spaces and rules, and sacrifice the heritage itself by a large margin, it is hard to say that it is the "second life" of the heritage, just simply constructing new buildings. However, if the design is based solely on the use of heritage, there are many restrictions on the design. The heritage building used to be for a specific function in a certain period, but now that the building has been abandoned, the implantation of new functions is already inevitable. If strictly abide by the "keep everything untouched" principle, it

will make the design process very difficult. However, in different situations, due to different choices, the value principle of evaluation will be different.

Therefore, when building new buildings in the 21st century, one measure to solve this problem may be prefabricated buildings. Such a building itself can be assembled, disassembled, and moved. Instead of insisting on the comprehensive preservation of sustainable buildings, it may be a better choice to make the building components themselves easily reusable. Perhaps the heritage buildings of the 21st century can continue to be like Lego, creating different images at different time periods.

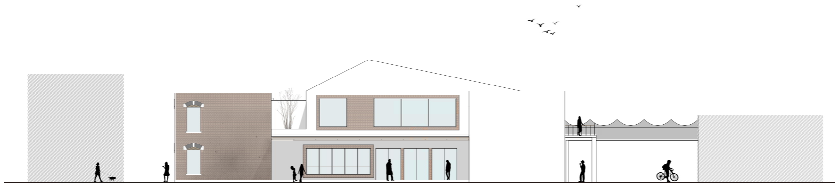
For the non-material part of sustainable development, I do not yet have a very good criterion for judging it. The meaning of culture itself can be experienced and restored through architecture, but not necessarily through the building itself. With the continuous development of the times, there will be many possibilities for the inheritance of cultural heritage. For example, the Old Summer Palace in China was once burnt down, and the exhibitor used 3D technology to reproduce the landscape holographic projection, which is also a very vivid way of expression. It's just that if there is no certain physical heritage in the present, it is difficult for people to project history on the time dimension of the present place.
For builders and managers, the difference between heritage projects and new buildings may be material. For users, the difference between a heritage reconstruction project and a new building may lie in the intangible significance of the heritage project itself. When people use heritage items, they will have a sense of yearning and being educated for the preserved and displayed part of the heritage. Although to a certain extent, the practical value of the reserved part may not be very high, and certain means are needed to repair it.

And nowadays heritage transformation-visiting seems to have become a fashion. However, the success of public buildings does not depend on the quality of the building space, but the quality of the building still depends on the user's evaluation and utilization. The transformation of the industrial area into commercial blocks and museums has almost become a trend in Chinese cities.

I think no matter what kind of heritage project, the transformation process can be divided into three steps: 1. Demolition. After reasonable analysis, demolish the part of the building that is of no value or of low value. 2. Repair. Discover the problems of the existing built environment and use the existing building methods to make corrections. 3. Constructing the new. In the existing buildings, according to the needs of new functions, combine with the existing conditions to create a new architectural environment.In such a process, the biggest difficulty encountered is probably the construction of new and old buildings. Fully understand the situation of existing buildings and make reasonable judgments and designs, and then put them into practice with possible methods. In many cases, the most ideal architectural design cannot be realized, and continuous self-reduce of ideals may be the biggest challenge

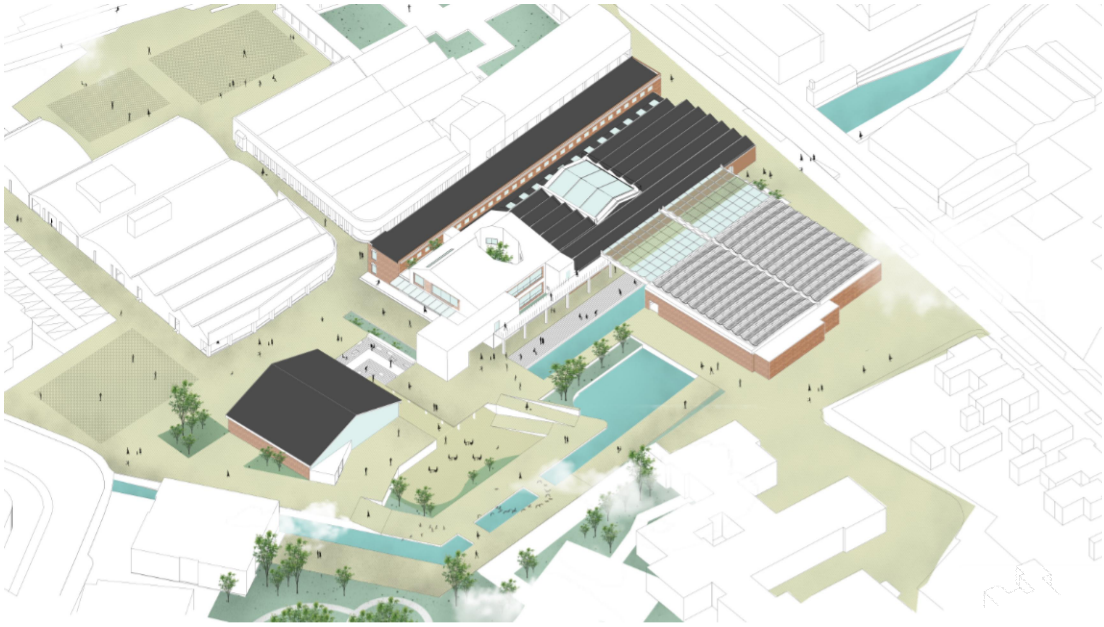
for architects.

After going through P4 twice, what I am currently dissatisfied with my design is that this area is made up of multiple factories, resulting in different structures. Therefore, in the process of compromising the structure, many architectural possibilities are lost. Next, I cannot answer exactly the value of the brick element. I think it is correct in terms of both valuable and valueless. What is valuable is the unity of facade materials for the entire industry area(changed into the elderly social district), and the architectural value of specific facades; but for a museum, if it still compromises with the facade of other offices/factory buildings, a public building itself may not be the best way to attract the attention of visitors.



Front facade

For me, the most important thing is to reconcile the relationship between structure, design, and function based on the existing design. I hope that in my next heritage project, I can use a better way to mediate the relationship between these three.



Bird view

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