Final Reflection P4

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Within the studio of Heritage & Architecture we focus on the topic Zutphen Sustainable city. Zutphen has an abundant history which is reflected in its city fabric and built environment, which is its heritage. Unesco defines heritage as follows:

"Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. " (Unesco.org)

We develop ourselves based on fundamental existing values, our culture. The heritage in Zutphen has to be conserved for future generations, for it is part of the identity of the people. We strive for innovation and at the same time we have to hold on to our history. In order to innovate, one needs to understands the past. This assumes that we understand the present as well, but most of the time this is not the case. In this reflection the statement is made that to change the future one needs to understand how the present came to be in all its facets. Conserving heritage means protecting identity and culture. So an understanding of cultural and social development is highly necessary. The topic of the studio is sustainability which is linked to heritage. Because Zupthen has a vast amount of heritage, making the city sustainable ultimately results in an architecture reflection, affecting heritage. But what does the term sustainable mean?

According to the Oxford advances learner's dictionary "*sustainability*" has two definitions.

1. Involving the use of natural products and energy in a way that does not harm the environment.
2. That can continue or be continued for a long time.

The term goes beyond the energy question. It involves a balance in which society should develop. This balance also touches upon the social and economic aspects of sustainability. It is much more than just an energy question or the environment. The core of this projects sustainability is not only the approach to save energy and be environmental-friendly, but also addresses the need for a change in our own way of thinking. Part of that could be accomplished with architectural elements.

When focussing on sustainability, the question should involve much more the social side of it. Sustainability in architecture should not only focus on the building, with its environmental, economic aspects, but it should also imply the user of the building. Presuming that the user is not sustainable himself, the building could change his behaviour in such a way that he could become more sustainable. How can a building influence someone that he will accept a temperature of 18 degrees centigrade in the winter instead of 22? This would save a lot of energy for example. One could argue that this goes at the expense of comfort, but the comfort we currently have is not sustainable itself.

The project topic addresses the need for sustainable functions within a city with a lot of heritage. The sustainable function that has been chosen for this project was derived from the analysis and touching upon an economic and social sustainability the city itself claimed to have, but which is being elevated in the design. The relationship between heritage, both intangible and tangible and the need for new

or other sustainable functions is approached in this project. The design implements the use value of the chosen area to a maximum extend. The area is known for its high schools. The new function corresponds with the current use value of this area and focusses on a pedagogic and heutagogic (self-learning) future in the education system. It is a place for everyone to learn and means much more than just a school. It could be a new function with a new typology. The project can be seen as criticism on society and our perception of a school.

Reflection on Research Methodology

Broad analyses were performed on the city on multiple aspects. It became clear how the city had been developed aites that needed special attention were revealed. On these sites an existing building was chosen. The sites were further investigated with multiple chrono-mapping, technical-, architectural- and value assessing analyses. The focus lied on aspects as introduced by Steward Brand and Aloïs Riegl to get a full grasp on all of the aspects of the heritage object and what the values are. Because these analyses influence design decisions, considering the importance of the methods used is indispensable.

The Heritage & Design analysis is meant to get an understanding of the sequence of city, landscape, environment, building ensembles, building, elements, space, light, textures, atmosphere, smell, sound and feeling. The Cultural Heritage Analysis reveals the significance of heritage objects within its historical, cultural and architectural context. Use is made of the cultural value matrix, which is a tool to reveal the significance the heritage object has. From this matrix themes and obligations have been derived. These analyses combined form a transformation framework in which starting points, themes, dilemmas and obligations can be gathered. Issues were revealed that needed to be solved and this resulted in a research question. Qualities were discovered such as the courtyard, which could be described as hidden heritage in Zutphen. Secluded spaces have a certain user but are also interesting to the visitor. This relationship was taken into account while forming the following question:

"How can secluded semi-public spaces organise sustainable functions in historically dense urban fabrics considering experience and ambivalent social capacity?"

Criticism on the preliminary design

Between de P1 and P2 the feedback of the mentors was that the project needed more depth. But to reach this depth another analysis had to be made in order to understand the effect of courtyards and secluded spaces within the city and its social capacity. The finished analyses lacked depth on this aspect and so the research question could not be answered with these analyses alone. That is why the focus lied on a hypothetico-deductive method, based on the existing analyses, to reach a depth in which a conclusion could be made. Because the subject, secluded spaces, had already been analysed briefly in the analyses, careful conclusions could already be made. With the hypothetico-deductive method these conclusion could be confirmed. The approach was to analyse other secluded spaces in historical Dutch cities. While using this method, it quickly appeared to me that these answers would fulfil the question, but not the design. At this point the realisation came to me that **I had asked myself the wrong question.**

The research question raised other questions which were much more important and relevant. I want to make a change in my research question to fully grasp what I have researched. The research question would become:

"How can sustainable functions be organised in historically dense urban fabrics considering the identity of that place and the ambivalent social capacity?"

As the research continued the need for another analysis arose. The sustainable function that was derived from the analyses demanded more input to become innovative. This is why the choice was made to perform a literature study on the education system and the objective was to translate this into architectural means. After the P3 the project was criticized because there was no architectural translation of the studies yet. This translation was made up to the P4 presentation. The conclusions from the literature study were translated into spatial and environmental requirements. The transformation framework became much more valuable after this literature study. Now the themes, obligations and starting points became an incentive for the design. The urban-, technical- and architectural analyses and the cultural value assessment functioned as a tool to discover issues and simultaneously as a tool to shape a mould in which a concept could be poured to solve this issue. The concept, however, was developed as a result of the literature study.

The relationship between research and design

The research that was performed had to be translated in architectural tools. The transformation framework offers starting points, themes, and obligations, but was also used intensively as a tool for design choices, even in the smallest scale, the detail. The pedagogic and heutagogic literature study offered the reason why. The literature study offered the concept. The analyses couldn't offer the reason why because the problem which was addressed in this project is a fundamental one of society. It's solutions cannot be fully found in existing architectural context (figure 1).

For example, in the part of the building that provided spaces for social quality, the choice for the material wood was easily made, because it is conversation friendly. It also has a sound absorbing effect. The function demands social connection so sound is very important here. Conversations have to be stimulated. Wood is simultaneously a material that was abundantly present within the city fabric, as streets were constructed with wooden beams. The floor of the new building will be covered with wooden tiles, resembling this same street. The overall function of the building is to innovate within society. This was reflected in the textile ceiling. The change of society is also part of the identity of this place. This is visible in the larger scale, but even in detail, a constant dialogue between the existing and the modern. Within this dialogue the most important aspect of the building is present, the visitor. He will always find himself wandering between the existing, the core values and the modern, the innovation.

Another example is that the spaces where the focus lied on the knowledge of one's self. have to be places of deep focus on the mind. There is no need for conversation here, because that is not what this intelligence is about. It entails a realisation of the self and one's own psyche. These spaces should be conversation less. This was solved by creating spaces in which the reverberation time is high. Or spaces with already a presence of certain sounds.

It is a combination of observation and analysis of the existing and a literature study that resulted in this design. The literature study provided statements and needs for the architectural experience and the analyses served as incentives for the translation of those statements and needs into physical architectural elements related strongly to the context of that place in such a way that the core values of that place and its identity is strengthened.

Figure 1. The process and a possible approvement.

The project and its wider social context

The education system

"The old believe everything, the middle-aged suspect everything, the young know everything."

- Oscar Wilde

The concept that arose from the literature study is a critical view on society. The educationalist Ken Robinson says that schools kill creativity. He defines creativity as three related ideas, imagination, creativity and innovation. He describes them as respectively the process of bringing to mind things that are not present to our senses, the process of developing original ideas that have value and the process of putting new ideas into practice. (Robinson, 2001 p.3) Robinson addresses the need for a different kind of thinking if we are to survive and flourish as a society. To accomplish that the education system and organizations have to be run in radically different ways. As Ken Robinson explains, the current schooling system is based on industrialist philosophies, to fit students properly in society.

Gardner, a developmental psychologist and professor of Cognition and Education at Harvard University, also sees the need for another type of learning. His ideas include the acceptance and recognition of multiple intelligences. He describes ten forms of intelligence and in an ideal situation this could also be projected within the education system. In practice, testing the level of these intelligences with general exams for students proved to be difficult. Currently, schools focus intensively on mainly two types of intelligence, linguistic and mathematical (Gardner, 1999 p. 27-47). Robinson also calls for schools to stimulate creativity. This means that they have to be capable of educating people who can imagine, create and innovate. But how can we do this if we only focus on these two intelligences of society? In order to gain more critical thinkers who can eventually innovate schools have to address multiple types of intelligence to let the student discover how they could fit creatively in society, because innovation does not only happen in the linguistic and mathematical field. It happens everywhere.

Mihaly Csikszentmihalyi is a psychologist who takes the definition of creativity even a step further. He describes creativity as something that cannot exist on its own, the new is relative to the old. Standards and norms are necessary for creativity to exist. Therefor creativity always takes place in a cultural and social context of achievements. The cultural part is the domain and the social aspect is the field. The domain is the existing in which the intelligence is being developed. The field is the elite that can confirm and control the domain Csikszentmihalyi describes creativity as the idea or product that alters that existing domain or reforms an existing domain into a new one. He links innovation directly to the term. For creativity to happen two other ingredients are needed. The first one is the talented individual, someone whose thoughts or actions are capable of altering an existing domain, or creating a new one. The second one is feedback of that particular field to recognize if the change is genuine. In other words, creativity cannot happen without talented people and the peers to check the work (Csikszentmihalyi, 2014 p. xxii, 47-60, 160-170).

The conclusion of this part of the literature study is that there is no way schools can provide a platform on which students can become more creative if the domains and fields of those intelligences are not directly present. This is why a school must become much more than a school alone. It should have at least a function to draw information from and a function to directly communicate with society. This was translated into the concept (figure 2).
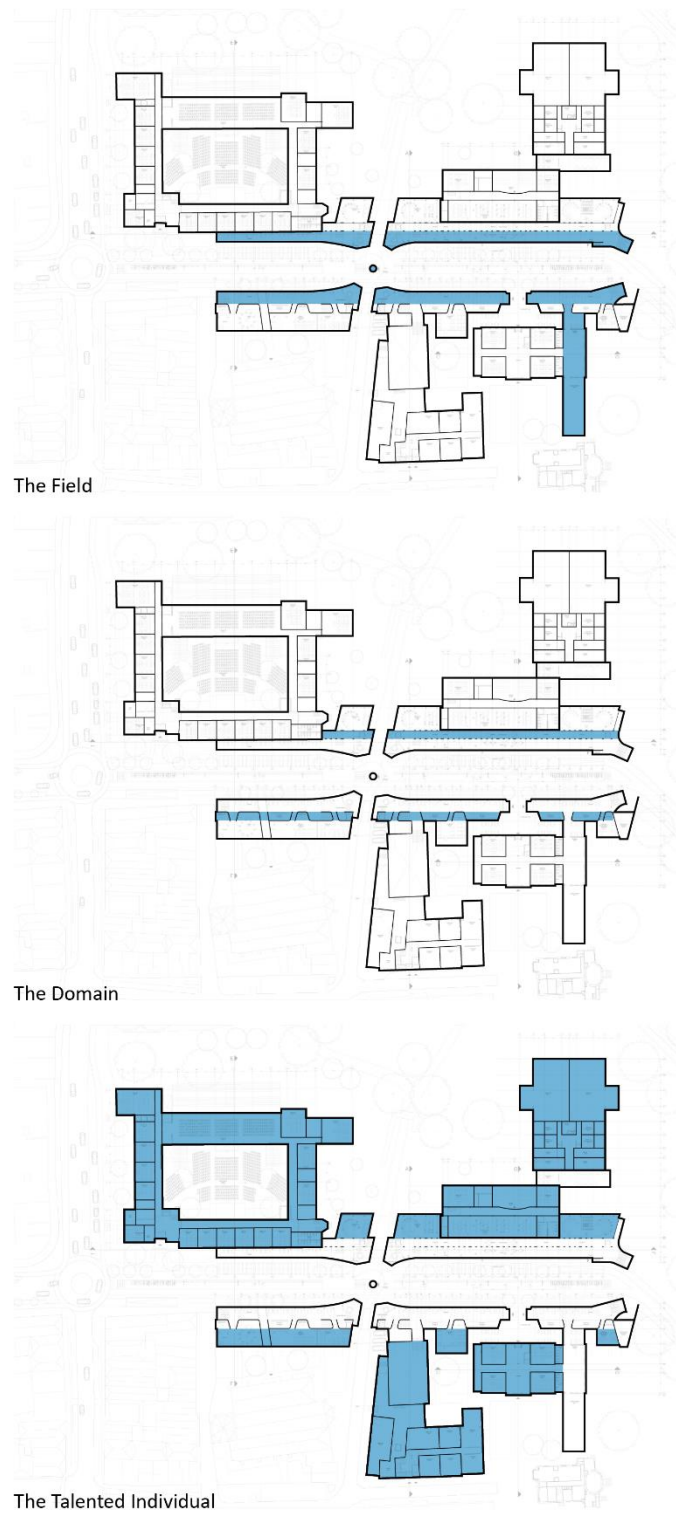
The Field

The Domain

The Talented Individual

Figure 2. The division of the building into three fundamental parts related to creativity.

Spatial

Naturalistic

Existential

Moral

Mathematical

Linguistic

Bodily-kinesthetic

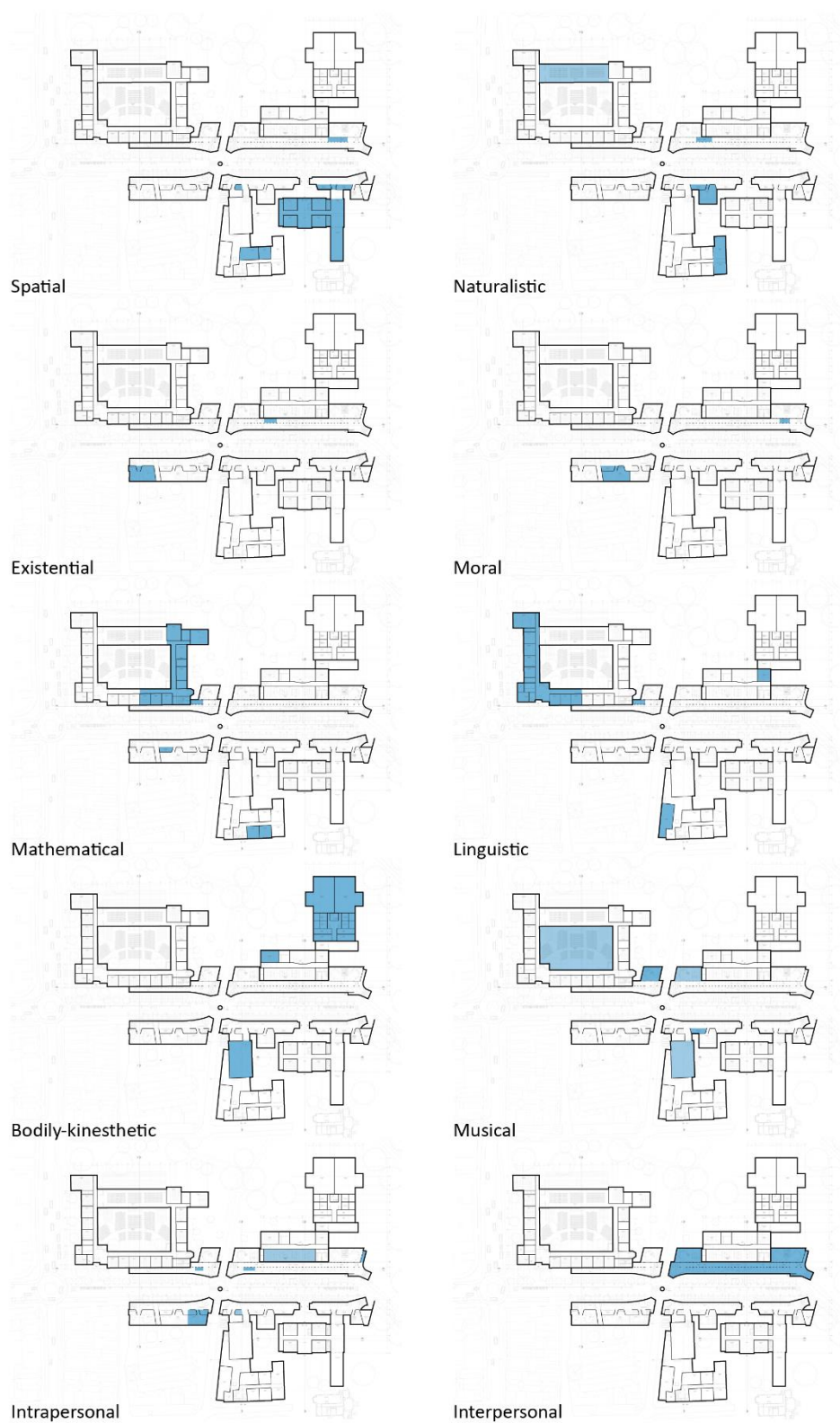Musical

Intrapersonal

Interpersonal

Figure 3. The different intelligences and their location in the building

The concept is to design a school that has an archive function, the domain, and a museum function, the field (figure 2). The archive contains physical archives and a library, but also servers as to gather and share online information. The museum function should gather peers from all over the country. The museum could be visited as an old fashioned museum in which objects are exhibited. The visitor can also interact with the students, to learn not only from objects, but also from the students as well. A positive side effect is that students will develop simultaneously interpersonal intelligence. It could also be used for peers to check if the work of students lives up to the demands of the existing field, to reveal and share questions. In this way the museum objects changes from the physical object to the visitor himself who becomes a source for students to intensively withdraw information from.

The intelligences of the theory of Gardner each get their own location within the building (figure 3). Its location is also attached to the identity of that place. Students focus on multiple forms of intelligence. In this way the students become critical thinkers within different fields. They follow a programme based on heutagogy in stead of pedagogy. This is extremely relevant in a Western society in which fake news is present and even deliberately spread to influence the choices people make. The need for people who think differently is high. The most extreme example is that people are becoming more vulnerable for radicalistic thinkers who want to influence them and force them to believe in things that should not be believed in in the first place, sometimes this results into serious violent actions. Let alone the influence these actions have on the rest of society. This is an issue that is becoming much more relevant. With a school shooting almost every week in the United States for example, the way students think must be taken into account when designing schools. One could argue that a school like this could also raise more radical thinkers, for students are motivated to think critically. But people are allowed to become radical thinkers, otherwise there would be far less innovation. This project could be called radical as well. If radicalist thinkers who are vulnerable to become violent extremists understand that they can change domains in another way and if they become more critical thinkers they have less change to become vulnerable for persuasive people.

Design and dilemmas

The project consists of multiple heritage stories. Each story deals with heritage in an alternative way which results in a diversity of preservation of our own culture.

The concept is in line with the use value of the area. Heritage is subjective to change, both naturally and social. Sometimes this change needs to be prevented or reversed. The reasons why must lay in the identity of that place, its meaning and the cultural and social meaning, both presently and in the future. But change is naturally inevitable. Some values are also contradictive, resulting in a change of the existing heritage, but strengthening other values. For example, if the use value is high, the age value will eventually disappear. Because the heritage object will be restored and maintained for the use of it. This results in a loss of identity but at the same time another identity can grow, derived from the old one. How can it be determined if the gain of identity is bigger than the loss of identity when making choices between these values? How can it be done if we do not have a thorough understanding of current social needs and developments of that place or in the field?

With multiple heritage stories to be told it seems logical that they result in different buildings. This actually resulted in an incoherent design that changed in time to become more unified. The different stories now become subtly visible in colour and detail, while it could still be recognised as one big building. It was a dilemma between character of place and its architectural qualities and the latter prevailed. A loose and weakened area is made into an area with a new identity. An identity which is derived from the social and physical existing values. The new element brings harmony, structure and unity to the schooling complex on its own. The added value is far greater than the loss of identity.
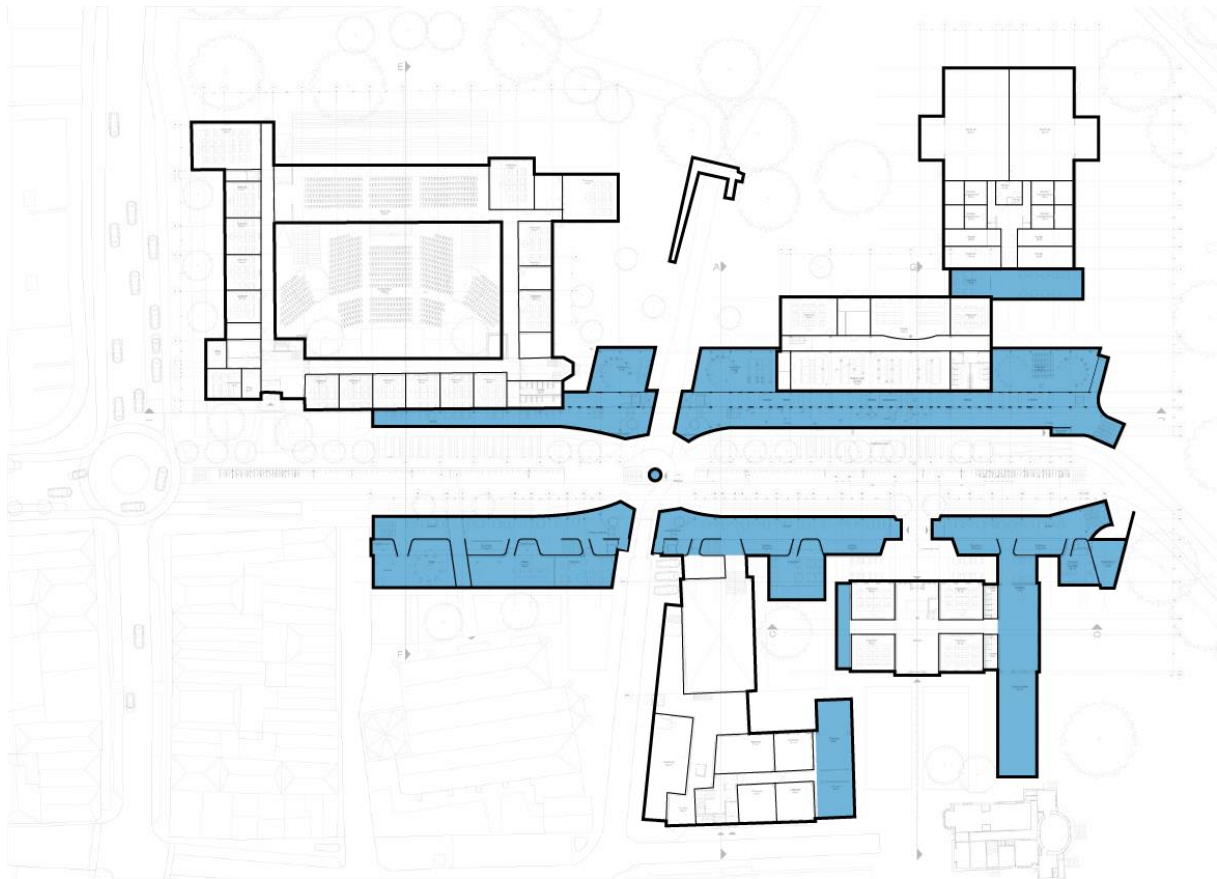
Figure 4. The new intervention.

Another dilemma was the souterrain, which was need to physically connect all the buildings without losing important core values of the area. Because the archaeological value of the ground is high in this area, the intervention will result in a loss of identity if the ground is not archaeologically investigated. In the end the discovery was made that this part of Zutphen was already disturbed archaeological value, because of recent developments. That does not mean that an intervention can certainly happen. I think it is our obligation to conserve exactly this area, because it already is disturbed, healing when the wounds are still fresh.

Personal view

It is confronting to study the multiple intelligence theory and other pedagogic and heutagogic literature, because it bring forward a realisation of your own intelligence as well, or the lack of intelligence in some (read: most) cases. The translation between these studies and the architecture was difficult, because it involves two different fields.

The analyses of the existing are always helpful and function as a tool for design decisions. But after this project I don't think that the analyses of the existing are enough to form a meaningful design decision. The analyses already included a broad social and ethnographic aspects, but I think it has much more meaning if the analysis is linked to demographic, social and ethnographic changes in history. In this way the heritage of places become stories that are changing. Nothing can be conserved for eternity. Society is continuously changing as well. The main question does not only lie in the existing city fabric or in its tangible heritage. It is the intangible and the problems in society that raise the most important questions. Even the Mona Lisa and the Eiffel Tower will one day cease to exist. But the need for conserving these objects is only high when it is a fundamental part of our identity. In an ideal world everything that has value will become heritage and new interventions

could become heritage as well. But as society changes, the need to change the built environment rises. Together with the fact that naturally materials age and erode, it is unrealistic to conserve everything that shaped our identity. Some aspects we even try to eliminate ourselves, for example the Dutch colonial past. Some objects do deserve the status eternal protection, other objects are just a chapter in a story that has not had its deserved ending yet. When we try to conserve heritage by petrifying it we kill that story. The identity of a place should not always be fixed, it should be passed through so the identity of that place will still be present after multiple changes in the built environment.

To understand the city better an extensive socio-cultural historical analysis could be made together with the value assessment and the other analysis. In this way the layers which are discovered get their own meaning within the zeitgeist. This is how the project could get more depth. As said before, one can only change the future if the past is known, but in order to preserve identity one must have the understanding of himself in the first place. The biggest ethical issue was that we research identity of a place based on a reflection of identity in the built environment, but actually that what has been reflected is most important, our own identity.

Sources

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