towards an inceptive architecture
An architectural approach to the mathematical ambient space
Research & design

The research was based upon the potential bridge between theory and practice. It began with a study on the future of architectural education and concluded on the importance of an ambient space in architecture. In particular, it takes as a hypothesis the constant rise of technology in the field and through that it raises the question of fragmentality versus solidarity in the profession. How much space do we need? And what defines “we” in a school of architecture? To answer that, the project continues to its second phase in which it takes as a hypothesis that the future of architectural education is going to change dramatically mainly due to constant rise of technology in the field. It argues that architectural educations need not to be confined by the limits suggested by the form of a building. It also argues that students of architecture are not only the ones who are “registered” within an institution but can also be people who are interested in the subject.

Thus, it presumes that the need to ‘house’ an architecture school may shift to semi-permanent structures that can work together with what already exists in the city. It suggests a series of urban transformations that can happen in the city for the city. As a result the school can open its doors to the community. In this way, it aims to accommodate not only the future needs of the school but also the city itself. Through the use of structure the proposal investigates the amount of space needed for each user and its degree of fragmentation relative to the community. Thus, inceptive architecture is viewed as one that returns to basics, embryonic.

Reflection on the relation between research and design

As mentioned above the project aimed to investigate a potential bridge between theory and practice; an idea that is intriguing in theory yet finds it several restrictions in its realisation. For that matter this project also struggled in realising that bridge between the two. Through the research it discovered that there is no ‘absolute’ bridge between theory and practice, but rather a potential gap in which one can react upon. Combining that with the research on the future of architectural education and its need to be susceptible to future changes due to technological advancements, the decision to focus on the ambient space was helpful. It provided guidance on the context in which this project could take place and implied on a design method that could support that idea.
d1. The diagram indicates the multiplicity entailed in an ambient space. Consider the following statement: “Lines that never meet are necessarily parallel.” This is true if the ambient space is two-dimensional, but false if the ambient space is three-dimensional, because in the latter case the lines could be skew lines, rather than parallel.” In the design the object becomes the architecture school, the ambient space becomes the urban environment while the two lines represent the landscape and architectural interventions in the city of Delft.
Moreover, in the design process the project introduced the idea of semi-permanent structures within the ‘left-over’ space in-between existing infrastructures. Practically the proposal imposes additional structure to an already fully-infrastructural context. Could we say then that the project was fooled by its own design strategy? We may have especially in the beginning. However, it also resulted to a benefit; that induces from the possibility to design the infrastructure. Meaning, that through a method of “reverse-engineering” this study introduced an infrastructure that does not act as a supporting element but it begins by designing the space that it wishes to contain. (diagram d1)

The theme & the case study
The theme of the studio is structured upon the competition brief hold in 2008 with the intention to re-build a new faculty of architecture for TUDelft. In this it is important to mention that although the brief proposed a site for the faculty, the studio intentionally allowed for alternative locations of the site to be explored individually. Specifically, this project believed in the potentiality of the site to be discovered within the city of Delft as a whole. The extent of the site relative to the theme is better described by Brian Massumi when he writes that, “The field-condition that is common to every variation is unformulated but not unrecognized. It is minimally organized as a polarization.” The development of such organized polarization begun at the early stages of the project by the intention to consider the city center as a site. Furthermore, it introduced the notion of urban acupuncture in order to analyze the site-specific conditions that could act as polarization for the field.

Furthermore, the decision to appropriate the site for the project was based upon the formation of three basic rules. First was to determine the size of the architecture school by challenging its existing program both in present and future. Second was the split between the different disciplines within the city of Delft and third was the strategic positioning near strongly polarized entities. Those moments framed the entry points in which the project positioned itself. Deleuze & Guattari write with regards to the rhizome that “the rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo.”

Reflection on the relation between the theme of the studio and the subject of study
As mentioned before the studio introduced the brief, while at the same time allowed for flexibility in its understanding. This provided for an opportunity to re-think the site & program of this proposal. Therefore, although there were instances in which the flexibility managed to refrain one from taking a decision towards either side, as the project developed it proved that it was extremely helpful in taking a stronger position on our research.

In particular this proposal started with a strong belief on the space needed for each user and specifically the grid in which the semi-permanent structure lies upon. In the beginning it underestimated its realization points and thus had to re-establish itself- several times —during the process. Meaning that the grid size in relation to the necessary space for each user played a crucial role. Fortunately the decision was made and towards the end it emphasized the possibilities this system offered in its use. A system that managed to respond to the studio’s theme to design an architecture school for the TUDelft faculty without compromising the subject of study.
d2. The diagram sets the limits in which the project developed itself through the design process. On the one axis the limits are approached by the level of Interaction or no interaction with the existing structure. The other axis acts upon the level of addition or subtraction with respect to the intervention. Each number represents the character of the intervention, with respect to existing site conditions.

2 subtract
3
no interaction --- interact
1
4 add

4 shift
2

3 no interaction --- interact
1

1 stretch
**Methodical line of approach of studio and student**

Moreover, with respect to the methodical line of approach of the studio and the one chosen by the student was systematized by Robin Evans notion that architects never work directly with the object, but through an intervening medium, which is more often through the drawing. Therefore, the AAA studio aims to activate radical empiricism in order to penetrate into ones own design mind. This case study proposes a series of small-scale interventions within the city’s built environment. These interventions act upon the ambient space’s ability to introduce either program, routing or viewing conditions in the design. At the same time it uses a grid as necessary means to connect the multiple ambient spaces. Together they construct a mechanism that allows protrusion to existing buildings.

These sets of rules introduced a scheme that acts itself:
A. what is the decision
B. How it applies on the whole
C. How it applies on the unit

These questions were crucial on every step of the process since they constantly react on the different scales of the different transformations. One can follow the linear difference in scale, starting from the micro that surrounds itself along the architecture, to the landscape and its formation to finally reach the macro scale that responds to the urban fabric or not. Whichever the case, it exists a reciprocal respect between each scale.

In particular with respect to the urban interventions:
The decision on the size and location of the architecture school was based on the following:
- Size of an architecture school by challenging the existing program
- The split between the different disciplines
- The positioning near the city center

With respect to the program, the decision was based on the following:
- Additional program was added with a communal character
- Existing housing program was transformed into introverted studio spaces
- Additional program was removed to facilitate circulation

With respect to the structure
- Additional semi-permanent structure to support new program
- Re-use of existing structure to support existing program
- Secondary structure to facilitate between the two

**Reflection on the methodical line of approach of the studio and the one chosen by the student**
The methodical line of approach of the studio was particularly helpful at times and extremely stressful at oth-
ers. One can relate that experience to designing with your eyes closed while allowing your other senses to take charge. There is a constant struggle between what you ‘see’ and what you ‘sense’. It was extremely difficult at times, to ‘switch’ between what we seem to know from previous experience to our intuition. Harder were the times we tried to control that. At the end, one cannot certify which design decision happened with the practical or the empirical knowledge yet one can definitely recognize the moments that these overlap or switched. An interesting process in which looking back introduced us to the possibilities of our own thoughts and ideas. For that matter one can say that the methodical line of approach of the studio was in a sense there to act as a mirror to the student’s approach. An inviting yet terrifying challenge for every student. It was through that process that the student was faced directly to its own approach. (diagram d2 & d3)

“Life is a mirror and will reflect back to the thinker what he thinks into it.” –ernest holmes

The project and its wider social context
This project suggests an immediate response between the project and the wider social context. First it sets the grounds to re-think the in-between space, or for the case of this project, the ambient space and it’s potential as a learning environment. Meaning that the relationship between the student and the visitor, the university and the practice can begin to interact. For that purpose, it directly chooses to deal with the neighboring landscape as a tool for the macrograph of the ambient space. Thus, it uses the landscape as a connector between the existing ambient spaces and the ones specifically design for the University. In conclusion, the rhizomatic strategy used for this project in combination to the specificity of each architectural intervention according to current conditions induced the respective thinking in the design process. A non-linear and site-specific approach that invigorated the multiplicity in the design. (diagram d4)

Reflection on the relation between the project and wider social context
Looking back this graduation project and studio did not only focus on the future of architectural education but also at the wider social context. It reflected upon the problems that exist now in architectural education, and asked its students to propose a possible intervention that reflects on those issues in the future. This project aimed to study the gap between theory and practice and although a hard task to achieve solely through design, it introduced an array of possibilities included in this idea. Thus, the project did not only aim for a solution to a problem but to introduce the wider context in which the intervention will have to respond in the future. In particular, through the research it cautioned the speed we are moving as daily users of technology while at the same time embraced the challenge in the field of architecture. In the design, it aimed to portray the array of possibilities that structure can offer.
Most importantly however it was that the wider social context was not only considered in the design stages but also to the architecture student directly. Meaning that this studio managed to raise consciousness in a context that did not only involve the student’s design process but also its belief system. Each one of us was given the opportunity to discover ‘what kind of architects we want to be’. A question that is not easy to answer; yet it asks each to student to reflect on the architect’s role in society and their part in that. A invaluable lesson as one steps forward from the academic community to society.

Endnotes

1. Ambient space is defined by its mathematical definition, as the space that can ‘shift from 2D to 3D depending of the object of study’
2. The author considers reverse engineering to be a method used in this project in which the architect designs a space through its structure. It does not use the structure merely as a supporting element, but rather tries to transform its basic characteristics which among others involve flexibility into an appealing environment for its users. It designs the space through the engineering.
3. In this case the field is the TU Delft faculty for architecture, while squares, courtyards and monuments around the city determine the polarizations. Each department evolves around specific sets of poles.
4. The project implies that the intermezzo mentioned by Deleuze & Guattari can be envisioned via the ambient space.
The image showcases the multiplicity of layers found within the site specific approach in the city of Delft. Through that a potential growth of rhizomatic structure can be supported via the strategy of urban acupuncture. A series of interconnected systems that constantly act upon themselves and their surroundings as they grow or weaken, brighten or darken. Urban Acupuncture in this case becomes crucial as each of this points are specifically chosen with respect to their immediate surroundings.
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