MADE IN SOUTHWORKS

Interweaved Architecture

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Argumentation of choice of the studio

My argumentation of choice for the studio is based on 3 main points. The first point is the studios’ emphasis on research what I believe is necessary in order to find good arguments in forming a strong framework for any architectural solution. The second point was the complex condition in which a design solution has to be found, this I believe is a challenge which will benefit me and will give me a strong base since the future conditions in the work field of architects is getting more and more complex extremely fast. The final point is the team that is responsible for the Complex Projects chair which I believe is a high quality team that can guide me sufficiently through the graduation process and will significantly increase my skills as a future architect.
Problem statement
Cities naturally deal with a cyclic shrink and expand process throughout time. However, when at a certain point the shrinkage of a city reaches extreme levels, it results in a vacancy cycle with far-reaching social and special consequences. These consequences and their uncertainties put pressure on the future existence of the city. What if, because of the shrinkage, the city as we know it today will disappear in the future? What is the new desirable form that remains and how should architects and urban planners design in these kinds of conditions?
These are the conditions that the design studio of Chicago Southworks has to deal with. It is a fact that the number of inhabitants has and is dropping radically after the closure of the steel factory in Chicago South due to shifting of the steel production to low wage countries. The city is now dealing with a lot of the negative social and spatial consequences which results from this extreme shrinkage, something mainly visible in the Southern neighbourhoods of Chicago. The crime rate and the number of vacant buildings and houses in the Southern neighbourhoods of Chicago are extremely high. So what is in this case the new desirable form that could potentially reverse the negative consequences of the shrinking city.
The answer, I believe, can be found in concentration and the polycentric approach (see position paper). These urban configurations can provide a base in which the consequences of shrinkage can be minimized and which can guide the shrinking city towards a future urban development that will lead towards a new city form that is different from the one that has caused this far reaching social and spatial consequences. This configuration becomes a framework that can withstand future stresses and prevent the city form experiencing the same consequences.
The new city form that derives from concentration, high density and multicentricity brings up challenges in designing and functioning of the new city form. It introduces a new way of live which has to be facilitated by the urban and architectural environment. How to do this? How can the high dense urban environment not endanger the quality of life and how can the architecture not only facilitate but also enhance the new way of life?
These challenges ask for unusual strategies and architectural solutions which will be explored throughout the graduation process.

Goal
The goal is to formulate an adequate strategy, master plan and finally a architectural solution in order to reverse the negative consequences of the extreme shrinkage of the city of Chicago.
As shown by the research (see graduation report) a high dense mix functional urban cluster with the focus on manufacturing is desirable on the Southworks site. The challenge throughout the graduation process is to design this high dense urban cluster and find solutions to integrate the diverse program of manufacturing, housing, retail, leisure, education and development. By doing so a new way of life and a new way of doing urbanism in the US has to be explored and formulated.
It then also becomes a challenge to find an architectural form that can facilitate and enhance this new way of life. Hybrid architecture that is interweaved in the daily functioning of the people and that stimulates and promotes this new way of live. The goal during the graduation process is to find this form by pushing the limits and revise the frontiers of the diverse and often conflicting functions that are needed for the manufacture based community to function. For more details please refer to the graduation report.
Method description

In the first phase, in order to understand Chicago, a collaborate and extended research is been done by the entire studio team which was subdivided in specific sub theme’s and resulted in three research booklets (Eco-logic, Identity and Shrinking). This research provided a background and initiated a first approach to the problem statement. This has finally led to the final approach which is presented in the form of a manifesto (see manifest; ‘Re thinking frontier’). The manifesto is used as a guide and assessment tool in the road to formulate a final strategy, master plan and the architectural solution at the end of the design process. The manifest exists out of two parts; first part that focuses on the hard data and spatial conditions on different scales (S,M,L) and the second part that focuses on the inspiration based on the tradition of new frontiers and colonization. In the first part a brought analysis of the spatial conditions is been made by exploring city data and mapping of different urban elements. Also in the first part the state of art on urban design in similar conditions has been explored by extended literature study (also refer to my position paper; ‘Polycentrism; the answer to a shrinking city?’). In the second part a literature study based on the tradition of colonization led to a set of themes related to the literature. These themes in combination with the first part are translated in a modern set of rules on how to develop the site. This resulted in a strategy and guidelines that has formed the final master plan.

A fragment of this master plan will be developed further on and by formulating a program and design specific for the fragment. In order to do so a literature study on the related program themes will be done, after which a quantity study will be made.

The focus will continue to a smaller scale, namely the building scale. In this part the process will focus on more and more specific parts and problems. Reference from literature and real buildings along with more extended literature research and modelling studies will guide the process to a more deep going and detailed level. The design process will gradually focus more on high quality level of drawings and presentation forms.

Literature and general practice preference information

In order to explore the state of art and forming the design position a brought range of literature is used. This list is and will grow throughout the graduation process. Here you can see a selection of main literature used, more literature can be found in the research booklets (Eco-logic, Identity and Shrinking Chicago) produced in the first research quarter of the semester.

- Rybczynski, W. (2010). The Cities We Want - Do we want urban spaces that are big or small? Spread out or compact? New or old?
- City and federal data and statistics sources.
- Research booklets: Shrinking Chicago, Identity and B(L)ACK to GREEN.
- More will follow…
Relevance

This graduation project position itself in the ongoing discussions on the larger scientific and social framework on what the desired form of urbanism and architecture is in the 21st century. It is especially interesting because today’s architects and urban planners are confronted in their work field with conditions that are increasing rapidly in their complexity (refer to my position paper).

The topic of shrinking cities that the graduation project covers, is also one that is extremely relevant for cities in the US. It is a phenomenon that can be observed in many American cities. The graduation project provides a strategic and architectural model with generic qualities that can be reflected on these similar to Chicago ‘shrinking cities’.

The relevance on how to design a multifunctional and high dense urban environment without endangering the quality of life, can be found in the fact that today a lot of cities all over the world are also becoming more dense and concentrated (especially in Asian countries). This graduation project aims to find a configuration that can overcome the threat of endangering the quality of life and can therefore become interesting on a more global scale.

Finally, the architectural solutions on how to create a hybrid form of architecture that can facilitate and enhance the functioning of multiple programs with conflicting needs, is one that can add knowledge on the way architecture is practiced today.

Time planning

Depending on the first week of the academic calendar year of 2014-2015, the week numbers can shift but the basic design process will be maintained. Also during the design process corrections due to anticipation are possible.

2014

June
Week 26 P2 presentation of strategy and master plan + concept design

(Summer brake) Elaboration on critics and suggestions from P2 presentation + further development of conceptual design.

September
Week 36 Focus on literature study and theme related research
Week 37 Continue development conceptual design and initiation towards specific researches + first conditions for construction (spatial).
Week 38 Model studies - finish week with multiple high quality models.
Week 39 Processing the literature and modelling studies in design on 1:200 scale

October
Week 40 Structure and climate design in plan and section 1:200 scale
Week 41 Shift in scale to plan and section 1:100 scale
Week 42 Study on facade and details 1:20/1:50 linked to 1:5/1:10 scale
Week 43 Finalize plans, facade and sections 1:100, facade-section 1:20, details 1:5
Week 44 P3 work on presentation
**November**
- Week 45 Elaborate on critics and suggestions of the P3 presentation
- Week 46 Research on materialization and start in 3d modelling of building
- Week 47 Detailing the facade structure and interior
- Week 48 Adjust plan, sections, facade, details and perspectives

**December**
- Week 49 Finalizing and make presentable plans 1:100/50, Sections 1:100, facade 1:100, details 1:5
- Week 50 P4 work on presentation
- Week 51 Improve architectural drawings
- Week 52 Improve technical details

**January**
- Week 1 Finish all drawings
- Week 2 Complete final 3d model + Render and start visualisation
- Week 3 Create physical model and finish visualisations
- Week 4 Complete presentation
- Week 5 P5 prepare for last presentation

2015