GRADUATION PLAN

Master of Science Architecture, Urbanism & Building Sciences

Daniel Behro

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PERSONAL INFORMATION:

NAME:	Daniel Behro
STUDENT NUMBER:	
TELEPHONE NUMBER:	
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STUDIO:

NAME / THEME:	Explore Lab 33 - Graduation project
TEACHERS:	Peter Koorstra, Geert Coumans, Jan van der Voort
ARGUMENTATION OF CHOICE OF STUDIO:	freedom of choice between the topics of my own interest, topics that i would like to use in practice in a near future

PROCESS

TITLE OF THE GRADUATION PROJECT:	Machine as a symbiosis of technology and environment in no energy consumption buildings.

GOAL:

LOCATION:	Post industrial area - Europoort or Dusiburg
THE POSED PROBLEM:	The source of oil and coal gets lower while the power consumption of the modern housing lifestyle keeps rising. We can already see obsolete factories or power stations that run on coal and the same is inevitable with the other sources of energy. In the post-coal or post-oil future, we will end up with thousands of unused industrial structures and houses that are dependent on power so much that will become useless. With the current ever-restricting passive housing standards we cannot maintain a sustainable way of living in future.
RESEARCH QUESTION:	How can we design a no-energy (not passive) house in the post-industrial context with the use of environment and technology and still keep heritage and expression of the past or machine architecture?
DESIGN ASSIGNMENT IN WHICH THESE RESULT:	A design that follows a manifesto of a disconnected house that saves energy and costs but not at the expense of architecture, heritage and the environment.

PROCESS

METHOD DESCRIPTION:

Architectural research was developed on my own fascination with machines. The site-visits of post-industrial areas left marks of feelings about the places and knowledge of how people care or deal with these obsolete structures. The theory of further research which have developed out of data discovered before P2 has helped to construct the research question and final design. Now the second part of the research will be more focused on the technical part of how the theory, idea and concept can be transformed in the reality. The architecture design depends on such theory, therefore the research might be intertwined with the design part. The most helpful form to research technical aspects of design will be models in smaller detailed scale and then will be used in drawings to underline the project. To create one uniform working machine, it has to be clear what aspects of the no-energy approach will be used and how can it be connected to the whole. That will be constructed with a scheme and a diagram that highlights the most important data of the design.

LITERATURE AND GENERAL PRACTICAL REFERENCE:

The research depended on a lot of on-site visits and site-analysis, while the next part of the research has to be more theoretical, meaning looking at the sustainable approaches in past, present and planning future, looking at the rural common sense but do not disregard the technology. The references that the design will look for are the ones that connect all of this into one unified working machine.

literature:
- Rayner Banham work about high-tech, machine and technology.
- Rules of thumbs for low energy architecture

site-analysis:
- Battersea power station
- London Hackney Wick
- Landschaft park
- Rotterdam Europoort

REFLECTION

RELEVANCE:

The relevance of the design lies in current passive house standards and my position against non-working restrictions towards sustainability in the future. The argumentation of this graduation project might help to see what is good and wrong with the current passive housing approach and what can be done better. The role of the design is to show, not just to myself and future practice, but to everyone who is interested in how to create a living unit disconnected from the system to save energy and costs but not at the expense of heritage, context and the environment.

TIME PLANING

AFTER P2:	Resolving the issues that came up during the P2 presentation and argumentation of tutors. Continue the important parts of the research and build up a strong background for further argumentation. Link the research and work to a continuous line and design.
FROM P2 TO P3:	Finishing the fundamental research and getting sufficient knowledge in order to design the no-energy housing. In drawings and details.
FROM P3 TO P4:	Piling up the documents, files, drawings necessary for a design. Creating the foundation drawings of the design site in scales from urban to detail. Creating initial sketches into the context of a site and developing them into a final design proposal that will be consulted with teachers to get feedback.
FROM P4 TO P5:	Finishing up the design, drawings, completion of the final model, preparing prints and models for presentation and exhibition.