Graduation Plan | Wietse Elswijk

‘Innovation boulevard’

Resolving the inclusive growth of Amsterdam in 2050 through an infrastructure of innovation in the Amstel area
**Problem statement**

The city of Amsterdam is investing in research and SMART city technology with the newly founded AMS institute. AMS MID City is focused on the Amsterdam of 2050. What will happen on the topics of Energy, Health & Mobility? As the growth of Amsterdam is expected to continue in 2050, it is evident the city needs to densify around the transportation hubs. The Amstel area is a key area for this transformation of the city. However, the A10 highway crossing through it offers little possibility for housing development. Moreover the A10 divides peripheral areas from the inner Amsterdam. This perception can be partly attributed to the modern forms of town planning, in particular those of the garden city model and the CIAM urbanist ideal of the functional city which Van Eesteren embraced to make this a thoroughly mono-functional part of Amsterdam. The area meanwhile is regarded highly by the municipality as a vital area for large scale light industry and business. This begs the question, how to combine the living and working spaces in 2050?

**Energy in 2050**

Material extraction and the depletion of finite resources is the issue architects should be addressing in 2050. Designers instigate the production process and so carry a shared responsibility to society about its consequences on the urban realm (based on Neil Brenner’s renewed definition of urban territory to include its constitutive hinterland, the sources of the wealth accumulated in the city). The energy production and the transition from fossil fuels has made great progress, it is assumed by 2050 energy production itself will not be an issue.
Research Question and subquestions

What architectural intervention will transform the perceived border of the A10 into a positive feature of the inclusive city of 2050?

Context
In what way can the mono-functionality of the area be addressed?
Which facilities are appropriate in 2050, with regard to the current value - in terms of productivity and commerce - the Amstel area on the ring road brings to the city?

Use
In what ways can living and working be combined in a building - how does this work in 2050, in terms of private, collective and public space?
In what way does the multi-functional building position itself in the city?

Technique
How can designers approach the emerging problematic of material scarcity?
How do the components connect and how is the structure built up?
**Design assignment**

What architectural intervention will transform the perceived border of the A10 into a positive feature of the inclusive city of 2050?

Design a multi-functional building along the downgraded A10, combining living and working in 2050, using design for deconstruction and other methods to address the problem of material depletion.

**Process - methodologies per subquestion**

**Context**

*In what way can the mono-functionality of the area be addressed?*

**Literature:** Locate origin of mono-functionality in CIAM and garden city ideas and the critiques on this way of planning by Colin Rowe, Aldo Rossi, Rem Koolhaas.

**Typological studies:** As the problem has been a longstanding issue, there are examples to be found in European cities. How do Copenhagen, Barcelona and Milan deal with expanding on the ring roads?

*Which facilities are appropriate in 2050, with regard to the current value - in terms of productivity and commerce - the Amstel area on the ring road brings to the city?*

**Literature:** Ellen Macarthur Foundation publications. ING report on transition to circular economy. The Next Economy presented at the IABR.

**Use**

*In what ways can living and working be combined in a building - how does this work in 2050, in terms of private, collective and public space?*

**Typological studies:** Analyse current living working environments and the trend towards flexible and communal spaces.

**Use (continued)**

*What is the identity of the boulevard of 2050?*

**Literature studies:** The application of an established form from the repertoire of urban planning does not guarantee a vibrant space. This space is activated by the relation between different users. Within the different parts of the building there is a community, or a collective space. In these spaces the norms are very clear and collaboration can take place. The boulevard happens outside this frame of similarity, where new things can happen and exciting clashes strengthen the identity of the individuals and form an interesting urban experience. As developed by Hajer and Reijndorp.

**Technique**

*How can designers approach the emerging problematic of material scarcity?*

**Material studies:** Which materials are available in 2050? Which materials are able to remain in high quality? Make mockups with new constellations from waste materials.

**Literature:** Felix Heisel and Dirk Hebel publication Building from waste, recovered materials in architecture and construction.

**Typology studies:** Thomas Rau in Brummen. Japanese wood/paper architecture and deconstructable architecture using joints without nails and glue.

*How do the components connect and how is the structure built up?*

**Building technology:** Research details and make mock ups of connections.
Literature

Rowe, Colin. Collage City. 1978

Venturi, Robert. Complexity and Contradiciton in Architecture. 1966

Rossi, Aldo. The Architecture of the City. 1966

ING. Rethinking finance in a circular economy. 2015

Ellen MacArthur Foundation publications, for example: The Circular Economy and the Promise of Glass in Concrete. 2016


Bahamon, Alejandro. ReMaterial - From waste to architecture. 2010


General references

Living working spaces - Mei Architects - Schieencentrale - Rotterdam

Material Usage - Amature Architecture Studio - Fuyang - China

Urban Infill - Labics - Citta del Sole - Rome
Relevance

Technological advances appeared within a context of seemingly unlimited natural resources. This resulted in a linear ‘take, make and dispose’ model of production. An economic model where the majority of feedstock ends in waste. A model also with many unsustainable side effects such as a loss of biodiversity, deforestation, air and water pollution as well as material depletion.

The world population and its consumption is growing steadily and without designers being aware of the issues this brings with it, it could end catastrophically. On the one hand they have to deal with increasingly constrained resources – be it energy, land or materials – adding to price volatility of raw materials. On the other hand society becomes more aware of the importance of sustainability. This poses the challenge to decouple growth from resource use. A challenge that requires a new economic paradigm of ‘reduce, reuse and recycle’. The concept of a circular economy aims to present a solution to this challenge by combining revenue with social impact. It enables businesses to grow and prosper while keeping the environment and society intact, ensuring growth for themselves as well as future generations.

To make a fitting building for the 2050 context is impossible. The project will however make a convincing argument for the possibility of a different way of practicing architecture, thinking ahead and realising the quality materials have to offer.

At the same time the social program of the living working connection and the street life will energize the public urban feeling which has disappeared in these monofunctional, collectivist spaces.

Time planning

As the last deadlines from other courses are ended, starting from P2 all focus will be on the graduation project. I don’t have any other examinations and don’t work part time. I am willing and able to devote the next half year to graduating.

This scheme gives a simplified overview of the schedule:

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<td>Excursion Singapore</td>
<td>P1 Presentation</td>
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<td>Research materials and the literature about housing and 2050 living/working relationship</td>
<td>Status update on production incl. draft reflection</td>
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