

Personal Information

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Studio

Chair of Architecture and Dwelling

Theme	At home in the city of Amsterdam. How can the last remaining vacant site along Oostelijke Handelskade be the first statement for a Housing Hybrid of the 21st century?
Teachers	Birgit Jurgenhake, Paul Kuitenbrouwer
Argumentation of choice of the studio	After few years of architectural studies, I feel that I am personally most interested in buildings that serve people the most: dwellings. And how people's homes influence their lifestyle and quality of life. I also like the fact that Dwelling studio focuses on both: architectural and urban scale. The title of the studio – At home in the city I understand as an attempt to make people feel good again in the city, which is often unfriendly, segregated, lacking public spaces. One of the problems of today's dwellings, that bothers me, are enormous inequalities in level of life of inhabitants of the same city, including also the worst case: when some city inhabitants are lacking/refused this home at all. For individual dwellings design, I am very interested in modern sustainable solutions for housing. I am fascinated in how modern technologies can improve life of people in small local environment, respecting climate and nature globally.
Title of the graduation project	<i>To save the Last Gap.</i> - how to fill the last empty spot in the rigid neighborhood with new dwellings but in the same time leave it free, to serve the whole neighborhood as a high quality public space.

PRODUCT

Problem Statement

'Finding lost space' by R. Trancik says: 'What emerges in most environmental settings today is unshaped antispace. Over the past few years, radically changing economic, industrial, and employment patterns have further exacerbated the problem of lost spaces in the urban core. This is especially true along highways, railroad lines, and waterfronts, where major gaps disrupt the overall continuity of the city form. Pedestrian links between important destinations are often broken, and walking is frequently a disjointed, disorienting space'. This kind of disjointed spaces is a common problem in modern cities. Last Gap at the Oostelijke Handelskade in Amsterdam is one of them. It's the last empty plot in the middle of a row of building blocks and temporarily developed as a playground with a basketball court. All in-between spaces of the Oostelijke Handelskade are narrow passing-by corridors and it's clear that neighborhood is missing inviting and open public spaces next to the waterfront. Promenade is currently poorly developed but according to social surveys in the neighborhood, it has huge potential to become important place for the whole neighborhood. I am trying to find the possibilities to bring it back to the city. The assignment of the graduation studio contains a question of how to fill up a gap in the urban tissue. By investigating developments of similar gaps, assumptions can be

made: how to fill this gap? Or if it should be filled at all?

Different actors and factors have an influence on the final design and in the theme research I am interested in how these play a role in the process. Examples of similar 'gaps' in the urban tissue show some successful approaches, but also the mistakes that can be made during the process of development. The Last Gap is the precious piece of land that could have a big influence on the neighborhood, so design for that site should be thoughtfully considered. It seems that in each case study the most important goal was to achieve a balance and harmony between newly created space and old pattern of the city. 'Gaps' in the urban tissue create a lot of discussion, because they are rare and valuable. They can turn from the 'lost spaces' into new attractive spots that meet the needs of many people and improve the quality of life of the whole neighborhood.

Research question: Which factors determine the development of an urban gap? And how much influence do these factors have on the development? How can the Last Gap provide new type of dwellings and an inviting public space while keeping the transparency characteristic for 'a Gap'?

Design assignment: design task is creating new housing program with additional functions (services, work places etc). Main inspiration for design for the Last Gap site are ideas of Plug-in city. The city that can grow in a natural way, according to current needs of its inhabitants.

Goal

What are my intentions - why to keep the 'Last Gap' open?

'Gaps' in urban tissue are becoming very precious places with a big meaning for neighborhood. The Last Gap is the last empty spot in the whole Oostelijke Handelskade. This kind of 'Lost Spaces' can turn into new attractive spots for social life or easily disappear in the city tissue. I would like to avoid it in the case of the Last Gap.

Why do I think that the Plug-in city idea is proper for THIS site:

- changing needs of neighborhood: modules can be replaced, removed, changed from dwellings to offices etc,
- MINIMAL INTERFERENCE with the ground and MINIMAL FOOTPRINT: that approach leaves the opportunity to restore the FULL GAP when it will be needed: in 100 years few transportation shafts can be disassembled without destroying the greenery and other public facilities in the ground level,
- keeping the STATE OF TRANSPARENCY of the last empty site, it will remain open from the perspective of passers-by.
- completely new typology of dwellings in the rigid neighborhood, opposition to the neighborhood in terms of density and typology.

PROCESS

Method description

1. Research assignment:

SITE RESEARCH: Masterplan and sites are explained and explored in morphological and programmatic aspects. After the architectural analysis of the train of building blocks, the public space of the area is investigated. We are looking into the demographics of the whole Eastern Docklands area to learn more about the residents and using the **social surveys** and **mind maps**- we are able to mark the attractive and less attractive spots of the neighborhood. Hand drawings and phenomenology are used to show how Oostelijke Handelskade is perceived by regular passer – by.

THEME RESEARCH: By researching similar case studies, we are trying to find out what determines the development of an urban gap. Investigating development of similar sites let us make assumptions on how our own city gap can be developed. We noticed that different actors and factors have an influence on the final design and we were interested in how these play a role in the design process. This part of research consists of four case studies, in which we're going to take a closer look at all the different actors and factors: how, and how much, they influence the eventual architectural design. We made a selection of factors that are important for our chosen cases: as result, we are describing the process with social, economical, ecological, and architectural factors. We will analyse the case studies in an architectural way; with diagrams we can research the typology of the infill of the gap, and with perspective sketches we can show what the influence is on the appearance of the gap in a phenomenological way. Finally we will compare them with our own assignment at the Oostelijke Handelskade.

2. Design assignment:

programmatic brief, site of choice analysis, design proposal comprises urban design of the project, the main volume(s) of

the design project, the main lay-out of the project (access, program distribution), concept for the dwelling units.

In the urban plan Last Gap will become a common good and public space for the whole neighborhood with facilities like urban farming, common kitchen, park/picnic area, with routes for passers-by, good sun penetration of the recreational area and access to the waterfront. Almost all the ground floor will remain open. Dwellings will be placed higher and the only footprint will be transportation/ service shafts. My inspiration for this kind of dwellings is Plug-in City by Archigram, created in 1965. It consisted of solid transportation shafts, where the living modules would be mounted and cranes as a permanent part of the building design. They would remove old modules/put in places new ones. There were already architects, who got inspired by Archigram's vision. Kisho Kurokawa's Nakagin Capsule Tower is directly connected with Capsule Tower by Archigram's Warren Chalk from 1964. Prefabricated dwelling modules are plugged into a central shaft, which provides structural support, vertical circulation and services. Modules were prefabricated off site and mounted by crane to one of two supporting towers. As an idea inspired by Archigram, capsules were supposed to be replaced, but it never happened, because of technical failure: no capsule can be displaced without removing all the others above.

I would like to try again and create **new forms of "plug-in" dwellings**, that fits the new public space: low-density, attractive and new for the rigid neighborhood, ensuring privacy but also inviting passers-by to use it's public spaces. New dwellings will have to deal with **orientation problems** (sun, view, noise). Each house unit should have it's private outdoor space, and its orientation should provide sun light access and view. This approach requires designing different types of dwellings.

Mid-rise and high-rise constructions are typically made of concrete and steel. I would like to use the material, which production involves much less emission of greenhouse gases – wood. There are architects, who already observed that the responsible harvest and preparation of wood makes it a wonderful building materials and previous reasons why not to use it – costs, safety and fire resistance, are not valid any more. Modern wood structural systems, like for example mass timber panels are cost-effective and enable many architectural possibilities due to open floor plans and thin exterior walls and, what's very important- reduce the carbon footprint of the building even 75 percent.

3. Individual Design and Research Report

Literature and general practical preference

Avermaete, T., Valena, T., & Vrachliotis, G., 2011. *Structuralism reloaded*. 1st ed. Stuttgart: Axel Menges.

Bteich, C. S., (2006). *Ambiguous Porosity – Integrated Urban Gaps Identification and Experimenting Urban Connectivity*. In The 23rd Conference on Passive and Low Energy Architecture. Geneva, Switzerland, 6-8 September 2006. Lebanon: Notre Dame University, . 1-8.

Koster, E, 1995. *Oostelijk Havengebied Amsterdam; Eastern Docklands Amsterdam*. 1st ed. Amsterdam: Architectura en Natura.

Nefs M. 2006, *Unused urban space: conservation or transformation? Polemics about the future of urban wastelands and abandoned buildings*. City & Time 2 (1): 4.
[online] URL: <http://www.ct.ceci-br.org>

Trancik, R, 1986. *Finding lost space; theories of urban design*. 1st ed. New York: Van Nostrand Reinhold.

Urhahn, G., 2010. *The spontaneous city*. 1st ed. Amsterdam: BIS Publishers.

mgb, ARCHITECTURE + DESIGN Equilibrium Consulting LMDG Ltd BTY Group, 2012. *THE CASE FOR Tall Wood BUILDINGS, How Mass Timber Offers a Safe, Economical, and Environmentally Friendly Alternative for Tall Building Structures*. Canada.

REFLECTION

Value of this graduation project in the larger social and scientific framework: „To guarantee a good quality of neighborhood life, a "vertical zoning code" is developed. Prescribed guidelines create a growth algorithm, allowing for proper ratios of built, to green, to open space to be preserved. These rules encourage neighborhoods to grow in a non-linear fashion, creating intimate settings in which people reside. The neighborhood is organized yet organic, creating fascinating spatial situations never before seen in the urban context.”

Avermaete, T., Valena, T., & Vrachliotis, G., 2011. *Structuralism reloaded*. 1st ed. Stuttgart: Axel Menges.