

LSRM FINAL ASSIGNMENT

Self-Assessment on Research Methods

TPOLOGY AND FUTUROLOGY IN SEARCH FOR A NEW TYPE

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I INTRODUCTION

During the Lecture Series of Research Methods, I concluded that architectural discipline is, at least in theory, a combination of design practice and architectural research. These two ingredients should be well-balanced, as they are both essential for understanding architecture as a whole. However, it can be observed that nowadays, in the era of globalization, the architectural practices neglect the research phase, especially the one connected with ethnographic and praxeological methods. Globalization increases scale, speed, and effectiveness of social interactions across the geographical borders.¹ It gave us the opportunity to reach beyond geographical borders, to research and design on the other side of the globe, without leaving an office, without asking the crucial question what the user of the project really needs? Globalization makes architectural firms behave like manufactures, producing their own branded product, uninfluenced by context and local conditions, which could not be properly researched. Because technology has allowed us to make everywhere equal, everywhere has become nowhere.²

Another issue, which was highlighted during Research Methods Lectures was the necessity of understanding the theoretical background of research in architecture. Architecture is often presented as a skill-based discipline, however, learning skills is not enough. The student needs to be aware of what and why he/she is learning. A highly skilled person may be brilliant at designing towards a defined, solution-based result, but have a very limited understanding of what he/she is doing.³ It became clear to me during this course that before “doing” there should be an actual “knowing” both the research and the design, during my graduation thesis.

The assignment which I was given at the Complex Studio Projects focuses on the future development of Amsterdam in the year 2100. We start by researching how the changes in mobility, technology, economy and social behaviour will shape the built environment in the future, especially in our assigned site, Amsterdam Centraal. After this phase, we came up with personal fascinations, which in my case connected with globalization, the flow of people, increasing mobility and how those factors will influence the lifestyle in 2100. From my research, I draw a conclusion that in the year 2100 we will face a rise of a nomadic lifestyle. My thesis will research how this dynamic, unbound with any place lifestyle will change the housing in Amsterdam Centraal. Analyzing those upcoming changes was highly influenced by the lecture on the typological research. As my thesis will focus on changes in lifestyle and housing in 2100, I think that it is crucial to analyze the development of current and historical typologies, patterns and behaviours, draw conclusions from them and project them onto future conditions.

¹ Adam Lupel, “Regionalism and Globalization: Post-Nation or Extended Nation?,” *Polity Vol. 36, No. 2*, 2004, 155.

² Daniel Rosbottom, “Towards a Congruent Architecture,” *Reader: Delft Lectures on Architectural Design*, 2017, 161.

³ Nigel Cross, *Designerly Ways of Knowing* (Basel: Birkhäuser, 2006), 20–21.

II RESEARCH-METHODOLOGICAL DISCUSSION

In the Complex Project design studio there was no predefined research method. Students were free to choose their own methods as long as the research phase would end up with a specific program and site, as neither of them was given at the beginning of graduation studio. We had a general location, Amsterdam Centraal, and the time frame – the year 2100. I decided to combine two research methods: the scenario method of Futurology to envision the future conditions, and the Typology method for analyzing current and historical housing types to create future program and typology for my project.

The first step in my research was to determine the 2100 conditions. To do so, we worked in a group of 6 people focused on Amsterdam Centraal, and we tried to predict how the mobility, technology, new materials, climate and social behaviour will change in 2100. We used Futurology, i.e. “the scientific study of possible, probable and desirable future developments, the options for shaping them, and their roots in past and present”⁴, and we focused on Scenario Method⁵. This means that we collected the available data of past developments and future prognoses and combined them into one coherent story – future scenario. In the research process, however, scenarios not only serve to deepen our knowledge, but also to reveal the limitations of that knowledge, things that are unpredictable.⁶ There are many uncertain aspects of the future, however, the purpose of Complex studio is to end up with the vision of the Amsterdam 2100, therefore we had to make some statements. It was possible with making scenarios, which are based on assumptions about how the future might look. “Scenarios are descriptions of journeys to possible futures. They reflect different assumptions about how current trends will unfold, how critical uncertainties will play out and what new factors will come into play.”⁷ At the end of this phase we delivered a coherent vision of Amsterdam in 2100, where mobility is much faster, there are new autonomous modes of transportation, the reclaimed land from IJ river and Nord are densely built up, and Amsterdam is an important node in global network, what brings many international companies and their employees to Amsterdam. For me, the most important features of Amsterdam 2100 are its growing population and temporariness of housing, caused by international mobility and flexibility of working.

The second step, which is ongoing now, aims in defining a 2100 typology. For that reason, I chose the typological research method. As my fascination is shifting towards temporary, mobile housing designed for future nomads (people who are moving to Amsterdam to work for a limited period of time), I am researching different typologies of historical and current housing, in order to come up with the future typology. “One of the architect’s greatest efforts is made when he gives up a known type and clearly sets out to formulate a new one. Often, external events – such as new techniques or changes in society- are responsible for impelling him toward this creation of a new type.”⁸ Firstly, I analyzed the mobile housing, from the clip-on plug-in futuristic movement to today’s ideas about living in capsules or autonomous driving hotel rooms. For this research two books are particularly important, “Urban structures for the future”, by Justus Dahinden, 1972, the chapter clip-on, plug-in and the book “Portable Architecture, Design and Technology”, by Robert Kronenburg, 2008, chapter: Shelter and Residential. The second area of research was micro-housing, as we developed a vision of densely built and inhabited centre with relatively small apartments. In researching the micro-housing, it is very

⁴ Rolf Kreibich, *Future Research, Zukunftsforschung* (Stuttgart: Schaeffer- Poeschel, 1996), 181.

⁵ Rolf Kreibich, Britta Oertel, and Michaela Wölk, *Futures Studies and Future-Oriented Technology Analysis Principles, Methodology and Research Questions* (Berlin: IZT – Institute for Futures Studies and Technology, 2011), 18.

⁶ Hannah Kosow and Robert Gaßner, *Methods of Future and Scenario Analysis. Overview, Assessment, and Selection Criteria*, 2008, 18.

⁷ UNEP (United Nations Environment Programme), *GEO 3 Global Environment Outlook 3. Past: Present and Future Perspectives* (Nairobi, Kenya, 2002), 320.

⁸ Rafael Moneo, *On Typology. Oppositions, A Journal for Ideas and Criticism in Architecture* (The MIT Press, 1978), 27–28.

important to follow all the daily activities happening in the house, analyze needed space for them and how the area can be reduced to an acceptable minimum. Currently, I am researching micro housing from Tokyo, as Japan is known for its modest in size and thoughtfully designed houses, the book which is a great source of information on that topic is "Small Houses, Contemporary Japanese Dwellings", by Claudia Hildner, 2011. My last area of typological research is co-living, as one of the features of the future is omnipresent sharing. In terms of living in the future, we assumed that private space will be reduced in favour of common, shared spaces, such as living rooms, kitchens, laundry rooms and other facilities. In order to precisely specify the program of a co-living house of the future I will analyze different examples from two books: "Collaborative communities: cohousing, central living, and other new forms of housing with shared facilities", by Dorit. Fromm, 1991 and the book "Future Living: Collective Housing in Japan", by Claudia Hildner, 2013 as again Japan is a great source of references for shared living.

III RESEARCH-METHODOLOGICAL REFLECTION

Combined research strategies are increasingly used by researches from many fields, including architecture. Using multiple methods, from different disciplines, ensures that weak points will be checked in each method. In the same moment, different methods can benefit from each other, when used in one study.⁹ In my research, I chose a combination of Futurology and Typology.

Historically, the scenarios have been used since the 1950s, in the context of military strategies. Herman Kahn showed alternative paths to a nuclear war with the Soviets, what resulted in convincing the U.S. Air Force that different actions could have many probable results, some of which were desirable and, more importantly, many were not.¹⁰ At the end of the 1960s, the first energy scenarios were developed by companies like General Electric and Royal Dutch Shell. Nowadays, scenarios are used for many different purposes, like strategic planning in companies, municipal and land-use planning, politics, urban planning. Global scenarios concern the future of climate, energy and resource shortage.¹¹

In 1972, Dennis and Donella Meadows presented one of the most groundbreaking future studies. The Limits to Growth was the first scientific study that, instead of presenting an optimistic vision of future with advanced technologies, described more realistic scenarios such as global population growth, economic changes and the depletion of natural resources. The study was a warning that there is a limit to the pressure that we put on our natural and social environment. The Limits to Growth started to change the way we look at the future of our planet.¹²

In the architectural field, the future studies (futurology) was intensively used between 1960-1970. The scientific and technical revolution shifted the people's perspective, and from now on they had to take responsibility for the upcoming future.¹³ This understanding of responsibility for the future implied the total planning, which was impossible to realize without a vision of what the future might look like.¹⁴ The futurology in the sixties could be subjective and irrational, focusing on one single, artificially isolated aspect. An example here can be a project of pyramid residential structure for 2000 people in Siberia, by Schipkovs¹⁵. On the contrary, in 1969 Peter Cook introduced Eight Alternative Futures, naming few: "The future will be personalized", "The future will be responsive", "The future will be

⁹ Linda Groat and David Wang, *Architectural Research Methods* (Hoboken, New Jersey: Wiley, 2013), 441.

¹⁰ Kreibich, Oertel, and Wölk, *Futures Studies and Future-Oriented Technology Analysis Principles, Methodology and Research Questions*, 18.

¹¹ Kosow and Gaßner, *Methods of Future and Scenario Analysis. Overview, Assessment, and Selection Criteria*, 6.

¹² Kreibich, Oertel, and Wölk, *Futures Studies and Future-Oriented Technology Analysis Principles, Methodology and Research Questions*, 5–6.

¹³ Justus Dahinden, *Urban Structures for the Future* (London: Pall Mall Press, 1972), 7.

¹⁴ Dahinden, 7.

¹⁵ Dahinden, 160.

geared-up".¹⁶ Each of them was based on the present situation and its possibilities, together, however, they created an integral image of the future, which, one might say, is not that different from 2018 realities. In our group vision for Amsterdam in 2100, we analyzed different aspects and aimed to create a rational scenario, based on current trends and possibilities. We avoided focusing on one aspect, for example only autonomous cars and creating a vision based on this one assumption. Instead, we added other factors, like the rising water level, the growth of population, the shortage of resources, and in this way, we achieved our final scenario.

The use of typologies in architecture was firstly present at the beginning of XIX, within the rational Enlightenment. In 1801, Jean-Nicolas-Louis in his work "Recueil et parallèle des édifices de tout genre anciens et modernes" described typology as a set of constant and changing parameters, where the stable parameters categorize building within a certain typological family. Following his methodology, modern and gothic churches could have their place in the same family, as they share common features in form and spatial organization.¹⁷ In 1825 Quartrémère de Quinboth, in the *Encyclopédia Méthodique*, made a comparison between "type" and "model". He defined "model" as a form which could be copied and imitated, whereas "type" was a core around which the following expansion of forms was collected.¹⁸ The era of modernism changed the view on typology when comparing to XIX century. Modernists believed in freedom of design and did not tie objects to historical precedents.¹⁹ However the rise of industrialization, the need for standardization and typization resulted in changing the design process into mass production, the type, therefore, had become a prototype.²⁰ In the 1960s the new series of writings criticized the Modern Movement for its failure to use type in terms of the city. In the sixties, writers saw the city as a formal structure that could be described through its continuous historical growth. For Muratorri, who started this new discourse, the type was an element which allowed him to understand the pattern of the city's development as a living organism taking its meaning from its history.²¹

My typological studies, which I recently started, I want to approach from the perspective of Alan Colquhoun. For him, the architecture is explained from an ideological point of view, and architect must work with this ideological content. The architect works with types, which are already filled with ideology, and in this way, the link between architecture and society is established. When I place the typology of housing within its relation to society, I can observe changes and shifts in that relation, and how the need for new typology is emerging. The historical development of housing typology will create a base for the future creation of new type. In order to avoid a gap between the past, the moment of designing and the future in which the project will be placed, the type needs to create a path for its communication and therefore be an initial point of a design process.²²

IV POSITIONING

Robert Gorny's lecture on Investigating Typologies, combined with Rafael Moneo's writing "On Typology", were the most helpful when determining my own position on Typology method. The lecture outlined the historical development of Typology and the articulation of the definition of "type" in the XIX century. Moneo argues that the theoretical awareness of the presence of "type" in history, which occurred at the end of XVIII, marked the moment of loss of "type" or at least made its applying extremely difficult. He pointed out that in the past the continuity in structure, activities and form made use of types consistent. In modern times, however, the mentioned continuity is broken. The fragmented type seems to maintain its connection with traditional discipline only in images. According

¹⁶ Dahinden, 189.

¹⁷ Moneo, *On Typology. Oppositions, A Journal for Ideas and Criticism in Architecture*, 28.

¹⁸ Yasemin Güney, *Type and Typology in Architectural Discourse* (Balıkesir University Faculty of Architecture and Engineering, 2007), 7.

¹⁹ Moneo, *On Typology. Oppositions, A Journal for Ideas and Criticism in Architecture*, 32.

²⁰ Güney, *Type and Typology in Architectural Discourse*, 8.

²¹ Moneo, *On Typology. Oppositions, A Journal for Ideas and Criticism in Architecture*, 35.

²² Moneo, 37.

to Moneo, the architect who reduced the notion of type to images, or even stated that an image is a type, is Venturi. The type-image ensures communication, as it is more concerned with recognition than with structure. The emphasis on communication can be found in Robert Venturi houses in Nantucket, where he applied the characteristic image of the wooden American house, however, did not set any form of relationship with the formal structure (image 1).²³ The question that Moneo asked, and which I am asking during my typological research, is if it makes sense to talk about type today? It is clearly impossible to apply an old definition of type to modern times, as the architectural object is no longer an isolated, single event. The outdated definition should be adapted, in order to include the present and future situation, where subtle relationships suggest typological explanations.²⁴ Within my typological research, I opt to focus on finding those relations and connections, while still exploring the visual communication of type-image, as for me both aspects of type are relevant in my research, and neither of them can be neglected.



Image 1 Venturi and Rauch, Trubek and Wislocki Houses, Nantucket Island, Massachusetts, 1970

Currently, the relevance of Futurology is much more clear and understandable, that the one of Typology. As we are now witnessing dynamic, historical transformations, we have to be aware of what those transformations might bring in the future. The goal is to ensure a sustainable future, what stands for making decisions which will not limit our future options. Future studies are a complex and still developing form of research. Futurists state that one-dimensional or single-discipline perspective is not enough, the futurology truly needs a trans-disciplinary approach.²⁵ The example of interdisciplinary study can be a "Roadmap 2050: A Practical Guide to a Prosperous, Low-carbon Europe", which was commissioned by the European Climate Foundation and published in 2010. The report included

²³ Moneo, 39-41.

²⁴ Moneo, 44.

²⁵ Sohail Inayatullah, *The Views of Futurists. Vol 4, The Knowledge Base of Futures Studies* (Brisbane: Foresight International, 2001).

extensive technical, economic and policy analyses, prepared by five consultancies from different fields: Imperial College London, KEMA, McKinsey & Company, Oxford Economics and AMO.²⁶

The study's starting point is the fact that renewable energy sources such as wind and sun are available in different amounts in different places and in different seasons. The idea is to create a power network across the continent connecting all sources, which could then recompense for each other. AMO presented a map of "Eneropa", with regions defined by their energy source, such as "Solaria", "isles of wind", "Biomassburg" (image 2).²⁷ The presented map is certainly a bold statement, and because of that, it gained a lot of attention to the important topic of the future of energy in Europe. Perhaps, when talking about future issues, we need to make radical statements and scenarios, as they will more likely initiate interdisciplinary discussion on topics concerning us all. In my own research I try not to shift my interest into extreme scenarios, as I opt for a realistic vision, however, I see the benefits of taking the radical position.



Image 2: AMO: map of Eneropa in 2050, 2010

²⁶ Imperial College London, KEMA, McKinsey & Company, Oxford Economics, AMO, "Roadmap 2050: A Practical Guide to a Prosperous, Low-Carbon Europe" (European Climate Foundation, 2010).

²⁷ Imperial College London, KEMA, McKinsey & Company, Oxford Economics, AMO.

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IMAGES:

Image 1: Martino Stierli (2016), *In the Academy's Garden: Robert Venturi, the Grand Tour and the Revision of Modern Architecture*, p 50

Image 2: Imperial College London, KEMA, McKinsey & Company, Oxford Economics, AMO (2010), *Roadmap 2050: a practical guide to a prosperous, low-carbon Europe*, p 174-175