The use of praxeology for a future prediction

Eliza Janmaat
4209931

When a title of becoming a Master in Science comes within reach it means that you need to be qualified to gain this title. In the academic environment this implies that you should be able to do an individual research that is of a certain substantive quality. This also means positioning yourself instead of assuming what is written is correct plus obtaining the insight in how to evaluate your research and collected means raising yourself to a higher level of academic thinking. Especially in the working field of architecture there is a thin line between being an academic profession and being a non-academic but instead an artistic profession. And in art there is no systematic approach, right? But looking at research-methodology architecture is a form that has users and thus evaluation or problem recognition in comparison to art and is by that suitable for a scientific approach. So when it comes to a design practice it asks for more research-based argumentation when making a design-proposal. Not only user evaluation plays a role but heuristic techniques can be of efficient help when designing a new type of an existing typology to resolve certain problems of a current type. Throughout the Lecture Series of Research Methods I've gotten a deeper insight in the academic layers behind architecture. Making a design is not only finding an innovative way to position a program but as it is an assignment being fulfilled in the future you, as an architect, can design the way people will live or use functions in the future. It is about finding a balance in what people want nowadays and what the future asks for in a design. My thesis research is about developing a project in Amsterdam for the year 2100. Next to looking at site conditions and doing the basis research and analysis we always do when taking on a new project, the challenge of designing something in eighty years stresses the importance of understanding societal behaviour and what trends influence that. In my opinion when we think of liveability in a city in the far future I look at quality of life. With urban areas becoming more and more dense, the pressure on certain qualities becomes higher and it is to designers and city management to address the possible developing negative sides. With these circumstances our personal health is priority in defining the quality of life. The field of engaging in health is growing enormously as we are much more aware of health influences. Physical activity is an aspect that is embedded in the urban fabric and being considered in any urban assignment regarding mobility, public space and other urban planning facets. When looking at eighty years from now we will have some very interesting technological developments that will enhance this awareness, like wearable health trackers and personalized nutrition. But next to awareness in physical activity, the view on health has become more holistic. A good mental, social and physical health stands for richness in life, something that will never go out of style even eighty years from now. The next step is to evaluate how health is treated nowadays - prevention as well as treatment - and in history to forecast the situation in 2100. Based upon a urban planning strategy for the Amstel area it serves as a perfect site for implementing a new typology for health. Considering all facets of health, my research question is 'what type of architectural program and design fit a sustainable healthcare network in 2100 for the Amstel community?'. Throughout this assignment it is important that you switch from perspective which is characteristic for the approach of Complex Projects. During the project you look at it from an architect, project developer, inhabitant or municipality point of view.

To choose a methodology for my thesis, you have to understand what is expected for the assignment. For the first time during my entire studies of architecture the assignment amounts a time span of eighty years into the future. This results in a very different approach of research. Comparing certain typologies of the 21st century is not going to be sufficient, because we need to think way ahead of the designs we know nowadays. The research needs to let loose of the field of architecture but has to grasp on a human behaviour level. During the research of my thesis the most effective way was to use praxeology. In the case of praxeology and my own graduation project of Complex Projects the study of human action and conduct plays a great role in doing research into the future. My graduation

thesis is about changing the current healthcare system for the city of Amsterdam, taking all facets of health into account. To take up such a research topic is quite a broad searchfield. To change a current system or typology for a new one, that needs to happen in eighty years, is not simply designing a beautiful new building that solves some temporary issues but it is to understand what society wants or what is changing them. By understanding what society wants throughout many decades or frame a behavioural pattern and to have a thorough research into different types of trends, you can position yourself in visualizing a future that you think is likely to develop. By doing this you have created the context of your assignment. When the context is more or less created - your own scenario for the year 2100 - the following move is to understand what people would value. By this I mean researching in what markets have grown or decreased in the past eighty years, or what architectural typologies have gone through demonstrable changes in their physical aspect. After doing research in human behaviour of valuing things or markets, the findings are that we are shifting towards an experience economy rather than a material economy.

and turning the current system upside down to create a new innovative version. So praxeology helped me by viewing the way society uses the healthcare system throughout the years, especially looking at the desirable way an inhabitant of the city of Amsterdam continues the steps of the healthcare system. Next to that, viewing the past and present changes of the healthcare system helps to foresee the future demand of a healthcare architecture program. Using this type of methodology fits the topic of engaging in health perfectly and helped me map a new layer of understanding in the use of a certain typology.

According to Dźwierzyńska and Prokopska (2017)[1] the key aspect of praxeology is that the active human frames his possibilities and then expresses not in words but in actions which possibility has his preference. Looking at architecture and urban planning, the process has much resemblance. They discuss the similarity of praxeology with the multidimensionality aspects regarding the complex and interdisciplinary problems of architecture and urbanism. In '*The Universal Categories of Praxeology in Light of Natural Semantic Metalanguage Theory*' Dziedziul (2017)[2] states the following about the book '*Human Action*' of Ludwig von Mises (1998), an Austrian economist and philosopher: "Mises moreover argued that praxeology is the method that should be applied in economic studies as it provides a logical apparatus for examining 'human choice and action' in a non-relative way. This is due to the fact that praxeological theorems are deduced logically from apodictically true axioms." As Dźwierzyńska and Prokopska argued that praxeology has a strong connection to architectural and urban design practises, Mises stresses the application in economic studies. Looking at the graduation assignment for Complex Projects it affects a multi discipline task (approaching it from several point of views) where it has a major urban aspect, but due to the eighty year time span it also affects a major economic side of the project to understand the past and future behaviour of society.

Looking at praxeology as a research-methodology it has a very rational origin. As described before, this methodology is about the science of human action. An action in this meaning is 'purposeful behavior' (Human Action, p. 11) and can be seen as a method that could pretend to explain the fundamental nature of human action as the basis for understanding the field of economics.[3] Von Mises described his methodology in 1949 to be best used in economic studies. But already earlier, in 1925, praxeology was used outside of economics, namely by Le Corbusier in his publication '*Urbanisme*'.

Le Corbusier used the praxeology methodology for his urban planning research. For completing his publication '*Urbanisme*'[4], he researched the task of designing a traditional city design concept. This concept was based on the rational analysis of cities in Europe and North America. He analyzed that the current layout was very negative for the occupants and could not withhold an economic or

[1] Dźwierzyńska, J., & Prokopska, A. (2017). Urban Planning by Le Corbusier According to Praxeological Knowledge.
[2] Dziedziul, P. (2017). The Universal Categories of Praxeology in Light of Natural Semantic Metalanguage Theory.
[3] Barnett, W., & W. E. Block (2010). Mises never used demand curves; was he wrong? Ignorant? No: The Antimathematicality of Demand Curves.
[4] Corbusier, L. (1925). Urbanisme.

technical development. He recognized the origins of the problems, so was driven to design a new urbanization concept. With the self-imposition of this task he showed that such a project is interdisciplinary complex assignment. One of his visions was based upon these principles: alleviation of the city centre, increase of population density, development of transportation means, increase of the number of parks and open spaces in the city. These principles resulted from an analysis of the current city.[5] With this Le Corbusier showed us that his approach and organisation came from praxeological knowledge. He linked scientific research to his design practice in a methodically way showing that it is a very efficient but complex process. A task as urban planning or creating a strategy is not laying out a variety of possibilities but defining it as a multidisciplinary process. The result of this, an urban plan, is a combination of social, industrial and economic factors.

In the case of my graduation project the approach of Le Corbusier fits very well. Because the assignment shifts from creating a future societal scenario, to an urban plan, to an architectural plan it shows that all types of factors play a big part in this process. First, you need to understand what was the past situation within society and how to deal with health(care) and how it originated, second doing research in what is the non-sustainable side of the development of this situation and understanding how it came to this, and third doing research in what society most likely wants for the future. The last point, focusses not only on health(care) but on the entire way of living our life and how our economy has changed resulting in change of architectural typologies. In my project this focuses on how we shift from a materialistic economy towards an experience economy. This means that we've experienced a shift in how we value our lives. It has become more and more important for us to spend our free time to enjoy high quality leisure time. Or investing more in our personal (holistic) health to have a fulfilling feeling. Next to that, we've seen a clear development in the way services are provided. Numerous types of services are now focussed on going towards the consumer instead of getting the consumer towards a certain service. Mobility is becoming more on demand, such as purchasing goods or even doing groceries. But the most important and ancient service we have, healthcare, is still holding on to a centralized typology where the patient has to go towards the health service - and even moves on it's own between health services. So not only an economic behavioral research helped me with my thesis, but a thorough development of healthcare typologies helped me concluding the posed problem of engaging in health.

During the lecture of praxeology from M. Berkers, the content was focussed on the evaluation of made architecture and improving logistic or experience-like aspects of a design. With the example of the improvement of a kitchen design - focussing on the actual user, in this case the woman - it shows that praxeology within architecture is directly linked to ergonomics. But in my own research praxeology is used in a more broad spectrum and also in the ergonomic way. The similarity lies in the research I did into the patient experience of centralized healthcare, where a clear conclusion could be made that the architectural negative aspects resulted in a very unfriendly-character. Centralized healthcare architecture associates with sickness rather than with health, which should be the foundation of the healing process. This shows that praxeology within architecture - based upon the assignment - can work in more layers than only the core design practice. It sounds very logical that we must take into account the users and their contemporary plus historical behavior to extract what can be changed to a typology or a system that is rusted into its design. Especially when it touches a delicate function like a healing process. When looking at the lecture and the way Le Corbusier used praxeology to come to his conclusions the last one presents a scientific way of taking on an architectural project, emphasizing the complex structure of a design task, instead of a problem fixing approach - in my opinion solving an ergonomic task.

I believe that as our world and society is rapidly changing due to technological innovations or economic influences, we as architects are not simply task-given producers but we are the creators of future life. The book 'The Fountainhead' of Ayn Rand[6] (1943) envisions a metaphorical story about

[5] Dźwierzyńska, J., & Prokopska, A. (2017). Urban Planning by Le Corbusier According to Praxeological Knowledge.
[6] Rand, A. (1943). The Fountainhead.

two architects. On one side an architect that provides what his clients want and becomes successful, and on the other side an architect with a unsympathetic character that designs buildings the way he wants them to look like or be in use of, and is on the contrary not successful. It emphasizes the contrast of following orders and use self-expression, resulting in praising the last one. Even Frank Gehry has said that denying the architect's right to self-expression is like denying democracy[7]. Nonetheless, I disagree with what Rand is showing us by showcasing the egocentric architect as because we are not only artists but architects, and we create physical manifestations that people use. Referring back to my thesis research question, designing a healing process for the future means looking very closely to the patient and staff experience. Engaging in health has grown through decades and deserves a great role in the public life. The architecture, urban and societal findings I did during my thesis are all related to the actual user preferences. So not only previous architecture or typologies, or theories of other architects play a role in making a project work. It grasps on multiple levels of understanding the users of the building and finding a balance in how you want it to contribute in society. Because in the end, the researcher is the expert.

[7] Hosey, L. (2017, March 11). The "Fountainhead" Remains an Accurate Picture of Architects

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