# MASTER OF PSEUDOSCIENCE Reflection on the invisible hand of the Complex Projects chair

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#### **I INTRODUCTION**

The generic aim of this paper is a personal interrogation of often intuitively applied research approaches during the first phase of the graduation thesis. By doing so, one is able to position the applied approaches within the body of knowledge of architectural research, which contributes to research-methodological awareness and ultimately delimits how one will further inquire information<sup>1</sup>. Besides that, the personal aim is to gain knowledge of the research approaches applied within the studio of the Complex Projects chair, in order to understand and reflect on the influence of the chair's general approaches.

The complex nature of the architectural profession implies that there is not one singular research approach that addresses all relevant facets. Hence, it is likely that most architects will alternate between numerous different approaches, in order to acquire comprehensive information concerning the subject of study. It can be argued that research-methodological awareness is relevant, irrespective of the originality of the work, in order to be able provide an explanation on why and how one's approaches differentiate themselves from the existing antecedents<sup>2</sup>. In addition to that, without having to differentiate oneself, there is the opportunity to benefit from the already established methodologies; after all it is unlikely one will invent an entirely new one.

During this course, I was able to critically position myself towards the chair's research approach, which resulted in the most valuable insight. Although the final products of the chair are often impressive, during the first phase of research it was observed that the approach Complex Projects prefers, was a misfit for me and others in my group, forced to create mappings on themes for which no such data was available. In retrospect, during tutoring, it was mentioned more than once that "If you work for a client, then …", which strongly reflects a practice-based perspective on architecture and research. However, the production of research by practicing architecture, referred to as 'thinking by doing'<sup>3</sup>, requires more than just mimicking practical conditions; added value in terms of knowledge still requires an adequate research design and question<sup>4</sup> - something which consistently lacked during the first phase of Complex Projects graduation. Undoubtedly, the studio provides valuable lessons for practice, but consequently the scientific value devalues into pseudoscience, which nevertheless can still be very plausible and believed by anyone<sup>5</sup>.

The pseudoscientific mantra of Kees Kaan's chair is to focus on the architectural narrative, which can be seen as a logical sequence of arguments. It aims to use (unvalidated) factual information as the basis for supporting one's design decisions. For the Midtown Manhattan graduation studio, which is an explorative pilot group, setting up this narrative commenced with a broad exploration of the site. The main question is broken down into several descriptive research question that are of relevance for this paper, namely: what are the types of urban spaces in Midtown Manhattan and how are these spaces distributed?

<sup>&</sup>lt;sup>1</sup>Gorny, R. A., & Berkers, M. (2019). Syllabus Lectures Series Research Methods, p. 4.

<sup>&</sup>lt;sup>2</sup> Lucas, R. (2016). Research Methods for Architecture. London: Laurence King Publishing, p. 22.

<sup>&</sup>lt;sup>3</sup> Lucas, R. (2016). *Research Methods for Architecture*. London: Laurence King Publishing, p. 8.

<sup>&</sup>lt;sup>4</sup> Lucas, R. (2016). Research Methods for Architecture. London: Laurence King Publishing, p. 43.

<sup>&</sup>lt;sup>5</sup> Lakatos, I. (1978). Science and Pseudoscience. *Philosophical papers*, *1*, 1.

#### II RESEARCH-METHODOLOGICAL DISCUSSION: THE COMPLEX PROJECTS APPROACH

To begin with, the Complex Projects chair does not demand for a specific research approach to be applied. Nor is there a requirement for a research design or specific research questions or problems. However, by providing examples of research done in previous years and by the endless emphasis on factual information in the first 'hard data' phase, the desire for an approach with typological analyses and quantitative data emerges evidently. In line with this pseudoscientific desire, aiming for an intervention in a distant location, comes the singular etic focus, which implies one observes from outside the culture, opposed to from within a culture or the emic focus<sup>6</sup>. At the same time the possibility for more praxeological or phenomenological approaches, uninvolved with tangible facts, are quietly eliminated by the chair's invisible hand. Before the 'hard data' collection, a 1 to 2000 model of the site was made – with very strict requirements for the method and materials – and two pieces of literature were read: *Delirious New York* by Rem Koolhaas and *Form Follows Finance* by Carol Willis. However, no theoretical reflection has taken place and the focus was put on the production of a 'hard data' booklet.

According to Lucas there are three fundamental elements guiding any research project and influencing the kind of findings, namely: context, theory and methodology<sup>7</sup>. The explorative nature of this studio and the chair's general approach has resulted in a methodology-led research approach (comparable to previous Complex Projects studios) that is projected on the given context, which will be exemplified next.

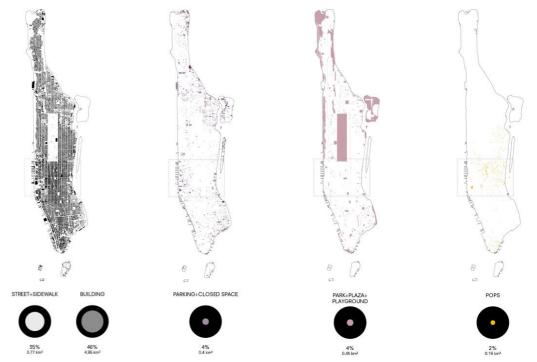


Figure 1: Urban analysis of types of urban space in Manhattan

Firstly, above Figure 1 depicts one of the many urban analysis maps that I produced in order to grasp different types of urban space and their size. Due to the explorative nature of the studio, these mapping exercises were essential in terms of developing an initial understanding of the context, although no one has validated the data. It appeared that the given site is flooded with a particular type of urban space, namely privately owned public space (POPS). It is this type of urban space that became the center of my fascination, for which subsequently a typological analysis (Figure 2) was made. The intention was to understand what and when types were developed, and potentially identify certain patterns.

Do notice the different captions; an analysis of types and a typological analysis. Although the first involves unravelling different types of urban space and their characteristics, it is not necessarily a formal means for comparison between types, which is typology<sup>8</sup>.

<sup>&</sup>lt;sup>6</sup> Lucas, R. (2016). *Research Methods for Architecture.* London: Laurence King Publishing, p. 10.

<sup>&</sup>lt;sup>7</sup> Lucas, R. (2016). Research Methods for Architecture. London: Laurence King Publishing, pp. 11-14.

<sup>&</sup>lt;sup>8</sup> Jacoby, S. (2015). Type versus typology Introduction. *The Journal of Architecture*, 20(6), 931-937.

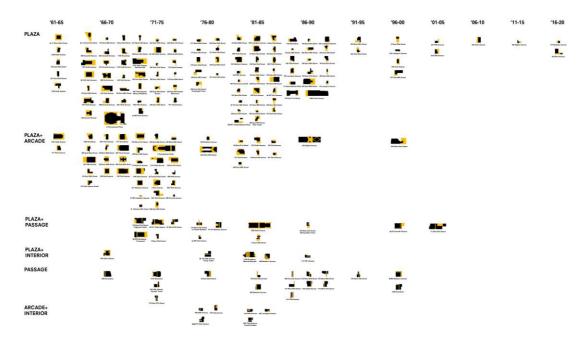


Figure 2: Typological analysis of POPS

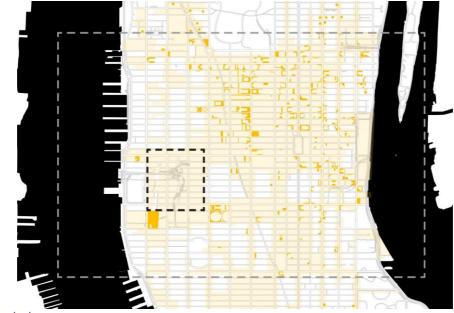


Figure 3: Conclusion map

Finally, at the end of the 'hard data' phase, a selection of the data was merged in a conclusion map (Figure 3), which indicated a potential site for my thesis.

The limited lens through which urban space has been investigated, much influenced by the chair's invisible hand, is greatly two-dimensional. This typological method helped to familiarize with the types of urban space and their situation in Midtown. Furthermore, it functions as input for the generation of a site, which together with a program is the only requirement given by the studio. Nevertheless, the selected methodology did not provide fertile ground for the speculation on how urban space will develop in the near future, which can be considered the greatest challenge. After understanding the current conditions of the types, the quintessential challenge is to liberate or extrapolate from the existing types and allow urban changes and history to inform the development of a new type<sup>9</sup>.

<sup>&</sup>lt;sup>9</sup> Moneo, R. (1978). On Typology. *Oppositions, 13*, 27-28.

## **III RESEARCH-METHODOLOGICAL REFLECTION**

A brief indication of the widely discussed historical and theoretical evolution of architectural typology will be given, in order to eventually inform the research-methodological reflection.

It is generally acknowledged that Quatremère de Quincy was the first to define the idea of architectural types in 1825. Essential to his definition was the distinction between the often synonymously used words of type and model. Type indicates less the image of something imitable and is rather the idea of an element that serves as a rule for the model<sup>10</sup>. Coinciding with the period of Quatremère de Quincy's definition, Durand in 1801 defined another perspective on typology; architectural elements have taken form and proportion through their relation with use and materials, which - freed from any prescribed orders - can be recomposed into more complex entities. This idea of composition indicates the differences between the two contemporaries: Durand's reproduction of types exactly eliminates Quatremère de Quincy's distinction of the type as a historical primitive and the model as the physical reproduction of this type<sup>11</sup>. Considering this contradiction, architectural typology should not be seen as a banal diagrammatic practice or a standardized model for architectural inventions something that would eliminate fundamental understanding of the concept<sup>12</sup>. Often overlooked is the work of Semper, in which a synthesis of Quatremère de Quincy and Durand is made. In line with Quatremère de Quincy, Semper considered types as conceptual diagrams of inventions. However, unlike Durand, Semper acknowledged typology as an analytical tool for understanding the metaphysical motivations and evolution, rather than just considering it a formalistic or diagrammatic analysis. Despite these different notions of type, they still share the understanding of form through abstraction<sup>13</sup>.

After the Modern Movement, who during the first half of the 19<sup>th</sup> century criticized the earlier idea of the type for being an immobile set of restrictions<sup>14</sup>, the typological debate got re-instigated in the second half of the 19<sup>th</sup> century by the Neo-rationalist works of Rossi and Ungers, in which type and typology helped the understanding of the relation between architecture and city. According to Rossi the Modern Movement naively reduced type to a fixed concept of organisation and ignored the complexity of urban context. He proposes type as a constant structural principle applicable to all architecture and eventually unifiable as an urban phenomena or an image within collective memories<sup>15</sup>. Rossi's notion of type conveys historical continuity and rediscovery of forms within the place of invention, a premise shared by his contemporary Ungers<sup>16</sup>. Comparable to Durand, he is involved with the practical application of typology in design. For Ungers, typological reasoning relates to a creative process based on analogies, images and metaphors – transformable types define a way of thinking in comprehensive contingencies, of having an understanding of both the world of ideas and reality<sup>17</sup>. Interesting in these Neo-rational notions is that the discovery of forms or types from within the man-made context can result, if recomposed, in a discontinuous reality that combines different times and meanings.

Despite plenty of other historical works involved with the understanding of type and typology, the typological tradition is still often banalized to the simplest possible classification of forms and functions<sup>18</sup>, which is basically the main insight or problem of my own research; the identification of what I considered types of urban space was more a descriptive morphological analysis rather than a typological one. Furthermore, the categorization of POPS contained very limited traits, solely focusing on the generic form and the year built, which eliminated the meaning of the places and produced little useful knowledge. These types can potentially be much further reduced into isolated fragments of a deeper and richer contextual understanding, an understanding of the collective memory or culture, one that is yet to be unraveled in the further continuation of my thesis.

<sup>&</sup>lt;sup>10</sup> Noble, J. (2000). The Architectural Typology of Antoine Chrysostome Quatremère de Quincy (1755-1849). Edinburgh Architecture Research, 27, 155.

<sup>&</sup>lt;sup>11</sup> Moneo, R. (1978). On Typology. *Oppositions, 13*, 28-29.

<sup>&</sup>lt;sup>12</sup> Oechslin, W. (1986). Premises for the Resumption of the Discussion of Typology. *The MIT Press, 1*, 39.

<sup>&</sup>lt;sup>13</sup> Jacoby, S. (2015). Typal and typological reasoning: a diagrammatic practice of architecture. *The Journal of Architecture*, 20(6), 955.

<sup>&</sup>lt;sup>14</sup> Moneo, R. (1978). On Typology. Oppositions, 13, 32.

<sup>&</sup>lt;sup>15</sup> Jacoby, S. (2013). The Reasoning of Architecture: Type and the Problem of Historicity. Berlin: Technischen Universität Berlin, p. 236-237.

<sup>&</sup>lt;sup>16</sup> Jacoby, S. (2013). The Reasoning of Architecture: Type and the Problem of Historicity. Berlin: Technischen Universität Berlin, p. 267.

<sup>&</sup>lt;sup>17</sup> Jacoby, S. (2013). *The Reasoning of Architecture: Type and the Problem of Historicity.* Berlin: Technischen Universität Berlin, p. 275.

<sup>&</sup>lt;sup>18</sup> Oechslin, W. (1986). Premises for the Resumption of the Discussion of Typology. *The MIT Press, 1,* 37.

## **IV POSITIONING**

Placing my research methodology (and by that the chair's general methodology) within the positions presented during this course, it becomes evident that there are no obvious relationships to a single episteme. As mentioned in the introduction, it is likely that within architecture alternation takes place between numerous different approaches, each of them resulting in different valuable outcomes. The explorative nature of the studio and the chair's obsession with quantitative data helped with the formal familiarization of the unknown site, however, it also resulted in a blinkered epistemological lens that completely eliminated the experiential aspects to spaces nor did it focus on a pure typological methodology that generates knowledge or unravels deeper embodied meaning; there was no alternation between different approaches.

Firstly, from a typological perspective, the discussion learned that the conducted analyses match none of the discussed typological versions in literature. Surely, it provided an overview of basic types of urban space and POPS, but questions like what are the differences between these plazas, which elements do they contain and how they are configured or situated, could potentially reveal the embodied meaning of urban spaces and provide a much deeper contextual understanding through typological research.

Secondly, a shift to a phenomenological perspective generates great understanding of the chair's influence on my research process and the subsequent limitations of the lens through which urban space and the city was investigated. If the limited typological approach would be alternated with a literary approach, meaningful aspects such as perception, memory and use can get introduced, which are hard to describe with quantitative data<sup>19</sup>. As for example done in Koolhaas' *Delirious New York*, where he used literary techniques to combine real and fictive elements into a theory of New York. By doing so, details that appear to be irrelevant can eventually evoke certain feelings - one can surpass the visual dominance of the architectural image and use writing as a medium to access embodied perceptions and memories<sup>20</sup>. The intention is to further use these insights for a critical analysis of the literary discourse related to New York, e.g. *Delirious New York* or *The Manhattan Transcripts* by Tschumi. This could contribute to generating a holistic view of the city and its underlying meaning, or supplement the typological reasoning the way Ungers sees it: related to a creative process based on analogies, images and metaphors.

Thirdly, as seen through a heuristic perspective, as discussed in Jorge Mejía's lecture, the focus of Complex Projects on directly using or disposing information to develop a logical narrative, in my opinion overlooks the research-methodological aspects related to the improvement of knowledge. The chair's decision to linearly separate 'hard data' and 'soft data' in time, created a lack of awareness of the research design and potential methodology; this made me blindly follow the chair's general approach, without critically reflecting on what methodology was actually needed for the given situation. In terms of heuristics, developing a research design is essential to bridge the research questions and the knowledge derived from the research, which is done through (individually) determining a set of methods that matches different types of content<sup>21</sup>. Furthermore, a clearly outlined research design improves the validity of one's research and the scientific value of its outcomes<sup>22</sup>. In 1934, philosopher Karl Popper stated that "a theory is scientific if one is prepared to specify in advance a method that can falsify it, and it is pseudo-scientific if one refuses to specify a 'potential falsifier'. If so, we do not demarcate scientific theories from pseudoscientific ones, but rather scientific methods from pseudoscientific methods"23. In line with this statement, the lack of an adequate research design, accompanying methods and inherent validation makes graduating from Complex Projects perhaps a Master of Pseudoscience (please do not tell Kees I wrote that!).

<sup>&</sup>lt;sup>19</sup> Havik, K. (2017). Acts of Symbiosis: A Literary Analysis of the Work of Rogelio Salmona and Alvar Aalto. *Montreal Architectural Review, 4*, 41.

<sup>&</sup>lt;sup>20</sup> Havik, K. (2012). Urban Literacy: A Scriptive Approach to the Experience, Use and Imagination of Place. Delft: TU Delft Library, p. 177.

<sup>&</sup>lt;sup>21</sup> Groat, L. N., & Wang, D. (2013). Architectural Research Methods. Hoboken: John Wiley & Sons, p. 11.

<sup>&</sup>lt;sup>22</sup> Lucas, R. (2016). *Research Methods for Architecture.* London: Laurence King Publishing, p. 45.

<sup>&</sup>lt;sup>23</sup> Lakatos, I. (1978). Science and Pseudoscience. *Philosophical papers, 1, 2.* 

To conclude with, it is through this reflection that I realized 1) a linear research approach (like the Complex Projects approach) with a singular lens does not produce comprehensive knowledge – it should rather be an iterative process alternating between multiple methods that address different aspects simultaneously. With this in mind, the typological analysis will be revisited and where possible supplemented with more phenomenological literary tools – potentially unraveling deeper embodied urban meaning that can inform the development of a new type of urban space. Besides that, 2) a research design is essential to align research questions, outcomes and adequate methods. In the light of the research question in this paper, the descriptive question '*What are the types of urban spaces in Midtown Manhattan?*' should be complimented with questions such as '*Who uses these spaces and how are they experienced?*'; which reflects the combination of multiple methods discussed in the first point.

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