MAPPING AND ASSEMBLAGE
Application and Reflection

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I INVESTIGATING TERRITORIES AND THINGS

Architecture has the advantage of being a relatively methodology-agnostic discipline, as Raymond Lucas argued in *Research Methods for Architecture*[1]. Our profession has indeed developed several systems of methods in response to the wide range of problems it is confronted to. However, we should not assume that each of these methods is benign or neural. From the collection of raw data, its organisation, reduction, codification, synthesis and presentation, the research reveals both unseen realities and new hidden potentials. This essay focuses on the analytical tools employed for my specific thesis research, mainly the mapping method and the assemblage.

This research must be understood in the context of the Public Building studio's approach. The studio investigates the role of existing and future public structures in two European cities: Copenhagen, Denmark and The Hague, Netherlands. A research phase is set prior to the beginning of design work. The studio's research is divided into four themes – Cities, Connection, People, Power – and across four scales – XL (country), L (City), M (district), S (site). Together with Oscar von Claer and Robert Jonkart, we focused our research on the theme of connection. Thus, the overarching goal of this research was to render visible the multiple forces that trigger and enable connection to the site. To do so, several questions have to answered: How does one access the site? How many people access the site? What structures enable this access? Who finances these structures? How long does it take to get there? What motivates people to access the site? How is it going to change in the future?

Our research began by defining of the term *connection*, which commonly designates the "relationship in which a person or thing is linked or associated with something else." On an architectural level, we considered the term *connection* to encompasses both the physical network which enable the movement of people and things (infrastructure, roads, trains), as well as the forces that motivates this movement (interests points, trade, tourism, economic and legislative conditions). Thus, the answers to our research questions included both spatial (physical network) and non-spatial elements (motivation forces, interests). Moreover, some if the research questions required quantitative data (numerical, measurable) while others require qualitative data (interests points, motivation forces).

Through the lecture series Research Methods and the literature list of "Investigating Territories and Things", we realised that we needed a specific set of methods to process in our research. These methods had to account for the various data we collected, both spatial/non-spatial and quantitative/qualitative. We aimed at developing a complex picture that gathered all this data, superimposing layers of information to produce a larger image of the situation. It means that we had to produce highly complex display to communicate the multiple aspects of our theme. Mapping and assemblage were the most appropriate methods in this regard. The research worked proceed does not only reveal the intricate connection patters on the site, but also revealed future potentials which are being currently developed in the design phase.

II COLLECTION, CODING, DISPLAY

The goal of this research was to gather and interconnect a wide range of data and patterns to reveal a larger image of connection to/within the site. Mapping and assemblage were the most appropriate methods because they allowed for the superimposition of spatial and non-spatial elements, quantitative and qualitative information into a larger image. Mapping can be defined as a graphical display that depicts the specific arrangement and relationship between several information, such as physical attributes (topography, roads, buildings), flow of people or goods, legislative and economic contexts, demographics, etc. The assemblage (from French *agencement,* see III) was the second crucial tool in our research. An assemblage can be defined as the unit joining together various bodies in a consistency. We presented our research as an assemblage, in the form of a rhizomatic book, because it produced further relationships between the maps, the texts and the diagrams.

First, the method of mapping relies on three processes: data collection, coding and display. In our research, we collected several types of data: position and orientation of the circulation systems, speed of movement on these systems, demographic data, flow of goods and people, political interests in the maintenance, dismantlement, or construction of circulation systems, financing aspects, local legislative conditions in regards to these systems, future previsions. These data had various formats: some were geographical (position of the circulation system), some numerical (speed, demographics, flow), and some textual (legislative, political interests, prevision). Moreover, these data were expressed in various units (speed in Km/h, flow in units/day, demographics in population number). As such, it is impossible to use these raw data together.

Thus, codification was essential to process these various data. Coding is an analytical process that transforms quantitative and qualitative information into another form of representation for a specific communication. In the case of our research, we had to code the geographical, numerical and textual information into a visual format. For quantitative data, such as the number of users on a roads, airport passengers or cargo tonnage, we converted the numerical figure into a surface area. The surface area was directly proportional to the numerical figure. For speed data, we represented the distance travelled by an object or person during a fixed time interval. We then represented the time intervals as physical lines on the map. Textual data was expressed as diagrams. Geographical data was represented according to the Mercator projection.

Displaying all these multiple information simultaneously in a coherent way was challenging. First, we chose five different framings - from the European scale (XXL), to country (XL), city (L), district (M) and neighbourhood (S). These five scales allowed us to display a broad overview from large to small. We then overlaid these various information on a single map using specific a colour code to avoid confusion on the map (water in grey surface, land in white, orange line for trains, red circles for the number of airport passengers, etc). These colour codes were consistent throughout the 40 maps that were produced so that certain information could be traced across all maps.

III METHOD OF MAPPING AND ASSEMBLAGE

The method of mapping belongs to the domain of “geophilosophy”. The work of French philosopher Gilles Deleuze and psychotherapist Félix Guattari was essential for this research. The two thinkers rejected the dominant teleological vision of the nineteenth and twentieth century by prosing a series of innovative notions to make sense of our modernity: pluralism, multiplicity, rhizome, agencement (assemblage), mapping. “Make a map, not a tracing […] The map does not reproduce the an unconscious closed in upon itself; it constructs the unconscious. It fosters connection between fields”[3] as Deleuze and Guattari argue in *A Thousand Plateaus: Capitalism and Schizophrenia.* Indeed, a map is not simply a tracing of the exiting spatial features of an area, but also includes the multiple elements of reality which coexist in its structure. It recognises the existence of political AND economic forces AND demographics AND flows AND previsions. It is not the elements themselves that define the multiplicity, but their addition: “what defines it [multiplicity] is the AND, as something which has its place between the elements or between the sets. AND, AND, AND”[4]. Maps are therefor not simply mimetic instrument but always constructive systems.

Building on the work of Deleuze and Guattari, landscape architect and theorist James Corner argues that mapping unfolds potential and engender the re-shaping of the world in his work *The Agency of Mapping: Speculation, Critique and Invention*[5]. The “inevitable abstractness” of maps make them “the most formative and creative act of any design process, first disclosing and the staging the conditions for an emergence of new realities”. As such, map are artificial constructions because they abstract, reduce, merge, code the world. The idea that maps are not mere representations of a territory, but tools of projections is further expressed in Alessandra Ponte’s essay “Maps and Territories”. Citing Alfred Korzybski remark that “the map is not the territory” Ponte argues that moving back and forth between the map and the territory opens up new possibilities, namely to understand the

effect of a territory on a map and, vis versa, the effect of a map on a territory. As such, a map itself joins together various heterogenous bodies of information in a consistency, establishing relations between them.

The second key concept in our research method was the assemblage (french: agencement).The assemblage theory provides a new framework in which the arrangement of elements provide new sense or meaning. We did not choose to expose the maps individually, but instead to arrange them together in a book. A book, in its primary meaning, is a compositional whole consisting of several parts bonded together. As such, the book itself an assemblage. It is a literary "machine" as it has a functioning of its own and can transmit intensities. But Deleuze and Guattari distinguish two types of books: the root-book and the rhizomatic-book[6]. The root-book is the most classical form of books: it proceeds from a unique hierarchical order. There is a central idea, from which sub-ideas are derived. On the other hand, the rhizomatic-book is composite and allows for interrelations. It has no beginning or end, and connects any point to any other point. In our research, we produced a rhizomatic-book: we did not trace a unique hierarchical order between the documents, but rather organised them to maximise the potential for inter-relation between them. One of the ways we did this was to simultaneously investigate both cities (The Hague and Copenhagen) in relation to the other rather than treating them as separate entities. In the layout, the information relating to each city was facing each other, thus allowing for new comparative elements to emerge. An example of such comparative precedent is the book *Paris vs. New York* by Vahram Muratyan. Made of colourful illustration of stereotypical habits or object found in both cities, the book enables the reader to gain a further understanding of the local particularity. The illustrations are arranged so that the facing information are relevant to one another, and produce a bigger image. In our book, we consistently applied this layout which faces Copenhagen (left) with The Hague (right). This meant that the type of information has to be identical for both cities to make the comparison valid. In a sense, this proved to be a limitation in some regards. I will discuss these limitations in part IV.

IV LIMITATIONS OF THE METHOD

This research is positioned in relation to the theme "Investigating Territories and Things" from the lecture series Research Methods. The literature includes the work *A Thousand Plateaus: Capitalism and Schizophrenia* by Deleuze and Guattari, *The Agency of Mapping: Speculation, Critique and Invention* by James Corner, *Maps and Territories* by Alessandra Ponte. The current discourse on mapping focus primarily on the potential of maps in reshaping and unfolding unseen aspects of a certain environment. As such, maps are examined in contrast to tracing. I would argue that the method of mapping and assemblage are well suited for studio's theoretical framework: Multiplicity. The concept of Multiplicity, as defined in Process philosophy, can be applied in architecture to emphasis processes and space-time relation over things and spatial forms. The term gained prominence through the works of Henri Bergson, Gilles Deleuze, Félix Guattari and Michel Foucault. Etymologically, the term *multiplicity* comes from Latin *multiplicitas* and *multiplex*, the combining of multus "many" and plex "fold". In this sense, multiplicity is a state which originates from the folding of multiple elements, a many-foldedness[7]. A multiplicity of objects, for example, would designate the sum of numerous and diverse elements in a specific space over a certain time. The state of multiplicity is thus only attained for a limited duration, and its consistency provisional. This approach allows us to consider the impermanence of things, their relation, and ongoing process in which they form and vanish. As David Harvey argues, the multiplicities of the urban processes cannot be observed in a singular fixed spatial frame. The variety of coding and representational technique allow mapping to unfold these multiplicities. "The map is open and connectable in all of its dimensions […]. A map has multiple entryways, as opposed to the tracing, which always comes back to the same." As Deleuze and Guattari argue. As such, maps are essential tools in the expression of multiplicities.

Based on my research experience, I would argue that the complex textual and visual display of maps are best understood by those who produce the map. This is an aspect that remains

unexplored in the literature mentioned above. Indeed, to fully understand the meaning of a maps, one must understand how the data was collected, processed, reduced, coded, displayed. An external viewer might assume that the map is objective and rational, yet these operations are highly subjective and inventive. The multifaceted nature of the analysis makes it harder for an external viewer to engage in the mapping process. Similarly, the interrelation of elements in an assemblage provide new sense and meaning. Varying the assemblage would vary the sense and meaning of its elements. The viewer has to consider the choices which were made by the author of the map.

In this regard, I would argue that these maps were more beneficial for the authors - Oscar, Robert and I - than to the viewers - our student colleagues. Indeed, the decision to collect certain data and the ways in which it was processed, coded and displayed was determined solely by our group. These maps will become powerful tool for the design phase because they "engender the re-shaping of the worlds in which people live"[8]. In the design process, maps trigger experimentation with the real, project new realities, and actively participate in the creative work.

END NOTES:

1 Lucas, Raymond. *Research Methods for Architecture*. London: Laurence King Publishing Ltd, 2016.

2 Stevenson, Angus. Oxford Dictionary of English. OUP Oxford, 2010.

3 Deleuze, Gilles, and Félix Guattari. A Thousand Plateaus: Capitalism and Schizophrenia. University of Minnesota Press, 1987.

4 Deleuze, Gilles, and Claire Parnet. *Dialogues*. New York: Columbia University Press, 2007.

5 Corner, James. "The Agency of Mapping: Speculation, Critique and Invention." In *Mappings*, edited by Denis Cosgrove, 231–52. London: Reaktion, 1999.

6 "The radicle-system, or fascicular root, is the second figure of the book, to which our modernity pays willing allegiance" From Deleuze, Gilles, and Félix Guattari. A Thousand Plateaus: Capitalism and Schizophrenia. University of Minnesota Press, 1987. p.5

7 Hoffmeyer, John F. Divine Multiplicity: Trinities, Diversities, and the Nature of Relation. Edited by Chris Boesel and S. Wesley Ariarajah, 2013.

8 Corner, James. "The Agency of Mapping: Speculation, Critique and Invention." In *Mappings*, edited by Denis Cosgrove, 231–52. London: Reaktion, 1999.

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