

RESEARCH ON THE PLANNED AND THE USED

Finding balance between freedom of choice and predetermination of the design

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I INTRODUCTION: PLANNED VS USED

At the beginning of my architecture study from bachelor to the masters, I had the impression that tutors in the design studios are constantly focusing on why a design is in a certain way and why couldn't it be in this way or that way. Only after a long time did I understand that their intention was not to intrinsically disapprove my designs and push me in other directions, but rather to lead me in exploring new possibilities in the design research. This would be, in my view, the exact reason why research methodology should be an integral part of the design process. As most tutors would propose what you need to do without the reasoning behind it, for students who just started their architectural study it would feel like being sent on a quest in the darkness without knowing where to go and even what to look for. Being sensitive to the various ways in conducting research can help student to better understand each step of the design process. This is the reason why I think that research-methodological awareness is not only important, but it should be cultivated since the beginning of the architecture study, alongside the design studio, because architects not only need to have the right answer, we also need to know what is the right question. Nothing is sadder than answering the wrong question with the right answer.

In following this course, the most important thing that I gained is the expansion of my knowledge in the variety of research-methodological systems. Each of these systems that was unfamiliar to me before, now offer an entirely different perspective in not only ways of conducting design research, but also in how to approach and understand the diverse nature of the world and connecting these understanding with architecture.

In my studio 'Global Housing: Addis Ababa Living Lab', I intent to do research upon the interaction between formality and informality in the design for low income people in the Global Urban South, specifically in Kolfe Keranio, Addis Ababa, Ethiopia. Often, the formal and the informal are seen as opposite to each other. McFarlane and Waibel noted that there is "a need to move away from dichotomous approaches and to rethink both the very notion of the formal-informal divide and the implicit idea of formality as the norm and informality as a deviation."¹ Formal institutions often overlook or even fight against the informal ways of living. This has led to the problem of both the formality and informality not reaching their fullest potential as positive systems and possibly even become the source of problems instead of solutions. An example in Kolfe shows that the formal institution (Federal Housing Cooperation Addis Ababa) prohibits the informal economy within the project area, leading to a situation where it is even harder for the poorest inhabitants to make their living.

As McFarlane and Waibel emphasize, the definitions of formal and informal are elusive due to their multi-dimensional character and cross-domain usage. The formal-informal division are conceived in urban debates in four general ways: 'spatial categorization', 'organizational form', 'governmental tool', and 'negotiable value'.² Though all of these are interesting to explore, I will mainly focus on the formal-informal division as a 'spatial categorization'.

Another way is to see formal-informal divide not as counteractive, but as interactive. This is why I propose the research question: **how to study the formal (planned) city and the informal (used) city, in order to improve low-income quarters in Addis Ababa?** In this study the formal city is understand as the physical space on different scales, from the urban system (open spaces and social/commercial programs) to the dwelling unit. The informal city is interpreted as how these physical spaces are used or even adapted by the inhabitants.

II TYPOLOGY IN PLANNED, PRAXEOLOGY IN USED

The research consists of two different parts: the study of the physical space and the study of the usage of the space. Due to the nature of both studies, two different research methods will be used. In the study of the physical space, especially focusing on the dwelling scale, typological research will offer a systematic view on the morphological patterns on the local residential architecture. Especially

¹ Colin McFarlane and Michael Waibel, *The Informal-Formal Divide in Context* ed. Colin McFarlane and Michael Waibel, *Urban Informalities: Reflections on the Formal and Informal* (United Kingdom: Routledge, 2016), 2.

², 3-6.

relevant is that typological research can show how the “planned” types are developed under the (Ethiopian) contextual influences and subsequently allows for the theorization of how these influences are relevant for the design. In Lucas’ distinction between context-, methodology-, and theory-led research, the typological research could be placed as part of the context-led research, because of the goal to discover a spatial pattern within a local context. To accurately define my research in the terms given by Lucas: my research can be defined as an etic (observing), quantitative, context-led, typological research.³ As the research is primarily serving as the foundation for the design studio, it would be beneficial to have a link between the analytical tools of the typological research and the tools used in the design process. According to Van Dooren et al, design can be understood as *experimenting* in different *domains* using a *laboratory of visual language* and afterwards being able to make *design decisions* based on the findings.⁴ In the *laboratory of visual language* we can extract from the vast spectrum of design tools a set of analytical tools that can also be used in the typological research. It consists of, but not limited to, analytical drawings in the form of plans, sections, axonometric drawings; diagrams; and (physical) model making.

In the study of the usage of the space, praxeology as the study of human action and conduct will be used as the research framework of the second part of the research. If typology is the study of the space, then praxeology would be the study of the people inside the space. The Ethiopian lifestyle is without saying very different from other parts of the world, with its emerging modernisation while retaining traces of local traditional constructs. Through praxeological research it is possible to understand and document these subtle differences that would otherwise be inconspicuous to foreign observers. The primary tool used in unravelling this non-familiar environment is engaging with local inhabitants in interviews. Through conversations with inhabitants we can derive their everyday living patterns and their opinions and aspirations on their living, working and communal spaces. Architectural ethnography is a tool used to transform these findings into a documentation in the form of a graphic novel. This is essentially the reimagining of the stories of inhabitants as a visual anecdote. Placing the second part of the research in Lucas’ distinctions in research the praxeological research can be defined as an emic (insider), qualitative, methodology-led, praxeological research.⁵

Both the graphic novel as a praxeological visual account and typological research as an objective compilation have its challenges. Typological research is systematically comparing related but distinct categories. This comparison requires the distillation of non-essential information which led to the disregarding of for example the interaction between human and space. While the graphic novel as the ethnographic account of the interviews are subjective and never neutral. By Lucas’ definitions it is noticeable that the two research methods are, so to speak, opposite from each other, and thus offer the possibility for both research methods to nullify each other’s shortcomings and create a more comprehensive view on the subject.

III TYPOLOGY HISTORICAL OFFSET AND ARCHITECTURAL ETHNOGRAPHY

As the research consists of typological and praxeological research, in this chapter both research method will be discussed in the light of how they are used by other researchers/architects.

Typology

In the historical development of the understanding in typology, different researchers/architects have given their interpretations and definitions on the matter

Quatremère de Quincy’s discourse on type: “*The word type presents less the image of the thing to copy or imitate completely, than the idea of an element which must itself serve as a rule for the model.*”⁶ Building on the idea that the type is not something to be repeated identically, but as an

³ Ray Lucas, *Research Methods for Architecture* (London: Laurence King Publishing Ltd, 2016), 10-14, 36-37.

⁴ Elise van Dooren et al., “Making Explicit in Design Education: Generic Elements in the Design Process,” *International Journal of Technology and Design Education* (2013). <https://doi.org/10.1007/s10798-013-9246-8>.

⁵ Lucas, 10-14, 36-37.

⁶ Samir Younes, *The Historical Dictionary of Architecture of Quatremere De Quincy: The True, the Fictive and the Real* (London, United Kingdom: Papadakis Publisher, 2006), 254.

idealistic goal that an architect should strive for. This abstraction of principles, ideas and laws within the type is therefore a governing factor in the process of developing the architectural model. Not contesting with the distinction between idea and model of Quatremère de Quincy, Gottfried Semper “defines ‘type’ as the idea that must be understood through the potentials of four building techniques: terracing (masonry), roofing (carpentry), the hearth (ceramics) and walling (textiles).”⁷ By setting conditions to the type, Semper has transformed the idea of ‘type’ from an ideal to practical. Giulio Carlo Argan stated in description of typology as “*not just a classifying or statistical process but one carried out for definite formal ends*”, with the analysing and abstracting of the physical building programs and the typological morphology occurring in a ‘typological series’.⁸ The central emphasis of typology was placed by Argan “*on the specific classification of architectonic types according to functions more or less well defined with respect to content.*”⁹ According to Aldo Rossi, type is “*the very idea of architecture, that which is closest to its essence*”, while typology is “*the analytical moment of architecture*” and a “*study of types of elements that cannot be further reduced*”.¹⁰ Henri Lefebvre’s analysis of space as a social production shows the possibility of connecting the abstract social pattern with the physical material space. This is illustrated by Thomas Markus using the space syntax methods of Hillier and Hanson.¹¹ This very ‘scientific’ approach requires a clear set of conditions for the experimental environment (e.g. defining the test subjects “inhabitants” and “visitors”), much like the reduction of non-essential information within a typological comparison. Modernist architects with the likes of Le Corbusier presented the type as an idealistic image that should serve as a guiding principle for future architecture, much like Quatremère de Quincy, but also placed strict conditions on the archetype similar to Semper.¹² In the ongoing typological discourse, it is not only about how the type should be inherently characterised anymore, but also new variation on the type as a methodological tool are developed. Genotype, for example, are “clusters of spatial segments structured in certain formations with syntactic rules of sequence and adjacency.”¹³ These spatial sequences as types are closely linked with social functions.

Praxeology

Architectural ethnography is a tool used to represent the findings from studies on human actions and conducts, and the related society and culture, within the built environment as a stage of everyday practice. Comparable to the emergence of ethnographic studies during periods of grave societal transformations, the emergence of the architectural ethnography could be attributed to the rapid urbanization, globalization, technological advancement, natural disasters, and wars.¹⁴

In *Learning from Architectural Ethnography* by Momoyo Kaijima, describe how (architectural) ethnography was used by various researchers as a way to document and preserve local customs, memories, and architecture that are dying out due to the rapid societal and economic changes.¹⁵ Kaijima explores architectural ethnography in the themes drawing *of, for, among, and around* architecture. The first category, *drawing of architecture*, collects, categorizes, and illustrates buildings in plans, sections, axonometric and isometric views. This differs from a typological analysis in the way that the building is drawn as an extension of the human life, and therefore changes in response to changes in the lifestyle of its inhabitants. The second theme focuses on *drawings for architecture* consisting of multiple approaches. First approach focusses on the building through adaptation or reconstruction, and thereby describing architecture’s relations to external social and economic factors. Other two approaches are developing patterns of architecture and landscape like a language and

⁷ “Type,” *The City as a Project*, 2011, <http://thecityasaproject.org/2011/08/type/>.

⁸ Sam Jacoby, “Type Versus Typology Introduction,” *The Journal of Architecture* 20, no. 6 (2015): 931.

⁹ Werner Oechslin, “Premises for the Resumption of the Discussion of Typology,” *Assemblage* 1 (1986): 41. <https://doi.org/10.2307/3171053>.

¹⁰ Jacoby, 931-32.

¹¹ Thomas A. Markus, *Buildings & Power: Freedom and Control in the Origin of Modern Building Types* (Abingdon, United Kingdom: Routledge, 1993), 12-13.

¹² Kim Dovey, *Framing Places: Mediating Power in Built Form* (Taylor & Francis Ltd, 2007), 43.

¹³, 21.

¹⁴ Momoyo Kaijima, Laurent Stalder, and Yu Iseki, *Architectural Ethnography* (Tokyo, Japan: TOTO Publishing, 2018), 11.

¹⁵, 9-10.

sharing knowledge of construction techniques by illustrating them. In *drawing among architecture*, “drawings in this category illustrate objects, tools, and spaces that express how people's ways of life are shaped by different climates, topographies, cultures.” The last theme, drawing around architecture, comprises of drawings beyond the building to understand situations in the wider landscape.¹⁶

IV POSITIONING

As I have discussed both typology and praxeology (architectural ethnography) in the previous chapter of research-methodological reflection, it would be clear that my intention is to combine the two research methods in order to explore the two side of the project site, the planned city and the used city. This dichotomy requires me to clarify my position on two separate research methods.

Typology

In the historical development of the understanding of typology, a vast array of interpretation was given by different authors. In the earliest definition of Quatremère de Quincy, type was presented as an idealistic image that is the governing factor in the following stages of design. This idealistic view was countered by Gottfried Semper's own understanding of type, which is that the typology is not just a classifying or statistical process, but one that is linked to the materialistic reality and possess a set of formal ends. This means that the abstraction must be linked with a set of physical conditions that turned the type in a more practical direction. Semper presented his understanding of the type as an antithesis to Quatremère's definition. However, I would argue that instead of being the opposite from each other, Semper's definition would be a continuation of Quatremère de Quincy, both in the sense of the development of typology in the research methodology, as well as Semper's type being a logical next step to what Quatremère proposed within a design/research process. In my understanding of the type and resonating with some of the authors like Quatremère de Quincy and Rossi, the type is the abstraction of the (built) reality to the point where it is impossible to reduce anymore information from it without losing its essential character. This conversion from the reality overloaded with information to an abstract, almost vague ideal allow the type to be applicable in a vast number of other realities. However, the fact that a type can be abstracted from an existing building for example, does not necessarily mean that applying this type to a new building can be done as easily. It would mean that this abstraction of a type needs to be attached to every strings of the new reality. Hereby, Semper and Markus' position on type being guided by conditions influenced by reality could serve as a bridge in the metamorphosis from the type to a new reality. To conclude my position on the typological epistemological framework, type as a research instrument would need to alter its form, and its relationship to the (projected) built reality in different stages of the research and design process, in order to logically shift between the abstract and the reality.

Praxeology

In Kaijima's disposition of architectural ethnography as a research method, numerous ways of experimenting in architectural ethnography describing common themes explored in these drawings of, for, among, and around architecture. By summarising briefly, the four themes discussed by Kaijima allows further discourse to be established in which I open up about my position on the

¹⁶, 11-13.

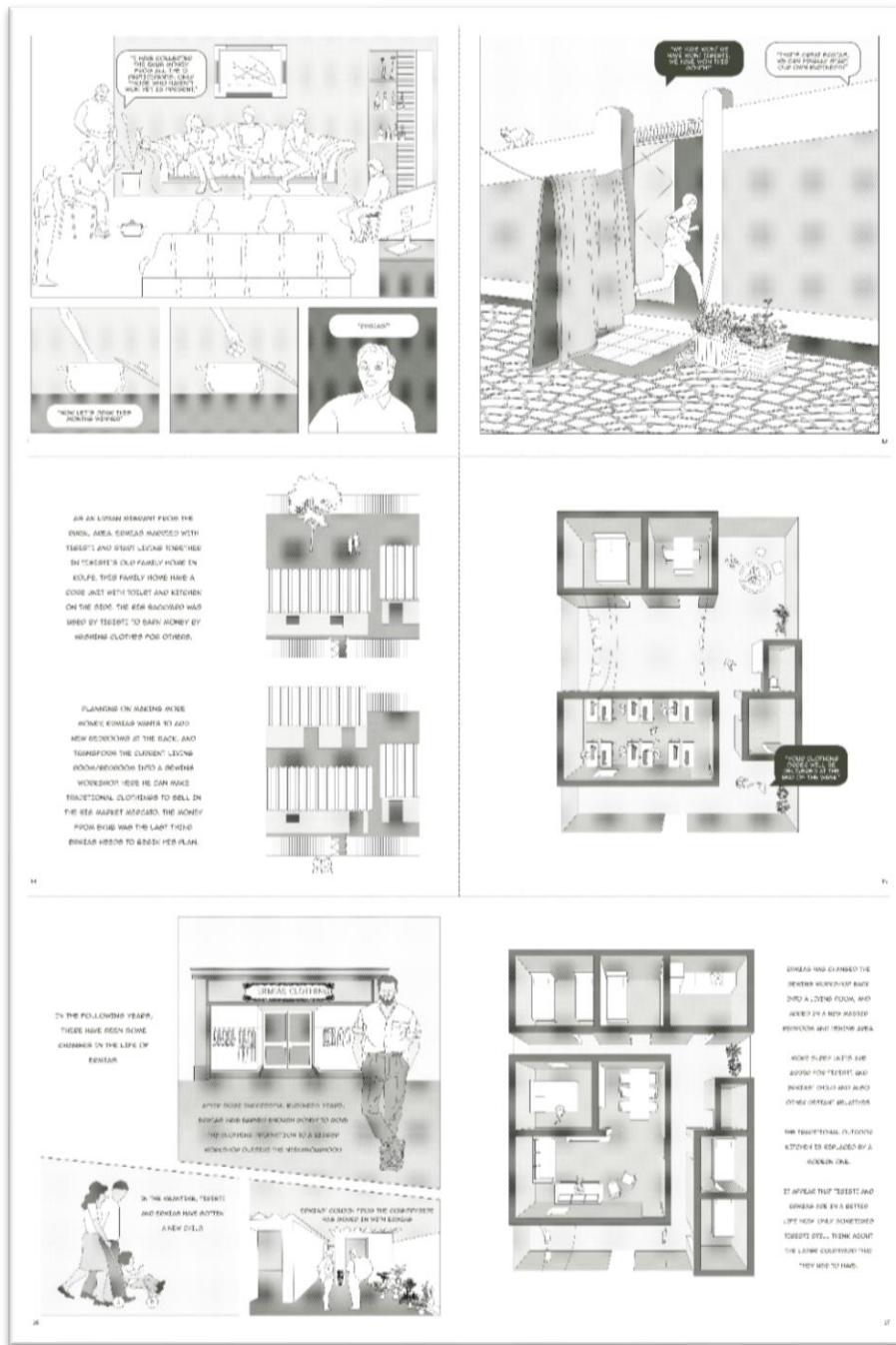


Fig. 1: Graphic Novel Kolfe Keranio (self-illustrated)

praxeological research framework. An example of the graphic novel will be used to illustrate the connection between my position and the themes discussed by Kaijima. The first theme of *drawing of architecture* ground the ethnographic study in the analytical drawings of plans, section etc. A possible product from this theme could be drawing 4 or 6, in which a plan projection drawing is used to show the building as an extension to the human life. The second theme of *drawings for architecture* is also present in the sequence of drawing 3, 4 and 6, as it shows the ways of how the building is transformed. The external social and economic factors that influences these transformations are integrated as part of the storytelling. The third theme explore *drawing for architecture* through objects, tools, and spaces that express how people's ways of life are shaped by different climates, topographies, cultures. This is visible in the illustration 1, 2, and 5. The last theme, drawing around architecture, concerns drawings beyond the building scale and is situated in the wider landscape. Though this theme isn't visible in the graphic novel example, the expression of the other three themes

of Kaijima in the graphic novel underlines my positions' alignment with that of Kaijima. The extensiveness in which Kaijima dissect the research methodology of architectural ethnography allows me to follow this method, though not as an exact way of classifying my own architectural ethnography, but rather, as shown in the example, as an ensemble in which these vastly different drawing/research techniques are integrated.

To finally conclude on the combination of typological and praxeological research method in my graduation research. The typological method shows the possibility to systematically dissect the "planned" city and the architecture within, into a type that is, through its essence, made understandable, adaptable and re-imaginable. On the other hand, the architectural ethnographic technique within the praxeological framework offers an extensive range of possibilities in understanding the different ways of the human life in and around architecture. The combination of the two research methods will greatly and systematically enhance my understanding in the informal lifestyle, but also in the other researches that are yet to come.

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