

ON HISTORICAL RESEARCH IN ARCHITECTURE

A TYPOLOGICAL INQUIRY FROM A POSTSTRUCTURALIST PARADIGM

I. INTRODUCTION

Throughout the educational programme of the architecture degree at the Tu Delft there has been a strong focus on research and research by design, however the importance of specific research methods has not been addressed frequently. Research in design projects is done in the form of a contextual analysis, where the results of the inquiry are more the product of an almost accidental discovery than a well-structured field survey. This Context Led type of research can be enriched by applying a specific method or theory in order to structure the acquired information.¹ A well-known example of applying a structure to a Context Led survey is to analyze a city by its elements (Paths, Edges, Nodes etc.), as Kevin Lynch proposes in his 'Image of the City'.² The knowledge and the use of research method allows for a systematic and transparent process that will strengthen the researchers argument, whereas randomly collecting information to support an argument will not withstand critical judgement.³ The definition of research as '*a systematic inquiry directed toward the creation of knowledge*' by James Snyder is further stressing the importance of research methods, since the inquiry has to be systematic in order to create knowledge.⁴ Nevertheless, there is critique on the use of research methods, since it is considered too oversimplified to structure a study around strictly defined variables, reducing the information to a category and ignoring its contextual complexity. However all research involves some strategy of reduction, as for instances interviews have too, because of the chosen topics in the question. This reduction is necessary to categorize and process the information in order to understand it and to draw conclusions. Choosing a research method therefore involves choosing a strategy of reduction.⁵

This academic relevance of research-methodological awareness is therefore one of the main eye-openers I experienced during this course. All the methods of inquiry from the typological analysis of Quatremère de Quincy to the Spatial Narratives and the Mental Mapping developed by Peter Gould and Rodney White, explained by Klaske Havik in her lecture and the study of tectonics by Kenneth Frampton introduced me to a more elaborated way of conducting research in the architectural field other than just doing historical and literature research. I have integrated Quatremères' research on types into my research on the historical development of building culture in Javanese architecture, since it is offering a tool to categorize different techniques, forms and materials according to their specific characteristics. Furthermore the analysis of tectonics in relation to spatial quality of Kenneth Frampton helped me to conduct the research and formalize my own theory about material culture and the development of the building culture on the island of Java.

I am doing research into the building culture on Java, since the graduation studio of Architectural Engineering is focused on the research of a technical and spatial aspect of architecture. The technical research requires the writing of a thesis, therefore the focus of this reflection paper on research methods will be focused on the technical research. The topic of the technical research is the evolution of building techniques and building culture on the Island of Java over the last three centuries. By analyzing this evolution an encyclopedia of principles will be established that offers a detailed overview of how and why the building culture has changed over time. From this encyclopedia principles will be derived to redefine the local architecture on Java. This objective lead to the following research question:

Which underlying cultural, material and technological building principles can be derived from a historical understanding of building-culture on West-Java and how can an understanding of those contribute to the establishment of principles for a contemporary locally founded architecture?

II. RESEARCH-METHODOLOGICAL DISCUSSION

“History puts into view something from the past”

Ray Lucas

The strategy of my research into the historical development of building techniques and building culture on the island of Java is conducted through applying a historical approach complemented with exemplary case studies. The historical research strategy is based upon artifactual or archival information that serves as evidence for an argumentation about a topic in the past, since it is the focus of the research question.⁶ Since my research question asks for a chronological understanding of the way that people used to build and live on the island of Java, the choice for a historical approach in my research is derived from the research question too. In order to strengthen the research, every designated timeframe will be elaborated on by executing a case study that is typical for a specific period of time. These typical case studies are executed as a typological inquiry involving spatial, tectonic, climatic and cultural topics, resulting in an overview of the typological evolution on different aspects of building culture on Java.⁷

The historical research method will shape my research through an understanding of the types of evidence typical to it, i.e. the determinative, the contextual, the inferential and the recollective type. The types inform me on the structure of the argumentation and allow me to assess its scientific base.⁸ Especially while acquiring the contextual, the inferential and the recollective evidence, I have to be aware that all research is done from a specific ‘System of Inquiry’, a personal view of the world.⁹ The case studies the inquiry is complemented with, will structure the research in forming the historical narrative, by defining causal links through the use of multiple sources and the formation of a theory throughout the study of the cases.¹⁰ Conducting these case studies by a typological analysis, as introduced by Quatremère de Quincy, provides a clear structure to identify causalities, similarities and differences.¹¹

To be able to reflect on this strategy and its position in the current debate of architectural research, a literature review consisting of books and essays on historical research, material culture and typological reasoning is formulated. In their writings on historical research David Wang and Ray Lucas provide an overview of research methods and an analysis of historiography over time. One of the main issues raised, is the affect the cultural turn in the 1980’s had on historical inquiries. This turn is elaborated on by Geoff Eley in his book *A Crooked Line*, explaining the influence this paradigm change had. The cultural turn was a material turn as well, therefore, and because the research into building methods is related to tectonic quality in architecture, the turn to material in the theory of architecture is analyzed simultaneously through an understanding of the Material-Cultural Turn by Dan Hicks in the *Oxford Handbook of Material Culture Studies*.¹² A deeper understanding of Material Culture, specifically focused on Tectonics, is provided by Kenneth Frampton in his *Studies On Tectonic Culture*, where he elaborates on Tectonics in relation to spatial quality in architecture. The historical research will be conducted by using typological analysis, once formulated by Quatremère de Quincy when he used this type of analysis to prove his theory of the invention of Architecture, explained by Jonathan Noble.¹³ The use of typological analysis over time is described in Sam Jacoby’s *Typal and typological reasoning* and in the article *Premises for the Resumption of the Discussion of Typology* of Werner Oechslin the current misunderstanding and interchangeability of the terms type and model.¹⁴

III. RESEARCH-METHODOLOGICAL REFLECTION

“there is no difference between history and natural sciences”

Carl Gustave Hempel

The study of architectural history is the oldest established form of research in the field of architecture. For a long time it was regarded as a study of facts.¹⁵ The created knowledge was regarded as objective and would contribute to frame a singular history of the world, proved by scientifically collected

evidence.¹⁶ This conviction is subject to the positivist approach, which advocates the search for a universal law in history. A significant example of the positivist approach is the formal explanation of gothic structures as the rational expression of structural forces by Eugene-Emmanuel Viollet-le-Duc.¹⁷ An even more relevant example is the theory of Julien-David Le Roy who was the first theorist to introduce history to the architectural discourse in the eighteenth century. He defined architectural theory as a set of principles in architecture and its history as the development of those. This development is limited by a set of universal geometric laws, the “*primitive original ideas*”, which are ahistorical.¹⁸

This positivist paradigm started to shift by the end of the twentieth century, a shift marked as the cultural turn, characterized by the rejection of the western bias that one singular history can be created and the acceptance of a multiplicity of historical truths.¹⁹ History had to be redefined by the awareness of gender issues, the interrelation between knowledge and power, by turning away from a solely socio-political history, the emergence of cultural studies in historical research, and by an emerging dialogue between historians and anthropologists.²⁰ This poststructuralist movement is characterized by the rejection of a universal understanding of reality and transcultural truth.²¹ In the beginning of the nineteenth century Quatremère De Quincy already criticized the purely positivist view on architectural history by turning against literal interpretations and positivist form of imitation and by stating that nothing can exist without a predecessor. Therefore he developed an alternative theory of architectural imitation, in order to discuss artistic invention.²² According to Quatremère De Quincy the evolution of architecture is based upon the direct and the ideal imitation of nature. An ideal imitation is to imitate the nature of something, represented by the term type. Whereas direct imitation is an imitation based on resemblance, represented by the term model. Nature in this case is to be understood as the essence of something; the physical world and the realm of intellectual and moral ideas together. The theory of architectural imitation through the sequence of constituted types and models lead to the development of a universal theory of architectural development, in which the type represents the universal meaning and the model the particular. This allowed him to explain cultural differences as the particular, while still upholding universal laws, as does Le Roy.²³

“the history of contemporary architecture is inevitably multiple”

Kenneth Frampton

The relevance of the cultural turn in architectural history nowadays becomes apparent in the interpretation of the historical evidence. Even though this evidence is objective, the outcome of the research is subject to the interpretation of the historian.²⁴ Historical evidence is based on different types, all influenced differently by the paradigm of the historian. Determinative evidence consists of information like dates, materials, measurements etc., therefore it will not be affected extensively. However contextual evidence is based on cultural factors synchronic to the study object, inferential evidence is based on facts linked to the object by a reasoned interpretation of the historian and recollective evidence is a collection of different types of evidence gained through interviews, these three types are, therefore, subject to the cultural paradigm of the historian. Consequently, any historian has to be aware of his/her cultural paradigm.²⁵ Just as well a historian should be aware that a typological analysis of architecture offers a well-structured apparatus to understand architectural evolution, whereas nowadays this apparatus is misunderstood for a system of formal and functional classification to serve standardization purposes and the rich analytic system to explain the cultural-historic evolution of architecture is lost. Similarly the distinction between type and model has faded and both terms became interchangeable.²⁶

As a researcher into the architectural evolution on Java, I am aware now of these developments. First of all, I am influenced by the poststructuralist paradigm and I reject the paradigm of the positivist that strives for a singular history of the world. Consequently, I have to be aware of my western paradigm, as a Dutch student conducting research in a former Dutch colony, to avoid a neocolonialist attitude towards the Indonesian context. Furthermore, when consulting colonial sources, the colonial paradigm of the historians is a relevant filter to take into account when the objectivity of the information has to be judged. Moreover, the awareness of this colonial filter can provide additional contextual and inferential evidence, since it reveals conflicts and similarities between the Dutch and the Indonesians considering their

building culture. Similarly interviews related to the case studies are influenced by this (post-)colonial paradigm. The determinative evidence therefore remains to be the most reliable type of evidence.

The historical research is conducted through several case-studies, considering the vernacular, the colonial and the contemporary. The theory of architectural evolution by Quatremère De Quincy based on ideal imitation, represented by the type, and resemblance, represented by the model, offers a structure to construct a historical narrative. Although the cultural turn has rejected the universal laws of architecture, the vernacular house can be analyzed as a model upon which several colonial and contemporary buildings are modelled through formal references, whilst disregarding its fundamental principles. Furthermore a typological understanding of the architectural evolution, which reveals the ideal imitations in the evolution of architecture, contributes to the understanding of the essential cultural, material and technological building principles which is asked for in the research question. The notion of ideal imitation of Quatremère is therefore the most relevant in order to answer the research question and the recent confusion of types with models and the misunderstanding of a typological analysis to standardize building processes will have an obscuring effect.

IV. POSITIONING

“The cultural turn was a material turn”

Dan Hicks

The turn to culture is characterized by a turn to material as well, therefore it is regarded as a material-cultural turn. The early turn towards material-cultural studies arises in the late nineteenth century in the fields of archeology and anthropology. However, during the cultural turn in the late twentieth century, the turn to material-culture was perpetuated and the study of human technology, objects & consumption was affirmed as inseparable from social and identity studies.²⁷ The influence of the material-cultural turn is evident in the lecture about material culture in the Lecture Series of Research Methods in Architecture. Since the research into the evolution of building culture on Java is not only a formal and socio-cultural inquiry, but also involves the study of the building techniques, I take the call of Kenneth Frampton for the reassertion of the aesthetics of tectonics in the field of architecture seriously. Furthermore, the creation of architectural space is achieved by, amongst others, constructional and structural modes and the evolution of architecture is stimulated by the progressive unfolding of man’s feeling for and appreciation of this space. Therefore, in order to understand the evolution of architecture and to be able to conduct a thorough historical inquiry, the study of the relation between technology and architectural space has to be part of my research method as well. In order to do so, Frampton introduced the terms *topos*, *typos* and *tectonic* that inform the creation of architectural space. *Tectonic* is defined as the expressivity arising from the formal expression of the construction. The potential spatial quality of tectonics is derived from the combination of the constructional parts in the structure and the articulation of its joints.²⁸

“The thing is formed matter”

Martin Heidegger

Collectively the evolutionary theory of Quatremère, based on the study of types and models, the poststructuralist paradigm in historical research that informs the way to deal with different types of evidence, and the understanding of architectural space in relation to tectonics constitute the research method of my historical inquiry into the evolution of building culture on Java. I reject the positivist strive for the creation of one singular history, therefore I am aware that the historical narrative created by me is a narrative created through my own (postcolonial/western) view on the world. Similarly I oppose the confusion of types and models, since I believe in the valuable notion of ideal and direct imitation to explain architectural evolution. I do not, however, strive to expose any *‘ahistorical primitive original ideas’*, since the objective is to understand how and why the evolution took place and not to present a conclusive theory of this architectural evolution. The understanding of the relation between tectonics and architectural space further strengthens the historical narrative in terms of pure construction methods and architectural space in relation to the aesthetics of the construction.

This strategy corresponds to the study of Joseph Rykwert in his book *On Adam's House* in which he questions the need to search for the origin of architecture and instead strives to understand the fundamentals of the architectural discipline. In his historical research Rykwert exposes the underlying systems of belief that brought architecture into being, instead of categorizing architecture and defining its origin.²⁹ Similarly Koolhaas researched and exhibited the fundamentals of architecture at the Venice Biennale of 2014, in which he categorized the fundamental elements and explained their evolution. Furthermore Amos Rapoport researched the driving forces behind the evolution of architecture in his book *'House, Form and Culture'*, in which he argues that cultural motives are the most relevant to stimulate change, followed by climate and technology.³⁰ These studies into the fundamentals of the architectural discipline and the driving force behind their evolution contribute to the debate about sustainability in relation to vernacular architecture raised by Alsayyad and Arboleda in what they call the *'myth of vernacular architecture'*, since it is often not the most sustainable way to build, because of cultural motives found in the vernacular architecture.³¹ Moreover, especially in the case of Indonesia, there is a call for local recognition in architecture, to which the fundamental local principles, derived from an historical understanding of architectural evolution, can contribute.³²

Therefore it is my conviction that historical research, when conducted systematically and if the historian is aware of his/her paradigm, can provide valuable insights in the evolution of architecture which contributes to an understanding of contemporary architecture, its fundamental principles and contribute to the call for a locally recognizable and sustainable architecture, without the need for resemblance of historical precedents, but based on an understanding of its evolution through ideal imitation.

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