Preface

The background for this reader on *Tectonics in Architecture* involves a crossing of our parallel, yet individual, tracks as we moved from being students with a high interest in the joining of architecture and engineering into becoming faculty members at the Department of Architecture, Design & Media Technology at Aalborg University, Denmark. At the department, the pressing need for integrating architectural and engineering knowledge in architectural practice was central to the establishment of the architecture programme as a master of science degree in 1997. The idea that empathetic and visionary spatial imagination combined with technical ingenuity can improve the quality of the built environment and enrich everyday life is still central to our work, for students and educators alike. The intention is to form a critical point of departure for addressing the multiple environmental, technical and economic challenges that govern the development of the built environment, inscribed in a problem-based learning philosophy and context. It is our view, and the motivation for this Reader, that the question of tectonics holds a central learning potential in this matter because of its joint capacity as theory and practice.

In this effort, we are grateful to our former professors, Professor Poul Henning Kirkegaard, today at Aarhus University, and Professor Karl Christiansen, currently at Aarhus School of Architecture, who introduced us to tectonic theory when we entered the Department of Architecture and Design at Aalborg University as students in 2002. The seed for further studies on key sources on *Tectonics in Architecture* by Gottfried Semper, Eduard Sekler, Marco Frascari and Kenneth Frampton, among others, formed back then. Further research ventures into the topic followed, along with a common wish to gather and communicate, develop and apply the potential of tectonic studies in architectural education manifested in this reader.

The project would not have been possible without the patient and generous support of Aalborg University Press. Especially, we want to thank Pernille Herold for her valuable help in the editing process. The Section of Architecture & Urban Design in the Department of Architecture, Design and Media Technology at Aalborg University has provided us with funding and student assistance on the project, without which, the project would simply not have been possible. Special acknowledgement goes to student assistants Sofie Rejkjær Svendsen and Stine Kronsted Pedersen for their skilled, insightful and professional support in preparing the selected texts for reprint.

Introduction

As the complexity of the building industry continues to grow, including multiple-project parties, economies and technologies, the question of the relationship between architecture and engineering is increasing in relevance. However, architecture and engineering as collaborative activities often induce a focus on technical skills and competences, compromising the necessary development of conceptual, philosophical and reflective horizons in this relationship. Over 10 years of parallel research and teaching on the topic, we have experienced how this entails a high degree of precision in the terminology, both in describing architectural qualities as such and outlining and describing the crossroads between architecture, engineering and even several other fields of knowledge. If we want to innovate the built environment and improve its quality, we must formulate visions based in knowledge about the historical development of architecture and engineering, as well as emerging tendencies. Likewise, we require both architectural and engineering skills and competencies, enabling us to act in design-led research and practice. Ultimately, such a process necessitates an articulate relationship between what we say and what we do in architecture; otherwise, our visions will never become reality. Hence, our primary motivation for this reader is the desire to equip students with a nuanced ability to communicate, explore and elaborate ideas, narratives, sketches, models and so on.

The need to equip our students is where reading and the specific scope of *Tectonics in Architecture* come into play. In our conception, the reference to the work of the Greek *tekton*, a context-dependent bringing together of aesthetics and technique implied in the notion of 'tectonics', opens a linkage of word and action in the crossing of architecture and engineering. It is our observation that this double meaning, framing both the end experience and effort invested in the work, forms a necessary foundation for continuous learning in architecture. Consequently, the purpose of the Reader is, first, to communicate this potential to students of architecture and engineering, and second, to invite further development and application of tectonic theory and methods in architectural education, research and practice.

The reader was originally intended as a collection of texts, which were to span the broad field of architecture. However, in the mapping of texts suited for the collection, it became clear that if we wanted to sharpen the terminology used and make the collection instrumental for the above-stated aims, a more specific trajectory in architecture would be beneficial. As both editors have tectonics in architecture as part of their primary field of interest, it was not difficult to narrow the scope of the publication to a reader on *Tectonics in Architecture*.

In the last 5–10 years, we have seen the publication of several excellent general readers on architectural theory emerge, such as Korydon Smith's *Introducing Architectural Theory – Debating a Discipline* from 2012 and Michael Hensel, Achim Menges and Christopher Hight's *Space Reader: Heterogeneous Space in Architecture* from 2009. Likewise, we have seen several anthologies attributing a decisive meaning to the question of technology, and the philosophy of technology related to architecture, as presented in Jonathan Hale & William Braham's *Rethinking Technology: A Reader in Architectural Theory* from 2006. However, a reader devoted explicitly to the topic of tectonics remains an unresolved potential. In addressing the gap between these two lines of pedagogical advancements in the field of architecture, this reader on *Tectonics in Architecture* presents the notion of tectonics as a critical and methodological entrance to the broader field of architectural theory. Hence, with the intention of forming a common point of reference from which to expand and continue the discourse on how to innovate the built environment by means of tectonic theory, method and practice, this Reader presents a selection of key readings on *Tectonics in Architecture*. The collection primarily addresses students of architecture and engineering, but it simultaneously provides an overview of key readings in the field as a hitherto non-existing foundation for further research on the topic.

Enjoy the Read!