

A THEORY FOR INTEGRATING KNOWLEDGE IN ARCHITECTURAL DESIGN EDUCATION¹

Ashraf M. Salama

1. Introduction: From Knowledge Consumption to Knowledge Production

The theory introduced in this paper is culled from a wide spectrum of issues I have explored over a period of two decades. Since architecture is created in a field of tension between reason, emotion and intuition, I suggest that architectural design pedagogy should be viewed as training toward the manifestation of the ability to conceptualize, coordinate, and execute the idea of building. This act must furthermore be rooted in humane tradition. However, this mandates a comprehensive understanding of the role of knowledge in architecture while comprehending how to integrate different modes of knowledge production. Recent years have witnessed a number of phenomenal and continuous changes in the structure of contemporary societies, the emergence of housing problems and squatter settlements, the deterioration of the built heritage, the rising complexity of large structures and new building types, and the recent interest in environmental conservation and protection. While these phenomena continue to exist, demands for multiple types of knowledge are clearly on the rise: knowledge of how to create better environments for poor societies; knowledge of how to involve people affected by design and planning decisions in the process of making those decisions; knowledge of how to protect the built heritage; knowledge of how to design environments that do not compete with but complement nature; knowledge and how to deal with problems associated with special populations that form major parcels of contemporary societies such as children, seniors, the disabled, and the poor; knowledge that responds to socioeconomic and sociopolitical issues; and knowledge that responds to advances in building and telecommunication technologies.

This paper conceives two distinct — yet related — types of knowledge in architecture. The first type is knowledge resulted from research that seeks to understand the future through a better understanding of the past — research that tests accepted ideas. The second is knowledge resulting from research that probes new ideas and principles which will shape the future — research that develops new visions and verifies new hypotheses. Still, the typical debate about the role of knowledge and research in architecture as an academic discipline and a profession continues to exist. Within the framework of these knowledge types, the paper calls for a fresh look at architectural design education, and proposes that it should be centered on critical inquiry and knowledge acquisition and production.

A theory is conceptualized that argues for more responsive architectural design pedagogy, enabling future architects to create livable environments. This theory emerges from and responds to societal, cultural, and environmental needs. In order to contextualize the overall environment in which the theory is developed, the reasons why it is introduced are discussed, followed by a number of aspects that characterize its context.

The theory is based on some alarming figures, the syndrome of viewing architecture as art and only art, and the syndrome of emphasizing the development of skills at the expense of knowledge. Evidently, the reasons for and the context of a theory for knowledge integration suggest a different form of thinking that goes beyond typical discussions of modifying architecture curricula or massaging studio pedagogy and the teaching/learning processes involved. The theory encompasses a number of underlying theories and concepts derived from other fields that differ dramatically from architecture, including philosophy of science and cognitive psychology. Metaphorically, the theory is conceived in terms of a triad consisting of three major components: the disciplinary component; the cognitive-philosophical component; and the inquiry-epistemic

¹ . An earlier version of this paper has been published in Archnet-IJAR, International Journal of Architectural Research, Volume 2, Issue 1, 2008, PP.101-128. Thanks are due to the journal editorial team for granting permission to republish this paper.

component. Each of these components encompasses other smaller components integral to the building of the theory itself. Notably, the three components address ways in which knowledge can be integrated, how the desired integration would meet the capacity of the human mind, how such an integration relates to the nature of knowledge and how knowledge about it is acquired, conveyed, and assimilated. Possible mechanisms for knowledge acquisition are an indispensable component of the theory, whose aim is to foster the development of responsive knowledge critical to the successful creation of built environments. It is believed that by adopting this theory, future architects will have the capacity to be active knowledge producers, and not just consumers of knowledge developed by other specialists in other disciplines.