SELECTED SCANDINAVIAN CONTRIBUTIONS TO CONTEMPORARY ARCHITECTURAL DISCOURSE

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In the following brief reviews I present two publications and a book that represent arguments and discussions which go beyond the main stream debate on architecture and its allied disciplines. The three pieces come from Scandinavia and in fact can be seen as catalysts for generating discussions that focus on new ways in which knowledge about the built artifacts can be further enhanced.

The first publication is the **Oslo Millennium Reader, a research outcome entitled "Towards a Disciplinary Identity of the Making Professions," edited by by Halina Dunin-Woyseth and Jan Michl, and is published by Oslo School of Architecture, Norway (2001).** The publication was developed as a reaction to the intensive debates within Scandinavian academia on the "making aspect" of design related research.

In an attempt to offer insights into the understanding of the character and nature of "making knowledge," Dunin-Woyseth, and Michl lay the foundation by discussing "making professions" as they relate to art production, object and product design, architecture, landscape architecture, urban design, and spatial design. In their analysis, they capitalize on the earlier work of Gilbert Ryle (1954) and Herbert Simon (1969). The concept of "making knowledge" is basically based on Ryle's distinction of "knowing how" and "knowing that." However, they argue that "knowing how" is a discipline of its own and has its own specific knowledge base. In this regard, the "knowing how" concept introduced by Ryle and the science of design paradigm introduced by Simon act as a prelude for a disciplinary construction of knowledge that pertain to the "making professions."

Dunin-Woyseth and Michl draw the attention of the reader to the fact that four types of knowledge do exist to form the backbone of "making knowledge." These are scientific expert knowledge, folk knowledge, practical skills and knowledge, and tacit knowledge. However, they admit that a continuous challenge does exist when attempts are made to integrate and transform these types into a mode that may acquire the status of a scientific discipline.

One has to relate this publication to other works developed by Dunin-Woyseth. She critically

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analyzed some of the debates on the "making knowledge." (Dunin-Woyseth, 2002). Quoting her work, she introduced different perspectives on how scholars view research and knowledge within the "making professions" perspective. *Some scholars regard architectural criticism as a central element in the process of establishing architectural research as an academic discipline. They assume that criticism, allowing for bridge-building between architectural practices on the one hand, and the practice-derived and practice-oriented architectural discourse on the other, is a part of and strengthens the professional relevance of this discourse (Caldenby, 2000,99) and (Hjort, 2000,110).. Seen from the viewpoint of a practitioner, this assumption seems to be a part and parcel of the intellectual identity of practicing architects, as witnessed by the US architect Bill Hubbard Jr. He sees criticism and history as two spheres, shaping the professional identity of architects. In his words "…the practice of architectural design works like this: Criticism and history thread narrative lines through buildings and their various aspects. Those narratives reveal to us paradigms of order, which we then use in our design giving to criticism and history yet other buildings through which they can thread yet other plot lines. And when they do, they will reveal yet more (or differently seen) paradigms of order for yet further use" (Hubbard Jr., 1996,98). The British architect Leslie Martin emphasizes the role of theory in the total account of the making knowledge in this way: "Theory is the body of principles that explains and interrelates all the facts of a subject" (cf. Gromark, 2000,102). From another perspective, Jerker Lundequist claims that if architecture loses its historical dimension, we also lose the ability to assess it and our ability to develop it. And it is this historical dimension,* *that the built environment is the history which we live in, which gives the theory and practice of architecture its specific conditions" (Lundequist, 1999,38).* Halina's in-depth analysis illustrates a sustained concern for debating aspects of what constitutes a disciplinary viability of the "making professions."

In addition to the contextual discussion made by the editors there are nine contributions that illustrate the value of debating and discussing "making professions" related knowledge while highlighting its multifaceted nature. Notably, J. Woodham discusses design history from a British perspective; Michael Astroh looks at architectural design as a cultural phenomenon, Berrie Needham calls for considering spatial planning and its underlying processes a design discipline of its own, and Elisabeth Tostrup analyzes the text and designs introduced in architectural competitions over five decades.

This is a valuable conscious endeavor towards advancing the discourse on design knowledge. In essence, its value lies in establishing links between different design disciplines while attempting to conceptualize an identity for knowledge about these disciplines. In fact, the publication is a must read for educators and graduate researchers in all design disciplines.

For more discussion see Dunin-Woyseth, H. (2002). Making Based Knowledge: Between Identity and Change In A. M. Salama, W. Oreilly, and K. Noschis (eds.), Architectural Education Today: Cross Cultural Perspectives, Comportments, Lausanne, Switzerland. pp. 17-23.

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T**he second publication is the Nordic Reader, an annual research magazine entitled "Discussing Transdisciplinarity: Making Professions and the New Mode of Knowledge Production," edited by Halina Dunin-Woyseth and Merete Nielsen, and is published by Oslo School of Architecture, Norway (2004).** Distinguishing between disciplinary, multidisciplinary, and interdisciplinary knowledge on one hand and transdisciplinary knowledge on the other, this publication is important and deserves a special attention by the community of scholars in architecture and other design professions. In order to understand the terminology involved in the publication one should offer a brief on the modes of knowledge production: Mode 1 and Mode 2.

Mode 1 represents the complex of ideas, methods, values and norms that has grown up to control the diffusion of the Newtonian model of science to more and more fields of inquiry and ensure its compliance with what is considered sound scientific practice. Mode 2 on the other hand emphasizes that Knowledge production carried out in the context of application and marked by its: transdisciplinarity; heterogeneity; social accountability and reflexivity; and quality control, which emphasize context – and use-dependence. It results from the parallel expansion of knowledge producers and users in society. The definition of Mode 2 introduces the notion of transdisciplinarity that can be described like this: Trans-disciplinarity is a new form of learning and problem solving involving co-operation among different parts of society and academia in order to meet complex challenges of society. Transdisciplinary research starts from tangible, real-world problems. Solutions are devised in collaboration with multiple stakeholders. Thus, transdisciplinarity is about transgressing boundaries of disciplines.

Differentiating between the two modes of knowledge production, the publication is constituted in two major parts. The first part is an introduction to the issues and the underlying notions of Mode 2 of knowledge production and the second is a discussion of Mode 2 as seen from the perspective of the "making professions." In the first part, four contributions of Helga Nowtony; Hans Jensen; Fredrik Nilsson; and Andres Rydberg and Bjorn Klarqvist. On debating the potential of transdisciplinarity, Nowtony defines the term in its broadest sense while identifying some characteristics of Mode 2 of knowledge production. She contextualizes science within the making professions and argues for the need for producing socially responsive knowledge. The concept of technical knowledge is outlined in a comprehensive manner by Jensen. He calls for the rethinking for our design knowledge models in response to the substantial changes witnessed in knowledge types and their production.

Nilsson in his article on the practice of architecture establishes links between transdisciplinarity and architectural design. Notably, he looks at design as an exploratory research activity that produces knowledge. Evidently, based on Nilsson's analytical discussion architectural thinking implies a special ability to handle uncertain changing and contingent situations. The tools employed in architectural design and practice can then be seen as important instruments for exploring, discussing, and producing knowledge about existential as well as societal conditions and realities. Andres Rydberg and Bjorn Klarqvist present a case on

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securing housing safety, a study that can be seen as a good example of how two different types of knowledge are integrated, one is practical of a policeman and one is scholarly of a university professor. Together, they have developed a type of knowledge that can be classified under the new Mode 2 of knowledge production.

The second part of the publication opens the debate on Mode 2 within the Scandinavian context. Followed by a series of contributions from the Ph.D. scholars of Oslo School of Architecture, Halina Dunin-Woyseth reported on the Millennium program, which refers to research education undertaken by the school in support of Mode 2. I would add my voice to the editors that this volume acts a base for initiating the discussion on the way in which researchers from the making disciplines may contribute to integrating Mode 2 into Mode 1 while pursuing their responsive practices. One should note that these two publications of 2001 and 2004 mark a cutting edge discourse on contemporary design knowledge, which goes beyond typical discussions that look at different disciplines in isolation.

T**he third piece in this brief review is a very recent book entitled "Smart Homes and User Values, edited by Greger Sandstrom and Ulf Keijer" and is published by Urban International Press, Gateshead, United Kingdom (2007).** As described on the back cover of the book, it introduces an intensive debate on smart homes and user values. The overall aim is to contribute to bridging the gap between technology and user values in the home setting.

Most smart home projects address technology development, albeit often with some application of the technology in mind. In the book the other view is taken, starting with the users' experiences and bringing it back to technology, organization and service delivery. Evaluations of smart homes in use are presented. User perspectives on, i.e. ordinary residential living, assistive living and digital services are covered. Presented results indicate how society, the real estate industry and the individual residents may benefit; and the prerequisites for it. The book contains evaluations of smart homes in Europe, Asia and North America. The book constitutes the state-of-the-art in the field, indispensable for the construction and the real estate industry, developers of systems and technology, other professionals in the field, institutions, students and everyone interested in new technology for homes and everyday life.

Intelligent and smart technologies are concepts that have emerged over the past two decades or so, evoking different notions in people's minds and typically confusion occurs because some misconceptions exist. In this book, the editors pose a number of important questions and different chapters are structured to respond to them. While the questions may appear simple they indicate the level of seriousness undertaken

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by the editors and the contributors in debating the dialectic relationship between smart technologies applied to home environments and the occupants. Primarily, these questions are concerned with users: Do the residents really want smart technologies as part of their homes? Are they willing to pay for it, are they aspiring to have it? If yes is the answer, then another set of questions can be posted, but most important is how should it be designed as integral to the home environment? In fact, these questions represent an important set of key issues discussed within eleven chapters, each of which debates one or more of these questions in a specific context.

In chapter 1, the editors discuss the history of smart homes and the nature of the book while introducing the subsequent chapters. Chapter 2 is developed by the editors as one of the important contributions of the book. They introduce notions underlying smart home functions and their relationship to user values. Chapter 2 by Alison Bowes and Gillian McClogan discusses smart technologies for older people and the way in which they view these technologies. Smart home environment between ambient and invisible intelligence is the main topic of Chapter 4 by Ilse Bierhoff and Ad von Berlo. In this chapter, classes and types of smart homes are analyzed with reference to types of applications and services, critical and empirical analyses of smart home projects within the context of the Netherlands are outlined and a set of recommendations related to aspects of utility, usability, and accessibility are introduced.

The theme of older people emerges again in Chapter 5 but within the context of Northern Ireland by Malcolm Fisk. In this chapter, two major projects are discussed and user perspectives are analyzed; the "Going Home-Staying Home Project" and "Telecare" Project. The results of this analysis reveal some dilemmas affecting the spread of smart technologies and recommendations to overcome these dilemmas are outlined. Chapter 6 by Anthony Glasock and David Kuznik addresses the relationship between people and the smart technologies installed in their homes based on automated behavioral monitoring systems. They argue that any monitoring system must meet the needs of individuals in their own home in such a way that they have greater security and increased peace of mind. Ending their contribution they call for balancing individual needs with the level of technology so that behavioral monitoring can be useful and reliable.

Chapters 7 and 8 are exclusively dedicating to the Korean context. Yeunsook Lee presents a Post Occupancy Evaluation study of digital homes in Korea. He offers a contextual analysis of the housing market and sheds light on the emergence of digital living as one important component of the housing sector. Following a rigorous analytical procedure Lee describes the participants and the way in which they use digital functions, their preferences and attitudes. In Chapter 8 Yeunsook Lee jointly with Hyunjeong Lee follow the same pattern of study, but applied to services in IT-supported apartments.

While Chapter 9 is dedicated to some aspects of the Swedish context—discussing some issues related to integrated smart systems in single-family houses, Chapter 10 by Mats Edenius offers a critical analysis of ways in which smartness can

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be incorporated into the smart home system. Calling for more stable smart technologies, Edenius illustrates the value of transparency in addressing the complexity of smart home systems.

The concluding chapter by Greger Sandstrom and Ulf Keijer offers lessons and conclusions that emphasize the importance of customer's satisfaction asserting the fact that technologies for smart homes must be developed out of users' needs. Two important demands appear to be common across the contributions, usefulness and easiness. Clear and easy installation, maintenance, and upgrading are critical prerequisites of smart technology introduction in the home environment, while customers should be able to comprehend and internalize different functionalities within their smart homes. Nonetheless, as concluded by the editors—a growing and affluent market for smart homes remains uncertain.

The power of this contribution is that it covers while at the same time integrates a wide spectrum of issues that pertain to smart technology, human behavior, and special populations, all are addressed in a rigorous research based manner and relate to specific contexts. Scholars in the fields of design management, environment-behavior studies, and building performance evaluation from users' perspective will greatly benefit from this book.