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Research by Design: Progress in establishing field-specific research in architecture and design - an update on four national scenes

(article starts on next page)

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Research by Design: Progress in establishing field-specific research in architecture and design – an update on four national scenes

The objective of this article is to sketch a picture of how Research by Design in architecture and design has emerged and developed, with a special focus on developments in the Netherlands, Norway, Sweden and Belgium. Thus this article is an attempt to position the "Belgian scene", as represented by the Sint-Lucas School of Architecture, within a broader picture of other European national scenes. In our earlier contributions to the Reflections + series we addressed some seminal ideas concerning so-called "post-academic science" and the positioning of design thinking within these ideas.

In these articles, we highlighted some important texts that have been crucial for the development of Research by Design in architecture and design, and we established links to philosophical and epistemological positions that have been important in this regard. We discussed the relationships of these positions to developments in design theory that are of importance to architecture, and we pointed out certain architectural approaches in practice and in education that have integrated this research and the resulting strategies for knowledge production.

The discussion on "post-academic science" and Mode-2 research have launched new developments in research in the professional fields of architecture and design. A new conceptualisation of the fields of knowledge, together with a more inclusive model of research, is emerging, in which a more practice-based approach is possible. This new model is on the point of achieving academic recognition, as well as gaining significant interest among practitioners (Dunin-Woyseth & Nilsson, 2008).
For our earlier historical reviews, an important statement by John Walker was momentous:
"Although various histories exist, this does not mean that there is more than one material reality – as many worlds as there are individuals. One difficulty all historians experience is that the past can never be reconstructed in its totality and completeness; every history is, therefore, a partial or simplified representation of a past situation. Selection is inevitable in history-writing. Histories differ not only because scholars tackle different facts of design but also because one historian will select and emphasize certain facts and events while another will select and emphasize different facts and events ... An analogy with map-making may be helpful: several maps do not contradict one another, instead they complement one another. Taken together they provide a more complete account of the terrain than taken singly". (Walker 1989:2-3)

While the previous articles were focused on the epistemological contents of the development of Research by Design, the focus of this short article is directed towards a parallel development of Research by Design as represented by concrete activities and events concerning Research by Design in practice and academia, as they had been noted in four different European countries, with emphasis on the Belgium scene and the Sint-Lucas School of Architecture

The core concept of this article was inspired by another statement by John A. Walker about constituting new disciplines:
"The awareness that a distinct discipline exists occurs when a sufficient number of practitioners become self-conscious about their activities and begin to join together to discuss common problems and interests. It is usually at this critical point that a professional organization is formed. … Once an organization exists, the trappings of an academic discipline soon follow: elected officers, a newsletter, a scholarly journal, an annual conference".

We do not perceive Walker's use of the utterance "trappings" in a derogatory sense, since we regard Research by Design not as a discipline *sensu stricto*, but as a field-specific research approach that is on its way to becoming a recognized approach to studies in architecture and urban design.

Four national scenes will be briefly introduced as examples of how new approaches have been represented by various practice and scholarly-related activities. We shall pay attention to how certain arenas in these countries have responded to the issue of Research by Design. These arenas, corresponding with Walker's criteria for building fields of inquiry, are: innovative architectural and urban design practices, research conferences, design research journals, books, innovative education of designers, doctoral research and research networks. One result of addressing these arenas can be that a consistent and homogeneous 'entity' will not emerge from these studies, but rather that a set of cultural practices pursued by certain groups of designers and design intellectuals will become more "visible" as a broader process of establishing Research by Design as a legitimate field-specific research development parallel to the traditional, academically embedded design research.

The Dutch Scene
Some years ago in the Netherlands we noted a pioneering, innovative, explorative architectural practice that often recognized itself as research-based (Lotsmaa, 1999, 2001; Sigler and van Toorn, 2003, Koolhas, 1995, Maas, 1998; 1999). Some years later, scholarly endeavours of the various schools of architecture in the Netherlands were supporting this development. As in other European countries, the insistence of a prestigious academic institution like Delft University of Technology led to the scholarly legitimization of this development of Research by Design in the field of architecture and design.

One of the means of legitimization included the conceptualization of Research by Design. The Faculty of Architecture at Delft University of Technology launched a research project in 1998 called "The Architectural Intervention", which was intended to shed light on, develop, and operationalise design research as a method of scientific research (Nieuwenhuis & Ourwerkerk, 2000). One of the major outputs of this project was an international conference called "Research by Design" held in Delft in 2000. This conference can be regarded as a milestone as it discussed in a broad international forum the notions of scientific research, design, and Research by Design.

A major publication of the Delft School of Architecture and a collective work of its staff, "Ways of Study and Research. Urban, Architectural and Technical Design" elucidated these notions, proposing the conceptualisation of Research by Design with regard to other kinds of design research (de Jong & van der Voordt, 2002). The Berlage Institute in Rotterdam founded and publishes the journal *Hunch*, which features debate on various aspects of architectural culture, research and criticism. Among other issues, the journal has featured student and doctoral projects that apply architectural design tools in the study of knowledge fields and disciplines close to architecture and urbanism, and articles that discuss the architectural discipline in relation to research and transdisciplinarity (Linder,2005).

The Norwegian Scene
The Norwegian scene is represented by the case of one institution, the Oslo School of Architecture and Design, where research by design originated and developed in its doctoral programme. The programme was at first offered to architects only, but professionals from other fields, such as landscape architecture, object design, visual arts, interaction design and design education, have come to constitute the doctoral students in more recent years The Oslo doctoral programme has functioned as *prime mover* and hub within the research education system called Norway Network (*Norgesnettet*) since it in 1995 opened up the programme for applicants from the so-called "making" professions, i.e. those who have had their background in creative practice and have based their research in issues close to their practice.

The 20-year-long process of development started from academically based doctoral research, which has slowly come to include concepts of more explorative architectural and design research, also encompassing Research by Design.

The Oslo School of Architecture has taken the initiative to a number of different Nordic doctoral courses and they were held at various Nordic institutions of higher education in architecture and design. This has led to the building of a common platform for exploring possibilities of a more field-specific concept of design research and design research education. Especially the Nordic "Millennium Programme" (1999-2001), which brought together more than 50 Scandinavian doctoral students,

led to new insights in what is today called "post-academic science" and how design research could be an important contributor to these new developments in knowledge production.

The first doctoral project based on Research by Design resulted in the awarding of a doctoral degree in 2005 (Sevaldson, 2005). This long period of development has been documented in the school's academic journal *Research Magazine* and elsewhere (Dunin-Woyseth, 2008). This journal has documented the architectural / the design milieu's growing awareness of the expanded understanding of design research. In 2008 a total of 18 PhD students were enrolled at the school. Since then, a group within those enroled have chosen to base their doctoral projects in various concepts of Research by Design. Masters courses exploring Research by Design have been offered at the school since 2007, some of them led by the doctoral students themselves. A new, alumni-based Nordic peer-reviewed journal, FORMakademisk, has been documenting the growing field of Research by Design, with its last issue being entirely devoted to the topic (Sevaldson and Morrison, 2010).

The Swedish Scene

Already in the 1990s – both at the doctoral and senior research levels – there was noticeable growth in the numbers and range of research projects that could be characterised as practice-based or "by design". But various debates on the issue go back to the 1970s. For example, "artistic development projects" were then on the agenda at the Swedish universities, but they were regarded as an activity parallel to, and not of the same status as academic research. These discussions also involved the architectural milieus, as architecture has long been affected by (and adopted) theories and methods from other academic disciplines. At that time they wanted to develop more field-specific knowledge modes in architecture

As early as 1987 the Association for Architectural Research was founded and it soon became a Nordic association and initiated publishing of the academic peer-reviewed periodical, *Nordic Journal of Architectural Research.*

The three Swedish schools of architecture have a long tradition of architectural research, but until several years ago, their approach consisted mainly of integrating different theoretical and methodological tools from other academically established disciplines into their research. The latest decennium has, nonetheless, brought about several doctoral projects that have clearly included elements of creative practice as their means of inquiry (Grillner, 2000; Zimm, 2005; Akner-Koler, 2007; Runberger, 2008).

The Swedish National Research Council (*Vetenskapsrådet*) supported the establishment of the *AKAD (Academy for Practice-Based Research in Architecture and*

Design) in 2003. The three schools of architecture, the School of Architecture at the Royal Institute of Technology in Stockholm, the School of Architecture at Lund University of Technology, and the School of Architecture at Chalmers University of Technology in Gothenburg, together formed a network of collaboration. The main objective of their endeavours was to validate the architectural design project as the generative factor in research projects.

All the schools participating in the AKAD have developed experimental approaches. The integration of the design studio with architectural research has had a long tradition at Chalmers (Dyrssen, Rehal & Strid, 2009). A research project entitled "Explorative Architecture", also attached to Chalmers, involved architects, landscape architects, and philosophers, who together proposed certain conceptualisations of the field (Gromark & Nilsson, 2006). These collective endeavours of the school milieu made it possible to organise the Nordic conference "Architectural Inquiries" in 2008, an event which focused on contemporary theories, methods and strategies in architectural research.

Certain architectural offices in Sweden, like White, Sweco and Malmström & Edström, have for a long time been developing research strategies and cooperation with academia, but recent years have witnessed an increasing use of architectural research in relation to innovation and creative design.

The Belgian Scene

Even if there are many schools of architecture in Belgium, it seems that only one of them, the Sint-Lucas School of Architecture, with its campuses in Brussels and in Ghent, has really taken the initiative and consistently worked to develop Research by Design. Their research strategy has been firmly grounded in Research by Design during the past 10 years.

This autonomous school has been Alma Mater to many renowned practitioners, who have made their names in their home countries and abroad. Nevertheless, there was originally no tradition of academic research based in scientific disciplines, as was the case in other schools of architecture that were affiliated with technical universities. The Sint-Lucas School of Architecture has not yet received the right to confer doctoral degrees.

The European guidelines established in the Bologna-Berlin process of 2003 require that all higher education should consist of three levels, the highest of which is the doctoral level. Accordingly, schools of architecture and design must also develop their doctoral levels of education. Thirty years later than in Sweden and twenty years later than in Norway, Denmark and Finland, Sint-Lucas has had to develop a new concept of research to guide the development of its doctoral level of education. Research by

Design was considered to be an explorative, innovative research direction that would comply with the new European policies, on the one hand, and with the school's practice-oriented tradition, on the other. Those responsible for the school's research and research education policies understood that a new culture, a culture of research and doctoral scholarship, should be promoted at the school (Verbeke, 2006:9). An open attitude to developing various ways of defining what research by design could be has made the Sint-Lucas school a laboratory for experiments and engagement involving the staff and the students. The target group for doctoral studies has been younger teachers without any research experience, but with a strong profile as practitioners and teachers of architecture.

The Sint-Lucas School, together with the Network for Theory, History and Criticism of Architecture (NETHCA), arranged an international conference, "The 'Unthinkable' Doctorates", in 2005. The new insights brought about by this conference seem to have been important for formulating the school's vision of research and for organising its research education programme. In 2006, the Research Education Programme at Sint-Lucas was launched as a series of Research Training Sessions (RTS) modules (Janssens, 2006; Verbeke, 2008). Presently, the RTS series is defined as a two-year programme, consisting of four sessions each year. These sessions are led by various tutors representing international academic experience and/or highly appreciated design practice.

The objective of the RTS series has been to introduce to the participants the essential issues of Research by Design, to discuss these issues with them, and thus to support them in the process of identifying their own research ideas and articulating their own research questions. It is expected that, after completing the two-year course of training, the participants will be able to formulate a research proposal that will serve as the basis for their doctoral projects and that will be based on their own professional practice.

Every year since 2006, the activities connected with the RTS programme have been documented in new volumes of the periodical *Reflections+,* which thus documents the development of the programme itself and the progression of the RTS participants. The contributions both of the (prospective) doctoral students and of the tutors make up a common platform for developing the new culture of research, which is one of the goals formulated by the school's research strategies some years ago.

In 2009, another international conference was held at Sint-Lucas: "Communicating (by) Design". There was broad active participation in this conference (with individual paper presentations after peer-review) by those who had been in the RTS programmes. This fact also indicates that a momentous critical mass has been achieved in the numbers of those pursuing Research by Design in their doctoral studies.

Both conferences organised at Sint-Lucas in 2005 and 2009 resulted in comprehensive proceedings. A brief review of their contents and considerations on their quality provide a picture of an ongoing process of maturing in relation to Research by Design.

The Emergent Picture
The intention of this article has been to sketch a picture of how Research by Design in architecture and design has emerged and developed internationally, with a special focus on developments in the Netherlands, Norway, Sweden and Belgium. It has also been an attempt to position the Belgian development, represented by the Sint-Lucas School of Architecture, in a broader context of other European national scenes.

In our previous texts published in the *Reflections+* series, we discussed Research by Design as an emergent, new, practice-based, field-specific research mode in architecture and design.

The brief review in this article of what we found essential on the four national scenes has showed that Walker's concept of how new fields of inquiry mature and how this maturity is indicated by various activities has been useful in perceiving an emergent picture of the process of maturing in the field of Research by Design. We have observed that the critical mass of those interested in the issue of Research by Design has been growing and that it has attracted not only the architectural academia, but also practitioners. We have noted that this approach to research has been introduced into the education of practitioners by some schools of architecture. International conferences have been important for consolidating the movement and for providing opportunities to observe the progression in quality of the research contributions. Books and journals have created continuity in the development of Research by Design and serve as points of reference for the younger generation of those who are pursuing this approach to research.

The Sint-Lucas School of Architecture has been an important contributor to this development because of its clear research strategies and the consistent way in which they have been implemented. A new research culture has developed, bringing together both the previous and the present participants in the Research Education Programme. For other international milieus of architectural academia, the example of the Sint-Lucas School of Architecture can shed light on the potential of doctoral studies as a vehicle for developing new ways of understanding and pursuing research in architecture and design.

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