

From Apprentice to Master

Some Notes on Educating Design Scholars and Developing Design Scholarship

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This paper discusses how an architectural and design milieu, affiliated with an autonomous university college, has developed a research education concept during the last decade. This concept has over time begun to define the epistemological premises for a doctoral programme. Recently some of the alumni have been working in the post-doctoral research in order to develop and professionalize design scholarship, based on this concept. Their endeavours seem similar to those of Apprentices who were trained in certain fields of expertise and who developed this expertise on their way to becoming Masters. The metaphor Apprentice – Master has been chosen to depict the collective endeavours of the teaching and learning milieu, which started from the research education and has continued towards more mature knowledge production and professionalization of a young field of inquiry. Firstly a brief introduction of the academic milieu in question will be made; secondly the epistemological premises of the research education will be described and argued for, and, finally, some efforts towards professionalization of the research field will be briefly presented and discussed.

Developing Epistemological Premises for a Doctoral Programme (1992 – 2002)

The Oslo School of Architecture, henceforth referred to as OSA, was given the right to confer a doctoral degree as early as in 1981, but doctoral studies were more or less non-existent until 1992. The newly established Doctoral Programme was based on the national Doctoral Code (Dunin-Woyseth 1996:66). The Programme was primarily targeted towards architects and spatial planners, but professionals from the so-called practical-aesthetic fields, like landscape architecture, object design and visual arts, i.e. *making* professions, were admitted for the first time in 1995 (Nielsen 1998). Since then, the Doctoral Programme has played an active role of a hub within the national research education system called Norway Network (Norgesnett). Its profile has been strongly formed by the fact that the doctoral students have had professional background and that their research subjects have most often been derived from their own practice-related experience.

The role and character of research education has been discussed in the Norwegian university milieu in the beginning of the 1990s (Dunin-Woyseth 1996:65). The conclusions drawn appeared similar to those the British have reached on the subject. In Great Britain there have been made attempts to formulate strategies and guidelines for research education. They specified the research skills common to various disciplines and the basic principles of research design. The following approaches to the development of structure and syllabus for a research education have been discussed: (i) providing a structured transition from lower to higher grades of research work; (ii) broadening students' understanding of their own discipline; and (iii) developing a common disciplinary identity (Becher et al 1994:52, 53).

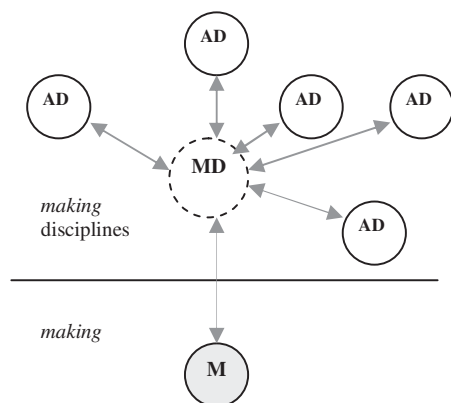
The OSA's doctoral programme has complied with the national guidelines and has been inspired by the British discussions on the character and contents of research education. While the two objectives for research education, that of providing a structured transition from lower to higher grades of research work and that of broadening students' understanding of their own discipline, have been reached in a rather adequate manner through various components of the curriculum, the third objective, that of developing a common disciplinary identity, has been the most serious challenge to the teaching staff of the doctoral programme. With the admission of various design professionals to the Doctoral Programme in 1995, a broad dialogue among them has been launched. Various profession-related discourses, or even a lack of such, have been confronted with each other. A need for a common arena for scholarly discussion has arisen. This need corresponded with one of the general, national objectives for research education, that of developing a common disciplinary identity. That is how the concept of the *making* disciplines has emerged and gradually consolidated as a cornerstone of the epistemological premises for the research education. In the following an attempt will be made to introduce this concept of a common disciplinary identity.

Making Disciplines as “Guild” Rules for Scholarly Apprenticeship of Designers

The term *making knowledge* is being employed in order to distinguish the kind of knowledge with which the *making* professions are concerned. This term is related to the established distinction introduced by Gilbert Ryle, between *knowing how* and *knowing that* and belongs obviously to the broader category of the *knowledge-how* (Ryle 1945-46). And just as the field of the contrasting *knowledge-that* has been maintained by the established academic disciplines, the scholarly milieu at the OSA submit that there is a case for sustaining and maintaining the field of *knowledge-how*, or *making knowledge* through disciplines of its own, *making disciplines* (Dunin-Woyseth and Michl 2001:2).

In order to develop such a *making* discipline, the *making* knowledge has to achieve disciplinary viability. It has to comply with demands of two worlds: in addition to the world of its own profession, it has to abide by the rules of the academic world. While the main criterion of viability in the former world is its relevance to the practice of the professions, in the latter is the ability to fulfil the criteria of scholarship, the meeting of which constitutes disciplinary knowledge.

Several scholars have earlier considered ideas about disciplinary viable *making* knowledge. Already in 1969 Herbert A. Simon introduced the concept of “the science of design” in his seminal book *The Sciences of the Artificial*. To the science disciplines, exploring natural things, he opposed the science of design dealing with “...artificial things, how to make artefacts, that have desired properties, and how to design” (Simon 1969:55). Here the emergence of the concepts of *knowing-how* and the “science of design” can be seen as a beginning of a process leading towards a disciplinary construction of *making* knowledge. Authors as Glanville (1999) or Dahlbom (et al. 2002) belong to the scholars who have continued this way of thinking most recently. The following sketch, Diagram 1, is proposed to illustrate the relationship between *making*, *making* disciplines and academic disciplines.



Relations between:

- *making* – M
- *making* disciplines – MD
- academic disciplines – AD

Principles behind *making* disciplines:

- a *making* practice-initiated object of study is being chosen
- it is being put in a relevant theoretical, historical or other relevant context
- new-developed insight is being added to improve *making* practice

Diagram 1. A *Making* Discipline. Relations and Principles.

In the Anglo-Saxon educational system, the knowledge base in design professions appears to be rooted in the triadic concept of History, Theory and Criticism. Many dozens of courses at undergraduate and graduate levels, some at the doctoral level, have been offered, based on this concept (Bizios 1991, 1994, 1998). The powerful role of this triadic concept has been discussed during the first international conference on doctoral education in design in Ohio, USA, in 1998 (Buchanan et al. 1998). It seems also that this concept becomes acknowledged in the research education milieus in Northern Europe (Dunin-Woyseth and Michl 2001:3, 4). It is therefore sufficiently argued for that this triadic knowledge concept, the cornerstone of designers' knowledge base, meets the criterion of professional relevance of *making* disciplines.

With regard to the compliance of academic criteria in order to develop a *making* discipline, they will vary according to the nature of the academic investigation applied. A "dialogue" between a *making* discipline and a specific academic discipline will demand a modus operandi appropriate to the character of the *making* object of the inquiry and to the academic discipline in question. To quote John McKean: "Before we got caught between the physical sciences, social sciences and humanities, and the fences erected round what each considers the content and methodologies of 'real' research, we can agree that any good research demands rigour, revelation, relevance and return" (McKean 2001:86). Trying and failing, and trying again is certainly the way to go in order to develop *making* disciplines. There is a growing perception in the Scandinavian, as well as European and American research design education circles that such a continuous process is necessary (Frayling 1993-94, Buchanan et al. 1998, Frayling et al 1998, Durling and Friedman 2000, Katainen and Aura 2000:14). The role of *making* disciplines is that of a quality supportive framework for *making* discourses rather than of a traditional academic discipline where methodology is the theoretical basis for the choice and application of methods.

How could an informed dialogue between *making* disciplines and the established fields of knowledge function? In order to examine such a possibility we propose to adopt three perspectives of consideration. The triadic concept of a *making* discipline's knowledge base, which relies on the interplay of History, Theory and Criticism, has an interactive dynamism which can bring professional planning expertise further through a continuous internal dialogue between the *making* practice and the *making* discipline, this dialogue being one of the perspectives. Another one, an internal disciplinary discourse, which will define the logic of the discipline, standards of evidence, as well as standards for valid argumentation over time will lead to consolidation and a higher maturity of the *making* disciplines over time. These two complementary perspectives of consideration can define the specific nature of both design expertise and design inquiry. Thus they can contribute to a stronger self-confidence and self-assertion of the field as a whole.

These two perspectives of consideration within the *making* disciplines should be recognized as internal with regard to the fields of *making*.

The third perspective of consideration offered by the *making* disciplines is partly an external one, and it is thus complementary to the other two perspectives. These *making* disciplines can create a platform for communication and fruitful dialogue with the already established fields of disciplinary knowledge, which possess inherent traditions of organized scepticism and of ongoing criticism within an inter-subjective discourse. The *making* discipline, which would add these qualities to design, would elevate them to a more equal academic platform of information exchange and interaction. Thus, various knowledge perspectives could contribute to the understanding and betterment of the conditions of our physical environment. The complementarity of these three perspectives of consideration consists of three axes: one toward the professional practice, one towards internal disciplinary grounds, and one towards interchange with other knowledge disciplines.

Diagram 2 is an attempt to visualize the three perspectives of consideration to illustrate how *making* disciplines could academically mature over time and at the same time function in an informed dialogue with other academic fields of inquiry.

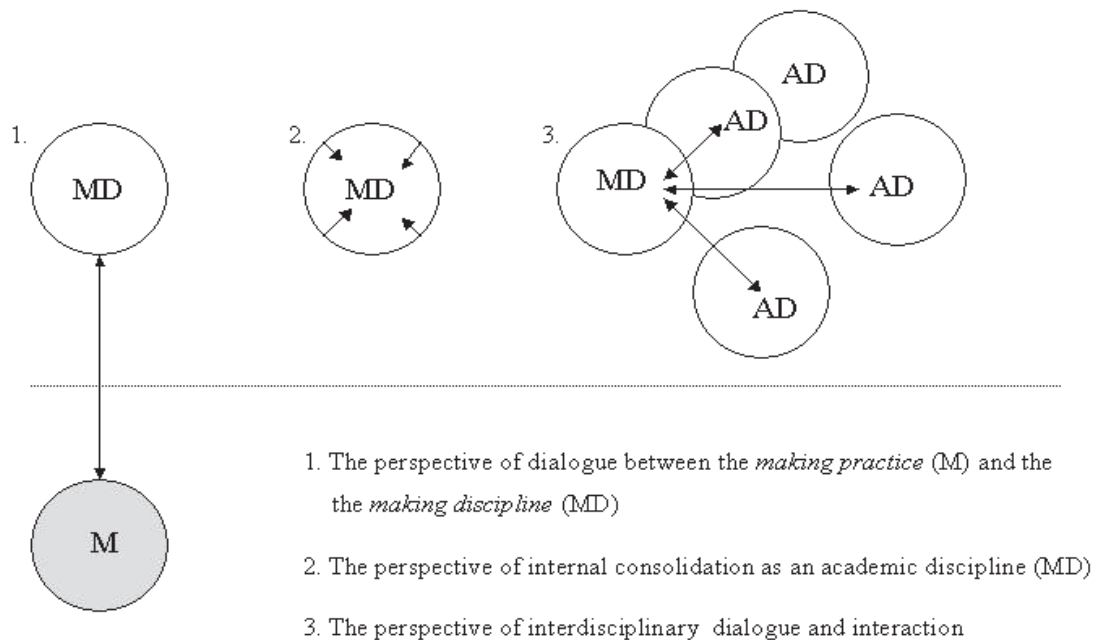


Diagram 2. A *Making* Discipline and Its Three Perspectives of Consideration

Making Disciplines in Various Dialogues. Along the Way from Apprentice to Master

In the established fields of inquiry research education can often be compared with traditional teaching situations between the Master and the Apprentice. A subject matter of the teaching has in such situations already been defined and quality standards of the expected output collectively accepted. The Masters represented unquestioned expertise, which gradually was transferred to the Apprentices. Such was not the situation at the OSA. In the initial period of the Doctoral Programme, architectural and design research was a very young field of inquiry. Design studies by designers did not yet bring about many convincing examples to follow. The quality standards for design research were at the best unclear. There were but a few Masters to teach research adepts. Those of the staff, who had research experience, joined the “research apprentices” in a common learning attempt to develop a new research field, and, at the same time, to produce new research contributions, doctoral theses. Through a long process of repeated critical discussions and debates about central issues, certain standards of scholarly quality have developed. In these endeavours the continuous Scandinavian co-operation in research education has played a crucial role (Dunin-Woyseth 2002). Neither can be neglected the role of various prominent international architectural and design scholars who challenged the emerging Nordic design scholarship and inspired the local milieus to think in new ways. The scholars as K. Michael Hays, John Heskett, Jules Lubbock, Richard Buchanan, Jonathan Woodham and others have served as guest lecturers and external supervisors.

Some of those who completed their PhD have begun to seek for opportunities to continue their scholarly efforts at the post-doctoral level and thus to contribute to the process of professionalization of design research. Their endeavours have focused on developing new research projects, which seem to have the potential to contribute to a new stage of further maturity in design scholarship. The research projects in question open for collaborative research where there will be possible for new PhD students together with post-doc researchers and senior researchers, the Masters, to produce design knowledge in a mutual teaching – learning environment. We shall introduce one such a project called Design Dialogues, which builds upon the epistemological premises developed together over time with the five or six batches of the PhD students of the OSA. In the project Design Dialogues (DD), the dialogue, or absence of dialogue, between professional designers, users and decision-makers are to be discussed. The project is in its initial phase and under evaluation for eventual funding.

The main objective for the DD project is to develop knowledge that can contribute to better design practices where professionals, laymen and decision-makers can participate in more democratic design practices. The project is built upon the acknowledgement that a successful design process involves more than a skilful designer - it also requires design competent clients (Nielsen 2000). And before any professional design process is even started in a business or public office,

"somebody" has to decide whether to involve a designer. This "somebody" may be a politician, a committee member, a businessman or an employee - most likely a layman when it comes to design qualifications. As a consequence of this acknowledgement the DD project focuses on the general attitude to design and the education of laymen as a premise for the promotion of design quality in society. General design knowledge acquired through primary- and secondary school and through media has in addition to knowledge on the design process, influence on design in society. As a consequence of this the DD project has three parts: 1) Developing Academic Design Knowledge (DADK), 2) Developing Design and Visual Literacy (DDVL), and 3) Developing a Practice of Democratic Design (DPDD).

1) Developing Academic Design Knowledge (DADK)

The challenge of the DADK project is to investigate the reasons of the reticence towards a broader use of design both on the part of the public agencies as well as of the private sector in Norway. The main assumption of the project is that this reticence originates from inadequate communication among the three parts of the triangle: producers – designers – users. The project is aimed at studying various practices of dialogue among these three parts. The focus will be laid on some “success stories” and on histories of failure. The approach will be based on insights “from within” of the practices of designers and architects and their experience from the dialogues with producers and users. The new knowledge, derived from the design practices, will comply with the framework of the *making* disciplines. Where appropriate it will be sought other knowledge references from various academic disciplines with a potential to elucidate certain aspects of relevance.

2) Developing Design and Visual Literacy (DDVL)

In this project the ability to better articulate design qualities or their lack will be called design literacy. Without design literacy the conditions for communication between designers and users cannot be filled. That makes design literacy a pre-requisite for democratic participation in decision-making processes concerning our physical environments. The projects aspiration is to build this project consistently upon the emerging new insight to be developed by the DADK. This new knowledge is expected to commence a dialogue with an established field of educational studies. There is a double aim for this dialogue: one of a cognitive-explicative character, informing on “What to teach about design?”, and another, of a normative character; that of “How to teach it?” While the former will stay at the level of interdisciplinary discourse, the latter will, hopefully, address the practice of teaching design at various levels of general education.

3) Developing a Practice of Democratic Design (DPDD)

The third of the projects, Developing a Practice of Democratic Design (DPDD), is aimed at studying how media participate in establishing general attitudes to design. The assumption for the project is that the inadequate communication between general public, on the one hand, and, the design professionals, on the other, seems

to cause undesirable situations for both parts. In the research process the new-developed knowledge from the DADK project will be crucial as the main provider of design-knowledge. The epistemological base of the project will be a dialogue between practice-derived design knowledge, a *making* discipline of design, and the journalism studies, derived from the practice of journalism. The focus will be on studies of certain cases, which are broadly known in society, like Tullinløkka, Vestbanen, Tjuvholmen etc. While the point of departure for this project, is embedded in the two areas of academic studies derived from professional practices, that of design, and that of journalism, the final target of this project is expected to develop certain insights of direct relevance to the practices of design.

The DD Project Together

Thus the outputs of the three parts of the research project are targeted towards betterment of design practices. In this way the threefold project of Design Dialogues builds upon the concept of academic design knowledge, the *making* disciplines of design (Diagram 3). It is consistent with the principles of and relations within this concept as described in Diagram 1.

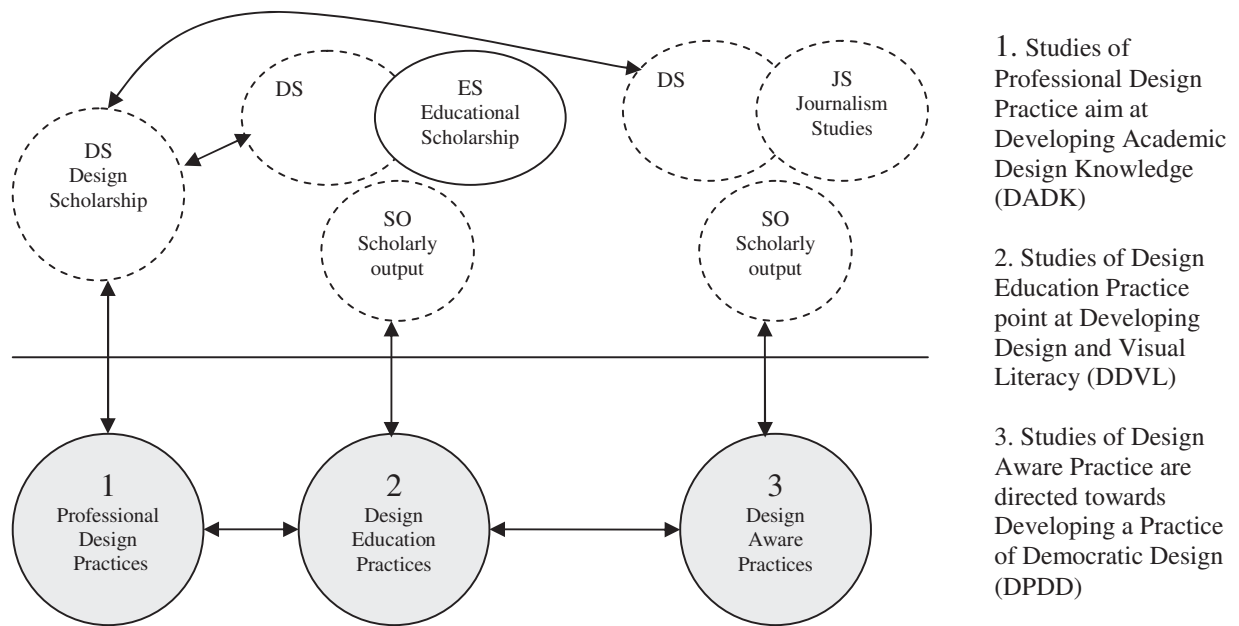


Diagram 3. Design Dialogues. The Principles and Relations.

Instead of a Conclusion

This paper has presented and discussed the origins and the essence of the epistemological premises of the Doctoral Programme at the Oslo School of Architecture. They are based on the concept of *making* disciplines, which can be regarded as a specific approach from the point of view of the professionals. It is an

approach "from within", a "craft approach". Being a know-how approach, it is complementary to the know-that perspectives of academic disciplines, which often address similar subjects matters, but from different points of view through common generic academic rigors. And as such, the *making* disciplines are promising in their potential to deliver a "missing link" in a complex picture of different perspectives of consideration, represented by other fields of knowledge in a sought-for mutual relationship. The concept of *making* disciplines of design has been developed in a collective teaching and learning environment of many Apprentices and Masters of design scholarship. The former ones continue their research endeavours, testing and developing the potential of the epistemological premises in question towards a more professional design scholarship.

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Summary

This paper discusses the epistemological premises of the Doctoral Program at the Oslo School of Architecture (OSA). Based on these premises a concept of *making* disciplines has been developed. This concept provides a scholarly framework where *making* knowledge is being derived from, then scholarly processed, and, finally, directed back to design practice. An environment of mutual teaching and learning has evolved among the Apprentices and Masters of design scholarship at the OSA. They have initiated and continued the process of professionalization of design scholarship where the ambition has been both to meet the criteria of professional relevance and of academic standards. A research project *Design Dialogues*, based on three complementary parts, will be introduced. It will, hopefully, illustrate the potential of the *making* disciplines to enable a dialogue with both academia and lifeworld, while studying design