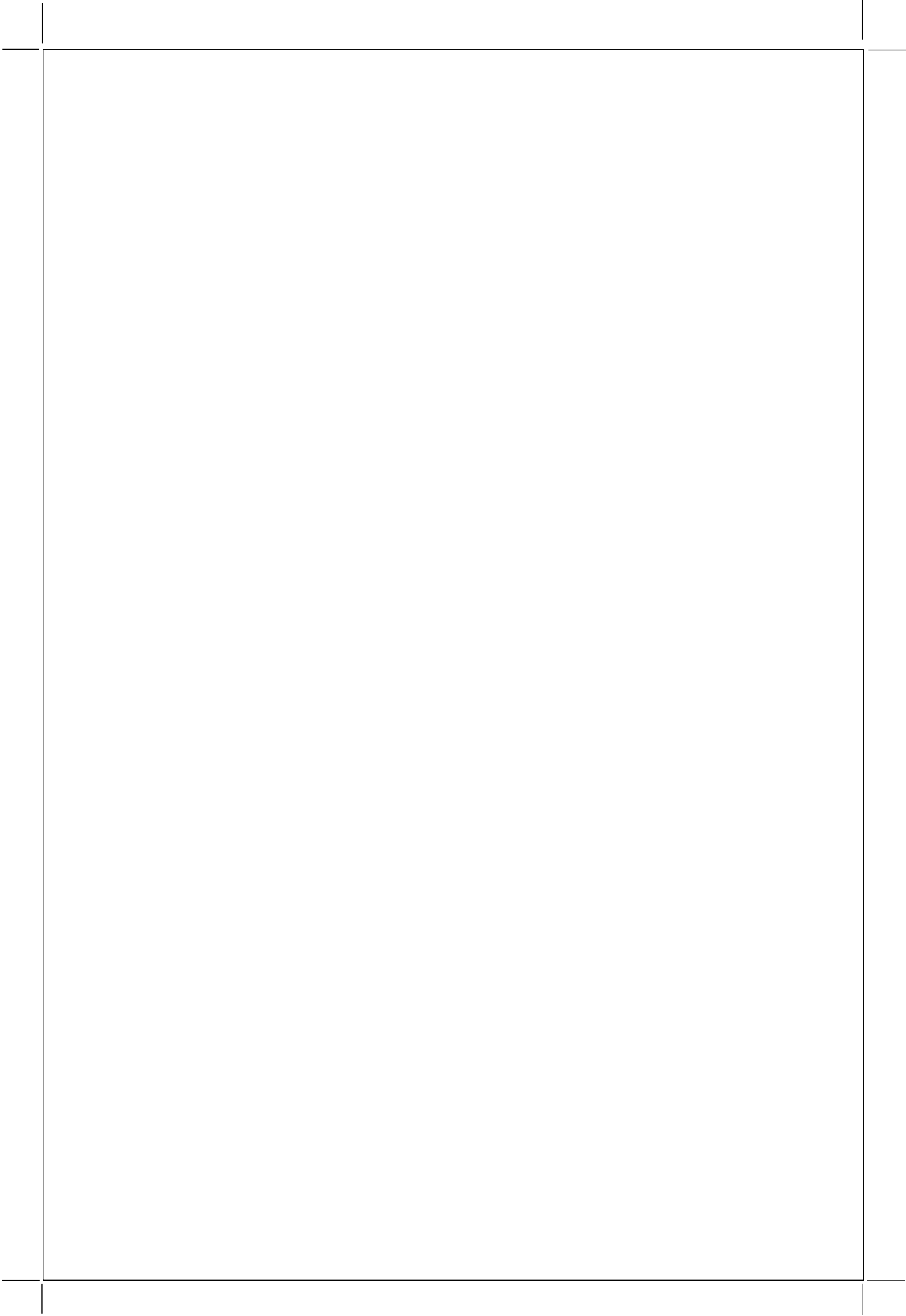


This book is a tribute to
HALINA DUNIN-WOYSETH
Professor, Dr. techn.
Director of the Doctoral Programme
Oslo School of Architecture and Design



*Building a doctoral programme
in architecture and design*

Appreciations from colleagues and friends
of HALINA DUNIN-WOYSETH's contributions
on the occasion of her 60th birthday

Edited by JAN MICHL and LIV MERETE NIELSEN

Oslo School of Architecture and Design

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Photograph by courtesy of HENRIK HEDENIUS

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Introducing Halina Dunin-Woyseth

Right from the beginning in 1990 Halina Dunin-Woyseth has been the *primus motor* behind the development of the doctoral programme for practitioners in design — *the making professions* — at the AHO, the present Oslo School of Architecture and Design. Her conceptual and organizational contributions to the development and establishment of postgraduate studies in design during the past fifteen years, in her capacity as the director of the programme, has gained her both Nordic and wider international attention and recognition. Her numerous academic assignments for various European educational institutions, related to postgraduate education in architecture and design, bear witness to the esteem held for her work. At the AHO the number of persons who have graduated from the school's doctoral programme will very soon reach 40, which is another indication of her achievements.

This book consists of tributes written by present and former colleagues and students who appreciate Halina's dedicated and highly focused efforts to institutionalize design research as a way of strengthening the field of design practice. As an architect with a strong interest in scholarship, she has had a unique point of departure for understanding the challenges involved when a field of practice enters the academic arena. She has developed the concepts of *making professions*, *making knowledge* and *making disciplines* as a way of building up an academic identity of design research.

A sweep through Halina Dunin-Woyseth's academic life

Halina Dunin-Woyseth is a true European with her multi-national background. She was educated at the Silesian University of Technology in Poland, becoming a Civil Engineer and Architect in 1967 and Dr. techn. in 1977. She came to Norway in the late 1970s and has been a tenured university teacher at the AHO since 1981, beginning as an Assistant Professor and advancing first to an Associate Professor's position and finally, in 1994, to a full Professorship. In the period 1993-1998 she served as the Vice-Rector of the school, and, *ex officio*, as a member of the Norwegian Council of Universities (Det Norske Universitetsråd). In the years 1991-1995 she was also a member of the Council's Committee for Research Education (Universitetsrådets forskerutdanningsutvalg) and later, between 1996-1998, of the Research Committee (Universitetsrådets forskningsutvalg). Up to 1990 she taught Urban Design and Spatial Planning. Since then her main responsibility has been to establish and chair the AHO's Doctoral Programme / Postgraduate

School of Research hereby offering doctoral education to candidates recruited from the design field: architects, planners, landscape architects, and later also industrial designers, design educators and artists.

Her research in the 1980s focused on Urban Design and Spatial Planning studies. Among other projects she participated in the EU-FAST Programme “URBINNO” (INNOvation and URBan Development) and in a Japanese co-operation project “The Hidden Urban Designers” (on the relationship between urban form and urban planning legislation). These projects resulted in a book and in a number of articles. In this period she acted as a guest professor at the Universität Bonn (on the grant of the Deutscher Akademischer Austauschdienst (DAAD)), at the University of California at Berkeley (on a Fulbright-Hays grant) and at the Tokyo Metropolitan University (on a Sasakawa grant).

After being appointed the director of the doctoral programme in 1990, she expanded her field of research and teaching interests to encompass epistemology of professional fields. Since 1991 she has acted as both the editor and a contributor of *Research Magazine*, the AHO’s new scholarly journal illustrating the development process of the *making* discourse in design, architecture and spatial planning. Her extra-mural activities include membership, from 1989, of the editorial board of the international peer-reviewed scholarly journal, *Planning History*, and in the years 1993-1998 of another scientific journal *Scandinavian Housing and Planning Research*. She also served as a peer-reviewer in the British *Town Planning Review* and the Scandinavian *Nordisk Arkitekturforskning*. Recently she has served as a guest co-editor of the *Journal of Design Research*.

During the 1980s she was teaching at undergraduate and Master levels, however the last fifteen years have been devoted mainly to the doctoral level. She has offered approximately 30 postgraduate courses at the AHO and has been teaching, giving lectures and leading seminars, at different Scandinavian and international schools of architecture and design. Since 1992 Halina Dunin-Woyseth has participated in a Scandinavian network for research education of which she has often been a *spiritus movens*. In 1998 she started preparations for what she called Millennium Programme, a series of inter-Scandinavian research education courses which commenced in 1999 and which were completed in 2001. All national courses within this programme were sponsored by the Nordic Academy for of Advanced Studies (NorFA /Nordisk Forskerutdanningsakademi). In addition, Halina Dunin-Woyseth was acting as a guest professor, teaching at the *Diplômes d’études approfondies* level courses ved École des Hautes Études en Sciences Sociales / EHESS in Paris, at the invitation of the French Ministry of National Education, as a so-called “Jubilee Professor” at the

Chalmers Institute of Technology, Gothenburg, Sweden, as well as a contract professor at the Academy of Arts and Design in Bergen, Norway.

Since the early 1990s she has often functioned as a doctoral supervisor and has been successful in promoting a long line of PhD students to a doctoral degree. She has been almost every year invited to participate in international adjudication committees at public doctoral disputations.

During the last decade Halina Dunin-Woyseth has often served as an evaluator, commissioned by the Ministry of Higher Education of Norway (the present Kunnskapsdepartement), as well as by some European institutions of higher education and other national research agencies, most recently, from 2001 to 2004, as an evaluator for the Swedish National Research Council, FORMAS. In 2005 she was appointed by FORMAS as a member of an expert panel set up to evaluate the last ten years of architectural research at the Swedish schools of architecture. The same year, another Swedish academic institution, the Swedish Research Council (Vetenskapsrådet) called on her to join a panel to assess the Swedish practice-based research, funded by the Council. In May 2002 she was a public evaluator of an EU-funded research project, carried out by 19 teams under the AESOP-umbrella (Association of European Schools of Planning). During the last ten years she has served as a member of evaluation committees for professor positions in all the Scandinavian, and some other European countries.

Of her recent publications the following selection illustrates her research interests: "The Three-Leaf Programme: A PhD Programme for Students from Developing Countries", *Comportements*, Lausanne, 1999; "Research on architecture and spatial planning, in architecture and spatial planning and for architecture and spatial planning. Complementary perspectives?" (in: *Staden, husen och tiden*, Riksbankens Jubileumsfond, Forskningsrådet för miljö, areella näringar och samhällsbyggande, FORMAS, 2001); *Towards a Disciplinary Identity of the Making Professions: The Oslo Millennium Reader* (Halina Dunin-Woyseth and Jan Michl, eds.), Oslo School of Architecture, Oslo, 2001; "Design as added value – some professional and theoretical perspectives on European urban planning", a chapter in the book: *Die Europäische Mythos und Wirklichkeit*, published in 2000 and re-published in 2001 by LIT Verlag, Münster – Hamburg – London; "The Millennium Programme. Looking back, looking forward", *Nordisk Arkitekturforskning*, Vol. 15, No 2, 2002; "The Making-based Knowledge: Between Identity and Change", *Comportements*, Lausanne, 2002; "A Continuum from Scientific Research to Creative Practice? Noen tanker omkring forskning i skapende og utøvende fag", *Nordisk Arkitekturforskning* Vol. 16, No 1/2003; "Faglig relevans vs. akademisk intersubjektivitet. Et møte med fem forskere fra de skapende og utøvende fag" *Nordisk Arkitekturforskning* Vol.16, No 1/ 2003; "Arkitekturforskning: 'Dialogisk' eller / og faglig introvert?" *Byggekunst*

1/2004; "Developing Doctoral Scholarship in Architecture. A Brief Retrospect on Some Emerging Trends in Scandinavia" Proceedings from the EURAU Conference in Marseille, 12-14 May 2004; "Doctoral Theses in Architecture: Between Mono- and Interdisciplinarity", Proceedings from the EURAU Conference in Marseille, 12-14 May 2004 (both appeared in 2005); "Image making as a step for the Master Plan of city in Norway" as a chapter in the book: *Development of Kabul. Reconstruction and Planning Issues* edited by B. Mumtaz and K. Noschis for Comportements, Lausanne, 2004; "Architectural Scholarship 'the Doctorate Way' – Some Challenges and Responses in a Scandinavian Context", in *The Four Faces of Architecture – On the Dynamics of Architectural Knowledge*, Royal Institute of Technology, Stockholm, 2005.

Halina Dunin-Woyseth's endeavours at the AHO have been supported by several people of whom we know they backed up her effort along the way. Among these professor Dr. techn. Kristoffer Apeland, the many-year chairman of the Research Committee at the AHO, should be mentioned as her earliest and probably most important strategic collaborator and supporter. In her daily administrative workload she was greatly assisted by research administration officers Ranveig Rasmussen (until 1997), then by Åse Nyvoll (until 1998), and since then by Ingunn Gjørva.

About the structure of the book

The content of this book falls into four parts. The first part, called *Working out the doctoral programme*, consists of contributions from the professors with whom Halina Dunin-Woyseth was developing the concept and curricula of the doctoral programme. Stein Haugom Olsen from the University of Oslo was the first contract professor connected to the doctoral programme at the AHO. Matthias Kaiser, from the same university, was his successor, contracted until 2006. They are both academic capacities at an international level, and their task with regard to the AHO was to ensure a high academic quality of the programme. Niels Albertsen (Aarhus School of Architecture, Denmark), Jerker Lundequist (School of Architecture, Royal Institute of Technology / KTH, Stockholm), Jan Michl (Department of Industrial Design, AHO) and Liv Merete Nielsen (Faculty of Art, Design and Drama, Oslo University College / HiO) — listed chronologically — have all participated in developing parts of the doctoral programme within their specific competence.

The second part of this book, *PhDs and PhD candidates*, contains tributes from the former or present doctoral candidates supervised or consulted by Halina Dunin-Woyseth. It gives a picture of a committed supervisor sharing her knowledge in a most generous way.

The third part, *National and international contacts*, presents contributions from important academic colleagues. They are listed geographically and

alphabetically: first Norway, then Scandinavia and, finally, other countries. They reflect her achievements in building both academic standards and an international critical mass of design researchers.

In the fourth part, called *In conclusion*, we let Halina Dunin-Woyseth describe, in her own words, the challenges of the field she has been involved in for the past 15 years. We reprint her keynote speech delivered at the international research conference on “The thinkable and unthinkable doctorates”, held at the School of Architecture Sint-Lucas, Brussels, in April 2005. The text outlines the historical background of the doctoral education in the European university systems, and partly also in the USA, from their beginning and up till the present day, with emphasis on doctorates in architecture and design. She presents and discusses the development of the doctoral programme at the AHO as a recent case, before, finally looking at the strategies for the doctorates of the future as prescribed by the EU/Bologna process.

The *Appendix* provides a list of contributors to this publication, and a list of persons who have lectured at the doctoral program at the AHO between 1992 and 2005.

Halina Dunin-Woyseth has also worked as practicing architect — both as a spatial planner and a building project architect — in Eastern Europe, West Africa and in Norway. This book, however, does not include any review of these works, as there are plans for another publication, to be devoted especially to these endeavours.

We would like to express our gratitude to all contributors for their responding to our invitation to participate in this homage to Halina. Many thanks also to Jan Gauguin for the careful layout of the book, and to Philippa Gauguin for checking the English language of this publication.

Jan Michl and Liv Merete Nielsen, editors
Oslo, August 2005

I. Working out the doctoral programme

STEIN HAUGOM OLSEN

The doctoral programme at AHO
How it all started: The Lifell course

In the early weeks of 1992 I was contacted by a professor from AHO with what I considered to be a rather odd question: would it be possible for me to offer some help in the planning and implementation of a new doctoral programme at the School and even to organise some of the courses for the taught part of the new doctoral programme. I thought it rather odd that this question should come to me. At the time I was the professor of British Civilization Studies at the University of Oslo and I could not really see that there was anything in that field that would make me an obvious person to ask to undertake this kind of task. The professor, of course, was Halina, who was then also the Vice-Rector of the School, and who had undertaken the formidable task of instituting a new doctoral programme in an institution that was essentially a vocational training school for architects. The background for this initiative is well known. In order to retain the designation as 'research based' [*vitenskapelig*], as well as the right to award doctoral degrees (granted to AHO in 1981) those few tertiary institutions outside the four universities having this status and right, were required to give substance to the designation by introducing and hosting independent doctoral programmes.

I met Halina for a face to face discussion in one of the grim canteens up at Blindern, and it then became clear why she had contacted me. I was at that time the chairman of the Seminar for Science Studies. I had been involved with the Seminar for Science Studies ever since my days as a philosophy student, and I was also interested in the theory and philosophy of the humanities disciplines. So when the Board of the Seminar for Science Studies wanted a token humanist, they asked me, and after a few years on the Board I took over as chair. So Halina did not contact the Professor of British Civilization Studies but the chair of the Seminar for Science Studies. I was initially sceptical about getting involved in something that might turn out to be the first episode in the series *Mission Impossible* where the mission actually turned out to be impossible. However, Halina's enthusiasm and energy convinced me that if this was to be a failure it was to be a grand failure. Indeed, there was a generous sum of money in place to make this attempt grand, and I decided to get involved. Thus started a long and fruitful collaboration between Halina and AHO and myself. That the mission turned out to be a grand success rather than a grand failure, is mainly due to Halina's energy, commitment, and stamina. The story is a long one and, as a suitably post-modernist story, has no ending. The success is ongoing and I am still

involved. However, that is a story for another time. I shall instead focus on how it all began.

In January and February 1992 Halina and I started the planning of the taught component of the doctoral programme. Halina wanted me to design and teach, or get someone who could teach, the philosophy of science courses, which were by far the most substantial part of the course work component. Because she had been able to procure generous financing to start up the new programme, she had decided that we should have a focused programme lasting one week. The plan was to take the whole cohort of students together with ten or so students from the Faculty of Architecture at what is now NTNU, the Norwegian University of Science and Technology, to a place of isolation where they could not escape but would have to spend all their time, evenings included, listening to lectures and discussing the material they were given to read. Fortunately, I knew of an ideally isolated place. It was called Lifjell Hotel and it was literally impossible to escape once you were there without stealing one of the Hotel vehicles. Halina gave me a free hand as to how I was to organise the course, and what material I should provide as required reading. So I went ahead and, in consultation with Halina, came up with a structure that is still used when we teach new cohorts of students. Out of the six days that the course lasted, two days were spent on the philosophy science and social sciences, the lectures being given by Matthias Kaiser. Two and a half days were set aside for problems in the theory of the humanities, the lectures being given by myself. Then Halina made available one and a half day for lectures by teachers at AHO and the Faculty of Architecture at the Norwegian University of Science and Technology. Every day there were lectures in the morning until lunch, and then workshops in the afternoon until dinner to reinforce the content of the lecture. (The course plan is attached in order to give some flesh to these descriptions). In addition to lunch and dinner, the days were punctuated by frequent coffee breaks. It was a marathon effort by both teachers and students, and by the end of the six days mental exhaustion had set in.

I think Halina must have been anxious about the reception of such a highly theoretical menu among what were essentially practitioners of the art of architecture. It was certainly a worry shared by Matthias Kaiser and myself. The worry did not lessen when Staale Sinding-Larsen sidled up to me and confided that architects only read books with large pictures in them and, while they were very good at designing houses, could not write two sentences in sequence that gave meaning. And as we were to experience a little later that year, academic writing was not the strength of the participants in the course. There was also considerable initial scepticism among the course participants, caused both by the reading material and the formidable titles of the lectures

as well as by the fact that two people from the University of Oslo were called in to tell them (the architects) how to do things...

So there was scepticism on both sides. One rather amusing manifestation of this scepticism was that the course attracted an extra participant who was not doing a doctorate and who obviously had no particularly need for the course. The doyen of Norwegian architectural theorists, Christian Norberg-Schulz, insisted on coming along and participating as a student, not only sitting in on the lectures but also joining the groups that were organised to discuss the material in the lectures. Professor Norberg-Schulz's scepticism was undisguised and his suspicion of these university professors who had never had anything to do with architecture was manifest. However, he became an early convert to the usefulness of the course and gave it his *imprimatur*. Indeed, by the end of the course, one might almost describe him as enthusiastic.

And it must be said that the course was a huge success. Some of the initial scepticism evaporated because the theoretically most challenging material from the lectures was discussed and clarified in the workshops. It also turned out that Halina's strategy of isolation was absolutely right. Lifjell is located on the hillside above Bø in Telemark and provides excellent conference facilities. The fact that the participants had to spend a whole week together and the fact no one had to rush off to other appointments or home to the family, created an intimacy among the participants and a group dynamics that it has been difficult to replicate later. It also provided generous opportunities for socializing with the two university professors and to discuss informally over a glass of wine in the evening all the various theories and views which the students had crammed down their throats during the day.

Another feature of the Lifjell course that helped to make it a success and that proved to be of considerable importance for the future status of the course, was the fact that among the first cohort of students there were a number of senior staff from AHO who wanted to get their doctorate. Among these were Elisabeth Tostrup and Thorleif Skjønberg both of whom became professors shortly after the Lifjell course. Based on their Lifjell experience these senior people became significant supporters of the doctoral programme and of the kind of coursework for which the Lifjell course set the pattern.

And then there was the role of Halina herself. She acted as an excellent mediator between the two of us who were teaching the course and the students, pointing out how the philosophical and theoretical points that were made in the various lectures related to the concerns of architecture as an art and as a practice. She also constantly gave the participants pointers to readings that would act as a further invitation to adopt the perspective presented in the philosophical arguments that the various Lifjell lectures developed. This was, in the longer run, invaluable for the 'theoretization' (to use a barbarism) of the discipline of architecture at the School.

Based on the six days of intensive work at Lifjell the participants in the course were given an essay on a topic in the theory of the humanities. This essay was written under supervision and was obligatory. It was at this stage that Staale Sinding Larsen's remark turned out to be very much to the point. The doctoral candidates had little experience in writing academic essays, having difficulty even with the technical apparatus of footnotes, bibliography and references. For many of the candidates, the absence of what one may call an academic writing culture proved to be one of the central challenges in the initial stages of the doctoral programme. When one looks back it is important to remember this as it adds a significant element to the challenge that Halina faced when she undertook to establish the doctoral programme at AHO.

The Lifjell course was significant for various reasons. Its success and the atmosphere it created were instrumental in overcoming much of the scepticism against creating a doctoral programme that was endemic in the institution at the time. The participants, and in particular the senior staff, that attended the course took the positive experiences from the course back with them and spread the word of the successful course around the School.

The course also established a workable structure for the philosophy of science component that had been made an obligatory part of the new type of doctorates being introduced in Norway at the beginning of the 1990s. In this structure, the history and philosophy of the humanities was given equal weight with the philosophy of the natural and social sciences, and this was felt to be useful by all the participants in the course.

Over the last thirteen years the component dealing with the theory of the humanities has been developed and modified, but the structure remains the same, in all-important respects, and the theory of the humanities part still builds directly on the courses dealing with the philosophy of the natural and social sciences.

The course also broke down some of the prejudices against academic theory as opposed to architecture as a practice. It made the participant see the value and point of good argument. And this leads to a final feature of the Lifjell course establishing the norm for all later courses. In a period where post-modernist constructivism still had a significant hearing even if its peak had passed, the perspective that was presented at Lifjell was unapologetically foundationalist and rationalist.

This was a surprise to many of those present whose only contact with philosophy had been the representatives social constructivism and cultural relativism. It was, however, a new perspective that in the end came to be appreciated.

The Lifjell course was above all, Halina's success. It was her enthusiasm, energy, and intellectual power that made the course possible and that was

instrumental in getting the course off the ground. And the success of the course smoothed the way for the further development of the doctoral programme at the school. Indeed, without Halina AHO would have had no doctoral programme and for this the institution must be deeply grateful to her.

Philosophy of Science and The Humanities for Architects

Seminar at Lifjell Hotel 13.-19. September 1992

Sunday

16:00 Arrival

17:00-17:45 *Christian Norberg-Schulz* What is Architectural Research?

17:45-18:30 Discussions

19:00 Dinner

Monday

9:00-10:30 *Matthias Kaiser* Theories, Models, Observation and Testing.

10:30-11:00 Coffee/questions and discussion

11:00-12:30 *Matthias Kaiser* Causal and Statistical Hypotheses.
Various Views of Scientific Explanation.

12:30-13:00 Questions and discussion

13:00-14:00 Lunch

14:00-16:00 Workshops on problems related to the lectures

16:00-16:30 Coffee break

16:30-17:30 Workshops on problems related to the lectures

17:30-18.30 Presentation of the conclusions from the workshops

19:00 Dinner

Tuesday

- 9:00-10:30 *Matthias Kaiser* Theory Change, Relativism ,
and the History of Science
- 10:30-11:00 Coffee/questions and discussion
- 11:00-12:30 *Matthias Kaiser* Science, Society, Knowledge-based
Decisions and the Ethics of Research.
- 12:30-13:00 Questions and discussion
- 13:00-14:00 Lunch
- 14:00-16:00 Workshops on problems related to the lectures
- 16:00-16:30 Coffee break
- 16:30-17:30 Workshops on problems related to the lectures
- 17:30-18.30 Presentation of the conclusions from the workshops
- 19:00 Dinner

Wednesday

- 9:00-10:30 *Stein Haugom Olsen* Forms of Knowledge in the
Humanities Disciplies
Theories in Science and Theories in Aesthetic Disciplines
- 10:30-11:00 Coffee/questions and discussion
- 11:00-12:30 *Stein Haugom Olsen* The Concept of a Work: the Object of
Research in Humanistic Disciplines.
Different Theories about the Work of Art
- 12:30-13:00 Questions and discussion
- 13:00-14:00 Lunch

Wednesday (continued)

14:00-16:00 Workshops on problems related to the lectures

16:00-16:30 Coffee break

16:30-17:30 Workshops on problems related to the lectures

17:45-18:30 Presentation of the conclusions from the workshops

19:00 Dinner

Thursday

9:00-10:30 *Stein Haugom Olsen* History, Artist, Work, and Understanding

10:30-11:00 Coffee/questions and discussion

11:00-12:30 *Stein Haugom Olsen* Project and Method in
Humanities Research

12:30-13:00 Questions and discussion

13:00-14:00 Lunch

14:00-16:00 Workshops on problems related to the lectures

16:15 Coffee break

16:30-17:30 *Stein Haugom Olsen* Validity and Reliability Value-judgments
and Their Role in Humanities Disciplines.

17:30-18:30 Workshops on problems related to the lectures

19:00 Dinner

Friday

- 9:00-10:00 *Birgit Cold and Halina Dunin-Woyseth* The Landscape of Architectural Research.
- 10:00-10:30 *Gunnar Parelius* What Stories can the Architect tell?
- 10:30-11:00 Coffee/questions and discussion
- 11:00-12:00 *Christian Norberg-Schulz* The Phenomenological Mode of Understanding.
- 12:30-13:30 Lunch
- 13:30-15:00 *Staaale Sinding-Larsen* Architectural Iconography
- 15:00-15:30 Coffee break
- 15:30-17:00 *Karl Otto Ellefsen* A Study of Modern Norwegian Town Planning. Some Methodological Questions
- 17:00-17:30 Coffee break
- 17:30-18:30 Workshop
- 19:00 Dinner

Saturday

- 9:00-9:30 *Eivind Kasa* Architecture as Art
- 9:30-10:00 *Elisabeth Tostrup* A Search behind Words and Drawings
An Approach
- 10:00-10:30 *Bjørn Sandaker* Collaborative Authorship
- 10:30-11:00 Coffee/questions and discussion
- 11:00-12:30 Summing up
- 12:30-13:30 Lunch
- Departure

MATTHIAS KAISER

*Socrates and a Sophist
amongst architects and other strange creatures*

This was a stage I entered hesitantly and with severe reservations: Back in 1992 Halina Dunin-Woyseth, together with Stein Haugom Olsen, asked me to contribute to a course for the doctoral education of architects, to be held at the Lifjell hotel in the Telemark region of Norway. The assumption was that me being a philosopher of science, having studied the multiple ways of scientific reasoning both systematically and historically, could contribute something useful to enlighten the students. But what would that be? In the end I think it was the attractions of the hotel and the nice landscape around that made me accept the invitation. I had absolutely no clue what to tell the students, what their background or training prepared them for, or what their projects were. So the — unimaginative — strategy was to talk about what I always talked about and leave it to the audience if they could make something out of it. Little did I know about the high expectations and the high threshold of acceptance that accompanied my lectures and this whole enterprise, the first introductory course for doctoral students at the Oslo School of Architecture and Design (AHO).

I was taken aside by Halina¹ before the meeting and informed about a particular challenge. In the audience there was Christian Norberg-Schulz. Yes, I had heard of him, and recalled his, as far as I was told, international reputation based on his now classic work on *Intentions in Architecture*. In effect, Halina gave me something along the lines of the following message: Nobody will say a word until he (— or should I write He? —) has approved of the philosophy that I was about to present. I was given to understand that Norberg-Schulz, through his encounter with philosophy and philosophy of science during his stay in the USA, held some strong convictions on some of the subjects that I was to talk about and that so far these convictions went basically unchallenged within the walls of the AHO. *Cuius regio, eius religio!* But, she said, keep your head up and do not be afraid. And: Good luck!

So equipped with this behind-the-scene introduction by Halina, here I went on stage in front of a public where virtually everybody had an opinion about what was essential to know for the successful writing of a doctoral thesis within the wider field of architecture. I do not recall everything I said during these lectures. I guess it was quite a mixed bag of philosophy and

¹ Hereafter I shall refer to her only by her first name. This seems only natural: because she is a personal friend of mine now, because virtually everybody at AHO refers to her on a first-name basis, and because this text is a contribution to her Festschrift.

was occupying me at the time. I do remember, though, that among others I talked about my historical case study on plate tectonics (*notabene* — to students of architecture!). I came to the point where I mentioned my theory of scientific phenomena. Phenomena are not something that are simply to be found out there in nature, but they need to be constructed by a process of abstraction and idealisation from empirical data. They are the result of a process of extracting useful information out of something that is given. In a way, they provide a “meaning” to the external world. And they form the basis

It was at this point that Norberg-Schulz finally entered the scene. He wanted to know more about these phenomena. This was not something he was taught when he studied the philosophy of scientific reasoning in the States. What happened to observation and theory? And he added some names and books and theories of which I remember little. Could I please explain further? And so I tried to satisfy his curiosity about my concept of scientific phenomena and what role they play in the total web of scientific reasoning. Then Norberg-Schulz explained his theory of the *locus*, the place (“sted”) and its role for architectural theory. Would I conceive of the place as something akin to a phenomenon?

I do not know if I really perceived at that point that everybody present in the room held their breath or if that is only a construction of my imagination in hindsight. But I did sense that the moment of truth had finally come. So I weighed carefully all sides of the argument and after some deliberations concluded that, yes, I believe the notion of a place could be called something akin to a scientific phenomenon. It would provide for an interesting starting point of scientific theorizing. Norberg-Schulz smiled, nodded approvingly, and rested his case. My philosophy was OK after all. *Quod erat demonstrandum*.

Undoubtedly, this was my rite of passage into the community of architectural thinkers. The biggest smile of all was on the face of Halina. The road was paved for letting the free discussion take its course and for further pursuing the task of giving content to a useful and relevant course for doctoral students at the AHO.

Of course, the whole significance of what I said dawned on me only later, and, of course, it was in discussions with Halina that I realized the potential import of my concept of scientific phenomena. Halina was telling me about the “making professions”, a term I had never heard before, and the struggle to work out a disciplinary identity for them, a “making discipline”. All my sophistry derived from my study of plate tectonics did not prepare me for such a challenge, it did not even provide me with a framework for how to approach such a task. But here I was told that I could relax; I had already something in store, i.e. the concept of phenomenon, that could provide for an opening and that might turn out useful when the students think through their planned doctoral projects. In later years there were many student

presentations where this notion was cited as a reminder to the students that serious scientific work had to go into defining a basis for what architectural theory actually wanted to relate to. There is no unproblematic seeing of forms and space. Systematic effort, and indeed hard work is needed in order to transform the given into architectural information. *Per aspera ad astra*. Yes, I was a user of the concept of phenomenon before these encounters, and yes perhaps I had already glimpsed some of its relevance for systematic thinking in the scientific vein, but it was Halina's questioning and the context to which she applied my ideas that made me understand what I was actually thinking. When addressing the question of how to transform a *making profession* into a *making discipline*, the question arises with full strength what the phenomena are that the discipline defines as its core area of theoretical interest. Also the question arises with what methods and approaches such a discipline could go about to abstract such phenomena from the myriad of sensory experiences.

And this is basically the story of my encounters with Halina: I throw in some of my sophistry and see how it fares among these strange creatures without a clear disciplinary identity. Then Halina takes up these concepts, asks questions from her wide field of knowledge and probes the concepts against these new contexts. Actually she rarely makes any strong claims about any of this, and she seldom provides any definite answers. I get the privilege of drawing the conclusions, feeling so much wiser afterwards, and being reassured that this is really what I meant all along. In reality, a substantial bit of learning has occurred through the intelligent questioning of how this could prove useful in helping to define a discipline or academic identity.

This is what we philosophers call the Socratic method: the systematic questioning of the Sophist, and the provision of new and unusual contexts where the concepts under discussion have to show their strength. And it was through Socrates that the discipline of philosophy got defined. For me Halina is the Socrates of architecture and of the bunch of *making professions* that follow along the way. It is a good piece of luck for any Sophist like me to encounter such a true Socratic spirit, especially if it is accompanied by her smooth, always smiling and soft manner of argumentation through questioning and providing context.

The story I described above is indicative of what happened to me many times later in subsequent lectures. Take my lecture on the scientific revolution and the gradual institutionalisation of "natural philosophy" (i.e. the new empirical sciences). Here I usually describe how institutions were created, e.g. the scientific academies, that introduced new standards for the production and dissemination of their knowledge. The norms of public knowledge and criticism are particularly important. In essence it says that any piece of new knowledge is to be subjected to peer review and criticism before it is accepted as a contribution to the reservoir of shared knowledge and insights. There

is no property tag attached to pieces of knowledge, they are all community property. Science is “communist” in the words of Robert Merton. It is assumed to be for the benefit of all to gain access to the latest insights, and to direct one’s own contribution as a piecemeal addition to this common pot of knowledge. The new “natural philosophy” adopted the notion of standing on the shoulders of giants, and thus one tried to signify that any true insight will acknowledge all the previous successes and insights while at the same time adding a small piece of novel insight. In effect one will thus have moved the borders of one’s horizon a bit further.

Usually I would then add some reflection on present day science. For instance, that this well established norm now seems threatened by changing modes of producing scientific knowledge where the communist perspective is gradually replaced by a market perspective. Knowledge is becoming a good on the market, and various forms of intellectual property rights and processes of prolonged secrecy create highly selective access to new knowledge.

True enough, perhaps. But talking and working with Halina made me realize how easily I seemed to overlook one of the most essential features of this traditional norm: it is the norm that creates disciplinary identity. Without public knowledge and the idea of piecemeal improvement there can be no dynamic and well delineated scientific discipline, and — one may add — no “making discipline” either. Only through a shared heritage of knowledge can one gain the inter-subjective perspective that gives direction to one’s own work. Only through submission to inter-subjective standards of criticism can one receive the acknowledgement to have contributed with new insights to the community of peers. Scientific disciplines and indirectly the knowledge they administer are social in character. Such a social structure is not sufficiently characterized by the “subject matter” of its interest, be it falling apples, finches, or buildings, as Thomas Kuhn had already realized. Disciplinary identity comes through sharing and acknowledging a common tradition of knowledge and criticism. This was essential during the Scientific Revolution and it seems it must be important for any activity that struggles to establish a similar disciplinary identity. Sectarianism, re-inventing the wheel or the belief in having the final word on a matter is never conducive to building a disciplinary identity.

It was in the context of sitting with Halina through sessions with doctoral students that I realized this dimension of public knowledge and criticism. Not that I came to it all by myself, simple an insight as it now seems. Were it not for Halina’s project of the *making disciplines* and her putting in the right questions at the right time, i.e. acting out the Socratic spirit, I might have lived with my sophistry without realizing this fundamental — and simple — insight. Now there is an assignment in the doctoral education that explicitly asks the students to reflect on traditions of academic discourse and criticism

relevant to their own projects. This way their doctoral projects become tied into a frame of reference that provides orientation and dynamics.

Or take the concept of alternative forms of knowledge, another example of insights where I needed some Socratic birth-help, well provided for by Halina. Over the years when I was teaching at the AHO I encountered diverse claims of sources of knowledge that escaped the scientific expertise. There was talk about tacit knowledge and talk about practical knowledge and talk about folk knowledge, all supposedly in stark contrast to scientific expert knowledge, but remaining largely undifferentiated and unspecific talk. I was – as I still am — sympathetic to these claims. For some of these claims I had examples from the literature ready at hand. But two things escaped my attention for quite some time: First, these concepts of alternative knowledge sources circumscribe an area that is especially important for the *making disciplines*. Their anchor in the *making professions* makes it necessary to delineate how they combine to a knowledge pool that can capture the essentials of praxis. Second, if these diverse knowledge sources are to play a role in disciplinary research, one needs to clarify whether or not there is some rational basis to them or not. If all they have going for them is that some people think they are genuine knowledge, then they are a poor backing for an emerging discipline that struggles for recognition and identity.

When I finally had the chance to put my ideas into context, i.e. when writing my textbook, it was also the project of the *making disciplines* that structured my effort. And the sparring partner was Halina in our sessions with the students. I could test-run my ideas with her — and the students — and receive feedback. In the end I think things fell into place not so much as a result of a great intellectual effort on my side (which most probably would have been in vain anyway), but rather as a natural result and prolongation of all these discussions about projects that in one way or the other drew on concepts of alternative knowledge sources.

By now there have been many students who have passed through the doctoral education program at AHO, and there have been innumerable sessions where I sat with Halina and discussed student presentations. From my side of the table it is a striking experience as to how convergent her comments and mine have become. I look at a text and mark things like e.g. style of presentation, only to hear that the first thing Halina takes up is precisely the style of presentation. Or we both remark on the difficulties of moving beyond the *status questionis* to the identification of a concrete problem that is “researchable” within a realistic time-frame and clearly identified methods. There is by now much less uncertainty about what it takes to build up this disciplinary identity. Actually the building of the *making disciplines* is well on its way, at least within the bounds of Halina’s kingdom. A continued and dedicated Socratic effort has gone into preparing the ground for research

that is reflective on its traditions, inter-subjective in method and argument, and still embedded within criteria of relevance from the making professions. Those who have passed through the program with the title of doctor at the end are the best proofs that the aims are realistic. They are also proofs that the path that Halina designed towards this end is — at least in principle, if not in actual practice — the right one.

What does a Sophist do when sitting in a seminar with the true Socrates of a new *making discipline*, of novel and enriching academic discourse? Well, after all these years the Sophist has learned that he has to sharpen up if he wants to hang in there and not loose track of where and how the disciplinary community is moving. There is more and more “sophisticated” thinking all around. If that is confusing, just turn to Halina, and let her Socratic mind provide some context, ask some questions, and tie some loose threads. In the end every true Sophist will feel that this, i.e. the conclusion at which one has arrived, is actually what he meant all along, and that this is precisely what the common disciplinary effort has to deal with. I believe many former and present students have joined me in the ranks of being such a Sophist.

But the Sophist has also learned to relax. True, mere sophistry does not gain any real ground in the long run. That might easily be a frightening thought for the Sophist, as it potentially affects the self-image of the Sophist. But then he learns that a true Socrates does not despise or belittle the Sophist. Indeed, the dialectics of the Socratic spirit depends on the Sophist. Here is one who actually appreciates the Sophist! Once the Sophist has realized this, he can actually behave as an ordinary human being and have some intellectual fun and pleasure. So, when Halina and I sit through our seminars there is always also an undercurrent of play and joy. Sometimes — even in *medias res* when discussing a student paper — we throw Latin quotes or proverbs at each other, in recognition of our common “European” education where the classics still counted for something. *Quidquid Latine dictum sit, altum videtur!* Of course, her Latin is invariably better than mine even though all my brain cells are on high alert whenever she has one of those classic excursions.

And then there is the end. We pack our things, say bye bye to the students, and fetch our calendars in order to fix the next sessions. How about some day in week so-and-so, Halina? Impossible, I am in Tokyo then. Could we make it some time between my trip to New York and this conference in Genève which I must attend? — This is just what I need to take off. New York you say? Do you know this Italian restaurant where all the waiters are singers at the Met? The food is lousy and cold when you eventually get it but the atmosphere and the singing is impeccable. *Et cetera*. — And then I look at my calendar. Ah, Lisbon and Bangkok coming up, but before the Rome meeting we should be able to squeeze in a date! Of course, the mention of

Bangkok sets Halina into motion, and here we are, babbling about all those exotic places that fascinate us and to which our professional activities lead us. And this to such an extent that the differentiation between working time and private time is not only blurred, but virtually non-existent. Sometimes I think that the probabilities that Halina and I pass each other somewhere in mid-air must be larger than the probability of meeting each other at the National Theatre Station in Oslo, waiting for the same train home. Swisjjj.... here is Halina flying South; swisjjj here is Matthias flying North! There was a time in history when the Sophist and Socrates had well-defined and narrow arenas for their activities, the agora and the academia. Now we are the globalized Sophist and the globalized Socrates.

The travelling circus of academics who perform their show in front of various and shifting audiences at places that my children have difficulties of finding on the globe. I have no doubt that sometimes during these occasions the Sophist is mistaken for Socrates, and Socrates is mistaken to be a Sophist. What else can you expect from a travelling circus? *Sic transit gloria mundi!* But there are those of us who are in the know: me, the students, the newly created *doctores*, the colleagues at AHO, and assumedly virtually everybody who is personally acquainted with Halina. We can tell the difference! We know because we all have benefited from Halina's Socratic mind and intellect. It is about time that somebody stands up and calls for a celebration. And even though we know about the owl of Minerva spreading its wings only after the falling of dusk, and the falling of dusk may not have come yet for the *making disciplines*, now seems about the right time to do so! At least before we all get onto another plane and are off conquering a new academic white spot on the map. *Acta est fabula.*

NIELS ALBERTSEN

From antagonism to agony
On the politics of making architects research

What an endeavour to undertake: making architects research. Why on earth should someone risk her powers of life for such a contested business? Just look at what rubbish one must read from the architectural profession after several years of engagement in the matters of architects' research. To celebrate the 40th anniversary of the Aarhus School of Architecture the editor of the Danish journal of the profession found himself called to write the following:

It is in a way understandable that the schools of architecture seek to enter the warmth of science; and science is so much easier to relate to than the more diffuse concept of art and architecture, which cannot be weighed in kilos of peer-reviewed publications. Jan W. Hansen¹ finds that 'learning by doing' (in English in the Danish original) is the only way to become an architect.

Work with projects and discussions with teachers is the most important tool in the education, and if this tool is undermined, the proper *raison d'être* of the schools is threatened, namely the ability to educate skilful architects. Science is, and remains, supporting disciplines to the proper development of projects, even if one research centre after the other is launched. For one cannot research oneself into being a good architect. If such a delusion should catch the architectural educations and their ministry one could say [...] that some schools [...] cannot see the forest for the trees.

Finished with forty. (Dirkinck-Holmfeld 2005: 5).

What a happy anniversary greeting for the Aarhus School of Architecture to receive from the profession (and indirectly from one of its employees)! As if anyone was talking about, or trying to, make an architect by turning him or her into a researcher. Anyone just faintly engaged with architects' research would know how to reduce the entire above nonsense into its scattered, incoherent pieces. I shall not waste any more time/space on it here.

What makes this example interesting, however, is that it shows what a contested field within the field of architecture, architects' research still is in 2005. What is contested is not only the 'how' and the 'what' of architects'

¹ Jan W. Hansen is a professor at the Aarhus School of Architecture

research; this would not be very remarkable, for such questions are contested in most fields of research. What is remarkable is that it is the very existence of a field of research within the field of architecture that is contested. A real and good architect makes projects, not research and by implication: an architect who is a good researcher will educate bad architects!

In my opinion one should neither expect, nor wish, conflicts between, let us just say project and research, to leave the field of architecture. Also in the future some architects will be better as makers of projects and some will be better as makers of research, and some will be good at both or not so good at either. There will be political conflicts of interest within the field of architecture, and especially within the subfields of architectural education and research, between people in these different situations. At present these conflicts still can take such antagonistic forms that one is reminded of Carl Schmitt's use of the friend/enemy distinction to define politics. Here the goal of one part ultimately is the annihilation of the other (Schmitt 2002). In the above quote, the *raison d'être*, that is the life of schools of architecture, is seen as threatened by research. If this really is what is meant, then research should be annihilated, defeated or at least, and as mentioned, subordinated to the project, as a slave, one must presume.

However, political opposition does not have to take such antagonistic forms; it can also take the form of agonistic relations among "friendly enemies", as argued by Chantal Mouffe (2000). Friendly enemies recognize each other as legitimate adversaries. This seems in many ways to be the actual situation, not least of all in the spheres of formal politics at the schools, where the strengthening of research is broadly supported. Which of course is a reason for trouble for the antagonists. And with good reason since the prospect for the future seems to be a movement from antagonism to agony.

During the next 10 years the generation of architects educated in the 1960s that knows how to make projects but not much, if anything, about how to make research, and who define their disciplinary and professional identity in this way, will move into the cohorts of pensioners. In the same period a new generation of architects, that is able to make both projects and research, and to move from one to the other and back again or to combine them, some with more and some with less ease, will take over the schools. This will annihilate the antagonism, but not the agonism between project and research, and nor should one wish it to do so. On the contrary the point is that the making of projects and the making of research should coexist within the schools, with their associated and different interests generating friendly political conflict over resources and ideals.

This is still not the situation today. So, to return to my initial question: why on earth use good powers of life in a battlefield where even the legitimacy of your endeavour is contested? Well, one might reasonably say, it is in the

hope that the expenditure will not be in vain but contribute significantly in making the above future come true. This at least counts for myself, and I am quite sure also for Halina. But more is needed. You need to have a passion for research, to be engaged in questions of research, to be captured by what Pierre Bourdieu calls the *illusio* of research (Bourdieu 2001). This also counts for myself and, as I know from almost 15 years of experience, also for Halina.

In the early 1990s Halina and I became heavily involved at our respective schools in establishing research education for architects. We first met in Aarhus at a meeting with representatives from most Nordic schools of architecture. The purpose was to establish an overview of the situation of research-education at the Nordic schools of architecture. The conclusions drawn from the meeting were that the research environments at many schools of architecture were small and weak, that the political prospects for significantly changing of this situation from within the schools were insecure, and that therefore one important political strategy to ameliorate the situation would be to join forces at the Nordic level. Halina strongly supported this idea, as did I.

Out of the meeting came a series of three Nordic research courses for architects. The common theme was “Architectural research between art, science and practice” and the focus was on the basic problems of architectural research as made by architects. The first course took up the question of the similarities and differences between architects’ research and architectural practice (Bergen 1993), the next one looked at architects’ research in relation to the various research disciplines (Aarhus 1994) and the final one entered the problems of architects’ research as seen in the context of architecture as an art form (Helsinki 1996).

Throughout this adventure Halina was highly engaged in the Nordic project and she became even more of a key person when it came to the question of continuing the project. Without Halina’s driving force I am quite sure that the network consisting of herself, Jerker Lundequist at KTH in Stockholm, Anna-Maija Ylimaula at UIAH in Helsinki and myself in Aarhus would have never gathered together, nor been able to carry through the next adventure, the series of courses which we, following Halina’s suggestion, called the Millennium project.

This program consisted of four courses held in each of the four Nordic countries. The first three courses were structured around three design scales; the fourth one endeavoured to bring the previous three together under the environmental dimension. In Oslo (1999) it was the scale of the object/product, in Stockholm (2000) it was the scale of the building, in Aarhus (2000) it was the scale of the city (and the question of cross-disciplinarity), and in Helsinki (2001) environmental integration.

In December 2001 the four of us, invited and carefully directed by

Halina, gathered together in Oslo to reflect on the Nordic activities. As I recall it, we found that our politics of Nordic collaboration had made a small but significant contribution to the strengthening of the research environments at the Nordic schools since the first course in 1993. We now considered these environments fully able to take care of the basic research education themselves. Our network should therefore focus on questions of central interest to architects' research that we could not expect to be taken care of at the schools. We decided to deal with the question of transdisciplinarity, i.e. the type of research and production of knowledge that takes place on the border, not only between different research disciplines, but what's more, on the border between disciplinary research and professional practice. Once again Halina was the energetic driving force and took the lead by organizing the first Nordic research course on "Transdisciplinary Research and the Making Professions" in Oslo in September 2003. I must admit that I still owe her the next course.

Through all these activities Halina has been a steady driving force, knowing what it takes of energy and struggle to make the *making professions* into makers of research. Also, knowing how to work as a real politician, keeping the long-term goal in mind despite temporary setbacks or side trackers. In this regard I cannot but admire her. That I have also met a person with whom I feel that I resonate terribly well is only so much the better.

Today, one of the outcomes of 15 years of the politics of making architects research is, I would say, that research, after all, is rather well established as a legitimate activity within the schools of architecture. Some, like the above mentioned professor, stills rejects such activities as really legitimate parts of the field of architectural education, but such people are, to my knowledge, rather few and without much political power within the institutions.

This does not mean that contests on how and on what architects should be making research have been settled. This will never, and should never happen. Struggles over resources will also continue. So there is still much trouble to get involved in for people captured by the *illusio* of research, even if intra-institutional legitimacy does not seem a serious question any more. The legitimacy within the whole field of architecture and the profession at large, however, still seems fragile, and worth a lot of pro-active struggle. I know of one person who cannot stop using her powers of life in such a fight.

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JERKER LUNDEQUIST

*Some comments on Halina
and the making professions*

I met Halina for the first time in March 1992, at a small conference at the Aarhus School of Architecture. The conference was about research and research education in architecture and other at that time depressing matters. The purpose of this conference was to initiate a Nordic network of cooperation in research education between the Scandinavian schools of architecture.

At that time the Swedish schools of architecture already had about twenty years of experience of research education, but the results of our research education program had been less than satisfactory, and we therefore had begun redefining and rethinking the aims, goals and methods of our research education system. Especially at the Stockholm school of architecture we were at that time heavily influenced by the philosophical tradition after Wittgenstein, e.g. the ideas about practice oriented science which had been proposed by Peter Winch and Donald Schön. That is, I was influenced by Wittgenstein et al., and since I was the member of the working staff who was responsible for the research education at our school, I did my best to implement these ideas.

It was heavy work, and I felt very lonely most of the time. Not because the other professors at our school were opposed to my ideas, but because they did not understand them — or just didn't care — I am still not sure which.

Therefore I was almost overwhelmed with joy when I came to Aarhus and met people like Halina and others, who not only fully understood what I was talking about, but who had similar, sometimes better ideas about what a research-based education was all about and which problems we ought to try to deal with.

So, this was the beginning of a long love story between Halina and myself (all platonic of course, but as we all know, spiritual love and intellectual understanding is a lot less tiresome, expensive and time consuming, and more rewarding than the other kind of love). Anyway, since our first meeting in Aarhus we have cooperated in a multitude of courses, seminars and other academic matters, and it has been a pure joy all the time.

The background to all this is a long story which follows below:

The first organized architectural research education system in Sweden started in the beginning of the 1970s, and already from the beginning its

results were not satisfactory. The system was expensive, inefficient and was troubled by several problems of quality both when it came to the methods used and the results presented. The main reason for this was that the system's founding fathers make the mistake of taking over methods, theories, concepts, models and other intellectual tools from the more established social sciences and applying these tools on the problems of architecture, without any reflection on the specific conditions of architecture and architectural research.

"As a consequence of this", Halina writes from her obviously similar experience (in *Four Faces*, Stockholm 2005), "PhD students were expected to 'renounce' their professional backgrounds as designers and architects. In the doctoral theses of this period it is difficult to trace the awareness of a scholarly stance of the authors. Consequently, the 'dialogue' between architectural research and various academic disciplines, addressed in order to discuss architectural matters, lacked, on the part of architecture, an awareness of its own intellectual identity. There were not many examples of using the newly acquired doctoral knowledge and insight back in the professional practice. Most often, doctoral research in architecture and design could be regarded as bleak imitations of humanistic, social and technological research."

She is so right! Architectural research is, it might be argued, a specific kind of research that by necessity has to be pragmatic, e.g. practice oriented, and closely linked to the needs of the architectural profession. Architectural research is, by necessity, a concept that refers to a science that aims at articulating a social practice by clarifying the concepts that are crucial to this practice. Another way of expressing this is, according to Halina, that architectural research is one of the *making* sciences.

The architectural profession differentiates between theorists (which means architects who research, teach, investigate or administrate) and practitioners (who design buildings and urban structures). But, the word practitioner actually refers to someone who applies, or practices, theoretical knowledge on a practical problem. So, who is a practitioner, and who is a theorist? One answer might be found if we look at the labour market in Sweden: one third of the architectural profession works with physical planning and urban design, one half with building design, and the rest with administration, research and teaching. The individual architect also often shifts between the role of practitioner and the role of theorist during his or her career. The labour market is, alas, not reflected in the undergraduate education at the schools, which is almost totally focussed on providing basic skills in design.

The main difference between one who possesses practical knowledge and one who works with theoretical issues is, I think, that the practitioner wants to know if X really is going to work (*that* X is going to function), and that the theorist wants to know *why* X functions. The practitioner uses all available

knowledge, theoretical, practical, aesthetic, ethical, in order to arrive at a solution which is useful to the clients and the users, and to society in general. The theorists (and a lot of consultants) are there to provide him with at least some of the information and knowledge he needs, but it is up to the practitioner to imbue all this with some kind of unity. The practitioner's knowledge therefore must be based both on scientific theoretical knowledge and on proven, established and reliable professional experience.

It is often stated that architects are people who resolve problems for their clients, but in reality their work is more about managing problems, that is, identifying, clarifying, visualizing and adapting the client's problems, something which involves uncertainty and clashes of values. The architect's design work therefore involves a systematic reflection over this field of problems, where the architect uses all available knowledge, scientific or otherwise. Scientific reflection certainly is of use, but only as one part of the systematic reflection needed.

Anyway, the Nordic network that was founded in Aarhus in 1992 has co-operated since then, and has organised a series of Nordic PhD-courses and seminars. As far as I know, these courses have been very successful and very appreciated by its participants. They have also generated a lot of hard work for the poor sods that initiated, planned and led these courses, and I am afraid that they (the courses I mean) are going to disappear with the people who carried the burden of making these courses become real.

We will see! But so far I have not seen a new generation of research education tutors like Halina (and me and several others) who are willing and eager to take over. Personally I think that this might become something of a disaster for the research education in most of the schools of architecture in Scandinavia, since each of the schools is too small to be able to provide a research environment that is varied and rich enough for a research education on an acceptable intellectual level. Even cooperation inside each country on a national level is not enough, since each of the Nordic countries is too small on its own to be able to provide the intellectual environment that is needed. United we stand! Divided we fall!

The new generation of supervisors is well advised to have a closer look at the last big effort from the Nordic network, which was initiated and planned by Halina (with some little help from the other members of the network. This Millennium Programme begun 1999 and ended in 2001. It was based on the experience from ten years of debate at the schools of architecture and it sought some new perspectives on *making knowledge* with relation to the architectural design practice. Four courses were given, in Oslo, Aarhus, Stockholm and Helsinki.

The final conclusion of the Millennium programme might be summarized: That architectural research must be firmly founded in architectural design

practice, its methods, means, concepts and other tools. That architectural research must take its place as one of the partners in the cooperative, multidisciplinary new mode of knowledge production that is emerging right now, as one of the most important development forces in the emerging knowledge society.

Another conclusion is that architecture is not fine art, it is art put to practical use, it is design. Architecture is one of many design disciplines, together with industrial design, lighting design, acoustic design, graphic design, IT-design, urban design, and so on. The architect is neither prophet nor engineer, nor social scientist. He or she is a hardworking member of a design team. And this team takes most of the knowledge from structured and criticised experience.

Finally! These are some of the ideas that I and Halina and other members of the network have discussed and developed during our many years of friendship. Other, more private details, I prefer to keep to myself and those who were present. Since Halina does not smoke, drink or use foul language in any of the many languages she speaks, I can assure the reader that everything was above board.

JAN MICHL

Making no little plans

Perhaps the best way to begin is to begin at the beginning.

I saw Halina for the very first time at a design conference in June 1990 in Malmö in Sweden, some six years before the Institute of Industrial Design of which I have been a part, joined the then Oslo School of Architecture (AHO). Being slightly late for the conference opening I noticed another lone late-comer approaching the registration desk: an impeccably dressed, black-haired woman with a presence and a mild smile, partly friendly and partly remote, all characteristics that I, and probably many others too, later came to associate with Halina. (What I, and others did not come to associate with Halina, on the other hand, is being late: she is exceedingly punctual). At the small party in the evening of that day I had a chance to make the acquaintance of this person with a presence. Controlled, but radiating with energy and full of plans (as always, it turned out later) she revealed, that she had just recently been put in charge of research education at the AHO. The next day she presented a very impressive paper about ways to improve urban environment, "Quo vadis, urban form: Genius loci versus international non-place realm." It was a presentation showing both her theoretical probity and her striking familiarity with non-European urban contexts, both American and Asian.

Over the next five years or so we had only sporadic contact. But this changed when the Institute of Industrial Design left the National College of Arts and Crafts (SHKS) to which it had belonged, in order to join forces with the AHO, Halina now began expanding the scope of doctoral education, which she in the meantime had got up and running, to include the field of design. Halina then approached me with the offer of coordinating the design parts of the doctoral courses. When I think now of Halina's strategic concept of AHO's research education, I come to think of an adage attributed to the 19th century Chicago architect and city planner Daniel Burnham, a maxim which could well be her own: "Make no little plans." Of course, Halina was educated as a planner herself, and had practiced in the profession, taught the subject, and written about its problems, but essentially she appears to have been made that way from the nature's side.

Halina's strategic concept for the new doctoral education at AHO was to provide it with a firm foundation, and at the same time, to neutralize the potential inclination on the part of the Norwegian academic research establishment, to perceive a new doctoral education at a professional school

educating architects and designers as a rather “light-weight”, if not a second rate, affair, compared with the research traditions practiced over many generations in the university context. In order to achieve both of these aims she chose a) to bring in, as far as science education and research philosophy was concerned, two highly profiled personalities from the University of Oslo as AHO’s adjunct professors, and b) to base the architectural research education proper on invited courses conducted by academically respected international scholars.

As to my own subsequent contribution to design research education at the AHO, it followed Halina’s concept, and practice, of inviting international top-notch researchers from the field to conduct doctoral education classes. Altogether, we arranged three sets of design related doctoral courses, between 1998 and 2002. At this time I also cooperated with Halina on the preparations and various aspects of her inter-Nordic Millennium Project, and on the *Millennium Reader*, an AHO publication, a collection of lectures previously delivered by invited scholars.

The groundwork for the first doctoral education courses to include classes on design history, theory and criticism, planned for January 1998, started shortly after the Institute of Industrial Design joined the AHO in 1996. Here I had a completely free hand in the choice of contributors. The organizing principle, taken over from Halina’s previous architecture-related classes, was to offer our doctoral students a week long course divided between two visiting lecturers, with two hours of lectures and an hour of discussion both in the morning and in the afternoon.

The first two design specialists we invited, and who accepted our invitation, were both British: Jonathan Woodham of the University of Brighton, and Paul Greenhalgh of the Victoria and Albert Museum in London, both of whom I knew from previous Design History Society conferences in Britain. As to the thematic areas we wanted them to address in their contributions, we specified whether the focus should be on the history, theory, or criticism of design, and suggested some themes, which we knew were within their particular fields of interest.

Jonathan Woodham, professor of History of Design, and Director of the Design History Research Centre, at the University of Brighton, is the author of many academic books on design problems. Shortly before his visit, he published his *Twentieth Century Design* (Oxford University Press, 1997), which has served as a standard course book for many design schools. His most recent publication, in 2004, is his *Dictionary of Modern Design*, (by the same publisher). In his penetrating and amusing course presentations full of both humour and irony, Woodham repeatedly referred to the recent British promotion of the history of design as a subject distinct from art history, a development with which he himself was intensely involved. As Great

Britain was the first country to succeed in establishing design history as an academic discipline in its own right, we later ordered from Woodham a story of this development, a story which, surprisingly enough, had not been written before, and Halina and I included the text in our Millennium reader which we later edited together.

Paul Greenhalgh, the next contributor to the first design course, was at the time the Head of Research at the Victoria and Albert Museum (V&A) in London, the largest museum of decorative art and design in the world. Greenhalgh and his staff at V&A were in the process of planning a vast survey show, *Art Nouveau 1890-1914*, which opened in 2000, and later travelled worldwide, attended by more than one million visitors. The exhibition preparation and the related design historical and design theoretical challenges were the main themes of Greenhalgh's lively, flamboyant lectures. He brought two of his collaborators with him. Ghislaine Wood, an Art Nouveau and Art Deco specialist, and Jennifer Opie, an expert on modern glass design, and both of them had their own presentations. As a result of the success of the V&A exhibition, Greenhalgh later went on to launch his international career as a design school director and administrator. He is currently the Director and President of Corcoran Gallery of Art and the College of Art + Design in Washington DC in USA.

At this time, still making no little plans, Halina originated an inter-Nordic research education cooperation, which she named The Millennium Project. The plan was to have a series of four courses between 1999 and 2001. These were to be run in turn by each of the four existing doctoral education programs at the schools of architecture in Denmark, Finland, Norway and Sweden, taking place in the respective countries, and to be attended by doctoral students from all four countries. The project drew heavily on the personal contacts, which Halina had formed, and the goodwill, which she had earned, through various forms of her previous Nordic activities.

The courses were to be thematically structured according to an ascending scale: first design objects, then buildings, afterwards cities, with ecology as a unifying perspective. After the Halina-initiated Millennium Project succeeded in receiving a grant from NorFA, the course series began in September 1999 in Oslo with object scale, and continued in January 2000 in Stockholm with the building scale, in August 2000 in Aarhus in Denmark, with the urban space scale, and concluded in January 2001 in Helsinki with the ecological dimension.

Halina and I organized the September 1999 Oslo session. The session was divided into two parts, the first presenting problems of science, and of art and aesthetic, and the second, design-focused, addressing the object scale proper. The first section was taken care of by Matthias Kaiser of University of Oslo/NENT, who was by then, holding an adjunct professorship earmarked

for the AHO doctoral education, and Eivind Kasa, associated professor of NTNU in Trondheim. They were to lecture respectively on science and on art plus aesthetics. For discussion of research problems related to the object scale part, we contacted once again the already mentioned Jonathan Woodham of Brighton University in UK and Richard Buchanan, professor and Head of School of Design at Carnegie Mellon University, Pittsburgh, Pennsylvania, USA. Richard Buchanan was one of the three editors of *Design Issues*, an international journal of design history, theory, and criticism published by the M.I.T. Press, and a co-editor of two selections of articles from the journal, *Idea of Design* and *Discovering Design*, both 1995. With his background in philosophy and rhetoric he tended to promote the communicative dimension of design, and was interested in the application of design thinking to new areas of professional practice. Buchanan proved himself to be a master of rhetoric, in addition to being an insightful theoretician of design. At the moment, and in addition to his above functions, he is also the President of the Design Research Society.

The already mentioned Millennium Reader, with the title *Towards a disciplinary identity of the making professions*, which Halina and I co-edited, was issue nr. 4 of AHO's *Research Magazine*, started by Halina back in 1991. Apart from Jonathan Woodham's overview of the development of design history as an academic discipline in Great Britain, it included five other articles by earlier international doctoral course contributors, discussing various aspects of architecture. Also included were summaries of three previous AHO doctoral dissertations, by Bjørn Sandaker, Thorleif Skjønberg and Elisabeth Tostrup. The volume was prefaced by an article written by Halina, with myself as co-author, which we called "Towards a disciplinary identity of the *making* professions: an introduction." Halina's encircling of the notion of *making disciplines* in the text, and our discussions around it when preparing this article made me understand better one of the problems related to teaching of design history. Although we design historians can be pleased that design history has been established as an academic discipline, I still feel we have not fully addressed the fact that teaching design history to design school students is necessarily a different affair from teaching design history to academics. The key difference is that at design schools the knowledge which the students focus on is related to *knowing how*, or to the *making knowledge*, as Halina prefers to call it, while *knowing that* seems to be interesting mainly to the extent it can throw light on the *knowing how*. My contribution as co-author of the article was at any rate rather modest, confined mainly to bringing in insights by Gilbert Ryle and Ernst Gombrich, bearing on the questions of *making knowledge*.

In 2002 there was a new round of courses for AHO's doctoral students. For the design related course in April we succeeded in bringing in another

British design historian, John Heskett, the author of the first standard design history book, *Industrial design*, published for the first time in 1980. This was a book I knew well as I had used parts of it to build my lectures in design history and theory for the undergraduate industrial design classes, which is where my ordinary duty has been. John Heskett was at the time Professor of Design at the Institute of Design, Illinois Institute of Technology in Chicago, though I had met him, just as I had met Woodham and Greenhalgh, in the 1980s at the British Design History Society conferences. He was educated at the London School of Economics, and had therefore a more pragmatic and commonsense view of design, than other British design historians of the time, who had almost invariably started as art historians. Heskett captured his audience with his worldwide design knowledge and impressive pedagogical ability. At the time of his Oslo lectures, his most recent book *Toothpicks and logos: Design in everyday life*, was just being published by Oxford University Press.

The other contributor to the April 2002 design course was Jules Lubbock, a professor at the Department of Art history and Theory at the University of Essex, in Great Britain, an all-around historian, at home in the fields of design and architecture, as well as fine arts. In 1995 Lubbock published his wide-ranging book *The Tyranny of taste: The politics of architecture and design in Britain, 1550-1960*, which endeavoured to show how British architecture and design had been shaped by economic and moral concerns. I found Lubbock's discussions of design issues and dilemmas unusually straightforward and extraordinarily free of political correctness. Lubbock was also known as co-author of a history of British architectural education, *Architecture, Art or Profession?* As architecture critic of the New Statesman magazine, and, for a period, a speechwriter to the Prince of Wales, he helped promote the policy of New Urbanism, highly critical of the modernist principles. In his lectures he presented a fascinatingly close look at various aspects of the British design debates over the past 250 years.

These arrangements, together with a volume of AHO *Research Magazine*, have been the fruits of my six years of collaboration with Halina. From their start in 1998 and prior to the pending redesign of doctoral education at the AHO, (commenced in 2004), the doctoral courses on design issues have brought to AHO doctoral students, seven different design specialists, most of them highly profiled personalities in the field within the English speaking world. They have provided the students with extensive lectures and conducted absorbing discussions about various research problems in design history, theory and criticism.

For me all of this was a very instructive experience. However, none of this would have been possible without Halina's master vision. She is very good at making no little plans.

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LIV MERETE NIELSEN

On the way to making scholarship

I first met Halina Dunin-Woyseth in 1995 at a meeting for new doctoral candidates at the Oslo School of Architecture and Design (AHO) where she spoke about the AHO doctoral programme. To me, she stood out as a strong leader of a programme marked by dynamic growth. I was in attendance as an applicant to the programme on that occasion. This meeting constituted an historical event in so far as it was the first time a formal doctoral programme was open to practitioners within the field of art and design education in Norway. Halina was the door opener. Moreover, her openness to other professions has marked her work as long as I have known her.

Architect in Several Disciplines

The time I spent as a doctoral student under Halina's leadership was a most positive experience. The learning was organized according to what is called the 'Roskilde model', which, briefly speaking, follows the path of organizing doctoral education through intensive gatherings of 3-to-5 days' duration with well-known international lecturers participating. My experience of being a student in this model was a true pleasure. As a group of scholars following a common course of studies over a period of two years, we had the possibility of developing our level of scientific reflection and the time to mature. To me, this is what doctoral education should be, however contact with other doctoral students in other disciplines made me realize that this was not always the case. It came to light that AHO had come a long way in the development of a doctoral curriculum that weaves the members of a group together over time. In many ways AHO had a 'best practice' doctoral programme in relation to the rest of Europe. I am most happy to have been part of this.

It is extremely clear that it was Halina Dunin-Woyseth who has been the main and central architect behind the building up of the doctoral programme. Not only did the programme have a good structure with conscious thinking about the building up of the curriculum, but it also possessed a superior strategy for organizing so that practitioners — *making professions* — in the fields of art, design and architecture would develop their research in their own area of specialization. Her strategy has been highly fruitful and even decisive for developing the field from being 'a field of practice' to being 'a field of inquiry'.

There is a common view of scholars in many disciplines that in order to

develop a field of practice towards a field of inquiry a knowledge base for such a development should be grounded in this practice's *History, Theory and Criticism*. The articulation of history and the development of theory are intrinsic to the very nature of research, but it is just as important to develop a body of researchers who form a 'critical mass' in the research that is developed. The production of 'doctors' and doctoral dissertations develops both the theory and 'critical mass' of a field. The field also requires arenas where it can exercise its critical faculties through publications and conferences. It takes about ten years to develop a field of research and it requires some strategy. Put somewhat metaphorically, generals begin with the recruitment of two soldiers, the soldiers are educated to become sergeants who later become generals who once again recruit soldiers...

Showing the Way

It was in October 2003 at a conference in Tsukuba, Japan, on *Doctoral Education in Design* that Halina and I understood for the first time how seriously our roads were converging in a common interest to build up education, on both the epistemological and ontological levels. Halina's work of building up doctoral education in architecture and design dealt more with design education and curriculum than she herself realized. Halina's development of theory linked to *making professions* and *making disciplines* became key concepts (Dunin-Woyseth and Michl 2001) for understanding the position practitioners have in relation to the established disciplines and the specific strategy that must be chosen in order to develop research within the field.

In the abstract for our joint article from Tsukuba we wrote:

This paper will discuss the epistemological premises of the Doctoral Program at the Oslo School of Architecture AHO. 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, 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 AHO. 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. (Dunin-Woyseth and Nielsen 2003)

The conference in Tsukuba gave us a glimpse of how doctoral studies are developed in many other countries. Halina wanted to pass on this insight to others. This resulted in our writing two joint post-conference papers, one in

Design Research News (2003b) and one in *Nordisk Arkitekturforskning* [*Nordic Architectural Research*] (2004a).

Senior Advisor for *DesignDialogue*

Our Tsukuba-paper rounded off with a description of how the research network Design Dialogue grew out of a milieu around the doctoral programme at AHO. The network builds on the recognition that it is important to gather and develop design competence not only before and during, but also after formal doctoral education. In my role as the head of the DesignDialogue network I have had great benefit from Halina Dunin-Woyseth's wise advice during the building up phase. She has viewed the network as a strategic move for lifting the teaching of design from a 'field of practice' to a 'field of inquiry'. Halina has done this by repeated reference to Robert Merton (1979).

The network *DesignDialogue* has now gathered together about twenty researchers: professors, associate professors, doctoral candidates, designers, architects and masters students. The researchers in the network all come from *making professions* as design teachers, artists, designers or architects. The network is striving to develop a 'critical mass' within design and design education by arranging frequent research workshops and bringing out publications. Up to the present the network has given out two publications: *DesignDialog — Design forskning i et demokratisk perspektiv* [*Design research in a democratic perspective*] (2004) and *DesignDialog — Design og fagdidaktiske utfordringer* [*Design and the challenges of design education*] (2005). Halina is the inspiration behind this network where she so generously acts as a senior advisor.

A Broad Contact Net

Through her broad network of international contacts Halina has had the means of keeping herself up to date with international currents. She has not hesitated to implement what she learned in the international arena when planning the doctoral programme at AHO.

In November 2004, Bryan Lawson gave a lecture at AHO in which he maintained that, in future, research in the design fields ought to be linked to interdisciplinary or 'transdisciplinary' thinking. On that occasion Halina Dunin-Woyseth informed the plenary that, in cooperation with me, she was in the process of publishing a scientific publication on this subject. The large scope of her international contacts enabled her to gather together central contributors like Helga Nowotny who has contributed to this collection of articles with the title: *Discussing transdisciplinarity — Making professions and the new mode of knowledge production* (2004b). This shows that Halina is not only bringing news from abroad to Norway but also that she has been contributing to the international development of design research.

Design Education

As mentioned earlier, there was a convergence of interests, especially in our endeavour to develop education at various levels. I have worked with the development of the national curriculum for primary schooling and upper secondary learning and teacher education. Halina has, above all developed the curriculum for doctoral education in design. Design education theory and practice is about locating those ideas that direct the subject content of teaching, its structure, subject plans and teaching methods. This is applicable to education within design at all levels, from primary school to the training of researchers.

The doctoral cohort that began in 2004 (Cohort 7) has noticed some changes in the structure of the training at AHO. One of the changes is that the candidates should receive training more closely related to their own field. For the design education students in Cohort 7 this has meant that they now have their 'own' courses linked to research in design education. In 2005 AHO gave me the task of developing and arranging courses for didacticians which I thereupon undertook in cooperation with the University of Oslo, Pedagogical Research Institute. The course had the title *Art and Design Education: History, Theory and Criticism* and was held June 6 – 9, 2005 at the Oslo University College. The course gathered together lecturers of a high international calibre. Halina followed all the lectures with great interest.

Yet another doctoral course geared toward design education is being arranged for 2006. This is also planned in collaboration with the University of Oslo, AHO and Oslo University College. The development of these two courses has been strategically important for building up competence within the field of design education. Halina has been a driving force in seeing to the strategic goals in the construction of this 'field of inquiry'.

Strategy with Visions

On several occasions Halina has functioned as examiner in the Masters programme in design, art and handicrafts at both Oslo University College and Telemark University College. In the course of this work she has gained insights into the challenges facing this field. For 30 years it has been possible to gain a thesis-based Masters degree in "art and design education" (thesis in design formation, art and handicrafts) at the colleges of Oslo and Telemark. Halina has given theoretical contributions and strategic advices to 'help' this field to stand on its own two academic feet. In this way she has been an adroit and generous strategist — willing to help other related disciplines in the building up of their own discourses.

Those of us who teach in design represent the process of *making professions* within the field of design education. As I have already mentioned, it has been possible to take a thesis-based Masters degree in this field since 1976 but

further development into a doctoral programme was not possible before AHO opened up its doctoral programme to professionals in design education in 1995. This happened as a result of pressure from the Ministry of Education and the state colleges that trained professional educators in art and design. Until then the field had been subsumed under the pedagogical discourse that developed within pedagogy at the universities. This was not a satisfactory situation.

Halina Dunin-Woyseth has made a great contribution to this field of study. As already mentioned, thanks to Halina, the doctoral programme at AHO was opened up to design didacticians in 1995. Her strategic contribution has given results. Several of her candidates within the field of art and design education have now become professors.

Halina took up the baton and many of us are extremely grateful for the contribution she has made to the field of design education. Many of us hold her go-ahead spirit in high esteem, as well as her intelligence and fantastic generosity.

We will soon be ready for the transfer of the baton.

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II. PhDs and PhD candidates

THORLEIF SKJØNSBERG

Notes for a very special anniversary

As one of the staff at Oslo School of Architecture and Design for many years, I have known Halina from the day she came to our institution. She has been a colleague, and over the years, she also became an academic friend.

Working together with Halina I have come to appreciate her special intellectual capacity and her ability and willingness to share knowledge with others.

When she initiated the doctoral programme at AHO fifteen years ago, it was a quite new idea for all of us. Among practitioners and teachers of architecture on the staff she awakened a slumbering interest in theory and scientific thinking. It resulted in several doctorates under her guidance, some of these she also supervised. This has led to a most needed theory-based teaching at AHO. A great number of doctoral students, external and internal, have passed through the doctoral programme since the start.

Halina holds a strong position in the international network of outstanding academics. By being invited to seminars, congresses and meetings all over the world, she also keeps herself oriented about the state of the art, and of individuals of importance to our doctoral education. She has the capacity to propose members of committees, supervisors, lecturers and external examiners suitable for the specific theme of research. A very sharp memory, also about an enormous amount of literature, an ability to link people, to find creative ways out of problems and to see the essence of these, characterise Halina.

In the process of structuring complex problems, she uses a pedagogical method of visualisation while explaining. By drawing bubbles and squares, grouping and connecting elements, she clarifies and leads to solutions. Masterpieces of abstraction! In her modest way, she often refers to the “Socratic Method”, a birth-help to the student for developing and fertilising the theme at the student’s own standpoint.

We all congratulate Halina with the results of her doctoral education programme at Oslo School of Architecture and Design, also adding greetings to our friend and colleague Halina in the year of her sixtieth birthday.

Best wishes from Thorleif

INGER-LISE SAGLIE

Theory in a practice-oriented profession

My first encounter with professor Halina Dunin-Woyseth was at a seminar on architectural research arranged at *Arkitektenes hus*, Oslo in 1988. At that time architectural research was a relatively new field. I remember particularly well how she stood up during the debate and generously invited everybody to contact her at the Oslo School of Architecture in order to develop research ideas and proposals and generally work for the promotion of the whole field of research in architecture, planning and design.

Halina has continued to show openness and generosity ever since, and has offered her knowledge and extensive international network together with her enthusiasm, energy and go-ahead spirit on several occasions since that time. This was particularly true when she was supervisor for my doctoral thesis, but also in connection with a particular research project in which we compared Polish and Norwegian planning. I know that her generosity has not only encompassed me, but also many other people.

Halina's work on clarifying the epistemological basis for research and the accumulation of knowledge within the design professions has been a tremendous undertaking. I have found it of particular value when working in a multidisciplinary research environment such as my present workplace at the Norwegian Institute for Urban and Regional Research (NIBR). It is good for an architect like myself to have a little academic "specific weight" in the continuous rubbing of shoulders with other disciplines.

In particular, I remember with great pleasure the lectures, discussions and the seminars we had during the doctoral courses that Halina arranged. One of the seminars was concerned with theories within the field of aesthetics. Regrettably, this is a field in which I have not been able to work to any extent, but for which the doctoral courses raised a keen interest. It is obviously a field of central interest for design professions. One of the academics that Halina together with Professor Stein Haugom Olsen asked to lecture at this particular seminar in 1994 was the British philosopher Roger Scruton.

I would like to take this opportunity to comment on some of the elements in Scruton's writing on the aesthetics of architecture, as his philosophical investigation tells us something about the public evaluation of architecture, a practice undertaken by planning and building authorities. This field emerged as a pressing concern while I worked in practice at the Oslo Planning and Building Authority (Byplankontoret).

An ongoing concern for many philosophers within aesthetic enquiry had

been to give specific content to the concept of beauty. In the opinion of the ancient Greek architects, the question of beauty could be pinned down to exact rules with their emphasis on proportions and symmetry. If there are certain relationships between the elements of a building, then the building is beautiful. This thinking has been continued by Vitruvius among others. A common feature among all the early approaches to the aesthetics of architecture is that it is a particular property of the object that is appreciated.

In the 1700's, the distinctive concerns of moderns aesthetics were established with contributions from Hutcheson (1725), Burke (1757) and Hume (1749) among others. The focus was not on the object, but on the aesthetic experience. Kant (1790) introduced the first account of aesthetic experience as a distinct exercise of rational mentality.

Scruton is one of the few contemporary philosophers who has been working on the aesthetics of architecture. He bases his philosophy on Kant who argued that aesthetics is quite as much a distinct and autonomous sphere as ethics and scientific enquiry. Like many of his predecessors, Scruton also focuses on the experience when discussing the aesthetics of architecture. So Scruton's argument is that in order to understand what architecture is, one must also understand the aesthetic experience of architecture. A theory of architecture must therefore describe the phenomenon of aesthetic appreciation of architecture. Scruton is also inspired by Wittgenstein's later philosophy¹: what it implies to see something as something. He has also been inspired by Sartre's work on the imaginary: how humans create images of their surroundings.

Scruton's point of departure is that architecture is something different from brickwork. The task of architecture could arguably be to bring about pleasure. This kind of pleasure is different from the pleasure derived from the senses. Aesthetic pleasure is not immediate in the manner of the pleasure of the senses, but is dependent on, and affected by processes of thought. Aesthetic pleasure is first and foremost an intellectual enjoyment. An important element in Scruton's philosophy is that perception is different from enjoyment. While perception is the first part in an aesthetic appreciation, enjoyment is the next stage. The first part is what psychologists are interested in: perception psychology. The second part, enjoyment, is the core of aesthetic appreciation. Scruton uses examples from music to distinguish between ordinary perception and intellectual processing. A *c* followed by the *a* above gives a feeling of movement upwards. This is not a truth in physics, where *c* and *a* can be described in terms of two exact numbers for sound oscillation. Scruton further argues that a bird cannot interpret movement in music. If one therefore argues that "movement" is a phenomenological truth, it follows

¹ Scruton argues in *Art and imagination* that Wittgenstein proposes such a theory in his *Philosophical Investigations*.

that movement is an experience of a being that can reflect on his/her experience.

In his exploration of the properties of aesthetic enjoyment, Scruton follows Sartre in dividing aesthetic appreciation into three parts; first our perception of the object, secondly our knowledge about this object, and thirdly of our imagination about the possibilities of the object. Such knowledge can be very simple. For instance, we would often like to know the use of a building when looking at it. Scruton points out that the interpretation and imagination involved in aesthetic experience are creative, free processes of thought that do not follow the “gestalt” laws. By normal perception it is bound by rules and understanding. The difference could be illustrated by the difference when one can “see” a face in a picture and then see a face when one knows that it is face in ordinary perception. This means that the public is also creative when being confronted with an object. It follows from this that the aesthetic experience is not a static phenomenon. It is possible to see new sides of the object that one has not seen before. It is also possible that one can be told by others about certain sides to the object that one has not been aware of before. But by being told about this, our interpretation of the object may change.

It follows from this that the experience can vary because of difference in mood and the degree of purposefulness and intentionality in the encounter with the object. And it may be, that the possibilities of finding new elements to enjoy, vary between objects, and the most fascinating objects seem to be inexhaustible with regard to finding new opportunities for interplay with them. One can also increase the knowledge of the object and then open up for new interpretations, seeing the object with “new eyes”.

For Scruton it is the enjoyment that can be communicated and argued for to others that is of interest. From this it follows that the experience of architecture includes an element of communication. A vital part of our experience of architecture is imaginative. It admits arguments and proofs and can be described as right, wrong, appropriate or misleading, and can reflect a conception of its object that is in no way tied down to the literal significances explored in common perception. This explicit and intellectual interchange between subjects is of particular interest when bearing in mind that architecture is a public art. In addition these communicative aspects of the aesthetic experience are of particular interest when bearing in mind that much of the current theoretical interest in planning is also on the communicative aspects.

Many contemporary writers on planning theory take as their starting point Habermas’ (1981) emphasis on the rationality following from exchange of arguments (Fisher and Forester 1993, Healey 1997). Through undistorted exchange of arguments, and the commitment to be convinced by a better argument, better and more informed decisions may be reached. Planning

thus becomes a communicative act, and the test of good planning is whether such exchange has actually taken place. It is easy, however, to point out the difficulties facing such planning procedures. The resources for participation in such deliberative practice are unevenly distributed; exchange of arguments may lead to the temptation to further one's own interests through rhetorical dodges. Nevertheless, although deliberative practices may be difficult to achieve, the arguments for reaching more informed and carefully judged decisions are persuasive. And certainly Scruton's enquiry into aesthetic appreciation and his emphasis on the intersubjective and communicative aspects of the aesthetic experience make his enquiry an exciting opening for further enquiry into the possibilities for aesthetic communicative planning procedures.

This short presentation of aesthetic philosophy is meant to provide an example of the way theory, in this case aesthetic philosophy, may inform practice. By careful thinking about the elements of aesthetic appreciation, urban design and planning processes can be improved. The knowledge base on architecture and urban areas may be improved by analyses, such as in the *stedsanalyser* (place analyses) introduced as a planning tool in the 1990's in Norway. In addition planners may think carefully about spaces and arenas for aesthetic appreciation in connection with large urban interventions. In this perspective the task of the planner could, for instance, be to provide a necessary knowledge base and invite the public to enter into dialogues about aesthetic properties. In other (quotable) words "There is nothing as useful as a good theory".

I feel that Halina's hard work in establishing a good doctoral education in such a contested landscape as research in practice-oriented design professions cannot be overestimated. By introducing spaces and arenas for reflexivity in the education of doctoral candidates, she has made a huge contribution to the development of more reflexive planning, architecture and design professions. I am sure that the impact of her work will be even more evident in coming years.

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INGER LISE SYVERSEN

Knowledge — the mediating tool

The year was 1982, it was fall, I was a student at AHO and you had recently started your academic career as a teacher at the Institute of Planning.

As Professor Christian Norberg-Schulz gave us the insight of the large and precise axis in the history of architecture and the observant tool of a morphological approach to his notion of *Genius Loci*, and Professor Sverre Fehn provided us with the intimate details of architecture and the simplicity of the layouts, you taught us to be reflective, critical students and to be unafraid of theoretical approach.

The architect — a mediator

You bravely told us about the Paradise Islands and the Paradise Channels, about the gap between the rich and the poor world, about how like-minded people representing the lucky and wealthy parts of societies, increasingly moved along the same routes, met in the same airports, in the big international conferences, lived in the successful parts in the prosperous towns in the rich countries. You lectured on the unfair and increasing gap between industrialised countries and the late industrialised countries and about the responsibility of our profession, the architects and planners, to fight this unfairness and diminish the chasm.

The subjects taught were existential and became normative for my profession and my private life and crucial for my doctoral thesis.

The new knowledge production

Later your lectures and research revolved around other gaps but your focus was always on how to bridge them. New ways of knowledge production has been one of your obvious gap closing tools during the last 15 years. Bridging the gap between mono-institutional production of knowledge and knowledge production in transdisciplinary research, between Mode I and Mode II, has been one of your challenges in your recent struggle as “gap closer” and knowledge producer.

Even though your dedication for new knowledge has been and is decisive for your well-being, building of networks is another part of your fascinating character. Networks that go beyond every border and level in society. Wherever I travel within academia and research, your name is mentioned with respect and honour which you, in a humble way, hide in your daily life.

Halina Dunin-Woyseth, a reputed producer of new knowledge crucial for bridge-building and gap-closing between layers in society, cultures, people and institutions. Knowledge that you eagerly share with all of us. Your high skill of empathy and your dedication leaves no room for indifference and forces us to actively and critically contribute to your discussions.

I am eagerly looking forward to new space where new unpredictable knowledge and research is produced in your channels of communication.

JAN CAPJON

To inspire others

Creating researchers from art oriented design practitioners and individualists is a challenging task — much more challenging than ordinarily understood by the uninvolved. In Halina we have had an inspirator who has taken up this challenge and carried it through with a high degree of differentiation and with a never yielding engagement.

The assembly of slightly naïve optimists who met some six years ago at AHO with a shared intention of completing a doctorate can be described as an unstructured conglomerate. Here were artists, craftsmen/women, engineers, political scientists, architects and designers in a colourful mixture. Not only did we have diverging backgrounds, values, norms, languages, ideals and traditions — what was probably more intriguing was the fundamental gap in our understandings of what research is. And when one in addition to field specific characteristics had to do with a selection of highly individualistic candidates of widely distributed ages, the scenario hardly becomes less colourful. How could consistency be created from such antagonisms? Could some common ground be found within a 'spoon-to-city' approach?

In retrospect one can of course reflect upon what happened. But beyond doubt something important took place along the way. And in some way or another Halina always had a finger or two into the course of events. She was the driving force behind *The Millennium Programme*, a Nordic programme for research education within the practical aesthetical fields. During two years a large number of Scandinavian candidates assembled in Oslo, Aarhus, Stockholm and Helsinki.

To be introduced to and become acquainted with that many people, perspectives and projects did something to us. Not easy to say what or how it happened, but it happened. Gradually we got to know each other and corresponding aspects of our challenges. Slowly but steadily we learnt to see more and more shared characteristics of our respective chaos.

Little by little it appeared to us what research within humanistic aesthetic fields involves — and how it fundamentally diverges from natural science thought patterns. Strenuous and time consuming was the process of maturing an understanding of why qualitative and measurable problematics ought not be approached from similar framings. And how the concepts knowledge and theory can have basically different meanings within dissimilar disciplines. And how it is possible to position the probably most fundamental phenomenon

within aesthetics, interpretation, into acceptable frames of inquiry. And not the least how the systematic change of focus between part and whole is fundamental within humanistic disciplines — unlike within the natural sciences.

To catalyse such processes of understanding, Halina drew on a large gallery of acquaintances and resource persons from varied traditions. One after the other they were invited to challenge our dedicated gang of compulsive practitioners. We recall with a smile Stein Haugom Olsen's engaging, if not always equally convincing, crusade against the second sex — which never avoided carrying red glowing fruits. From Oslo came Svein Østerud and Leif Lahn and lectured on grounded theory — the framework which is able to extract understanding from fuzzy landscapes. From Lund came Bertil Rolf and taught on the influence of traditions and on tacit knowledge. From Bergen came Stein Bjerkås and told us about the never yielding fight within the art institutions of what shall 'count' and who gets power. From Weimar came Dieter Hassenpflug and lectured on the difference between space and place and how reality can be created from dream and vision. From Lund and Stockholm came Mats Alvesson and Kaj Sköldberg and gave us a thorough introduction to and valuable overview of humanistic research frameworks and reflexive methodology. Plus many, many more.

It has taken a long time to establish such networks of good acquaintances from many knowledge fields. And if the objective is not only to educate new researchers, but basically to develop a virgin field of inquiry aimed at becoming a new discipline, then that kind of personal networks and sources of knowledge are invaluable. And the reason is basically that when essences are hard to grasp, then to approach landscapes of wholeness repeatedly from new angles and perspectives is the only way to proceed.

To create engagement

All along in a doctoral process one gets guidance from others. It can be advices of insight and sense and with the very best of intentions — but how often do they correspond? Hardly ever!

If one gets counsels from three different persons on the same matter, they are likely to be equally diverging contentwise as the three counsellors themselves. This can appear confusing, but what usually becomes decisive is that your advisor cares about what you are doing.

In a demanding and time critical everyday of a university it is not easy to engage oneself in other people's problems, at least when one is not primarily responsible. Halina manages that. She cares about you — always and regardless of setting. A direct answer to your question need not become the outcome of a contact. Her contribution need not be on your detail problem, that would be too much to claim from a person with responsibility for so many people.

her advices and references always contribute because she creates engagement through her own engagement. She cares and always indicates a direction ahead — has always a suggestion from her enormous databank of authors of related themes. I do not know how many crumpled sheets with scribbled names, years and themes which we have left behind. But I know that many of them eventually achieved relevance, not the least because she wanted to contribute.

To develop flexibility

If one approaches a doctoral project within practical aesthetical fields with an ambition to proceed according to a plan, it is tempting to suggest that one is doomed to failure. If anything characterises such a process, it is an enormous stack of rejected outlines and plans. How often have we not envied our colleagues within the natural sciences who can stick to norms and accepted traditions. But ending up in dead ends means having to find ways out, and eventually one finds that frustrations and sidesteps are necessary for realising that qualitative understanding very seldom can be reached through prescribed procedures.

Searching in humanistic landscapes gradually reveals that qualitative research is not based upon truths or consistent theory, but on interpretation. What it all finally boils down to is the important differentiation between interpretation and qualified interpretation – and this nuance easily becomes problematic if the question of subjectivity is sidestepped. One eventually finds that at the bottom line of qualitative research there are few indisputable answers other than those that are laboriously built from studies of other subjects' insights and own reflections on these. The easy way to 'acceptable' positions is via popular majority decisions or active construction of such. But the qualified perspective is hard to achieve without humbleness and openness towards others' views and flexibility towards the development of one's own.

Halina is not an explicit propagandist of such an entrance into a research call. But through her way of connecting disparate fields of knowledge, individuals, networks, normative traditions and antagonisms within trends and interpretations, it is just that which she has taught us. She is not loudly outspoken like many, but represents an approach and thought pattern which above all is beneficial because it appears as example for others.

We novices who have sought for such a state of mind as grounding for a research motivation are grateful for this epitome. Thank you for the inspiration you have disseminated, Halina.

BERIT INGEBRETHSEN

Vital packages of information

How to build a new research discipline? Ask professor Dunin-Woyseth, she is the constructor of one. She is more often addressed as Halina, a name uttered with respect and devotion. Halina was chosen to construct a discipline involving architects, designers, visual artists, arts and crafts people and also art educators. These five professions should come together, find a joint platform and work side by side as the new *making disciplines*.

How to build this new highest education for these making professions? I suppose Halina could have answered this question in short: We have to build upon and within the accepted academic traditions, and we have to get hold of good workers, craftsmen. The challenge is to educate the different professionals in how to exercise research.

Academic research has many different aspects that have to be taken into account. Some of these aspects are not so obvious but of a more underlying kinds. You more or less have to be socialized into a membership, a clan, to obtain knowledge about certain necessary qualities and expected behaviour. To be socialized means to get acquainted with a culture, a milieu, that you have been brought up in. There is a problem if the milieu you are supposed to be brought up in, yet does not yet exist nearby, when it is just beginning to be locally created, and you yourself are one of the local creators.

My daily place of work, Telemark University College, Department of Art and Design Education, is recognised nationally and internationally for having a thirty year old Master education in art and design. On the highest academic level, however, our candidates and doctors are just beginning developing competence. It was only a few months ago that a forum for researchers was established at our department. This is not an isolated, but rather a general problem. Developing a milieu where research is the main point, is problematic for several higher educational institutions. A new evaluation of research in pedagogical education¹ reveals as one of the conclusions, that there is a problem in socializing new or potential members into the complex world of research.

Socializing new members into the world of research, must be undertaken in lower grades of education, as well as in the top grade. For doctoral candidates

1 According to Bente Hagtvedt, *Norsk Pedagogisk Tidsskrift* 2/2005, p. 82 –88, The Norwegian Council for Research, Det norske Forskningsrådet, has evaluated research in pedagogical education in Norway. Institutions doing practical pedagogical research are not included in the evaluation though, but I presume the problems raised may be much of the same also for pedagogical art and design education.

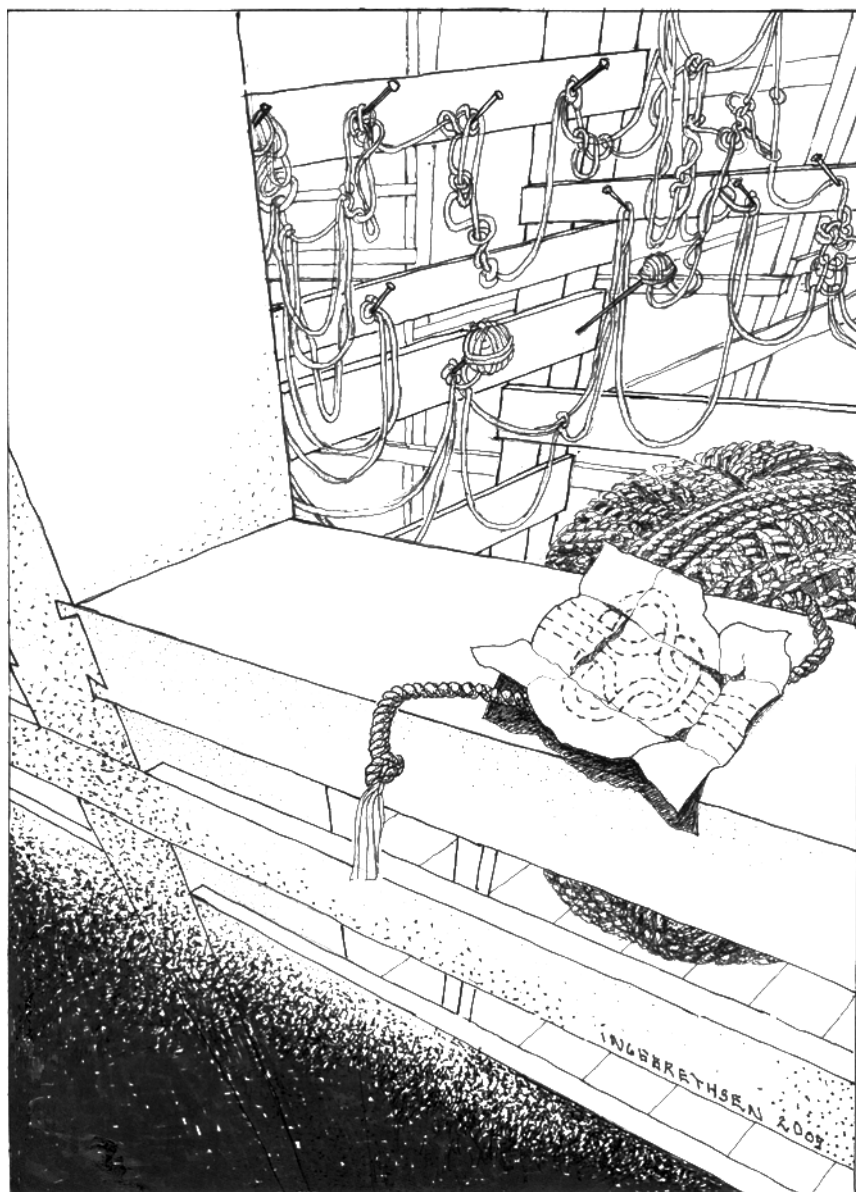
without an active research home milieu, and with most of their time tied to their daily institutional duties, it is extraordinarily important to be socialized somewhere and by someone. Where can such general research socialization be obtained, and who might initiate research recruits into the more diffuse rooms where scholars move and play. Halina can, Halina tells and shows.

As one of Halina's workers, hammering out a thesis, I am especially grateful to her for letting me be socialized into the complex world of academic research. Reading research literature and discussing with co-candidates is effective, but personally I appreciate sincerely the results from meetings with our leading professor. I am always curious about what news from the pulsating big world Halina will tell, when we get together twice a year in progress seminars.

Writing a thesis is a lonely occupation. There is a saying about scientists, that they sit in their towers of ivory. Ivory towers are for established, honoured scientists and scholars. For me, the inexperienced writer, striving both with thoughts in knots and tangles and with words, hammering, cutting and filing them to form precise contents, I feel more like imprisoned in an isolated tower. I need support, I need inside knowledge and lifesaving information from outside the isolated cell. Who gives me such support, who brings me necessary information? Halina does.

"Hoisting" (*heising* in Norwegian) became a notion used by Norwegian prisoners in the prison camp Grini during the Second World War. Some of the convicts were isolated in a special part on top of the heavy brick building, while others could move more freely inside the area bordered by electric fences. A special secret group was established by a few of the ordinary, more privileged convicts, to take care of the task of bringing information from the surrounding world to the isolated persons. This task was done by hoisting. In the dark evening, in intervals between the searchlights moving on the tall brick wall, a thread lowered down from an upper window was used to hoist up small packages. These packages could be just a folded little piece of paper containing important news. Or they might contain small but enormous treasures like a piece of a match split in four precious parts, to light a cigarette, or even containing a cigarette. It is not cigarettes that I have hoisted from Halina during our seminars, but necessary information in small separate packages.

In the strange world of academic research, many recruits live in their isolated cells, working on their individual projects. We are locked in our own projects, striving to find our own bits of new knowledge. At the same time we are the workers building a new discipline. We are working laboriously, determined and bewildered. The building process goes on inside a surrounding established building with a basic and strong structure. This is the structure of science and research. This structure consists of rules and



Hoisting

methods, it has different models and styles available, which in turn demand different techniques and tools. Some of the rules are explicit and clear, others are implicit in special or particular traditional execution. Some of these rules and traditions may seem obscure and almost like mystical rituals.

Halina knows the rules and traditions in this culture. And she is a high class and highly competent member. Her knowledge and experience is wide, detailed and solid, and she is at ease in relevant central European and international research communities and in dialogue with actual, current research questions. What she does in the beginning or the end of our seminars, is to communicate, make known to us, ever new bits of rules, insights in what to do and how to do when you operate and move in the academic research world. She gives heartily away small packages of necessary, illuminating, noteworthy and sometimes remarkable or peculiar information. She thus socializes us to the arena we are learning to play in. She is the constructor giving form to both the builders and the building.

JANNE BEATE REITAN

Building up a new field
Art and design education research

I first got to know Professor Halina Dunin-Woyseth when the Oslo School of Architecture and Design (AHO) opened their recently established Doctoral Programme and took on the responsibility of doctoral education for Art and Design Education in 1995. For years, some of the scholars within the field of Art and Design Education had seen the need for research within this field, not least because of the lack of any organised research from the scholars within this field at any universities or university colleges in Norway (Nielsen 2000).

To build up the new field of research in Art and Design Education in Norway would have been difficult, if not impossible, without Halina's altruistic contribution. Many researchers contribute to a great extent in building up their own field of research but Halina's unique contribution, in addition to her own field of research, has been to be the pivot in the building up of a new field of research — the research in Art and Design Education. To get access to the research community in general, the scholars in Art and Design Education needed a *gatekeeper*. Halina has not only opened the gate but also given us access to her experiences and knowledge gathered throughout her comprehensive research career.

Halina is always at the leading edge as regards the development of research and research education internationally. Not everyone in Norway has been as up to date as she is, and therefore not been able to understand her thoughts and actions in her effort to build up an internationally oriented PhD education at AHO. Halina has a 'secret' international life to many Norwegians because her tremendous contributions have not been recognized in Norway owing to our missing international orientation and poor research traditions within the *making professions* (Dunin-Woyseth and Michl 2001).

A quick review of Halina's international, as well as Norwegian, contributions to the research world is without precedence within the *making disciplines*. As an international expert she is involved in a comprehensive international network with many connections. As an example, during 2004 she, among other things, accomplished these diverse responsibilities:

- She wrote an article and a book review about architecture and design research in *Byggekunst* (The Norwegian Review of Architecture); a joint article together with one of her former doctoral students about the role of the doctoral studies in design based on a paper at The 3rd Doctoral Education

in Design (3DED) in Tsukuba Science City, Japan; a Review Article in the *Journal of Design Research* about research in urban, architectural and technical design; an article in co-authorship on educating design scholars in an edited book from Oslo University College (HiO); she co-edited and wrote an article in a volume of the AHO's *Research Magazine* about the *making professions* and the new mode of knowledge production.

- In addition, she was one of those who initiated the NorFA supported Research Educational Project *Housing Research in Design*; she lectured at the Oslo National Academy of the Arts; she was a guest lecturer at the symposium about the reconstruction of Kabul by the Aga Khan Trust for Culture, held in Ascona, Switzerland; she was a keynote speaker and also a guest lecturer at the European Symposium on Research in Architecture and Urban Design, EURAU 2004 in Marseille, France about Developing doctoral scholarship in architecture in Scandinavia and Doctoral Theses in Architecture; a keynote speaker about education for design research at the Opening Conference at the Centre for Design Research in Denmark; the keynote speaker about the development of PhD in design at the workshop of the research network *DesignDialogue* at Oslo University College, the Art and Design Education Programme; she had several lectures about the *making professions* and *making disciplines* at the Joint Post-graduate School of Research for the department of Architecture at Chalmers University of Technology in Gothenburg and The Faculty of Applied and Fine Arts at the University of Gothenburg; she was the 'summing up' speaker at the EAAE/ARCC Conference in Dublin.

- Halina was also an expert of evaluation for research applications at the department of Culture and Society in the Research Council of Norway and the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, and member of scientific committees for professors at Telemark University College, Norway, Institute of Art and Design Education; at the Helsinki University of Technology; at the Department of Architecture, Chalmers University of Technology; at the University of Bergen; and at the University of Oulu, Finland.

- She was a PhD external examiner at the Swedish University of Agricultural Sciences; and the department of Architecture at Chalmers University of Technology.

- She was also member of the board of the Swedish School of Textiles at the University College of Borås; as well as the Centre of Design Research in Denmark.

Amazing.

In spite of this tremendous burden of work, in 2004 she also took on the responsibility of external examination of about ten Master students in Art and Design Education from Oslo University College and Telemark University College (HiT). In addition, she wrote a thorough report of evaluation of the Master studies at these two institutions, based on the experiences from the censorship of about half of the Master students from each institution. I really hope these reports, which are written by one of the most important experts within the *making disciplines* internationally, will be utilized and become important to the development of the Master Study in Art and Design Education in Norway. In these reports Halina emphasizes the importance of focusing on the core issues of art and design education.

Ever since AHO extended the Doctoral Programme to include Art and Design Education 10 years ago, Halina has acknowledged the contribution from the experiences and knowledge from the Master studies within Art and Design Education¹ at both the Oslo University College² and the Telemark University College³. It has been a pleasure to recognize that the organizing of the Doctoral Programme at AHO has a lot in common with the Master Program in Art and Design Education at the Oslo University College. Not least concerning the emphasis on a continuum in the developing process according to the students during the course of study. This includes mandatory essays related to the students' individual PhD projects, as well as progression seminars where each student presents her/his project as it stands at present, for a peer review in the group of equals in addition to the supervisors. As the head of the Doctoral Programme, Halina always contributes with important propositions to every presented project, regardless of the research issue.

The PhD education at AHO has benefited from her many years of international as well as national experience. She has participated in the international development of PhD education and as the head of the Doctoral Programme at AHO she has been able to build a doctoral education with mandatory research education, which is on the leading edge internationally. In Norway, her knowledge of the international development within PhD education has enabled AHO to lead in implementing the new national Doctoral Code in Norway, including mandatory research education.

From her extensive international network, Halina has brought many international experts to lecture at the Doctoral Programme at AHO. These have contributed on a high international level. K. Michael Hays, John Heskett, Jules Lubbock, Richard Buchanan, Jonathan Woodham and others

¹ Formerly named *Hovedfag i forming*, now *Master i formgivning, kunst og håndverk*

² Formerly named *Statens lærerhøgskole i forming Oslo*

³ Formerly named *Statens lærerhøgskole i forming Notodden*

have served as guest lecturers and external supervisors. Because of the lack of international orientation within this field in Norway, this has not always been appreciated. In Norway we say that it is difficult to be recognized as a prophet in your own country. I would say that it is difficult to be recognized as a prophet in Norway in any case, although Halina really is one.

What really characterizes Halina is her tremendous capacity for work, regardless of circumstances, as well as her insistence on quality in whatever she does. Despite her impressive contributions internationally as well as in Norway both as a researcher and a research educator and manager, I do not think she has received the acknowledgement and appreciation she really deserves. She never draws attention to her own achievements and the scholars in Norway are not always aware of her contributions because they do not play an equivalent role themselves. To be a strong female professor at the male bastion of the Oslo School of Architecture and Design has not always been simple.

Halina has a unique capability to motivate and support her doctoral students. Although we are a great many who, formally or informally, she has made each one of us feel as though he/she is the chosen one, and the most important one in our field. Because of the thoughtful consideration she gives to us, we regard her as our “doctoral mother”, although many of the doctoral students are almost her own age. However, Halina herself now states that she rather wants to be a “doctoral grandmother”, meaning that we, as her “doctoral children”, gradually will become “parents” to coming generations of doctoral students. At the moment, as a result of the great effort Halina has, over the last ten years, put into the building up of a doctoral education on an internationally acknowledged level, her wish seems to have come true.

The first doctoral students at the Doctoral Programme at AHO are now supervisors for the next generation of doctoral students, also in the research field of Art and Design Education. In 2005 one of the students from the first Doctoral Programme which included scholars from Art and Design Education in 1995, Liv Merete Nielsen, managed a special doctoral course with international as well as Norwegian professors in the field of Art and Design Education research, as a joint project between AHO, the Oslo University and Oslo University College, who hosted the course. Originating from the Doctoral Programme at AHO, some of us, under the leadership of Nielsen, are building up a research network named *DesignDialogue*, focused on dialogues of design regarding education, mass media and business. Halina has also contributed to the development of this research network (Dunin-Woyseth and Nielsen 2004).

On behalf of Halina’s “doctoral children” I want to express my gratitude to her family for letting us take so much of her time and effort. We want you to know that her and your sacrifice has been fruitful in full measure.

of her close relationship with all of us, although she is known to the wider world as the internationally acknowledged Head of the Doctoral Programme at the Oslo School of Architecture and Design, Professor Dr. techn. Halina Dunin-Woyseth, to us, she is just Halina!

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KARI BJØRKA HODNELAND

A supervisor-student relationship

Paying this tribute to you has been like a memory trip throughout our long supervisor-student relationship.

In the beginning of my doctoral training course I celebrated my 50th birthday. In the middle of a most important conference in Copenhagen you took the time to send me a card. It looks like an old fashioned cross stitch embroidery. Red stitches on a light grey background. The text reads: "Never a Dull Moment." Do you remember?

The empirical part of this relationship is substantial, comprising piles of faded faxes, numerous e-mails, a very special birthday card and a most unusual Christmas card. The flash-backs are many, relating to three physical sites; your tiny office in St. Olavs gate, the draughty premises in a building across the street which served as the meeting place for various doctoral education lectures, and your new office in the Maridalsveien. Never a dull moment!

Shortly after having commenced my doctoral training course at the Oslo School of Architecture, *Forskerhåndboken* (The Researcher's Handbook) by G. Hartvigsen, was published. I read it with amazement and respect. What a world he was describing! The world of the academics, hopefully my world to come.

Scientifically employed persons could, according to Hartvigsen, be eccentric. So could the students, he adds. If it is eccentric for a Norwegian to be extremely hard working, born outside the country, be fluent in a number of languages, possess an international academic reputation, and commute the distance Oslo-Drammen by train, then you are eccentric.

Smith has produced a list of no less than 13 paragraphs of advice to follow when choosing a supervisor. I never read Smith before you were appointed my supervisor. Despite my ignorance in this important matter, good fortune brought you along. Smith writes; "Choose a supervisor who makes claims. The best supervisors are those who demand periodical reports, who meet the candidates on a regular individual as well as common base, and who expects high achievement, but who supervise with care and empathy." You do indeed demand periodical reports.

We meet individually and in groups with the others. Never a dull moment! The issue of regularity does, however, makes me feel embarrassed. Sometimes, in fact far too often, I am inclined to be rather demanding, wishing for supervision there and then. Strangely enough, some of these rather

stressful meetings have lead to valuable opening ups in my work. How come you manage to perform at your best in all sorts of situations?

Your care and empathy have been fully drawn from during the last years. Your diary is always fully booked. How to make room for supervisions that are not prearranged? This you elegantly solve by extending the number of working hours. Every now and then your cell phone goes as we sit in your office in the late afternoons. My bad conscience is growing, knowing you will be late for another train, late for some appointment, late for dinner. You never complain.

What do I remember best after having rushed in and out of your office all these years? The piles of papers on your desk, the phone calls being answered in a number of different languages signalling a belonging in an international world of academics or the many times we were stuck in the bright red old lift in St Olavs gate? I do not know. But I know one thing for sure: there has never been a dull moment!

I have mentioned the piles of the old and faded faxes we sent each other. Do you remember how I sometimes struggled to read your writing? Not because I could not read the letters, but because I did not know the academic terms well enough! Being your doctoral student certainly has been a most valuable formation process.

Our relationship is strictly formal. I come to the supervisions, I leave. If I need assistance, I can e-mail you or I can call you in your office. For a long time I knew nothing of your private life. You wrote: *Dr. Cand* in front of my name, I always made use of your academic titles. Your international manner calls for a kind of mild distance between the two of us. The code is, as it should be, set by you.

We have , however, both given short glimpses of our private lives. One day you wrote "Dear Kari". Could I answer back in the same way? I could ; "Dear Halina". Do you know what I remember best and admire most from these glimpses? It no doubt is the story behind your decision to come to stay in Norway. Though you never said so, I believe you took to the advice of when in Norway, do as the Norwegians. So out you went, into the woods, skiing with your two daughters, Cathrine and Ina, to make sure they would become true Norwegians. You made home baked cakes for Christmas, you learned the language better than most of the natives, you even understand *nynorsk*! In fact you seem to have a flair for special Norwegian expressions like "det kom som julekvelden på kjerringa," "husgeråd", "kjerringa mot strømmen" and many more. From occasional comments I have seen fragments of a life very different from the one you live in Norway. Yet I have heard no complaints.

Behind your formal way of behaviour, I have learned to see a person who really cares for others. I have heard you give away your grandmother's recipe to fellow students on how to cure sinus trouble, I have learned to know of

your visits to former colleagues in nursing homes, as well as to students who have been hospitalised. I am not the only doctoral student who has received a Christmas card. How do you manage all this? How many hours does your day comprise? Even from the Christmas cards your caring is easily made visible. Last year I received a card shaped as a tea pot. From my stories about my days as a student in the UK, you remembered my never failing affection for some of the very British habits.

The ink in the old fax messages has faded over all these years. My admiration and gratefulness for having you appointed my supervisor do, however, grow.

Thank you so much for putting up with me, for the formation process it has been attending your doctoral programme as well as the numerous supervisions. Whatever our days have been like, there was never a dull moment.

Please forward my gratefulness to all your family.

Take care.

Much love from Kari

MARTE GULLIKSEN

Scenes from encounters

Scene 1:

This somewhat unusual day in the office when skimming through the accumulated pile of e-mails, an invitation awaits me: would I write some words to a Festschrift of sorts to Halina Dunin-Woyseth. It warms. During the last five years, Halina Dunin-Woyseth has been the most important, supportive person in my ice-breaker journey through unknown waters. Research in art and design education is a small research field. I am a PhD candidate and want to be a researcher. During the last fifteen years the doctoral education within art and design has been constructed, systematically, thoroughly and in close cooperation with the most important international networks.

This construction would not have been as it is without a guiding force, strong will and bright academic brains. Halina Dunin-Woyseth has this. And I would like to use this chance to describe some scenes from my encounters with this extraordinary woman.

Scene 2:

A crispy cold morning in the beginning of October 2000 near St. Olavsplass, Oslo. I have an appointment with professor Dunin-Woyseth to discuss how to become a visiting student in the doctoral programme at the AHO. The hallways are grey and the exhaust from passing cars has seeped through the windows and clung to the walls. Palms sweaty, I am waiting in the cafeteria when the professor enters. She looks as she owns the world. Neatly dressed, head high and with a wide smile she wishes me welcome. Well in her office, she goes straight to the heart of the matter. She is friendly and leads the meeting efficiently and reads with sharp eyes through the project description, written in a lingo I don't yet fully understand. Eyes like scalpels cut away what's not important, and reveal different possible threads for further discussion. What until recently seemed impenetrable, is now open. The paths forward are visible, choosable. The spirit rises, and when she states that I'm to hand in the first coursework in the doctoral programme — Scholarly Criticism — in two/three weeks, I find myself answering "yes, of course".

Scene 3:

One year has passed, maybe two. At AHO the concepts *making professions* and *making disciplines* emerge. As leader of the doctoral program, Halina Dunin-Woyseth cooperates with sister institutions to describe what links

fields together; what can provide a common basis on which we can build scientifically viable knowledge. The knowledge of making, to do something, gives a new perspective: "a knowledge perspective from within", writes Halina Dunin-Woyseth. This perspective focuses on what creative professions have in common. It goes against the traditional, accepted, perspective that focuses on the singularity of each different creative profession. The person who goes against the accepted must be brave. Power/knowledge (*pouvoir-savoir*) is a tightly knit Janus face. One understands what one expects to understand. One sees what one expects to see. Prejudices are just as common in research as elsewhere.

Judgement heuristic in psychology teaches us that prejudices are a condition for conscious thought. But when doing research we must address these prejudices and recognize their consequences. When visiting AHO to attend lectures and seminars, my prejudices are confronted by Halina Dunin-Woyseth. She asks the right questions to help me find the right answer. She suggests new concepts to use and new structures to complexity. She laser-corrects my eyes so they can see more clearly my own prejudices. My academic backbone strengthens, and another chapter can be written in my thesis.

Scene 4

Returning to the first scene. Or rather, the week before the somewhat unusual day in the office. I am writing on a speech addressing the impact of the new governmental research report to the university college where I work. Lately I have cut myself off from the world to finish the last chapters in my thesis. An update on where the research field stands today, is needed. I need contact with one whom I can trust knows the gist of the matter, one who knows the network, the complexity. So I contact Halina Dunin-Woyseth. It turns out she is just finishing an article on this theme. Two days later I hold the proofreading of the article in my hand. With a precise pen she draws up the main developments in the research field today and the development of the doctoral education at AHO. As the long time leader of this education, she has both insight and closeness to the material. Nevertheless does the article sketch out the field's development with clear logic from a cool distance. And I return from reading ready to write the commissioned speech.

This is how I see Halina. She is generous with help and praise, clear in her demands, insightful and accurate when tutoring as such is a support to doctoral candidates that need all three parts, to become competent researchers and develop the research field further. As such she is also a support to the development of the research field, when she is asked to join committees to review PhD programmes in different countries, articles, join professor

committees, conferences and so on. But to me she is a friend, a mentor and a fellow worker. I am happy to be asked to write in her Festschrift.

MINUTTER

Minutter, kanskje timer
av din egen eksistens

som du har glemt,
men som jeg

husker. Du lever
et hemmelig liv

i en annens minne.

(Tor Ulven, Etterlatte dikt, 1996)

TOM SANYA

The International Academic

If time were divided into a grid of squares, then Halina must have the ability to manage the activities in each of those squares effectively without any spill-over — at least so it seems from her unruffled appearance. In any encounter with her, she exudes a calmness that hints at a state of inner harmony. The attention that she gives when in contact with you can make you think that yours is the only business on her mind: the friendly hello in the corridors, the prompt and well-considered answers to emails, meticulous reading of voluminous texts at your request... It is only when you get to know about her tight euro-trotting programme that you begin to get a sense of how hectic a schedule she must be living each day. There is a mirror in Halina's office that ensures that she sees a visitor before they can see her. Could it be because of that mirror that she is ever well-prepared for a meeting in her office?

Halina was one of the first people I met at the Oslo School of Architecture and Design (AHO). Owing to the non-hierarchical introduction of those present, it completely escaped my attention in that first meeting that she was the Head of PhD School at AHO. I am from Uganda, and joined the PhD Cohort 6 at AHO with four others from Africa: two from Kenya and two from Tanzania. We joined rather late and, compared to the other students in the same cohort, we were behind schedule as we had missed some of the preparatory theoretical courses. In exchanges that followed, Halina reassured us that she would bring us up to the level of the rest of the students.

As we got to know her better, it became clear that behind her unperturbed aura was a lady with a great mastery of the landscape of knowledge and with a strong scholarly demeanour. I was also struck by her ability to undertake academic discourse in a variety of languages including English, French, Norwegian, German, Russian and even Latin. She indeed is a polyglot. As she talked, she exuded a competence that reassured us that we were in capable hands. Through well-targeted readings, discussions, and exposure to the right lecturers, the mysteries of PhD knowledge were slowly revealed to us. Concurrently, she did her best to integrate us into the academic milieu at AHO.

Using a broad approach more tilted towards freedom than to order, she helped us see beyond our individual topics to appreciate the different brands of knowledge and the interconnections there-in, as well the possibilities and limitations within each. At first it was all too abstract, too complicated, and too unrelated to our research areas. But initial worries quickly gave way to excitement as we freed our minds to receive the knowledge. We soon

capable of saying complicated academic words (like *phenomenological*, *teleological* and *tautological*) without biting our tongues. Given the particularly heady academic cocktail that she concocted for us, it was inevitable that the little boxes of our research topics were eventually smashed to open up our minds to broad new vistas of knowledge. High on the cocktail we, after some time, felt like accomplished scholars. I guess one could even detect in us a whiff of misplaced arrogance.

Some of the most memorable moments of my doctoral study so far are the group sessions with Halina and my African colleagues in which we discussed philosophical issues and undertook exercises in scholarly criticism. She gave us free reign to enthusiastically discuss the new grand ideas, to dream and to speak. Sometimes, when we were in danger of letting our petty internal rivalries get the better of us, she would skilfully diffuse the tensions. I suspect that we were her first protracted encounter with Africans — a new culture. Yet she seemed to be completely at home with us. She shared jokes and even invited us to coffee and cake at the end of the first hectic semester. Still, I must always resist the urge to ask her the question: “weren’t you scared of this group of Africans — maybe a little — perhaps, uh?”

During the discussions, she largely remained the unobtrusive moderator, only chipping in to encourage and to answer specific questions or to prop-up a colleague who was getting an unfair pummeling. We must, for at least some of time, as we fervently discussed the new concepts that were at best half-baked in our heads, have made erroneous arguments. Yet, she probably let us continue with a few errors sure, that in end, we would comprehend the big picture. And indeed I believe I have a fairly good idea of the big picture and feel confident when discussing issues pertaining to knowledge. I think that what I got from the exposure that Halina accorded us was not a specific kind of knowledge but rather the principles behind knowledge. That, I now appreciate, is much more valuable than knowledge on a specific subject. Now I’m confident, not because I know everything (for that is obviously impossible), but because in any academic discourse, nodes of recognition will illuminate to form a guiding framework that I can then fill-in with well-targeted inquiry.

I come from the fishing-eating culture of the Samia in eastern Uganda. Fish is so much a part of our culture that it is even generally believed that a Samia is capable of consuming the flesh through one corner of the mouth as the bones drop out through the other corner. To me, the most valuable benefit I got from Halina is that, if knowledge were a fish, she has not given me the fish but has instead helped me learn how to fish. This way, I am now certain of having a steady supply of fresh fish.

I vividly remember one day when I was scheduled to meet Halina. Disoriented by the winter weather, I was running late. I left a message on

her answering machine and when I finally got there 30 minutes later, I was expecting a severe rebuke for wasting the busy lady's time. I was however taken aback when she received me with her usual calm warmth and said it was good that I had at least left a message. And that is perhaps the most admirable quality of Halina: even as she takes her work seriously, she has the humility not to take herself too seriously. Thus one minute in a meeting, she will with gentle firmness ensure that you internalise an important point and the next minute she will, with genuine interest, ask about your mundane life in Africa. And all that will be punctuated with the odd joke. Yet she always remains focused on the issues at hand keeping an eye on the big picture as well as the minute points. She has an uncanny ability for not only deciphering the grander concepts within a text but also highlighting minuscule details like the omission of a comma.

My experience with Halina has reiterated to me that encouragement is better than coercion. By showing that she believes in me she has infused me with a self-belief that has helped me to face the challenges of doctoral study as they unfold. And through the exposure she has accorded during the study, I have learnt to see beyond my research topic to the interconnectedness of knowledge. I have especially started to see the interconnectedness of the design professions. The seemingly incongruous mix of fashion and industrial designers and architects, that we had in some of the PhD seminars, has helped me to see that we are all just designers who contribute to the making of artefacts. And that design is just a statement of intention — such that the role of the designer is not merely to design but also to ensure that the object (be it a building, an apparel or a tool) crystallises according to plan. That indeed for the wider society, just as objects must be created according to a design, a good communal plan must be backed up by a good implementation strategy so that the result turns out as intended.

Halina's proficiency in scholarly matters indicates that she has already scaled great academic heights. Yet as she does her duties, she seems to take great pleasure in what she is doing. This leads me to conclude that while climbing the mountain of her academic challenges, Halina finds it perfectly okay to enjoy the view. If I had to use one phrase for this amicable polyglot — who shares a joke as she guides a bunch of Africans through a complicated academic landscape, who is at home with the top echelons of academia as well as with the rank and file, whose schedule can take her across several countries in just a week, who can undertake intellectual discourse in a variety of languages — then that phrase would be 'the International Academic'.

Poem: The Amicable Polyglot

Latin is
the mother of many languages
Hussein had
the mother of all battles

Dunin who speaks Latin
Wins not with swords
But using words

The amicable polyglot
Wins with
Academic clout
Yet doesn't gloat

III. National and international contacts

SIGMUND ASMERVIK

*A remarkable professional
Better known abroad than at home*

I have had the privilege of knowing Halina Dunin-Woyseth for more than twenty years. It has also been a great pleasure doing different kinds of professional work together.

During these twenty years I have been working in different places and in different positions. I was a manager in SINTEF doing research within architecture and building technology in the late 1980s, and the directing manager of the research foundation of ALLFORSK from 1990 until 1995, both located in Trondheim.

For the last ten years, I have been a full time professor in spatial planning at the Department of Landscape Architecture and Spatial Planning at the Agricultural University of Norway, located in Aas, 30 kilometers south of Oslo. In January 2005 the department was renamed, and is now called the Norwegian University of Life Sciences. Throughout all these years, Professor Dunin-Woyseth has remained a very competent and hard working planning professional, very much dedicated to developing the PhD education at the Oslo School of Architecture (AHO).

I have also been aware of how actively Halina Dunin-Woyseth has worked in the international academic arena, partly through the Nordic network via the Nordic Journal of Architecture, and in a more European perspective through the Association of European Schools of Planning, AESOP. It is very easy to stick the label *not a prophet in her own country* on the work of Halina Dunin-Woyseth. Her name and work are very often referred to in these significant international networks. And her work within the area of developing curricula for PhD studies, is much respected and often commented on in very positive ways.

Over the years, she has also developed an impressive professional network in other parts of the world, such as Japan and USA. By chance I followed her as a visiting scholar to the University of California, Berkeley during the autumn 1987, at the Institute of Urban and Regional Development, IURD, lead by the famous planning professor Mel Webber.

My most important professional co-operation with professor Dunin-Woyseth was during the years 1992-2001 when I was an adjunct professor at the Department of Geography at NTNU in Trondheim, and where Halina was an external examiner. I found this collaboration very creative and inspiring. I think this was partly due to the fact that Dunin-Woyseth, in

this period, was already developing her concept for a PhD program for other *making professions* at AHO in addition to architects.

In my position, as an adjunct professor, at the Department of Geography, I tried to develop a course in spatial planning for theoretically-oriented geographers in a way that would give them some understanding of how planning works in practice. Dunin-Woyseth, in some ways, was working on a similar issue, but from the opposite direction, trying to teach practitioners a more theoretical approach to their field. These courses were based on some very basic principles on which we both agreed. One central theme was learning by practical experience from concrete cases.

In 1993 we wrote a paper together for the 7th AESOP CONGRESS, in Lodz, Poland with the title “Learning by practical experience from concrete cases”. The following text is from our common paper from this conference:

Learning by practical experience from concrete cases

Developing the dialogue between knowledge and skills in planning

Modern planning, which emerged in the second half of the nineteenth century has its foundation in the “design professions” of architecture, landscape architecture and engineering. After the Second World War, the planning discipline has expanded to include sociology, psychology, social science, and last, but not least, economics. But entering the 1990’s there are indications that the architects’ way of learning and practicing planning is on its way back.

The focus of this paper is on one aspect of architectural practice, the architectural way of teaching/ learning. We are of the opinion that the design-based, problem-oriented and experience-based model is an appropriate future model for the teaching of planning to architects. A central reference is made to the Dreyfus model, a theory of step-by-step learning. According to this model, we can observe levels in man’s way of learning and managing a certain skill. We distinguish between accumulated and assimilated knowledge, the first category being general knowledge, which can be taught independently of the context, while the second is very much upon the context.

When teaching planning we need both types of knowledge; the one is dependent upon the other. One way of combining these two types of knowledge is to propose courses based on the principle of Problem Based Learning (PBL). This principle has been tested in courses at the Department of Geography, University of Trondheim, and at The Oslo School of Architecture. The pedagogical concept emphasizes stimulating the student by working with concrete physical problems.

A Planning Course in Oslo

Halina Dunin-Woyseth has worked with developing the planning courses at the Oslo School of Architecture, and in recent years a new model of the basic course in planning has been developed. The course is one of five other courses running over two years that form the Basic Course Unit, BCP, at the School. When entering the BCP in their second year, the students already have some experience with subjects such as architectural design, colour and form design and history of architecture. The BCP is their first encounter with planning. The course consists of two parts; an introduction to Urban Design/ Urban Planning, and an introduction to Landscape and Regional Planning. The course is arranged from an architectural point of view, i.e. that of the interplay between natural and man-made physical environments, and begins with the smaller scale of an urban block and goes upward in scale to a regional context.

Being a basic course, the BCP is an “in breadth” course rather than an “in depth” one. It presents an outline of planning as interdisciplinary and where architectural thinking in planning is central. This pedagogical approach is not that of “ex cathedra” teaching. The main principle is to combine this kind of “from above” teaching with that “from below” as found in architectural studio work. The combination of these two pedagogical approaches should result in a synergetic learning process.

The semester starts with a short study of a small city as a point of reference. The objective of this excursion is to perceive the place and try to understand it. The information received mainly refers to the local planning situation. Project 1 is an urban block, and the task is to improve the quality of the place. No information about planning tools is given. The submitted projects are discussed “in gremio”. The discussion makes the students aware of the need for knowledge and tools to understand the existing planning situation, assess it, and propose solutions.

The teachers’ task is to enable the student to attain an appropriate level of knowledge and skill to work toward solutions of planning problems that are presented. We can tentatively call this level of “sufficiency control” over the planning design process. It represents what architects, engineers and other professions must know to function effectively.

“Effective functioning means being able to do it and, given the few perceptions (lack of time) we have, to do it quickly and with a minimum of error. Being able to do it does not mean attaining perfection (the theoretical end of the infinite architectural process), but attaining sufficiency. Effectiveness means knowing when to get on (that is, into the process) and when to get off. Since all processes are infinite, you don’t get on at the beginning and you don’t get off at the end “. (Saalman, 1990)

In our Basic Course in Planning, this type of necessary knowledge is

Introduction to Planning Methodology for Architects (IPMA). It encompasses methods for the registration of historical and existing situations; methods of analysis, methods of synthesis, and finally methods and principles, norms and resolution with regard to planning practice. Two series of lectures are offered parallel with the IPMA series: the Past Experiences Series, which contains a short review of urban planning history, and modern Urban Design/ Urban Planning Theories. The lectures are combined with studio work; modeling, and graphic presentation of the theoretical material introduced.

The professional skills and tacit knowledge are taught through practical design work.

Project 2 of the course lasts four weeks and develops in depth the same project task. The students are developing the necessary skills. When completed, the project is discussed “in gremio” on the lines of the first conceptual project. An evaluation of the attained knowledge/skills closes the first part of the course that is focused on the introduction to Urban Design/ Planning.

The second part of the course is devoted to landscape and regional planning. It starts, like the first, by an excursion to the region surrounding the “city of reference”. A short stay here is assigned to allow experiencing, perceiving and learning about the landscape and region. This leads to preparation for Project 3, a conceptual project for an area, also containing the site of Project 1 and 2, but the task is to relate it to the broader spatial context. As in the first part of the course, the students go through a process of “random” planning. The conceptual project is discussed and the need for planning tools, appropriate to this new planning scale, is defined.

Project 4, of four weeks duration, is again a process of developing the conceptual project in depth while acquiring knowledge and skills. It follows a similar process as the first part of the course, and further develops the same procedures.

The teachers are aware of the fact that the extent of knowledge presented to the students in such a pragmatic way must, for practical reasons, be less extensive than in cases of pure “ex cathedra” teaching. Nevertheless, we hope that this smaller portion of knowledge is more easily acquired by the students and contributes to develop the important tacit knowledge.

Furthermore, the students are becoming aware that each new planning task requires some general methodological tools, as well as some task specific tools, and that the designer/ planner must develop these during the planning/ design process. The main pedagogical credo of the course at the Oslo School of Architecture, therefore, is, that the students should be prepared for their professional life by “Learning to Design and Designing to Learn” (Schön, 1993).

A Planning Course in Trondheim

Sigmund Asmervik has been responsible for a couple of years, for an eight week course in planning theory for students of Master of Geography at the University of Trondheim. In many ways the main ideas in this course are similar to those of the AHO courses. The main idea with this planning theory course is to make the students aware of the different stages from ideas and images to written and drawn plans to built 3D physical form. The course also focuses on the fact that most categories of physical plans are created in a cultural context and that they very often have social consequences.

The students work in groups of 3-5 persons and study a concrete case in the city of Trondheim. They read planning documents, interview the planners and civil servants involved, and make field studies to see how the plans are realized and how they work. Experience so far has shown that the students look at their physical environment with new eyes and they read planning documents with a more critical attitude. As a result, they are surprised by the great differences they observe between ideology, plans and the realized environment.

Conclusions

The last two decades of planning theory and education have to a great extent focused on general theories dominated by political science, economics, organizational theories and sociology, while less attention has been paid to concrete physical solutions. But entering the 1990's more attention is again being given to physical structures, since the environment will always have an economic, functional and aesthetic dimension. The use of concrete cases as a means to train future planners seems to us to be a good solution to obtain both knowledge and skills in the planning profession.

Referring to the theory of learning by Dreyfus & Dreyfus, we would like to stress that planners need both knowledge and skills to perform planning in a professional manner. There is an increasing focus on research-based teaching at the universities in our country, but from this follow some problems. There is little tradition among architects and planners to base their teaching or even practice on scientific research. There are different reasons for this. To be strictly scientific, one cannot uncover the future by research. Research is mainly an activity best applied to the past and on what actually exists. Planning is by definition, heading towards future solutions.

The use of concrete cases is not a well-accepted method in the theory of science. We, therefore, must argue for case studies as an accepted research method. While we focus extensively in this paper on context-dependent concrete cases as a basis for teaching planning, this does not mean that there is no need for general theories and knowledge and quantitative studies based on large numbers. Our position is that we definitely need both.

Concrete cases must be studied in light of general empirical knowledge, as well as general knowledge must be verified/ falsified in concrete cases. The dialectic process between knowledge and skills, between brain, eyes and hands, are in many ways the essence of our ideas of teaching planning.

PER OLAF FJELD

Zoom!

After so many years I can easily recognize Halina from a distance. She just slightly bends over at the waist, and she is always so concentrated in her walk. Entering or leaving a meeting appears to be the same thing for her, as both seem to demand equal concentration. Perhaps, it is that there is always another meeting and another paper to be read.

Halina is ambitious in the sense that she knows and has experienced that nothing is free, and that life should never be taken for granted. Its mystery is only generous at a certain place and at a certain time. In her own story she has a thick layer of both wisdom and knowledge built up over time. Her reading of the world is international and personal at the same time. After so many years I can recognize her from a distance. We worked together for six years, and looking back I can see that the dedication and effort Halina gave to AHO in this period helped to save the school from becoming a small department in a large institution and to set its present course.

I am not a PhD person, that is your business Halina, bringing the candidates onwards. However, I admire what you have been able to build up, your unique interest and passion, and for reminding us that *she or he is a scholar*. Thank you for the time we had together and for your steadfast belief in the relationship between culture and institution. And remember as time goes by, I will continue to feel I know you in the same way that also you can read me. I recognize you from a distance.

Best wishes from Per Olaf

PAULA FURE

Chaos, joy and creation

Chaos.

One can think that a creative person is a person who does not only endure chaos, but who loves to be there in the chaotic process. It is a person who is not satisfied by structures, closed systems, and easily won solutions. There may be a fear of staying too long in the closed rooms, connected to an unbearable and boring safety without movement.

In *Genese* the French philosopher Michel Serres says that to try to bring forth something is to put something at stake, to expose oneself to danger. It is like living in a stream outside classified systems, not knowing exactly where this stream will take us. Of course, one could mean that putting oneself in such a stream is an action without responsibility. We think we must leave chaos behind as soon as possible. Chaos frighten us and we are afraid of it destroying us. But Serres is talking about the positive aspect of chaos. It is open. When you classify, you close, and you find yourself there within something which is closed. But chaos is not closed, it is not a system, it is diversity, it is abundance, it is riches.

Perhaps we are afraid of this abundance, this complete lack of structures? Does it not frighten us to death? Is that the reason why we talk negatively about this chaos? Are we perhaps trying to protect ourselves from this dangerous expedition through the unknown stream, wondering where it will lead us?

The creative person, however, is not eager to protect him- or herself. This person feels, of course, anguish at being in the centre of chaos. But this anguish has to be there so that one can feel right. It is like people who have grown up in very stormy places, and one day the storm goes away. The quietness is there, and it is difficult to feel well and to accept the new tranquillity. Or it could be like a sailor, moving safely and elegant around the deck of his ship during a raging storm, finding himself wandering the streets, dressed in suit and feeling he is on the wrong planet. Security and safety are not the right elements for him. But how is work progressing inside the chaos? How is it possible to do a rational job there?

Serres would answer that, as we mentioned above, we have only negative words about chaos. And the cause is, in accordance with his thinking, that our reason is soaked with negativism. This was also the opinion of Spinoza: determination is negation, he says. So Serres can reason that indetermination is positive. And he says: In earlier times philosophers without bashfulness

have imported ideas and conceptions from science. And in so doing they have won glory and honour for their works. This is falsity, Serres says. But from where should these conceptions be fetched, these not yet created terms, these not yet hatched words, if not from the room where they have come into existence, from outside the canonical knowledge? Serres has been talking about indetermination and chaos. And he is asking if we also could imagine a chaotic and primary abundance as for knowledge. He himself imagines a fermentative noise, an intriguing rumbling which leads the way to creating the foundation for a new encyclopedia.

With this intention he will start writing forth the positive terms of indetermination. This is absolutely fundamental, without it we have no chance to do our work in chaos. Serres is talking about the positive chaos as a melting form, a matrix.

And here we are with all the abundance, all the noise, all the riches of chaos, and of course all the risks. We are staying here with all our anguish and pain and hope and joy: With chaos as our matrix: We are trying, like Serres, to find the new words, the new forms!

Joy.

We often think of the good feelings we should have had in relation to our finished work of art. There is a pleasure to be obtained. Now our work is there, in the world — and we have produced it.

And so it may be. We need to be glad, as we need to be appreciated. So if we do want that feeling of succeeding in our tasks, it really is a good thing. But are we, in our hearts, satisfied with the good criticism, the positive words which could recommend us as good thinkers, good leaders, good workers, or good artists in order to get more tasks, perhaps a good job and so on? If so, we are not aware of a more profound pleasure which might emerge from another source.

Michel Serres tells, in dialog with Bruno Latour, in *Eclaircissements* that he was excluded forever from teaching philosophy. He could teach the history of science, but in a department of history, not in the department of philosophy. He says it was a definitive isolation, a punishment, a tragedy. But later on, he says that if he was to name the dominant sentiment that was always with him, he would not hesitate for a moment. It was joy! The enthusiasm for the philosophical life has never left him, he tells. That is joy despite tragedy!

In *L'énergie spirituelle* Henri Bergson makes a sharp distinction between pleasure and joy. He says that a lot of people hold, that men of letters or artists work for the admiration they can win, and that they receive their greatest joy from this. It is, however, a "profound error", Bergson ascertains. The reason why somebody clings to glory and admiration is that they are not

sure they have succeeded in their work. Achieving admiration from someone can give one pleasure for a time, but not joy.

Bergson talks about the fact that nature warns us with a clear sign. And that sign is joy. But what does he really mean with that? Does he mean that since we all are part of nature we will feel it within ourselves? Perhaps he is right. But still, how should we recognize the sign which could be evident to us? Is it through a sort of intuition?

Now joy is here, within me! I can notice it, it is real. I have no need to think of positions, admiration, success. I am not there. I am another place where the deepest joy tells me that “life has succeeded, gained ground, conquered”. Is it like that?

We have a conviction as to our own work. We know that it could “endure and live”. We are in a position above glory given by men. Why? Because we feel we are the creators, we are sure, we know it! With our hearts? Yes, perhaps in our hearts, but we know it in another way too. We feel, with Bergson, that this joy is “the joy of a god”, a creating god (*L'énergie spirituelle/ES*).

One of the world's foremost artists, the great film creator Andrey Tarkovsky, is also thinking of a strong tie between the deep artistic activity — and we should also think the deep intellectual process — and the divine. He thinks that every thing which is created in “a spirit of self-surrender” is a “pointless and selfless creative act”. In *Sculpting in Time* he asks if there is not a strong connection between men's capacity to create and the fact — as he sees it — that men are created in the image of God.

In Western thinking, and during the last hundred years, we do not easily calculate with a God who is there, creating and giving impulses of creating to us. But Tarkovsky is thinking in another way about this and other questions. With the iron curtain still there in his homeland, he was asked if it was not wonderful to stay in Sweden, in a free country, where he was working for the moment. And he answered: You are not free. In Russia we know what freedom is. This inner freedom was his source of joy.

In his thinking about joy, Bergson seems to have received inspiration from The Upanishads. He declares, that “wherever there is joy, there is creation; and the richer the creation, the deeper the joy.” (*ES*) In the *Chandogya-Upanishad* you may find just the same way of thinking: “Where there is joy there is creation. Where there is no joy there is no creation: know the nature of joy. Where there is the Infinite there is joy. There is no joy in the finite. Only in the Infinite there is joy: know the nature of the Infinite.”

So here joy is connected to the Infinite. It is not to be ended, it is an eternal movement which carries on forever. That is joy!

Creation.

“Where there is joy, there is creation”.

These words from *The Chandogya-Upanishad* lead us to reflect on this wonderful and also difficult phenomenon: creation. In Bergson's thinking this word is of central importance. He holds that the true reality is creation, and this creation comes forth through duration —another well known term in his thinking — which means that our experiences are a continuous progress consisting by qualitative differences. But how can we live in this constant movement? We are used to rigidly defined concepts, how can we grasp this flowing reality which Bergson is talking about? It is possible, Bergson holds, because our minds can be installed in the mobile reality and here our minds can adopt “its ceaselessly changing direction”. But something has to be done! The mind must “do itself violence”. It has to reverse the direction of the operation by which it customarily thinks. It further has to recast and reverse, and in doing so the mind will arrive at fluid terms or concepts. Then our minds will be able to follow the mobile reality in all its windings, and it also will be able to adopt “the very movement of the inner life of things” (*Introduction à la métaphysique*).

As we understand it, we have to upset old categories in order to get things to work in this thinking. So it is not a “soft revolution” as for the thoughts, but rather a painful operation perhaps followed by sorrow because dear positions have to be abandoned.

This is in short what Bergson means, writing and talking about creation and the mobile reality — from tranquil flow to upsetting of categories and doing violence against our own mind. But he is eager to reach people outside the theoretical world as well. So at the same time he tells us that we all are creating. He refers to the merchant developing his business, the manufacturer seeing his work prosper, the woman creating a wonderful home, the artist who has realized his project, the thinker who has given form to a brilliant idea. They are all creators (*ES*). Bergson was of course aware of the great and marvellous works which had been created, the best of good literature, philosophy, theatre, music and art. He did know that those men and women who were standing behind these great, great works of mankind were creators in the highest degree. But he wants to look at another aspect as well. He is thinking of nature, of the riches and the unforeseeable novelty in nature at any time. There is a force within which can release the visible things and bring them out to our appearance. It seems it is like an ongoing creation, a creation for the universe, a creation for nothing, for no purpose. But could there be a sort of purpose all the same? And could this purpose be the joy of creation? To bring forth all the endless varieties of animal and vegetable species, to afford to let so very much of it not be new living species, but let it have the purpose to go back to the earth, to let it be a matrix with new purposes.

We have been talking about creation as the philosopher sees it, that

everybody can create on a small scale, that the artists are the creators in the highest degree, and we have been talking about nature as a creator. Then we lastly will consider another aspect of creating: how man can be able to create oneself.

Bergson thinks that all the sorts of creation which we have talked about, are leading up to the greatest creating act of them all: man's creation of oneself. As we have seen, the creative acts in smaller and greater degrees look like a triumph of life. Then we should think that our human life has its goal in a creation. But this creation differs fundamentally from all other forms of creating. The philosopher or the artist will finish their several projects. The project has been given a form; it has become a physical thing in the world like a book or a picture. The process is ended. But the creation of oneself — and we must suppose it is the real meaning with our life, and life's greatest triumph — this creation can always be continued. We create ourselves through ourselves. Sometimes the "material" we use are very rich and wonderful, sometimes it is poor. Still we create, and thus let our personality grow. In this way we add unceasingly something to the wealth of the world (*ES*). Bergson talks about these possibilities as reality.

But are we aware of this chance we really have to create ourselves? St. Augustin is not quite sure about this. In *Confessions* he tells about people "moved to wonder by the mountain peaks, by vast waves of the sea, by broad waterfalls on rivers, by the all-embracing extent of the ocean, by the movement of the stars. But in themselves they are uninterested" (Book X). Perhaps a little text from *The Chandogya-Upanishad* could show another reality? Here we can read that in our own body there is a small shrine in the form of a lotus-flower, and within can be found a small space. And if somebody asks who is dwelling within there, we can answer:

"The little space within the heart is as great as this vast universe. The heavens and the earth are there, and the sun, and the moon, and the stars; fire and lightning and winds are there; and all that now is and all that is not: for the whole universe is in Him and He dwells within our heart."

Thoughts from two different worlds are meeting in these texts. But they complement one another. Man can both admire a wonderful nature and be part of it himself. In the West one often looks at nature as something outside oneself; in the East one registers nature as something within, like a small shrine, a holy shrine. Perhaps we need to be inside there for a moment, focusing on our little shrine — as great as the vast universe — and to know with Bergson, that therein we can find the possibility to create ourselves, thereby enrich the world.

And at last — a thank you so far ...

Thank you, Halina, for your courage in meeting Chaos. You have endured being there with a vision, knowing that chaos could bring forth new knowledge and new positions for so many involved. Not only individuals whom you met or meet, but whole faculties and institutes to which you have given a new faith in working with their subjects and tasks in their research.

Thank you for your Joy which is visible! We have wondered: From where does it come. How could you with all the hard work, problems as for the *gründer* task, where you were working with the real impossible all the time, how could you meet everybody with so much mildness and reflect so much light? I perhaps know it. There must be a source of joy whithin you!

Thank you for your work as a *gründer* in the building of the doctoral education at the AHO and for creating hope for our subjects in relation to research. You have been creating a spirit of inquiry in so many candidates. Not only have a lot of projects seen the light of the day under your brilliant guidance, you have also been helping the candidates to create their own lives as researchers and human beings.

INGUNN GJØRVA

Model, teacher, friend

For the past 15 years Halina has been heading the doctoral program at the Oslo School of Architecture and Design (AHO). She started working at AHO in 1981, as a teacher in the department then known as “Plan 2”. In June 1990 she was appointed by the Board to be the research leader of the institution, the main objective being to build up a doctoral program. She accepted this challenge, and enthusiastically devoted herself to creating a doctoral program based on an organized research education in a field with rather weak research traditions. She experienced a steep learning curve with focus on knowledge building both for herself and others. In 1995 she was formally appointed by the Board as director of the doctoral program.

From 1990 to 1992 a process was taking place in which Norway’s first national doctoral regulations for organized doctoral studies were formulated. The Norwegian Association of Higher Education Institutions appointed a research committee to handle this task, and Halina was representing AHO. The first formal class of doctoral students at AHO started their studies in 1992.

Inspired by what was happening in British milieus, as well as at other Norwegian academic institutions, Halina saw the following as the main objectives for the research education at AHO: providing a structured transition from lower to higher grades of research work, developing a common disciplinary identity and broadening students’ understanding of their own discipline. For establishing doctoral studies in architecture in Norway, these goals represented the start of a new academic activity. The first objective demanded on the part of the established knowledge fields that they facilitate a transition from a lower to a higher grade of research work. At the threshold of the nineties, there was no “higher level” of research in vocational education, even though a few doctoral theses existed that could aspire to such a higher level. For the development of a research education, such a higher level — a doctoral level — had to be established first in spite of the lack of a lower level (for example MSc). This was done by gradually building a research didactical concept. Developing a common disciplinary identity has been an epistemological project in itself. The concept has developed along with the expansion of the teaching profile at AHO to also include industrial design and later interaction design. AHO’s role as a national center of competence for doctoral studies in practical-esthetical fields has also had a great impact on the development of this concept. Contributing to the doctoral students’

broad understanding of their own discipline, meant seeing it in connection with and in dialogue with other knowledge producers, represented by other knowledge disciplines.

Through the whole process of a gradual construction and development of the doctoral program, Halina has put an emphasis on internationalization (including doctoral students staying at foreign academic institutions), network building and focusing on quality. At the same time it was often necessary to fight the cause of the doctoral program in various contexts internally at AHO, in an organization which didn't always view research as a useful or interesting addition to its activities.

Halina grew up in Poland, where she also received her education as an architect and got her doctoral degree. She came to Norway via West Africa, where she worked for a few years in Nigeria. During her time at AHO, she has also periodically worked in the USA, Japan, Germany, France, UK and the Nordic countries. She has received grants including the American Fulbright Award, Deutscher Akademischer Austauschdienst and Sasakawa Grant. She has been employed as guest professor in Sweden, France and at the Bergen National Academy of the Arts. Halina speaks many languages, and is currently learning another one — Portuguese. As a practising architect Halina has worked both as a spatial planner and a building project architect, in Eastern Europe, West Africa and in Norway.

I started working as an administrative officer in the research administration at AHO on January 5th 1998. There was good chemistry between Halina and myself right from when we first met at the AHO. Meeting her convinced me that I wanted the position, and she spoke on my behalf hoping that I would get the job.

Since that time we have been a team working closely together with the daily running of the doctoral program. We have also co-operated on several interesting projects, for example on evaluating whether the Norwegian Academy of Music should get the right to confer doctoral degrees. Who could forget the early morning meeting which started with having beautiful music performed by some of Norway's best musicians? Developing a research education program organized as a Nordic network was also a challenging and interesting process, as was providing research education for doctoral students from developing countries.

In many respects we constitute a mutual "admiration society", but at the same time the degree of trust that we have in each other allows us to be each other's sharpest critics. There are many aspects of Halina that I appreciate. She combines a sharp intellect with involvement and consideration for her fellow human beings. She manages to be as open for learning as she is for teaching others. Halina has a strong integrity, and puts down an enormous amount of work, sometimes at the cost of her own health. Halina is shy on

a personal level, but if you are lucky enough to get close to her, she is a loyal and generous friend with great humor and warmth.

Through the years Halina has supervised numerous doctoral students, and has also been the "Doktormutter" right up to disputation for several of them. I often get feedback from people about what Halina has meant to them with regards to guidance and inspiration. Many times I have talked to happy and relieved doctoral students or others after they have been to Halina's office seeking help, and she has helped them towards finding a solution or showing them a new path.

Halina is greatly appreciated in the academic milieu, both in the Nordic countries and internationally, as attested by the many assignments she receives, both as a lecturer, evaluator, external examiner and working partner in a large number of academic activities.

Halina, thank you for a great working relationship and for your friendship! Congratulations on your 60th birthday, and 15 years as the director of the doctoral program at AHO!

EGIL NORDIN

Halina — teacher and colleague

I have known Halina as a teacher in our shared discipline of town planning and as the leader of the doctoral education up to the time of my retirement in 2000.

Halina was a valued colleague and a talented teacher. She is an energetic and effective organizer, who has single-handedly built up the doctoral programme at AHO. This was undoubtedly an important reason for AHO eventually becoming an institution with full university status.

I respect her for her engagement, her integrity and her competence.

Hearty congratulations!

HANS BJUR

Promoter of the making disciplines

"Our discipline must be nourished by research of a special character", Halina often claimed. We must constantly bear in mind that architecture is a *making discipline*, and therefore needs theoretic knowledge, which takes practice as the point of departure. Her statement was, strangely enough, a challenging one during the 1990s among architectural researchers, where theses and papers that retreated from the core questions of architectural practice had come into fashion.

At the time when I was the Dean of the School of Architecture at Chalmers Institute of Technology in Gothenburg, Halina Dunin-Woyseth was invited as holder of the prestigious Chalmers Jubilee Professorship. During her stay she vitalised the corridors at our university, and she stimulated seminars and faculty meetings. I am sure that we all remember the kind of international atmosphere she brought into our discussions. Professors, as well as doctoral students, became more aware of the contemporary discourses of architecture and design, and Halina generously mediated many useful references and contacts. Afterwards, I could observe the many lasting and deep impressions she had made on our doctoral students, as well as supervisors.

Halina's involvement in the School of Architecture at Chalmers was also of great importance for me personally, as I got a highly competent and devoted partner, with whom I could discuss the future of our profession. We were both very much occupied with exploring the possibilities of broadening the architect's field of activities, into design, interior design, urbanism, spatial planning etc. The vision of crossing non-relevant borders for the profession of architects did always stimulate our discussions and my own endeavours as Dean.

During the last four years, Halina has devoted a substantial part of her summer vacations to the reading and reviewing of research applications to FORMAS, one of the Swedish Research Councils. The scrutiny of research proposals within the field of architecture and urban development was a huge task, and not always as exciting as one could wish. I feel responsible for those lost vacations. In my capacity of appointed chairman I was to suggest members. Our first choice was Halina, and everyone was very pleased when she accepted. To assess and decide on research funding is involving responsibility, and demands a high degree of integrity, which is a quality of hers. Her assessments were always clear, as were her arguments in our discussions and the decision-making process. Moreover, Halina's various

international experiences in the field substantially contributed to making well-founded decisions.

I have had the pleasure of working together with Halina Dunin-Woyseth also on other occasions, in connection with the public defence of doctoral theses at AHO and Chalmers, and as expert advisers at the appointment of professorships. One thing I have noticed each time, and highly appreciated, is her professional approach to the duties. Another is her capacity for stimulating academic discussions, especially by enriching them with a broader and international context. Halina Dunin-Woyseth is, as a matter of fact, one of very few internationally orientated scholars in the field of architectural research and education, and I sincerely hope that she will continue to promote the integration of architecture, as a *making discipline*, in an international context.

KRISTINA BJÖRNBERG

Unparalleled and unique

Unparalleled and unique — both as a human being and as a professional. This is how I want to describe Halina Dunin-Woyseth. In her person, Halina combines exceptional professionalism of a high standard with a humanity and warmth that appear limitless. To this must be added the picture of an elegant woman with integrity who always takes time and painstakingly carries out both large and small tasks. Halina — I have great admiration for you, and my pleasure that I have the opportunity to work with you in the field of architectural research is just as great.

My first meeting with Halina Dunin-Woyseth was on 19 November 1993 when she gave a talk on the development of Nordplan at Skeppsholmen in Stockholm. The theme was "The change in planning approach" and the title of Halina's talk was "People, money and places: planning in a socioeconomic macroperspective". Halina talked of the roles of the architect and planner in relation to the large changes in world economy, and the way the planner can play an active part in these processes. I remember going away from the talk with the feeling that I had heard something important. Halina had shown the way to a new approach, a new responsibility, a new challenge. The memory of Halina that remained with me was that of an intensive woman with a strong personality.

In the autumn of 2000 and the spring of 2001, the Swedish Council for Building Research/Research Council FORMAS, the Bank of Sweden Tercentenary Foundation and the National Heritage Board jointly arranged a series of seminars with a view to developing and strengthening architectural and urban planning research in Sweden. Halina was invited as the sole representative from abroad to take part in the seminars, and because of her the discussion was raised high above the national perspective to include international comparisons on a high academic level. Halina's talk on how a new scientific area — a *making discipline* — can be formulated, built up and developed on the basis of the triad research for, research within and research on architecture, was exceptionally clear and was published in the journal *Staden, husen og tiden*. The talk had a great influence on my understanding of architectural research as a scientific discipline.

As a result of the shake-up of the organisation of Swedish research councils, which led to the formation of the Research Council FORMAS on 1 January 2001, a new assessment organisation was introduced with expert scientific panels to judge applications for research grants. I became

responsible for an expert panel entitled "Urban development". When highly competent scientific experts in architectural research were to be invited to be members of the panel, I thought of Halina as a matter of course. To my and FORMAS' great pleasure, Halina answered yes. Over the period 2001-2004, Halina carried out comprehensive and highly painstaking assessment work by scrutinising and marking a large number of research applications and discussing these at the meetings of the panel. This related to applications in both architectural research and in other disciplines with the focus on urban development. This is where I found how incredibly skilful Halina is both technically and academically, with her understanding for both theory and practice and their relationship, and with her unmatched knowledge of people.

It was extremely important for me, as senior research officer, to have discussions with Halina about the conditions and future of architectural research. Over all these years, Halina has always answered my many questions. It is Halina who has taught me that know-how has become increasingly important in transdisciplinary research, told me of the concept *design cognition*, of the differences between researchers from the scientific side and those from the practical side. From her extensive international knowledge and network, Halina has given me and FORMAS contacts all over the world. Because of Halina's multicultural background, the word *bridge builder*, not only between the Nordic countries and the rest of Europe but between east, west and south, is really appropriate.

Over all these years when I had the privilege to come into closer contact with Halina, my admiration for her as a person has increased. Apart from her professionalism, she has always been encouraging and positive, always carried out her work on time, always answered her mail and did so straight away. Halina's capacity for work is astounding! When somebody places such high demands on herself as Halina, there might be a risk that she will be irritated by the carelessness and shortcomings of others. I have never found this in relation to Halina – she always sees the best in others, and in return others also show their most positive sides. Halina's greatness is combined with humility. Instead of insisting on her own preferences, Halina expresses her appreciation that she can learn something new through e.g. participation in an expert panel. "... I see this as an important learning process for me. I must thank you."

In her mails, Halina never fails to write something positive and encouraging and also wishes to be remembered to her colleagues at FORMAS. I can therefore say that I speak not only for myself but for all at FORMAS with whom Halina has worked.

For me personally, working with Halina over all these years has been very significant. You have supported and encouraged, you have shared with

your deep-seated academic knowledge, and you have generously shown your deep humanity in both success and setback. Contact with you has made me develop, professionally and personally. I look forward with pleasure to our future cooperation where you will play an important part in the international expert panel that will evaluate Swedish architectural research.

CATHARINA DYRSSEN

Inhalations for the next decade

1

On stage was a dark-haired woman providing energetic contrast to the authoritative men of the key-note group: Christian Norberg-Schulz, Peter Hall and others. Who was this woman? Her mere movements, concentrated and precise, evoked interest, her sharp argumentation commanded respect. Here was an academic person who stood up for an individual profile and refused to play the role of gentle female alibi for gender justification. This was at the symposium of Nordic Architectural Research Society on architectural theory, the year was 1992 and I was a doctoral student at Chalmers School of Architecture in Gothenburg, already well acquainted with ample distribution of advice from fatherly professors. Aha — so there were alternatives?

Later, on the many occasions when Halina has visited Chalmers, both as a guest teacher, visiting professor and external examiner, I have noticed that she has evoked the same reactions among other students, an effect that must be based on personal powers of a rare kind. The students appreciate her well-structured arguments and sharp analyses on theoretical matters but in addition they feel themselves being truly respected by an authoritative researcher.

Some professors are like old coffee machines. You push one button and get it all poured over your tiny paper cup, already tipping at the first gush of liquid. Any comment, text or question to such professors will set off a flood of information, a sumptuous smorgasbord of exposed knowledge that makes the student crouch and shrink. Not so with Halina. In seminars Halina seems to instantly grasp the topic at stake, both its main scope and its nuances. However vaguely the PhD students express their research problems and projects, she listens with extended mental tentacles, pins down the dispersed keywords of the presentation, and brings forth immanent strengths, structures and lines of argumentation. She suggests strategies for improvement but never gives a finished answer, which means she never deprives the other part of the power over her or his work, just interacting with the person to increase integrity, support research professionalism, and release hidden qualities of the text.

This exemplifies the art of structured improvisation, in itself architectural work and a design process of highly sensitive calibre in the construction of knowledge. It erases most of the romantic perspectives and prejudices on distinctions between art based and scientific research that have affected a lot of academic debates on the *making professions* in the last two decades.

Instead it focuses the relevance of knowledge, stretching inventive approaches across any constructed gaps between a mode 1 and mode 2.

2

Systematically, and with great endurance, Halina has gradually built a structure of knowledge within the *making professions* that we can now see has had great influence in the world of design doctorates earning a strong international position for Scandinavian design-based research.

In 1997-98, when she had the jubilee professorship at Chalmers University of Technology, Halina planted these new ways of thinking in the PhD education at our architectural department and gave new air to the system. With a research tradition of the school well rooted in the 1970s and going back to the 1950s, there were several conventions to challenge. As she formulated new potentials in architectural research, the methodological self-image of our institution was gradually transformed, which meant not merely admitting the multifaceted character of the field as a crossroad for other disciplines but starting to define it on its own terms. This also meant reaching out and creating dialogues with other areas rather than subjecting to being invaded by more strongly formulated methodologies. Halina inspired and catalysed change.

We now see an increasing amount of innovation and design in research at our school. The Department of Architecture has survived as an independent unit for both education and research at Chalmers, thus keeping an awareness of methodological integrity. Through this confidence we now also experience more respect from surrounding academic institutions at our university, a respect that comes with discoveries that design-thinking has wide-range possibilities. Instead of former alienation it has become stimulating to be part of a technical environment; from a relatively independent position architecture and design can benefit from a culture where applicable results and innovation are combined with more long-term, deep investigations.

As a small and still “different” department we continue to move more like a guerrilla group than a stable unit, and are considerably free to make alliances across academic borders — in transdisciplinary collaboration with fields of technology, business organisation, faculty of fine arts at the University of Gothenburg, in interdisciplinary studies on sustainability, with the other schools of architecture and design in Sweden. AKAD, the Academy for Practice-based Research in Architecture and Design (Akademien för konstnärlig forskning inom arkitektur och design), is one such platform for promotion and development of research founded on architectural practice knowledge.

3

So far it sounds more or less like a success story, and there are several reasons to stay optimistic. But there are also circumstances that call for caution. Today, in the Western launching of “knowledge societies”, it is more crudely obvious than before that academic work, although held forth as the most important key to progress, constitutes but a subordinate part of international economic power games. Borders have diffused between symbolic and object production as events and image making play such leading parts in commercial endeavours. There are lots of “knowledge selling” companies. Knowledge is consumption. We are all in it for the money — and for survival — and in this process academic life creates more and more fractal interfaces with industry, public governance and economic investment.

Theoretical distinctions between art based and scientific research modes such as in the 1990s are of less and less relevance, which is a relief, but the relationship does not altogether develop in such creative harmony as seems to be outlined by Michael Gibbons. With-high speed processes, based on creative ideas and immediate launching, we see today an increasing amount of production that calls itself research but which is neither new nor critical. It is often consumer-oriented, nicely wrapped information, with answers more or less given beforehand and spoken with the buyer’s tongue. Design is especially vulnerable here. With sometimes well-paid assignments design is no more a key to discovery and true invention but a street-smart strategy that merely provides argumentative décor. There is an increasing lack of reflection. The situation is rapidly becoming crucial.

Academic institutions are absorbed as actors within regional and international economy and, accordingly, their authority is questioned and their autonomy disintegrated. In this perspective authority (power) and autonomy (integrity) of universities must be re-examined. One may distinguish here not only between applied and basic research but also between fast and slow research processes.

As mediators between international economy and sustainability of societies universities are important both as economic and socio-political institutions. This means that universities must maintain both fast and slow research. Fast research serves consumers — society, municipalities, building industry, editions companies, conference organisers etc — with applicable results ranging all the way, and increasingly in combinations, between technical solutions for buildings, models for development collaboration, quantitative investigations, profile imaging, and creative ideas in general. Fast research needs to work extremely strategically and method-focused, through precise applications, with clear scopes and objectives that make projects extremely goal-oriented. Fast research has great use for creative ideas but no space for long-term, basic searching, whether mainly design- or art-based interrogation

or deep systematic studies. Fast research needs design simply because it is a more efficient way to reach concrete results.

But fast research has also proved effective as political artwork, or art as political and social (counter-) action. Today it is part of the new culture of political and architectural resistance, with groups like muf, FAT etc surviving on the edge of established economical and informational structures, acting subversively both with and against them. Design research as such has neither ethical qualities nor “art” values but can be used for widely disparate aims.

4

So what about slow research? With slow research universities can, in principle, make coalitions with the subversive groups — in the same way partly thriving from, and serving, the established economy, keeping an independent position in society and politics, and sometimes also giving voice to the less empowered. What the small groups do as subculture guerrillas, universities can develop with institutional authority. Universities have in themselves (or have had) a tenure that produces resistance and integrity. In both cases it is a delicate balance act. With less state funding for PhD projects, but under increasing official pressure for extensive production of doctoral students to serve the Western world economy with knowledge workers, university institutions and small subversive groups may come together in several unholy alliances.

But with less economic space delivered from national funding there is also an increasing difficulty and need to sustain integrity and protect zones of independent reflection. Academic research may start playing even more with double standards: Through shop windows of applicable research we give the customers what they want, but behind we may have secret agendas on what the real business is about. Universities need to develop tactics, both to stay in dialogue with society and possible funding, and to secure a space for slow, deep-digging research and independent critique. Art is included here, corresponding with science as true reflection and thoughtfulness. Research can create knowledge which is neither superficial design noise nor results only surfing on progress but forming a reflective counter-movement.

5

In order not to become only fractal fringes of dancing Western economies and rising Richard Florida-myths of creative classes, we must find new roots and routes to research strategies within the architectural field. In the urge to secure and form spaces of integrity the single university unit, especially in the *making professions*, is too small. Even the national territory is too limited. We need dialogues within a larger academic forum. It is only within an expanded regional academic context that the integrity can be sustained. A Nordic basis

can make out such united strength, with enough power to generate a new, academic multi-nuclear hub for a reflecting counterculture.

With Gothenburg being situated halfway between the three capitals of Scandinavia, and with increased regionalisation, Chalmers School of Architecture has gained a lot from the contacts with AHO. Several of our teachers and critics have been recruited from the Oslo academic environment, bringing with them artistic skill and precision. There is also a cultural kinship between Gothenburg and Oslo as coastal cities. But in the development of our architectural discourse we especially appreciate the Norwegian modes for expression that are so much more clear-speaking and straightforward than in Sweden. We simply need a daily dose of that medicine not to get choked by consensus. And we could definitely use some more Halina blade and fertilizer, to benefit from that warm heart, the inspiration, the structured mind and the extended tentacles, in the tough work that lies ahead: to sharpen the tools included in design-based, logic, spatially combinatory, critical, disclosing, systematic, lateral, inventive thinking, and to deepen research integrity.

STEN GROMARK

Much obliged

My first encounter with Halina was on a symposium during the preparatory phases for the new Copenhagen quarter of Ørestaden, initiated by Karin Skousbøll, at that time the director of Ørestadsselskabet, the developing agency. During her intervention, Halina, as I recall it, elaborated on her experiences of Japanese town planning and identity construction.

She appeared to be a person with great enthusiasm for her subject and obviously with wide frames of references. After a number of speeches on the same theme the symposium seemed to conclude and fully agree that there should be no Asiatic chaotic rule in the then still to be future city of Ørestaden. Coming from the south of Sweden, I had the quite naïve idea that I had a fair command of the Danish language only to be suddenly confronted with the heat of misunderstandings due to, at least according to my ears, the particularly impenetrable and altogether opaque Copenhagen dialect.

Sven-Ingvar Andersson, the legendary Swedish professor of landscape and garden architecture at the Royal Danish Academy, who was heading the meeting, with a harsh and quite reserved expression on his face, was most reluctantly forced to translate some of my Swedish concepts so that the audience just barely could follow my lecture. Labyrinthine multiplicity, *labyrintisk mångfald* I think, was one amongst others.

Referring to Henri Gaudin, I just happened to be the first to show a slide of the Nolli's plan for Rome. The same illustration then, if I remember correctly, appeared in almost all of the following interventions. There was absolutely no doubt, that below the surface of things in this polished situation, there were severe contradictions in the air between the different conceptions advocated by the participating actors for the future of Ørestaden. That I, so utterly unprepared for this, had been caught in the ongoing crossfire was something I soon came to realize, in spite of the confusion of languages. It became clear that I — as a somewhat green Swedish academic with elevated perceptions and great ambitions for making architectural theories fit with a stubborn reality — quite underservedly, had been caught in the quagmire of a purely Danish drama and that my argument was quite far off the point of what it was actually all about. Then I became aware of Halina who sat next to me in this huge hall in Gammeldok. She rescued me from the linguistic confusion and the prevailing catastrophe, speaking a far more decipherable lingo, appeared to be sincerely interested and gave the impression that she had, surprisingly enough, also understood what I had tried to say in this most

difficult atmosphere. At that very moment she gave me invaluable moral support and encouragement in the critical situation I was experiencing. Much obliged.

Since then I have come upon Halina Dunin-Woyseth on numerous occasions and always been infected by her irreducible enthusiasm. I still recall, along with many colleagues, how she as our Jubilee Guest Professor, with improbable energy, began giving far reaching and lengthy tuition sessions with literally all the PhD students of the school, by that time quite a number. They all came out of this demanding procedure quite exhausted, but with brand new self- confidence in their own research profiles and identities in relation to the realities of the surrounding research community. Since that time her contributions to innumerable PhD courses in our post graduate curriculum, to dissertations and to various research seminars at Chalmers Arkitektur have become an established, respected and natural component. Not to mention her role in the joint Nordic exchange and cooperation programmes supported by NorFa (Nordic Academy for Advanced Study) and others. Many of us remember the extraordinary international Symposium on Architectural Theory she organized in Oslo. As there was a large contingent from Gothenburg, the symposion has certainly widely influenced many of the most influential researching architects active in Sweden today.

All know, only too well, her dedicated support for bringing scientific dignity and a unique identity to architectural PhD studies and to research in architecture and design. I think that it is on this point I have learned most from her point of view, grounded so firmly in a primarily European soil but also widely within an international and global research context. Her persistent focus on this issue and her capability to invigorate, refresh and renew our image of the *making professions* was something I from the very beginning felt so much sympathy for. It has been that way since the start of the Nordic Journal of Architectural Research and later during my time as politically and professionally active in SAR/Sveriges Arkitekter and ACE with a responsibility for policy on research issues.

This perspective met good response also in the international context when confronted by the profession. It has been firmly established and has constructed some delicate bridges of professional solidarity between researching and making. Her contributions particularly directed towards the promotion of the singularity of architectural research have, at the very best, transformed the image of exploring architecture or designerly research into a position of a far more respected member within the research society, of *Academia* at large. Much obliged indeed, Halina!

ROLF JOHANSSON

Research Education and the Research Magazine

The Oslo School of Architecture and Design (AHO) was given the right to confer doctoral degrees in 1981, but at that time research was a relatively new phenomenon. A programme for research training was launched ten years later. In the academic year of 1991/92, Professor Halina Dunin-Woyseth, Director of Research, was also put in charge of the PhD education. She founded *Research Magazine* (RM), an academic journal published by AHO, and dedicated to the development of research skills. The journal documents the development of the Doctoral Programme at AHO in relation to the school's knowledge stance, and Professor Halina Dunin-Woyseth has contributed articles to the six issues published to date, as editor, co-editor, and author.

The first volume of *Research Magazine*, 1:1991, summarizes the process of preparation when introducing the Doctoral Programme at the AHO. This volume has as its topic, architectural research as an emerging professional concern. In the preface it is stated by Professor Halina Dunin-Woyseth that "the issue today is that of an emerging consensus on the importance of architectural research activities, united under a common policy, expressing the wholeness of, and the interplay within, architecture's broad disciplinary spectrum". This statement can be regarded as a programme for the journal. RM number one presents the work of researchers and research students at the school, mapping out its scholarly competence at the time. It is this competence which constitutes the basis for developing AHO's teaching of theories and methodologies in architectural research.

The second volume, 2:1995, focuses on the theoretical understanding of architecture. It documents the conceptual framework underlying the first phase of the Doctoral Programme at AHO between 1992 and 1995. At this time, the teaching of theory and methodology in architectural research was arranged around three steps, and the articles in RM 2 are organized according to these. The first step consisted of a general introduction to basic methodological problems in research and specific problems related to architectural research. The second step contained an introduction to architectural theories. The part dedicated to this step is the most voluminous in the issue. Professor Halina Dunin-Woyseth introduces it by identifying four "schools" within the landscape of architectural theories, following the phenomenological, the semiotic, the rational, and the humanistic traditions. One article was devoted to each of these "schools".

The third step in the Doctoral Programme takes as its starting point the individual PhD candidates and their research questions. The part of the issue devoted to this step focuses strongly on the theory of landscape, which was the theme for a series of seminars for PhD candidates at the AHO.

Up until 1995, the Doctoral Programme at AHO targeted architects, but since then the AHO has admitted professionals from the entire field of practical-aesthetic work. The challenge, in the words of Prof. Dunin-Woyseth, “is not to extend the doctoral programme to encompass both the scale of ‘the object’ and to that of ‘landscape and region’. This simultaneous ‘spatial narrowing’ and ‘spatial widening’, covering the whole scale ‘from the spoon to the city’, made it necessary to revise the research education concept itself”. In admitting a range of professionals to its Doctoral Programme, the AHO raises issues concerning the breath of the design discipline and challenges its disciplinary identity. It thus develops a design discipline of its own, at the same time responding to the demands of transdisciplinarity, a dilemma that provides the themes for the following four issues of *Research Magazine*.

The third volume, 3:1998, was published jointly by the AHO, the EAAE (The European Association of Architectural Education) Workshop Proceedings, and the Architecture & Behaviour Series. Its theme is epistemology and architecture. The editors, Halina Dunin-Woyseth and Kaj Noschis, argue that “if design and architecture are to maintain, or even develop, their position as fields of academic expertise, a further profound debate must be initiated concerning their knowledge base and the educational modi of its dissemination, appropriation, and development”. RM volume three contains contributions by internationally acknowledged researchers, discussing topics such as how knowledge is and can be acquired in architecture; lateral thinking; integration of users; and teaching challenges.

The three latest issues of *Research Magazine* continue to focus on knowledge and scientific criteria within a *making discipline*, and the constraints and possibilities of transdisciplinarity.

The *making* professions

Volume 4:2001 has the sub-heading *Towards a Disciplinary Identity of the Making Professions: The Oslo Millenium Reader*, and its articles deal with the issue of knowledge acquisition in the making professions. The term *making professions* is a Scandinavian coinage and refers to the fields of art production, object design, architecture, landscape architecture, urban design, and spatial planning, thus covering a “spoon-to-city” spectrum. The editors, Professor Halina Dunin-Woyseth and Professor Jan Michl, argue that “there is a case for sustaining and maintaining the field of ... *making knowledge* through a discipline of its own, a *making discipline*”. The *making knowledge* has to be relevant to the practice of professionals, as well as fulfilling a number of

scientific criteria. This design knowledge appears to be rooted in the triadic concept of design history, design criticism or critical analysis, and design theory. The editors conclude: "We believe that by developing the disciplinary kind of *making* knowledge, accessible to other disciplines with their inherent tradition of organised scepticism, and of ongoing criticism within an inter-subjective discourse, the disciplinarily constructed *making* knowledge would provide for a more informed and knowledgeable practice which is in great demand in a time of change such as ours. Further, we believe that a fully developed *making discipline* could be of crucial importance to design education." A *making discipline* could also create an academic identity and foster research on both disciplinary and transdisciplinary issues.

The six articles making up RM 4 are intended to shed some light on the subject of an emerging *making discipline*. Most of the contributions are based on a lecture series within the research education programme at AHO. In addition to these articles, the issue includes the summaries of three doctoral theses completed at the school, representing, in the words of the editors, *a making discipline in the making*. They do indeed represent a *making discipline* since they are concerned with the three pillars of such a discipline: History (Elisabeth Tostrup), Criticism (Bjørn Normann Sandaker), and Theory (Thorleif Skjønsberg).

The scientific criteria and transdisciplinarity

How can we comply with the scientific criteria underlying a developing making discipline? This is the issue at stake in *Research Magazine* 5:2002: *Route Mapping: On Relevant Methods, One's Own Choice and Application*. This volume marks the tenth anniversary of the Doctoral Programme and Professor Halina Dunin-Woyseth is summing up: "The Research Magazine ... has documented the debate on architectural and design research in its own institutional, Scandinavian and international context, and it has discussed the principles of the content and structure of the doctoral curriculum".

The Doctoral Programme appears to have provided a common ground for the PhD candidates with respect to research methodology: the two cornerstones are qualitative research methods and case study methodology. The editors for RM number five, Jan Capjon and Sture Kvarv, ask: "is there a research landscape appropriate for assessing complexity, and flexible enough to fathom scholarly *and* artistic reasoning, rationality *and* intuition, objectivity and subjectivity?" Their answer is that "such a landscape exists, and it is called *qualitative research*." They find qualitative research methods relevant in a *making discipline* in which aesthetic and scholarly practices meet and references to case study methodology are present in almost all reflections on methodology in the articles. After having discussed the development of a *making discipline* (RM 4), and, the scientific requirements on knowledge production in such a discipline

(RM 5), the next volume of *Research Magazine*, 6:2004, addresses the question of transdisciplinarity. Its heading is *Discussing Transdisciplinarity: Making Professions and the New Mode of Knowledge Production*. It is divided into two parts: the first part introduces what is known as *Mode-2 of Knowledge Production*, and the second part discusses this mode of knowledge production from the perspective of the *making* professions. RM number six is partly the result of a series of research courses called *Millennium Programme*. These courses were offered to doctoral students between 1999 and 2001, in the form of a collaboration between ten academic institutions within the *making* professions in four of the Nordic countries. More than fifty PhD students attended the courses.

The academic journal, *Research Magazine*, is to a great extent the result of Professor Halina Dunin-Woyseth's deep engagement in the development of research skills at AHO during the last fifteen years. By documenting and discussing the evolving research education in the *making* disciplines, the journal itself contributes to that development.

FREDRIK NILSSON

Architectural design
A strategy for understanding

In order to understand, grasp and gain knowledge about the often chaotic world around us several strategies have been developed by humanity. These have developed into what we today know as science, art, philosophy etc., whose objectives in different ways are to help us settle down in the world and also change it for the better. New knowledge creates new possibilities to act and influence.

But it is of course no linear process where understanding comes before acting, rather direct action, experimenting and trial of possibilities lead to new knowledge and experience. When we confront concrete problems and situations a lot of different strategies, ways of thinking and procedures are used simultaneously to analyse, understand and handle the problems.

The borders between science, art, humanities and technology have become strong in spite of the fact that words like “technique”, “art”, “machine”, “design” actually are closely connected. These inner connections have been denied for a long time and after the Renaissance, the art world was separated from the world of technology and machines; a branch of the scientific and quantifiable when measured against the spiritual and qualitative. Vilém Flusser has argued that it was at the end of the nineteenth century that the word design started to bridge the gap between the separated domains, and became a place where art, technology and the scientific was brought together. Design is, in the words of Flusser, to deceive nature with technology, to surpass nature with the artistic, to construct machines that in an artful way make us free artists. Design is to productively combine magnificent ideas from separate fields like science, art, economy and philosophy.

In contemporary discussions on the relations between research, design, science and art one can nevertheless be surprised of how deep the chasms have become between different fields of knowledge. The big and urgent question is how we more consciously can elucidate, raise the status for and systematically make use of all the knowledge that is produced outside of the border that has been drawn around what is considered “scientific”.

Here, at least might not architecture, with its ramifications into, its bringing together and often dependence on different disciplines be a palpable field for production of knowledge about the realities and societies that are dealt with. But an active work is of course needed to show, articulate and develop new ways to produce knowledge in a field and profession that often appears as vague regarding what knowledge that is possessed and contributed.

There is anyhow a chance to turn the discipline's work with vague, inexact concepts in problematic, elusive situations into an asset of tools and trained abilities to deal with complexity, chaos and change.

Erik Stolterman has — in a simplified picture — indicated that there are two ways or strategies to deal with the reality we live in. One applies the method of *dismantling* to learn how reality functions. The other is *assembling* parts to create a changed reality. The first can be seen as the procedure of science, the second as a design effort. What Stolterman is emphasising is that the strategies are used with different purposes — the dismantling is done to create knowledge of how things function; the assembling is done to create something that does not yet exist. He argues that it is a danger both in seeing these activities as essentially different and in mixing them up too much. Either they do not communicate with each other at all, or they lose their unique characters and strengths. What is needed instead, is a stronger respect for the distinctive nature in both traditions, and since science has a strong tradition whilst there is a lack of an own intellectual tradition within design, this latter has to be developed.

But the question is, if design thinking is always used with such a different purpose as Stolterman argues. Might not to assemble equally well be a way of trying to understand and produce knowledge? To dismantle is certainly a good way to analyse, to see what factors are involved and to understand the parts as such, but every explanatory model, every theory is an assemblage of elements that can give possibilities to understand relations and connections, to predict and influence future events. Jerker Lundequist has argued that the most important achievement of science is not inventions or discoveries but the establishment of new theories and concepts, which really are constructions, assemblages and organisations of thought elements.

Science, art and philosophy are in the eyes of Gilles Deleuze and Félix Guattari all creating and acting activities. In the book *What is Philosophy?* Deleuze & Guattari argue that philosophy is the discipline for creation of concepts, which are never given but have to be invented, fabricated, formed, created. The book is an attempt to find out what philosophy actually is or is occupied with, especially in relation to other activities and ways of thinking that also try to bring some order to our often chaotic reality. It is not an attempt to purify disciplines in order to put up walls between them, but they are in my view rather trying to make us see that different disciplines use different ways of thinking that include different kinds of thought material, different elements that are assembled in different ways. These disciplines are continuously in contact with each other, overlap and inspire new lines of thought within the different fields. But a greater awareness of that you actually are moving between different forms of thought can give greater consistency to the actual thought or idea.

Philosophy's exclusive right to create concept does not, according to Deleuze & Guattari, give it some priority or privilege since there are other ways of thinking and creating, other ways of getting ideas, that do not have to go through concepts. Deleuze & Guattari delineate the three main forms of thought as philosophy, science and art. What they all have in common is that they always confront chaos; they put out a plane or throw a net over chaos but in different ways. Philosophy works with concepts that are put together in consistent planes; science works with functions put together on planes of references or systems; art works with composite emotions — "blocks of sensations" — on planes of composition. All these strategies appear, in the view of Deleuze & Guattari, as most pragmatic and constructing with an obvious design attitude.

The most important difference between science and philosophy is their different attitudes to chaos, argue Deleuze & Guattari. Chaos is rather change, appearance and disappearance of forms, transitions between different kinds of orders of an infinitely high speed, than being just disorder. "Chaos is an infinite speed of birth and disappearance." Science approaches chaos by trying to slow down speeds, freeze changing situations in order to understand and produce knowledge, which then attempts to be generally valid, static knowledge. Other kinds of strategies, in their case philosophy, instead try to create consistent, coherent thinking but with retained speed and mobility — primarily within thought, the free, exploring thought — to be able to create new lines, new ways to look at, understand and assemble reality. It is a matter of finding ways to give possibility for the becomings of new assemblages, new understandings and knowledge about the world, which could be said to be knowledge of a more dynamic kind in continuous movement.

Design and architecture as knowledge producing activities can be of many kinds. It can be done by using a repertoire of historically known solutions and applying them in a context so patterns emerge more clearly or that these solutions give rise to new functions and new ways of looking at situations. It can be by using architectural tools and imagination to grasp and freeze conditions, influencing factors, demands and dreams in a specific situation and giving it visual, material form that can be a point of departure for understanding and gaining knowledge about the situation and the included elements. But above all, it can be about retaining speed of thought, allowing free scope for imaginable lines of development in the material that is dealt with, where every design then is a freezing of a chosen moment among many others. Here unexpected solutions can be shown, surprising possibilities that were not thought of before, that were "impossible" before they were given a form and presented.

A close position in relation to one's material is then important, at the same time as it must not involve deadlocks or preconceived notions. Manuel

Delanda has described two kinds of opposing philosophies of design or philosophies for the becoming of form. In one form or design is conceived as primarily conceptual or intellectual, something generated as pure thinking isolated from a messy world of matter and energy, and that is transferred to physical form by imposing it on a homogeneous and obedient matter. In the other philosophy of design, matter is not an inactive recipient but active participant in the becoming of form. Here the material has variable properties and singularities that the designer must take into consideration and integrate in the design process. The first view on the origin of form has dominated the western philosophy since the ideal forms of Plato, while the other naturally has been central to craftsmen in all times and also to philosophers like Spinoza.

Design is thus considered either as a distanced intellectual activity that proceeds from ideal forms and static notions limited primarily by inner conditions, or as a materially practical activity where the material is not a passive recipient of forms but active in a dynamic process with openness to external factor.

There are of course different attitudes to the world one is striving to understand or shape, but to think variability and becoming has many times implied problems both for philosophy and science. Colin Rowe and Fred Koetter discussed in their famous text "Collage City" with reference to Claude Levi-Strauss two different strategies — the methods of science and of bricolage. Science is described as searching for the truths of universe while the bricoleur is directed towards a set of remains that are at hand; one is then dismantling, the other assembling. Rowe & Koetter urged for the acknowledgement of both science and bricolage as relevant ways to deal with problems, and that there are great possibilities if the "civilised" thinking — full of overestimations of logical sequence — could be placed on equality with the "savage" thinking full of analogical leaps. Henri Bergson has written that to be able to understand and think reality in all its multiplicity and continuously moving change we have to install ourselves directly in it. But that is exactly what the intellect — and science — generally refuses to do since it is so used to think the mobile through the immobile. Our intellect is, according to Bergson, constituted in a way to primarily create distinct delimitations and to think change as transitions from one stably delimited state to next; the world is changing between relatively stable and immobile forms and bodies. "But in reality the body is changing form at every moment; or rather, there is no form, since form is immobile and the reality is movement. What is real is the continual *change of form: form is only a snapshot view of transition.*" Our perception manages to freeze the flowing continuity of reality to incoherent, disconnected images.

To understand and approach the moving reality one has to reinstate

oneself within it. Installed within change one is able, according to Bergson, to directly grasp both the change as such and the successive states in which it could be frozen. But if these successive states are conceived from the outside as real and not as potential immobilities, one will never reach the change or movement as such no matter how small intervals that is done. Movement, dynamics and change can never be understood or created from the immobile, static or eternal. In spite of the many years that have passed since Bergson and also Rowe & Koetter formulated their exhortations, they still seem valid, urgent and important for architecture as well as research.

Science has always a difficult tightrope to walk. There is a need for inner consistency, adaptation to the inner demands concerning what is regarded as science, and a certain distance to the objects of study. At the same time, there is a need for an openness to the outer world one is striving to explain and understand, where really descending into reality or pulling in new things, notions, changed material and social conditions can lead to the opening of new ways for productions of knowledge. There are constantly two poles of on the one hand systematisation, limitation, drawing of borders, and on the other messiness, liberation, transgression.

As human beings we are never really *either or*, but have many sides at the same time, are *both and* in many respects. Halina Dunin-Woyseth belongs to those who, in a very special way, are able to utilize many sides at the same time. During the few years that I have come into contact with Halina, I have come to recognize her genuine scientific competence and orientation where her respect for science is clear. At the same time, she possesses a remarkable openness and mobility, both intellectually and in the vast international net of contacts amongst whom she constantly travels. In my eyes, she possesses an exceptional ability to put together, assemble things that generate new exciting lines of development — it can be persons with different kinds of knowledge that she brings together in new constellations, or theories and notions from different fields that are put together in ways that have strong bearings on what architectural research is or could be.

To assemble does certainly contribute to the production of knowledge. To dare to experiment with what architecture and design can mean as knowledge production is important, but a clear relation to the existing community of researchers and science society is also needed. Here has, as we all know, Halina been of an incredibly great importance to the interesting development of architectural research that can now be perceived in the Nordic countries. The experimenting, the trying, and the open mind is naturally important in all scientific activities, but it should be given more free space. The picture of the (slightly wild) original scientist is maybe something to return to, the one who draws new images and maps, who mixes different fluids and tries materials in unexpected ways; the scientist who takes risks but at the same

time is humble in the exploration and construction of our world of things and thoughts. Halina is exemplary as a designer and builder of the still young intellectual tradition of architectural design research.

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ANDREA HAASE

Introducing multidisciplinary research

This text is about the way my friend professor Dr. Halina Dunin-Woyseth has influenced, and indeed is still influencing, my profession. It is a review spanning almost two decades, with a glimpse ahead to future research in the promising, challenging, multidisciplinary fields of the making professions.

Halina is an architect and a scholar with a personal knowledge of both Western and Eastern cultures. She is also, and equally, an experienced and warm-hearted mother of two daughters, and an overwhelmingly charming lady. Her strong personality has been apparent in our conference meetings and written communications for about fifteen years, recently mostly e-mails, all of which were conducted against the background of the deep personal friendship she has so generously offered me. All communication with Halina reveals her intensive commitment to post-graduate research and teaching in the interlinked fields of architecture, urban development, and landscape design.

She has always been in the vanguard of the current international discussions related to our fields, including philosophy and psychology. No wonder that her guiding PhD candidates throughout all their stages, and her continuous interest in preparing younger colleagues for senior positions, has met with success. Those she has supervised, she has supported totally, maintaining her faith in their academic ability and offering generous support in times of personal struggle. Halina's influence on the profession has been gained through struggle. It is deeply rooted in her responsiveness towards her profession, and her feeling of responsibility for the professional education and research. The extent of her influence should not only be measured by its immediate and visible successes, such as prizes for design competitions, but also by much more long-term effects within the network of socio-professional structures. In 2004, on a conference on "Sustainability" in Monte Verità in Switzerland, I experienced one of these long-term effects, when I met a former PhD student of Halina's, now a professor in Sweden.

I first met Halina in March 1988, at the Rheinisch-Westfälische Technische Hochschule (RWTH) in Aachen in Germany. It was in connection with an international project entitled "Urban development and innovation. The role of social and technological changes" (the URBINNO research programme). As a member of the disciplinary working group "Built

form, environment and land use”, Halina had pleaded, from the beginning, for a subject definition, and for individual contributions from the involved members to consider equally “phenomena” and “processes” of past and present conditions for urban transformation. In this manner, urban transformation was understood comprehensively in terms of its social, economic, and technological aspects, aiming to mould the multidisciplinary interests into the subject of “innovation”.

Meeting Halina a year later, in July 1989 in Chapel Hill, North Carolina, was, for me, an outstanding experience. Here she presented a strong substantial standpoint. Promoting the discussion about multidisciplinary work amongst the groups to the extent possible in those days, Halina had dared to outline a research perspective for bringing the groups together, which left aside the traditional disciplinary methods, mostly based on phenomenology. Enfolding the logic of the working together of life-styles and patterns of land use and their effects on urban and spatial structures, her approach was based on her experience within the disciplines of architecture, urban planning and philosophy. From there she moved into the field of research, then not yet fully established in Europe. The approach concerned evolutionary socio-economic processes, the power of images and resulting spatial practices. The rationale behind it was related to sociological and economic considerations, a very comprehensive and courageous approach, which should have merited a lot of recognition, and could have opened a creative discussion to highlight cross-sectional aspects of investigation from the disciplines of economics, of sociology, and of politics, as well as from the field of demography. It could have become a starting point for generating a common communication about new and different methods of cooperation.

However, it was met with a wave of very strong criticism from most of the, male, colleagues, pointing out its “methodological inappropriateness”. Hefty criticism came especially from the bastions of economics and politics, although these might have been expected to respond with more open-mindedness, as the aimed for approach to “innovation” invited some deeper cross-disciplinary and general discussion. However, as social and professional processes can be very resistant to progress, the overall lack of multidisciplinary cooperation was unfortunately not creatively resolved, neither during this, nor during the next multidisciplinary meeting in Vienna in 1991. In 1993, when the disciplinary working groups published their individual findings, the separation of disciplinary boundaries, and the competition between the disciplines, became evident. However, the publication of the working group, “Built form, environment and land use”, had two parts, in which the traditional disciplinary approaches, as well as views over the fringes of disciplinary boundaries, opened new, and fruitful possibilities.

Halina’s contributions presented this two-folded structure in a very

challenging way. Her multidisciplinary article “Changing life styles versus urban built form” is still valid as a general framework for investigating regionally and locally specific processes and their phenomena in space and time. The introduction is “on interdisciplinary issues”, and prepares the reader as follows; *“There is a broad consensus in the academic world as to the importance of cross-disciplinary research. But: ‘if interdisciplinary research is so good why is there so little of it?’ (...) Among the many reasons, one is especially important: no one is trained to do it. Another is that scientists are anxious not to lose quality control and conceptual clarity as one leaves traditional fields. A final problem is that there are no convincing models of how interdisciplinary research might be conducted (...)”* The experience in Chapel Hill confused me for some time, especially as the event generated no further debate amongst our colleagues. As a young, scientific assistant, as I was, in those days, I felt that the event merited further discussion. Looking back now, I am still of the same opinion. Halina’s approach should have been discussed amongst us all, in order to link the disciplines, in order to break the limiting boundaries of disciplinary competition, in order to use professional, human, and female sensitivity, as had been offered so courageously by her, in order to explore together, innovations in methods, communication and cooperation, by seeking out common routes of new thinking within and amongst the disciplines. From this time on, my idea of, and my aims of multidisciplinary thinking, have been rooted in this experience, and I have always found great encouragement and intellectual impulses from the irregular but intensive exchange of letters with Halina, both throughout, and after my own PhD elaboration. In addition to the current issues of professional interest from the everyday life of doing research and teaching, there was also the fate, common to both of us, of dedicating our personal life, and time, more or less, completely to our profession. I shared this common commitment, putting into practice the philosophy (*pace* Hanna Arendt), that a distinction between private and public life, is neither personally necessary nor socially or professionally productive, so long as one is equally honest on both fronts.

Halina was, and still is, a friend and colleague who, owing to her habit of offering and fulfilling consistent communication and her openness to supporting new constellations of work and power distribution, has a very clear estimate of other people’s capacities and ways of thinking and acting. In this way, she keeps a friendly eye on what is going on, both in terms of substance and strategies. This record has been used for building up threads, and is still a very strong thread for common action.

When Halina learned that I was reviewing research proposals for the Swiss National Research Funding Institute (SNSF) in Berne, she showed her interest in the organization, and in my ways of dealing with subject of “Sustainable Development”. In this way, she became more aware of how

deeply the subject of “shrinking cities” is influencing parts of Germany, and what these processes might mean in terms of any future consideration of late industrial transformation. Such a subject could not be undertaken without multidisciplinary work. It did not take long before Halina had secured the opportunity for me to do the same kind of work for a program run by the Swedish Research Foundation FORMAS, Stockholm. This was in the autumn of 2004. In the summer of 2005, I was honoured by Halina’s recommendation for my taking over her position as a reviewer in the FORMAS institution.

After completing this task of reviewing research proposals, I now feel that I have a better insight into the professional discussion about research and design in northern Europe. I feel even more strongly now, that Europe has to define its own rules for investigating, evaluating and conceptualising urban transformation. These must be relative to the complexity of ongoing urban changes, and also relative to the new necessity for providing various levels of local interconnection in order to counter-balance the decreasing security of global systems of interconnection. Owing to my practice of spending a lot of time in my second home in Scotland, and being in close contact with the programs of post-graduate education in the *making professions* there, I feel that this insight has not yet fully reached northern Europe.

For the last five years I have been doing research, and practicing teaching and community consultancy in the region and town of the Bauhaus city of Dessau in Germany, and have strongly contributed to the establishment of an international master-course of Architecture there. This was achieved in regular cooperation with the courses in Landscape Architecture and Integrated Design, and also, more recently in cooperation with the aspects of Urban Sociology and Cultural Sciences represented by the Bauhaus Foundation. Now, as professor of Urban Development, I am faced with the challenge of deepening and widening the aims and methods of multidisciplinary work in the fields of the *making professions*. Preparing for and fulfilling the setting of the Bologna process in Europe is part of this and refers back to the questions of how to strengthen and enrich the disciplines themselves, individually, within the process of establishing multidisciplinary cooperation. The educational system in Germany can still learn a lot from the British and Scandinavian cultures of research networks, and from already established international PhD courses.

Becoming aware of the need for merging the schools of architecture in Dessau and Magdeburg, and their having to provide a differentiated profile of “design education”, it was again Halina who pointed to the missing “columns of carrying research and design contents” in my teaching environment. She persuaded me to develop a different understanding of teaching at the school of architecture in Dessau, responding to the Bologna process, and

relative to the heritage and renewal of the Bauhaus tradition. In these times of continuous urban growth, conflicts with colleagues wanting to continue with previously successful methods, were inevitable and had to be dealt with. Amazingly, Halina and I have always only referred to such conflicts as an unavoidable issue, needing to be dealt with, aiming at keeping the “damage” low, and not neglecting our aims.

It was only natural that when I recently received confirmation of the change of my fixed term contract as professor into the position of a tenured professor, enabling me to continue and widen my tasks in multidisciplinary work, especially in cooperation with the department of economics, it was Halina I informed first. After all the help, friendship, backing and encouragement she has given me, never asking for any reward, the opportunity to contribute to this publication has been an honour. Though — by largely referring to my own experience with Halina — I have only touched the surface of her influence on the profession. My plans for the near future in Dessau are going to be built on this basis. There will always be room for Halina’s advice and help. Who else would be able to perform with more wisdom — personally and professionally?

AKKELIES VAN NES

Urban street grid and urban sustainability

Theories of built environments develop at the intersection of natural, social and technical sciences. The way Halina Dunin-Woyseth encouraged and influenced my research reflects this interdisciplinary perspective. It ranges from cognitive sciences to applied mathematics and informatics and touches upon philosophical issues. The evolution of spatial analyses tools on built environments asks for communication not just between various cultural contexts, but likewise between different scientific domains.

Research on built environments aims at a comprehensive understanding of the physical form in which past or present societies organise themselves. However, a theory and its methods, even where they are received on an international scale, cannot last unless they are kept open to impulses from their, in essence, interdisciplinary context.

In many countries the scientific aspects of architecture and planning do not receive sufficient acknowledgement. Their national research councils still hesitate to promote this kind of research. Halina Dunin-Woyseth's skill and years of her organisational efforts help to change this practise by documenting to the full on what level of scientific reflection and how an effective research on the built environment is possible. In order to celebrate the fruits of Halina Dunin-Woyseth's influence, encouragement and impulses on my research, I herewith present my contribution, which is about understanding urban sustainability from a topological spatial point of view. Without her influence, this text would not exist.

Introduction

How can urban sustainability be described scientifically? Or can it be described at all? So far, it is problematic due to the lack of well-defined concepts. This lack is one of the problems many authors face when making proposals on how sustainable development in cities can be understood and achieved. The compact city model is proposed in order to encourage sustainable ways of living. It will conclude that urban compactness can best be approached from a configurable point of view, due to the fact that compactness is a topological term. The answers might result in an understanding of the manner in which the configuration of an urban grid generates movement and visibility, and of how it influences a balanced dispersal of economic and social activities.

1 Conditions for sustainability

There is an essential difference between preventing someone from driving a car and making him do so. If one wants to prevent it, one can e.g. take away all fuel. Thus having access to fuel is a condition *necessary* for the usage of a combustion engine. On the other hand, making someone drive a car requires a set of *sufficient* conditions to be fulfilled. For instance, the person in question is supposed to achieve some kind of appropriate know-how, he might in a sense be willing to co-operate and listen to our arguments. None of these conditions taken in isolation is sufficient to make him drive. Numerous other ones are relevant in this case. If all of them are fulfilled he will be driving.

This consideration pertains to the concept of sustainability. Sustainability is not relevant only if we assess its conditions. At issue is thus the concept of a necessary condition as to why something became possible and, likewise, the concept of a sufficient condition such that something became necessary. The difference between these kinds of conditions pertains to human action and policy in general and thus to sustainability in particular.

This article attempts to answer the question in what ways a morphological, in other words configurational approach, contributes to our understanding of urban sustainability. This broad subject will be approached in the following way: Firstly, the term sustainability requires some explanatory remarks. They will lead secondly to a discussion of urban sustainability. Thirdly, compactness and its impact on urban sustainability will be taken into consideration. Finally, compactness will be reconsidered in configurational terms. The difference between necessary and sufficient conditions will pertain to each of these sections.

2 The problem of the concept of sustainability

The subject of sustainability introduced itself for good reasons. During the 20th century, cities tended to put economic expansion on their agenda at the cost of social well-being and environmental equilibrium. The social effects are for instance placelessness, exclusion, insecurity, criminality, and loss of cultural identity. The environmental effects are among others bad air quality, pollution, and low-density urban sprawl. Furthermore, the effects of traffic congestion and deteriorating infrastructure and built environments have affected the locations of economical activities (Patermann 2002, p.1).

The Brundtland report of 1987 and the 1992 Earth Summit in Rio de Janeiro rightly predicted that in the beginning of this century more than 50% of the world's population will live in urban areas. During the last decades, increased energy use for transportation in urban areas contributed to the greenhouse effect. In these contexts the concept of a sustainable development came on the agenda and turned into a fashion word of the 90's.

difficulties in defining this term naturally reflect its political origin (Jenks 1996, p. 3-6).

There are numerous definitions of the term “sustainable development”. According to the 1992 Earth Summit in Rio de Janeiro, “sustainable development” is defined as a “development which meets present needs without compromising the ability of future generations to achieve their needs and aspirations” (Jenks 1996, p. 233). A major problem in defining sustainability in this manner results from the term’s normative as well as descriptive aspects. From a normative point of view, questions of the following kind seem appropriate: Should something be sustainable and what should be done in order to guarantee its sustainability? In this case one intends to assess a certain goal in terms of sustainability. The descriptive aspects of sustainability, however, concern what actually is or will be the case. Relevant questions ask what is or will be sustainable. If intentions of future generations are taken into account at present it is most difficult to keep their structural distinction.

One should, in principle, try to assess whether scientists or politicians propose a normative or descriptive understanding of sustainability. The issue is difficult. For the suggestion of the Brundtland Report concerns present as well as future needs, hence not just descriptive, but likewise normative matters.

3 Urban sustainability - the city as an object or a process?

Sustainable, according to the quoted definitions, is not an object but a development or process. That is to say, a development influenced by or consisting in human interaction. It is a complex process. Urban sustainability is a particular case of sustainability. If sustainability is about processes one has to speak about urban sustainability or better a sustainable urban development rather than a sustainable city. Otherwise one is compelled to understand a city as a process not as an object. Many recent writings about sustainable built environments discuss sustainable cities as if they were objects. Moreover, the distinction between what is a sustainable city and what should be a sustainable city is not always clear.

How can one describe what a sustainable development is in urban areas, when there is a continual transformation of urban cultures and economies, and when built cities are under continuous transformation? If one preserves an existing situation with high living qualities in cities, is it then sustainable when more and more people move into cities and the world’s population increases? What are the effects then? Thus urban sustainability has to concern continuous transformation processes of economies and cultures where their impacts on the environment - either built or natural - can be understood as a product. And can the impacts on the product encourage a certain kind of behaviour, both socially and economically? At least descriptive approach to

urban sustainability is a two sided topic, where one aims to understand the impacts of social and economic activities on the built environment and conversely in which way the built environment conditions — be it necessarily or sufficiently — a certain kind of economic and social behaviour. In whatever way urban sustainability can be understood, these processes have to be taken into consideration.

4 The compact city and the density problem

There are numerous writings on urban areas and their sustainable development. Most of them set out as a criticism on Le Corbusier's Radiant City model, Ebenezer Howard's Garden City model, Frank Lloyd Wright's individualistic dwelling model and general post-war planning. These kinds of anti-urban city models and planning are recognised as contributing to separation of functions and simplification of urban areas. What all these writings search for is an understanding of the compact city model, which is recognised to encourage sustainable ways of living and low energy use for transportation. Generally speaking, urban sustainability is thus accounted for in terms of compactness. In one way or another a city's compactness is taken to condition a sustainable urban development. In essence this contribution is intended to render this thesis somewhat more precise. At least the following features are recognised from recent writings to be essential to compact cities:

Physical aspects: High density of the built mass in central areas and sub-centres pedestrian friendly streets, and clear demarcation of what is public and private space.

Functional aspects: Dense location and mixed use of dwellings, work, services, retail and shops in urban areas, short movement routes between facilities, pedestrian-friendly, dense concentration of people, and an intensifying of human activities in the urban centres.

Social aspects: Low criminality, mixture of people of different class and race, healthy and good dwelling areas, safe streets, possibilities for natural social contact between inhabitants and visitors.

Economic aspects: Vital centres and sub-centres and a mixture of small and large enterprises in urban areas.

Environmental aspects: Reduction of energy use, new development on recycled land, and reduction of low-density urban sprawl in the countryside.

Political aspects: The ways in which governments on the local, regional

and national level should act or not in order to encourage sustainable development rather than the opposite.

Is then the compact city a product of urban sustainability? Or is urban sustainability possible in terms of compactness? Initially, compactness is a topological term. In a very loose and scientific way of speaking, compact is what is closely and firmly united, pressed together, dense, fine grained and packed into small space. In addition to quantitative aspects, the qualitative, economical and aesthetic aspects of the term are thus mentioned. Even in the light of these preliminary suggestions at least two hypotheses may be proposed:

A: An urban development is not sustainable unless the city in question is compact. Thus, compactness of urban environments is a *necessary* condition for the sustainability of their development.

B: Compactness guarantees sustainability. It is a *sufficient* condition for sustainability.

Is then urban compactness a sufficient condition or a necessary condition for sustainability? Or is it neither/nor? So far, it seems difficult to make statements on urban sustainability, because a concise definition of urban compactness is missing in recent writings. Presumably urban compactness can contribute to a certain kind of sustainable human behaviour but in what way depends on what is meant by compactness.

According to the Brundtland report, one of the basic environmental problems of modern cities is high energy use for transportation — generally speaking car dependency. Does this relate to the *structure* of an urban network? Public spaces between buildings are potential movement routes from everywhere else to everywhere else. The way functions in an urban grid are dispersed must to a substantial extent result from potential movement routes in these public spaces. Apparently, density and mixture of activities first and foremost depend on the structure of an urban street and road grid. Car dependency is one of the issues illustrating the technological complexity debates on urban sustainability. The subsequent account of compactness will address this precondition.

On the other hand cultural interaction and physical movement certainly shape a built environment. There is interdependence between the physical built environment and economical as well as socially motivated movement. Thus, physical form and cultural activity influence each other. Urban compactness therefore should be understood in terms of movement and interaction.

How is it possible to find out whether compactness is a necessary or

sufficient condition for urban sustainability given that concepts of urban compactness are imprecise? Even though recent writings on urban compactness have indicated to some extent what a compact city might be, the concept of density is still vague, and the concept of the structure of a street grid unclear. If compactness basically is a topological term, it certainly makes sense to use topological consideration in order to understand urban compactness. The following section will set out in what way a configurative approach can offer a more concise account of compactness.

5 The configurative approach

An account of compactness and sustainability in morphological terms has to be descriptive. It concerns both structural and social aspects. While Christopher Alexander concentrated on structural aspects (Alexander, 1966) and while Jane Jacobs accounted for social aspects (Jacobs, 2000), a configurative approach offers mathematical means to reconsider them jointly. Compactness is then understood in terms of space. Urban space can be approached topologically as well as geometrically. As will be argued subsequently, economic and social issues favour a topological approach.

From a configurative point of view, a city is conceived as a set of spaces. Urban space is mostly linear. It consists of mostly streets, alleys, roads, boulevards, highways, which in contrast to squares, are linear items. Spaces of these kinds can be represented by a set of axial lines (Hillier 2001, p. 02.1). If one represents an urban grid with the set of the fewest and longest axial lines one gets an axial map. It is then possible to calculate their interrelationship, in particular their topological distance from one another. The results can be compared with a variety of other numerical data expressing social activities such as movement, land use pattern, and distribution of crime. Thus spatial and social factors can be correlated with one another.

Three aspects of spatial configuration can provide an understanding of lively urban areas and illustrate the configurational inequalities responsible for attractional inequalities in an urban grid: spatial integration, spatial segregation and spatial connectivity. The next section will discuss these aspects more precisely in light of the question of urban compactness and urban vitality.

5.1 Explaining economic activities in urban areas

If urban sustainability consists in encouraging the location of economic activities in city centres, one has to understand how shop and retail locate themselves in vital areas in urban grids. These kinds of economic activities depend on potential movement patterns and optimal strategic places in an urban network.

Research carried out by Hillier and his colleagues has shown the

results: First of all, shops locate themselves in streets where most people move. Apparently, shops tend to become attractors for the people's urban movement. Attractors and movement may influence each other, but they do not influence the configuration of the urban grid. On the other hand, the grid seems to influence movement and attractors. The dispersal of global and local integration and connectivity is decisive (Hillier et al. 1993, p. 61). This is known as the theory of the natural movement economic process.

In the author's PhD thesis *Road Building and Urban Change*, the following discoveries were stated: Global integration indicates where the globally most integrated roads or streets are located in a city on a meso scale. It shows the most vital areas. However, whether it is a vital city centre with shops and retail or not depends on the main street's degree of connectivity to its vicinity. Figure 1a (on the next page) illustrates an example of global integration of Oslo in 1999. The black lines show the most globally integrated roads and streets. These lines have relatively simple routes to all other lines in a system. In this case it is located on the ring roads. By measuring the average topological depth of a city's street grid one gets the radius for calculating its local integration. Local integration indicates vital local centres. Figure 1b illustrates an example of local integration in Oslo. In the case of Oslo, the pedestrian based shopping areas are situated along the locally most integrated streets, while the car-based shopping centres are situated along the junctions of the globally most integrated streets (van Nes 2002, p. 211).

How can a grid's configuration decide upon how people move by foot or by car? Local integration conditions the location of successful pedestrian-based shopping areas. It often is indicated by a dense structure on the street grid in the vicinity of a shopping street. Shops have a linear location pattern along the most locally integrated streets, while they tend to be clustered at the junctions of the most globally integrated roads. Thus, indication of a successful vital shopping and retail area which is pedestrian-based requires a strong local and global position in an urban grid (Hillier 1999, p. 107-109). If urban growth changes the integrated core, either on a local or a global scale, the optimal location for profit maximising is affected. In order to survive in a competitive environment, shop and retail owners will always search for the optimal location in order to reach potential customers. Thus creating a vital city centre and sub-centres calls for an account of their global and local location in an urban grid and the respective degrees of connectivity to their vicinity. The density of the street grid encourages human movement on foot or by car. A globally integrated street net with poor connections to its vicinity encourages car use.



Figure 1a: Global integration of Oslo

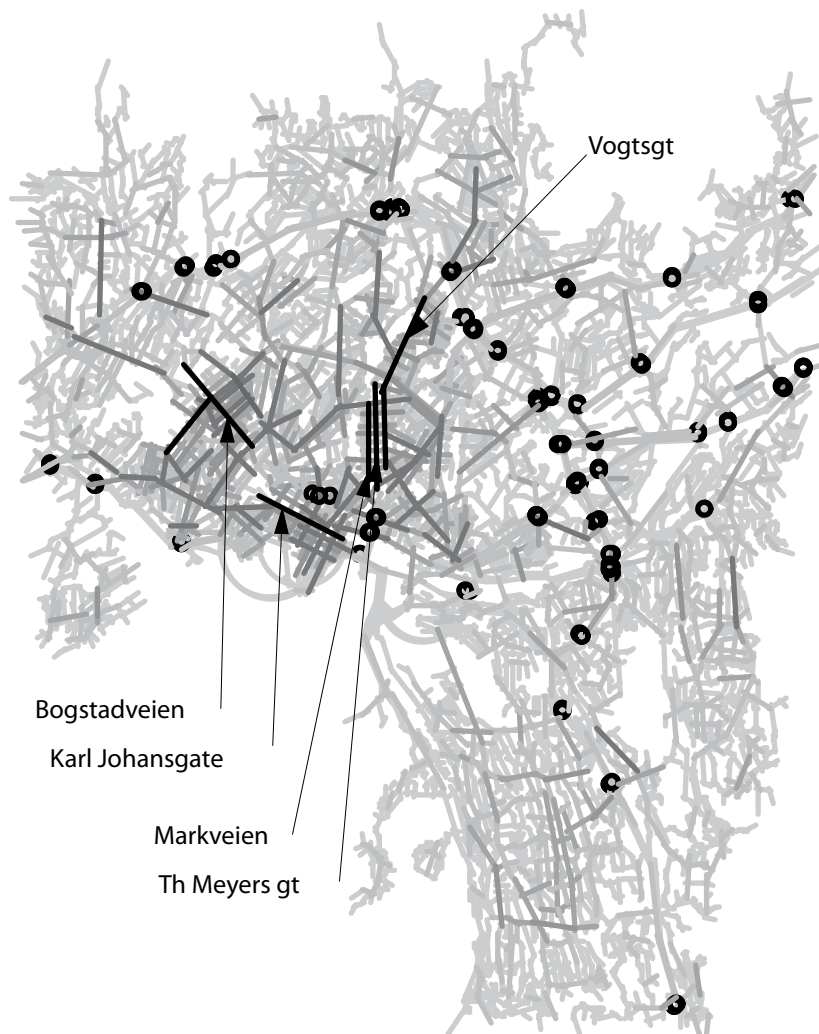


Figure 1b: Local integration in Oslo

5.2 Understanding anti-social behaviour in urban areas

How do these considerations pertain to segregated areas with low integration and low connectivity values? As Richard Rogers, Jane Jacobs and Peter Calthorpe suggest, one of the aims of repopulating city centres is to provide safe central areas where streets are free from anti-social behaviour. In the previous section integrated urban areas were discussed. Research concerning economic rationality allows for a certain degree of predictability of the locations of economic activities. However, research on very segregated urban areas contributes only to an understanding of the interrelationship space and possibilities for crime. It requires studying initially established areas. At issue is the way in which spatial organisation can disturb the natural relationship between inhabitants and strangers in urban areas.

In general, segregated streets have more complex routes to all other streets in a city. Empirical research with a configurative approach shows that areas with segregated spaces, with urban grids visually broken up and with few dwelling entrances constituting streets are often affected by crime and social misuse (Hillier and Shu 2000, p. 232). The same investigations prove that spatial organisation can generate movement according to co-presence and co-awareness in the built environment. Causes for social misuse of a given area can thus be understood from a topological spatial point of view. It depends on at least the following conditions: Bad correlation between connectivity and local and global integration of the vicinity, the segregated areas are many topological steps away from integrated streets, and the topological spatial structure in the area is deep, both in itself and with regard to the whole system. Likewise spatially enclosed systems with high privacy, but without general social control lack natural co-presence and mutual surveillance (Hillier 1996, p. 188, 194 and 201).

The design of architectural space can thus affect the use of space. This issue seems to touch upon the problem of architectural determinism, i.e. the question to what extent one can predict how urban areas will function after their construction. It is difficult to assess the question to what extent a configurative approach is a form of architectural determinism. Whether crime or social malaise will occur in spatial segregated areas or not, naturally depends on the behaviour of their inhabitants. A configurative approach, on the other hand, can answer the question of why some areas have a high level of crime and social misuse. Thus a configurative approach can prove that the spaces of a built environment can affect human behaviour (Hillier 1996, p. 184 and 212). It makes one understand that the means a built environment offers are physical while its ends are functional - not visa versa.

6 Urban compactness in configurative terms

The following examples will demonstrate how a compact vital city can be described in a concise sustainable manner. In his book *Towards an Urban Renaissance* Richard Rogers tries to illustrate the relationship between a compact city centre and its sub-centres in a diagram (Rogers 1999, p. 53). Compact urban centres are indicated as dark circles in a grey scaled built environment. The darkest colours indicate high urban compactness. In what way these centres are compact is not clear. The finer spatial content inside these circles is missing. It does not say how these centres can function socially and economically in a sustainable manner. Likewise, a concise understanding of the way each centre relates to their surrounding areas and the whole city is lacking. In general, the fine-grained street grid and its inter-connectivity are not taken into consideration at all.

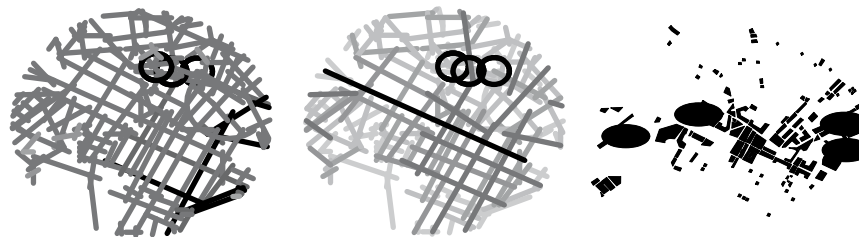
Figure 2 shows the density of the street grid of the two main pedestrian-based shopping areas and one car-based shopping centre in Oslo within a radius of 1 km. The areas' location patterns of shops are shown at the right side of the figure. The black ovals indicate large shopping centres. The pedestrian-based areas have in common providing a dense street grid within a short metric distance. This is an indication for compact sustainable urban areas. The local integration and the density of the street net are low in the car-based shopping centres located at the globally most integrated ring road 3. It does not encourage movement by foot. Hence, criteria for successful compact pedestrian-based urban centres imply high density of the street grid in a short metric distance and inter-connectivity between local streets, main routes streets and the road net of the whole city.

7 Environmental configurative considerations

How can these findings on connectivity, global and local integration provide an understanding of urban sustainability when cities, their cultures and economies are continuously expanding and transforming?

At least since the industrial revolution we have seen in what way comprehensive technical inventions affected the spatial structure of built environments, and conversely its spatial product affected social and economic behaviour. Man is able to change its built environment and has purposes and intentions to do so. It is not always clear what the intentions are, but those concerning economic activities strive for profit maximising. Aiming at the creation of urban areas developing in a sustainable way, one cannot ignore the behaviour of producers and consumers and the way the built environment influences them. From a configurative point of view, understanding what an urban area's sustainable development consists in, depends on an account of the topological structure of its street and road grid.

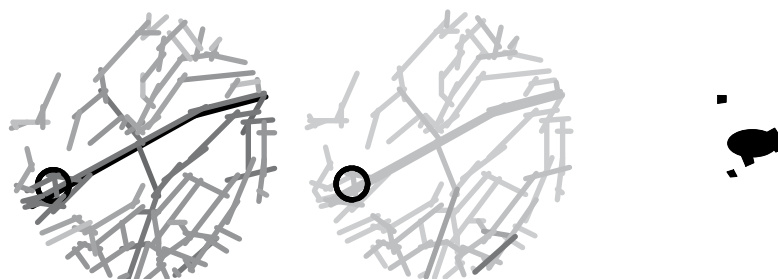
It is not enough encouraging high density in urban areas by increasing the



The main street Karl Johansgate



The local shopping street Bogstadveien



The car based shopping centre at Ring road 3
(Ullevaal centre)

Figure 2: Density of the street grid in shopping areas in Oslo

number of dwellings and locales for economic activities or in general high density of the built mass. It is the density of the grid and its local and global position in the whole system that are at issue. Density of lively dwelling areas seems to be a by-product of the high density and inter-connectivity of the urban grid and the dispersal of integration values on it. The degrees of connectivity of a street and its configurational position in a city influence the relationship between inhabitants and visitors. In what way an area has mutual surveillance or not can be understood from a spatial point of view. The natural mixture of inhabitants and visitors is a criterion for safe urban environments and makes living in urban areas attractive.

To the extend that urban compactness can be understood in configurative terms, the relevance of compactness for urban sustainability can be assessed more adequately in morphological terms than in other less formal terms. For a configurative approach conceives the built environment descriptively as a process rather than a product. It assesses in what way economic and social behaviour is influenced by it and, conversely, have influence upon it. Seemingly, urban compactness is a necessary condition for a sustainable urban process in terms of high degree of connectivity of the street grid and the way it is connected to the whole city on local and global scales. Compared with many other accounts of urban sustainability, a morphological approach can offer specific concepts of spatial and functional aspects in order to explain or understand compact cities and their effects on economic and social behaviour - whether it turns out to be sustainable or not.

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KAJ NOSCHIS

A female Ulysses

The enthusiasm and dedication Halina has for the Oslo School of Architecture and Design is most impressive and has had far reaching implications far beyond Oslo. During the last ten years I have met Halina at Colloquiums that I have been involved in organising here in Switzerland and she has invited me a few times to Oslo. On all these occasions I have witnessed how Halina has always caught everyone's attention with her novel and far reaching ideas about training students — and specifically doctoral students.

It is still quite a challenge today to find ways for students in architecture to become involved in academic research so that they are convinced about what they do and that their work is convincing to others. It is a tradition for academic research to build on previous research by consolidating one among existing theories or preferably by refuting them and proposing a new theory. Furthermore, this has to happen through methodologically sound procedures. The problem with architecture as an academic discipline is that there hardly is any tradition of previous academic research to build on if we except history of architecture.

Halina, with great courage, has taken this situation as a challenge and has come up with very stimulating views on how not to consider this particularity of architecture as a drawback but as an opportunity for new insights on doing research in this discipline. In fact by reflecting on research specific to the *making professions* she has opened doors into a novel world.

Halina has not only devoted her thoughts to this subject by developing remarkable theoretical insights but has also had the concern for transforming this into concrete teaching programmes for doctoral students in architecture, and this not only in Norway. Many of her recent publications explore in depth the question of architectural research and are of great interest and importance for the future of architecture itself. She enjoys sharing her ideas and involving colleagues in such reflections and this has frequently created opportunities for joint publications.

I have had the pleasure of participating in one such venture. On those too rare occasions when our discussions have extended beyond shared academic interests I have been very touched by the delicate and light manner in which Halina tells about her incredibly adventurous and epic voyage from Poland to Norway. And although I understand that Norway is her home and that it would be in her own health's interest to remain more stationary, she has ever since continued her voyage in the academic world involving colleagues in

many continents in her far reaching projects. I hail her as that much needed female Ulysses, an exemplary, not to say epic figure whose travels give lives of others a meaning. Her voyage, rather than just fighting enemies, is a search for shared knowledge and may I suggest that this be its feminine side.

IV. In conclusion

HALINA DUNIN-WOYSETH

*The “thinkable” and “unthinkable” doctorates
Three perspectives on doctoral scholarship in architecture*

This invited paper formed an introduction to the conference The Unthinkable Doctorate, which was held at the Sint-Lucas School of Architecture in Brussels, 14-16 April 2005. The intention was to establish the broad scope and the academic background by presenting three perspectives on what could be regarded as “thinkable” and “unthinkable” doctorates in architecture. The first perspective builds upon four components: the notion of doctorates as an academic concept; doctorates in architecture; academic attitudes towards research concerning a broader field of practical-aesthetic practices; and, finally, the institutional aspects of doctorates in these fields.

The second perspective is based on a micro-study on a specific doctoral programme over a period of 15 years (1990 – 2005). The objective is to look “from within” at the practice of establishing and leading a doctoral programme and to relate these experiences both to the issues discussed within the first perspective, and, to the challenges of organised research education in practical-aesthetic fields, with an emphasis on architecture.

The third perspective addresses the issue of doctorates at the meta-level of the European guidelines formulated within the Bologna-Berlin process. The conclusion of the paper is an attempt to bring together these three perspectives into an integrated framework for the conference theme. The term “practical-aesthetic fields” has been frequently employed in the text to denote what in the Anglo-Saxon usage often appears as “design fields”. That term, which is well established in Norway, seems to be particularly apt when referring to the broad spectrum of architecture, landscape architecture, object design and other similar fields. The terms are very similar, but the Norwegian expression is probably more precise with regard to the forthcoming discussion of research by practitioners on their respective practice.

1. THE FIRST PERSPECTIVE.

VARIOUS ASPECTS CONCERNING DOCTORATES

1.1. Doctorates over time

For as long as there have been universities — that is, since the middle of the twelfth century — there have been doctors teaching in them. There are various European universities that compete with each other for the honour of being recognised as the first one to use the title ‘doctor’. The home page of the University of Melbourne’s School of Graduates Studies states that the “...use of the title ‘doctor’ seems to have originated at the University of Bologna in the early twelfth century, but the master’s degree is the older of these two higher degrees. Nor did the doctorate begin as the senior degree of the two” (1). Initially, there were four distinct doctorates, corresponding to the four traditional faculties: Theology, Law, Medicine, and Philosophy (the least prestigious of the four). The award of a doctorate constituted an international licence to teach in the pertinent faculty. Until the beginning of the nineteenth century, universities were mainly teaching institutions, and the term “doctor” maintained its original meaning of “teacher”. The development of the modern research university has been usually credited to Wilhelm von Humboldt (Park, 2005:191). His reform of the University of Berlin from 1810 favoured the Philosophy Faculty, which was the apposite context for *Wissenschaft*, the holistic pursuit of knowledge promoted by Humboldt and the milieu around him. And so the PhD, Philosophiae Doctor, became a token of research excellence across a broad spectrum of disciplines — a position it still retains today.

The Humboldt initiated PhD was adopted in the USA from 1861, and in the UK from 1917 soon becoming standard in most English-speaking countries (Boyer, 1997:8), (Park, 2005: 192). German immigrant scholars taking faculty positions in North America during the 19th century took with them concepts of freedom of thought, intensive research, and the reporting of results as key attributes of the PhD (Cude, 2001). These ideals became the cornerstones of the PhD degree that took hold in North American universities during the 19th century. The first PhD awarded in North America was at Yale University in 1861. Many other universities throughout the United States established PhD programmes by the turn of the century. The basic elements of the PhD in the USA have not changed much since its inception.

The Yale PhD required the following of its students: (i) specialized courses and residency of at least one year, and at least three years of doctoral enrolment, (ii) language requirement demonstrating reading ability in one or two foreign languages, (iii) a qualifying or comprehensive examination,

(iv) a dissertation of original research, and, finally, public, oral defence of this research (Buchanan and Herubel, 1995:3).

The North American version of the degree was from the beginning different from that adopted in the UK and the rest of the British Commonwealth. The latter was conceived simply as a research degree, and all that was required of the student was a thesis on an original topic, and an oral defence or examination — the *viva voce*.

Neither the USA nor the UK requirements have changed significantly over the years, but in both countries the PhD has recently experienced competition from a series of new forms of doctorates (Park, 2005:202). There seems to be a substantial pressure to change doctoral education. Surtherland and Corballis write that in the UK “...the research element of the doctorate remains the distinctive characteristic and essential cornerstone” of the PhD, but “...much discussion has focussed on how much research training the PhD should provide” (Surtherland and Corballis, 2001). Critics in the USA and the UK are anxious about the future careers of PhD holders, and see a widening disparity between what the PhD trains its graduates for and what they may, in reality, end up doing once they have completed their degree (Sutherland and Corballis, 2001).

1.2. Doctorates in architecture — A summary of experience in the USA

The 2004 international colloquium “Discipline building: a short history of the PhD in Architecture” held at the School of Architecture, University of Princeton (2) is a key source for this section.

Doctorates in architecture have a much shorter history than those in the traditional research fields. Both in Europe and in the USA “the doctoral phenomenon” in schools of architecture can be traced to the early 1960s. At this time a small number of prominent architectural schools (Penn, Princeton, MIT, Berkeley, Cornell) initiated discussions about the need to train architectural historians able to contribute directly to the education of architects in professional schools. They subsequently moved towards having PhD programmes approved by their respective universities. The eventual establishment of these programmes constituted a significant disciplinary shift. New forms of teaching and scholarship emerged.

The first doctoral programme in architecture in the USA was established at the University of Pennsylvania in 1964, followed at the end of the 1960’s by Cornell, and later on, by Princeton and MIT. At the beginning of the 1990’s Columbia and Harvard Universities established their own doctoral programmes as well. The establishment of Master programmes had a direct connection with the formation of doctoral programmes, the first Master degree having been established in 1965.

It was reported during the Princeton colloquium that there had been ferocious opposition towards these new programmes on the part of other departments and doctoral programmes at the respective universities. That initial stage in the development of the doctoral programmes in architecture was followed by a growing co-operation with other “related” disciplines: history, history of art, anthropology, sociology, literature, etc. In this context of academic co-operation the new generation of doctoral programmes were called “History, Theory and Criticism” (which often go under the acronym HTC), thus creating a specific field of architectural reflection. Many of the alumni of these programmes have stayed on the staff of their Alma Mater, sometimes providing leadership in doctoral education, but many of them returned to traditional architectural practice. Increasingly doctoral students began to participate in the design studio education, thus contributing to interactions between theoretical and project-related activities. At the same time, PhD enrolment was opened up to allow people without architectural education to undertake the programme. Such mixing of skills and expertise brought from other areas of education and industry contributed to the improvement and diversification of methods of education and research in architecture programmes, according to participants of the colloquium.

One of the round-table discussions during the Princeton colloquium of April 2004 was devoted to the impact of the doctoral programmes on the academic position of the schools of architecture within their own universities. Certain established scholars such as K. Michael Hays, Anthony Vidler and Sylvia Lavin maintained that the research community regards doctoral students in general as “creative navigators between various disciplines”. This was often at the expense of research consistency and rigour. While the relationship between the doctoral students and the academia seems to be complex and strained, a number of positive examples how this group has influenced local milieu were discussed, including the experience at the University of California at Berkeley.

Another round-table discussion: “Intellectual hospitality: the interdisciplinary politics of the doctoral programmes” debated the notion of bridging between the core problems of the discipline of architecture and other related disciplines. This addressed how PhD programmes codify which methods, theories, and concepts from other disciplines become part of architectural discourse.

Interdisciplinarity can be regarded as a “dream of a complete companionship”. Sometimes it is successful, as in informatics, sometimes less so, as in architecture. In the former case, common research projects have been conceived and executed. In the latter, most often some tools were “borrowed” from other disciplines by the architectural researchers. Among many comments that were raised during the colloquium, the traditional

doctoral field, the HTC, was deemed to be an unsatisfactory basis for future development of architectural doctoral studies. Instead the idea of establishing interdisciplinary doctoral programmes in architecture was introduced as a possible platform for understanding the tensions among disparate disciplines adopted within architectural study and practice.

The discussions of the round-table closed with two stances emerging. One was that doctoral programmes should seek social and political awareness through their academic endeavours. The opposing view expressed was that autonomy should be claimed for doctoral studies in architecture, and contributions to social and political questions would only occur indirectly.

1.3. Research and research equivalence - various attitudes to research in practical-aesthetic fields

In 1987 a reform was enacted in the area of Higher Education in Australia. A uniform higher education system was established where resource allocation should be shared between education and research (Kälvemark, 2001:12). Such a system made budgeting rather problematic for institutions offering education in the practical-aesthetic fields like architecture and design. In that polarised allocation system there was no entitlement for rewarding aesthetic production in its own right. A debate in the institutions of higher education in practical-aesthetic fields ensued. A vocal contributor to the debate was Malcolm Gillies, a professor of music at The University of Queensland. He engaged in the idea of how practical-aesthetic fields could define their academic anchor. In the search for solutions he compared the situation in the USA and in Australia:

“Our problematic role within this research environment is made more difficult by the very definition of ‘research’. While in the United States the move during the 1980’s and 1990’s has been more for establishment of ‘research equivalent’ categories of professional work in the arts ... the tendency within Australia has been more to agitate for the broadening of the definition of ‘research’. The reason for this is simple: with only two funded categories ‘teaching’ and ‘research’, the opportunities for ‘research equivalent’ have been limited” (Kälvemark, 2000:13).

Gillies formulated three types of attitudes to the relationship between research and creative practice in practical-aesthetic professions. The *conservative* attitude is expressed by the short sentence “research is research”. It is not possible to conduct research *in* the practical-aesthetic fields as research means to objectively investigate “problems”. This research is critical, analytical and historical in its character. Its results have to be published in a written, well-documented form. These demands are most often contrary to the character of the practical-aesthetic fields. The *pragmatic* attitude, Gillies

less elegantly termed “that awkward half-way house”. Here the definition of research has been extended to include reflection and comments on aesthetic practice, often on the researcher’s own production. That practice and its results are here being recognized as part of research process. This type of research needs, nevertheless, a substantial, textual work in a form that is similar to traditional academic research. The *liberal* attitude is based on the stance that creative practice and its products are recognized per se as research and they should be appropriately recognised as such (Kälvemark, 2000:13).

A recent French review of some European doctoral programmes recorded several prevailing attitudes to architectural research as represented by those responsible for leading these programmes (Formations doctorales en architecture, 2005:67). It seems that the pragmatic attitude as formulated by Gillies almost two decades ago is nowadays winning a stronger position in Europe. In the concluding part of the publication it is emphasised that architectural research does not fit naturally into the classification of the traditional academic disciplines even if faculties of architecture are incorporated as separate disciplines in the institutions of higher education. One of the prime reasons for this is the issue of assessing the quality of architectural research. Architecture as a field of inquiry is still not established and is lacking in seminal works, which could act as models for architectural research and contribute to defining its identity. There is even a strong tendency towards recognising architectural practice per se as architectural research, (a knowledge stance which Gillies called a liberal attitude). It is important to maintain that doctoral research should build upon research education and be a locus for production of research in a more or less traditional understanding.

Whilst the problems of assessing the quality of architectural research are of prime importance in its relationship to the academic world, the problem of its relevance is uppermost in consideration of its relationship to practice. Young architectural researchers find adequate employment mostly in architectural academia or in research institutes. But there are signs suggesting that the market for their acquired skills is becoming wider. It now increasingly includes more large real estate agencies, building enterprises, planning and even architectural offices. In the latter the interest seems to grow in attempts to articulate what architectural expertise is and in the ways architects think. It seems that there is a new understanding of the need for organised reflection on practice, for in-depth studies of the practice which could, hopefully, lead to a better practice (Formations doctorales en architecture, 2005:67). These views from the world of practice correspond with the earlier mentioned pragmatic attitude of academics to research, formulated by Gillies.

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1.4. Some institutional aspects of doctorates — examples from the UK

In 1997 the UK Council for Graduate Education published a report “Practice-based Doctorates in Creative and Performing Arts and Design”. The publication was prepared by a committee that was chaired by Christopher Frayling, the Rector of the Royal College of Art in London. Other members of the Committee were also prominent within the field and in the British Higher Education system. Practice-based doctorates are discussed in this publication with regard to their content, form, execution and assessment. The report is based on a broad national investigation where 116 institutions, all members of the UK Council of Graduate Education, were questioned about their doctoral degree systems. 90 institutions responded. The investigation showed that more than half of them had already conferred practice-based doctoral degrees (Practice-based Doctorates...,1997:9). The report emphasized that there is a growing volume of PhD research, especially in humanities, which cannot be regarded as such within the restricted definition of “traditional scholarship”. Even in sciences many PhD projects seem to be far from what is being taught as norms in manuals of research education. The report maintains that there already exists a “continuum from scientific research to creative practice” (Practice-based Doctorates...,1997:20). It seems that this statement is crucial to the discussions about scholarship, and especially doctoral scholarship in architecture.

The report identifies three criteria for “doctorateness”:

- “The submitted work must make a recognisable *contribution to knowledge and understanding* in the field(s) of study concerned (...)
- The student must demonstrate a critical knowledge of the research methods appropriate to the field of study (...)
- There is a submission (...) which is subject to an oral examination by appropriate *assessors* (...)” (Practice-based Doctorates..., 1997:11,12).

The investigation shows that there was a broad consensus among the institutions as to a set of criteria that should position the practice-based doctorates in relation to the traditional, academic ones.

- “The work must have been undertaken as part of a registered research programme
- The final submission must be accompanied by a permanent record of the creative work(s)
- The creative work must be set in its relevant theoretical, historical, critical or visual context
- There must be a written thesis

- The length of the accompanying written thesis will usually be 30,000 – 40,000 words
- Except in the case of musical composition (...)
- The work will constitute an independent and original contribution to knowledge
- The submission will demonstrate an understanding of appropriate research methods
- There will be an oral examination
- The written thesis and the creative work are of equal, or near equal, importance (except in the case of musical composition)” (Practice-based Doctorates...,1997:15).

The report states that the term Professional Doctorate had already been introduced by the University of East London. The degrees are described as being “equivalent” to the PhD and this provoked a strong debate. Personal development for the strengthening of the profession is defined as the objective of these doctorates. Professional Doctorates are offered at the Bartlett School of Architecture and elsewhere in the UK.

Christopher Frayling held a lecture at the Academy of Art and Design in Oslo in February 2002. He described the British system of Higher Education as very inclusive in its attitudes to the three types of research in art and design: the traditional research *into* art and design; research *through* art and design via practice-based doctorates; and, not least, art and design per se as research, i.e. research *for* art and design.

The new art and design doctorates do not yet seem to be fully recognised in the academic community. Frayling described his experience during a meeting of the Committee of Vice Chancellors and Principals:

“I was talking about the growing culture in art, design and performing arts and a gentleman next to me — from one of the ancient universities, e.g. one founded before 1967 — muttered ‘ the trouble with higher education these days is the number of Mickey Mouse degrees’. If it wasn’t research into art — sanctified by tradition — then it couldn’t possibly count as research at all” (Frayling,1998:1). This comment seems to spring out of the same attitude to research in practical-aesthetic fields that Gillies referred to, when he called this research “that awkward half-way house”.

1.5. Summarizing the outcomes of the first perspective

Concerning the traditional “thinkable” doctorates, the almost “thinkable” doctorates, and the advent of new “unthinkable” doctorates

The doctorate as a research degree has a much shorter tradition than that of the universities in the western world. In the Continental Europe it was established early in the 19th century, while it was adopted in the Anglo-Saxon sphere only at the end of that century. The objectives and the format of the doctorate, while differing slightly among various countries, stayed remarkably stable until the last 10-15 years. Since then, changes have occurred in terms of the process and the product of doctoral endeavours, as well as in the format of the doctorate. New and diversified forms of doctorates have developed.

Doctorates in architecture began to appear much later than in the traditional academic disciplines. In the 1960s some leading schools and faculties of architecture in the USA established the first doctoral programmes, targeted towards supplying these institutions with highly qualified academic teachers for advanced vocational studies. The underpinning idea for establishing these programmes was the concept of a knowledge base in architecture as constituted by the triad of History, Theory and Criticism. The later development of the doctoral programmes in the USA showed a stronger interest in interdisciplinary research as their conceptual foundation, and, towards a stronger relationship with the practice of architecture. Forty years later, it seems that there are two main stances in the discussions on the future of the doctorates; first, that doctorates in architecture should be more socially and politically engaged as well as leading a “dialogue” with other knowledge disciplines, and second, that they should support a stronger autonomy for architecture and address issues other than architecture only indirectly.

Discussions similar to those, concerning architectural research, have been observed in other fields of creative and performing practice as far back as the middle of the 1980s. Three attitudes towards research in these fields were defined as: the conservative, the pragmatic and the liberal. The assumption was made that the pragmatic attitude can be regarded as corresponding with the “dialogical thread” discussed in the USA, whilst the liberal attitude corresponds to the “autonomy thread” of these discussions. A recent French review of several European doctoral programmes in architecture showed that some of them represented a dialogical stance with other fields as the basis of these programmes. Some other doctoral programmes in this review seemed rather to support the autonomy of architectural research.

In the UK practice-based doctorates have already established their ground, both with regard to their concept and their institutional frameworks. There seems to be a consensus as to what constitutes “doctorateness” as addressed

by the practice-based doctorates. The British system of the doctoral studies in the practical-aesthetic fields is rather inclusive in its attitudes to various types of research: the traditional academic research on art and design; research through art and design and research for art and design. In this generally inclusive climate the traditional, “thinkable”, doctorates meet general approval in the academic milieu. The “new” doctorates, attempting to appeal to both the academy and the world of practice, are still not whole-heartedly endorsed by the traditional academic world. It is as yet unclear whether they are fully accredited by practitioners. The third category, those that could be called “the equivalent degrees”, those building on the knowledge stance that artistic or designerly production per se is research; generally have the status of “unthinkable” doctorates. But, whilst they do not belong with the purely academic products, they are achieving increasing interest from practitioners.

2. THE SECOND PERSPECTIVE

A MICRO-STUDY ON THE DOCTORAL PROGRAMME AT THE OSLO SCHOOL OF ARCHITECTURE AND DESIGN 1990-2005

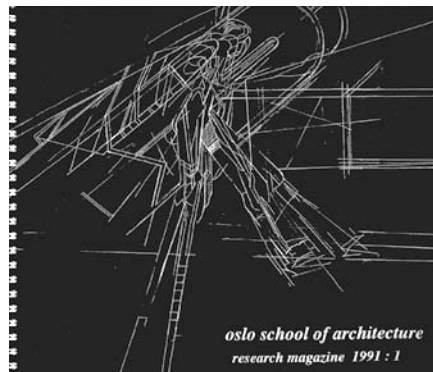
In the following an attempt will be made to provide a micro-study that Burgess maintains postgraduate education requires (Burgess, 1997). The doctoral programme, which has been offered to candidates from several practical-aesthetic fields, primarily in architecture, will be used as a case study. The text will touch upon the following: the history, nature and purpose of the PhD, the experiences of those teaching at the doctoral programme and the possibilities of reform in the context of external and internal influences. These issues will be mainly described as they were “mirrored” in the Oslo School of Architecture and Design’s own academic journal Research Magazine.

2.1. The Micro-study

The Oslo School of Architecture was established in 1945 as an “emergency support” for the students whose studies were curtailed by the war. In 1969 the institution was awarded the status of a School of Architecture with an external governing board, appointed by the Ministry of Education. In 1983 it was elevated to the status of an autonomous university college with an internal Executive Board. In 1996 the School merged with the Institute of Industrial Design, previously affiliated with the State School of Arts and Crafts. The School has traditionally emphasised the value of practice as the main source of professional and pedagogical competence. The status as an academic institution demanded that the School establish its own doctoral

programme along the lines of similar academic institutions. Research at the School, with few exceptions, was a relatively new phenomenon in the beginning of the 1990's. The School 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.

The Programme was primarily targeted towards architects, but professionals from other practical-aesthetic fields, like landscape architecture, object-design, urban design, etc. were admitted for the first time in 1995. Since then, the doctoral programme has played an active role of a hub within the national research education system called Norway Network. Its profile has been strongly shaped by the fact that it recruited candidates not only from architecture but also from other practical-aesthetic fields, and that their research subjects have most often been derived from the PhD students' own practice-related experience.



The Research Magazine has been a companion to the development of the Doctoral Programme throughout. It has documented the debate on architectural and design research in its own institutional, Scandinavian and international context, and it has discussed the principles of the content and structure of the doctoral curriculum.

The first volume of the RM, published in 1991, summarised the preparation process for the start of the Doctoral Programme (Dunin-Woyseth, 1991). It reported extensively from a series of seminars, which were held in the academic year 1991/1992. Its objectives were to stimulate internal debate on architectural research, reflective practice and on new, innovative architectural works, as well as on the relation between them for developing a relevant academic discourse. The staff presented and discussed their own work as a basis for mapping out the internal scholarly competence as well as their intentions to acquire or expand it.

In the years 1991-1992 an intensive debate was held in order to define a doctoral curriculum for the class of PhD students who were expected to start their doctoral studies in the autumn 1992. At the national level this debate included the two Norwegian schools of architecture, one in Oslo and the other one in Trondheim. At the same time a more general debate was started among the Scandinavian schools of architecture, which has since continued and which resulted in many common doctoral courses.



The second volume of the RM appeared in 1995, and it described and discussed the first curriculum, which was carried out throughout three semesters 1992-1993 (Dunin-Woyseth and Amundsen, 1995). It was heavily based on the knowledge aspect of architecture, concentrating on the theory of architecture.

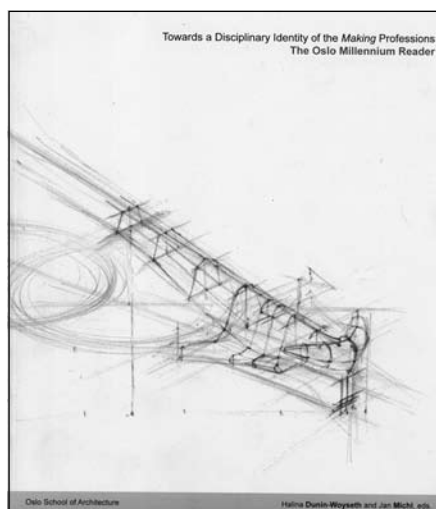
From a time perspective of 15 years it has become clear that the curriculum expressed the research milieu at the School and its intention to legitimise the profession's theory as the main source of its intellectual identity. This is similar to other academic disciplines, where theory constitutes the main core of the doctoral curricula. The issue of disciplinary identity for design professions has been widely discussed in the European context (for instance the Delft conference Doctorates in Design and Architecture in 1996). The Oslo School of Architecture took the initiative to organise a similar debate on the matter with international participation. These endeavours resulted in an EAAE seminar held in Ascona, Switzerland, in 1997. The invited contributors represented a smaller group of prominent scholars. The proceedings from the symposium make up Volume 3 of Research Magazine and Volume 2 of the EAAE Workshops as well as an issue in the Swiss journal series *Comportements* (Dunin-Woyseth and Noschis, 1998).



The contributions submitted to this publication communicate a strong degree of unanimity about the issue that the knowledge base, understood as the intellectual identity of a field, is different in design professions than in more academic disciplines. While the latter heavily rely on their theory for guidance in production of new knowledge through qualified research, the role of theory in design professions is different, both with regard to its professional and its research practice. Linn Mo, an American-Norwegian scholar puts it in this way:

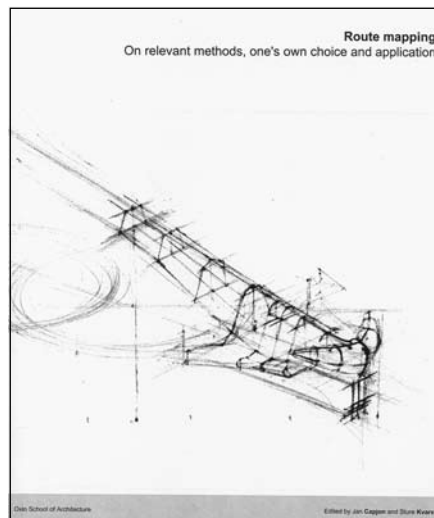
“In design professions and in social practice like business administration or social work, theory is more for inspiration, collections of tips and good advice, frameworks for thinking, or methods of analysis, without recommendation of particular solutions. Theory is meant as a contribution to professional judgement, and is to be constantly adjusted in application ...” (Mo, 2001:150)

“Architects also try to write theory at a higher level, a meta understanding that is meant to lead to better theories for practice. These are theories about the discipline itself, reflections over what it stands for, what direction it is going in (...)” (Mo, 2001:154)

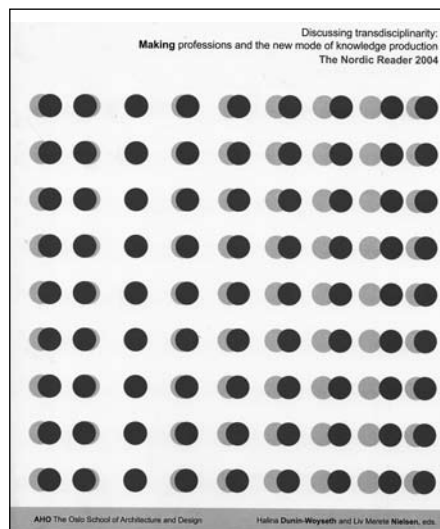


The fourth volume of the RM, edited in 2001, without attempting to theorise at a higher level, does attempt to discuss the principles for establishing a “making” discipline: to formulate some reflections over what it could stand for, what directions it could be going in and what criteria should determine academic standards. It appeared under the title “*Towards a Disciplinary Identity of the Making Professions: The Oslo Millenium Reader*” (Dunin-Woyseth and Michl, 2001). The fourth volume of RM lays its emphasis on a more conscious process of establishing scholarly standards in the *making* professions. The issue of “good handicraft” in this field has been internationally debated in recent years by scholars as Buchanan, Durling and Frayling, Friedman et al. Christopher Frayling formulated in the following way the criteria to be fulfilled by doctoral students while submitting a thesis:

“They must make recognisable and communicable contribution to knowledge and understanding in the field of study concerned; the PhD students must demonstrate a critical knowledge of the research methods appropriate to this field of studies. The latter requires that the candidate is acquainted with the range of the relevant methods and knows when and at what level to apply them, even though the thesis may demonstrate mastery of only one method. It is consistent with this principle, that the contribution to knowledge and understanding could itself be focused on method as much as on content and product. The key words here are ‘critical knowledge of research methods’. The one thing that the regulations have in common is that to be awarded a doctorate the candidate must show the awareness of the route map by which he or she reached the points described in the thesis. The technical phrase for this is research method” (Frayling, 2002).



Volume 5 is markedly different from previous editions. It is made up as a group assignment of ten PhD students studying at the Oslo School of Architecture. The title of the assignment was *Route Mapping: On Relevant Methods, One's Own Choice and Application*, and its objective was to strengthen the PhD students' awareness with regard to the criterion of clarifying and presenting one's "route mapping" in the doctoral project. Since 1992 a network of co-operation between several schools of architecture and design in Scandinavia has had as its aim the professionalisation of research education. Between 1999 and 2001 the co-operation resulted in a series of research courses called the "Millennium Programme" which was joined by more than 50 PhD students. After the Millennium Programme courses ended in 2001, the network's teachers concluded that the current status of the research education promised adequate training opportunities for the growing Scandinavian community of architectural and design researchers. Nevertheless, this preparedness seemed to apply mainly to traditional disciplinary and interdisciplinary academically initiated research. The network teachers decided that the next phase of co-operation should be committed to the preparation of young researchers to meet the demands for new types of a broader research competence, that of problems and solution-oriented research. A pilot study course was arranged in 2003.



The sixth volume of the Research Magazine is devoted to Mode 1 and Mode 2 of knowledge production and it is published under the title: *Discussing Transdisciplinarity: Making Professions and the New Mode of Knowledge Production*.

The well-known definitions of Mode 1 and Mode 2 say that Mode 1 is: “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”; and Mode 2: “Knowledge production carried out in the context of application and marked by its: transdisciplinarity, heterogeneity; social accountability and reflexivity; and quality control which emphasises context- and use-dependence. It results from the parallel expansion of knowledge producers and users society”(Gibbons et al, 1996:167).

Bryan Lawson praises Mode 2 as a new form of “in practice model” of research that has emerged and become increasingly important. Lawson says that Gibbons and his co-authors, distinguish Mode 2 from “the traditional natural science view of research. It is they claim, less about gaining knowledge and finding causes and more about solving problems and predicting effects, it is less oriented to peers and more towards clients, it develops consensual knowledge rather than rule-based knowledge and is more often practiced in the field by cross discipline groups than in the laboratories of the old discipline-based academic departments. Design fits this description pretty well. Perhaps we are just ahead of the game rather than behind it after all” (Lawson, 2002:114).

The most recent development seems to have been the recognition on the part of the staff of the doctoral programme that there already existed a “continuum from scientific research to creative practice” in various fields of

inquiry, even in those traditional academic ones. That recognition among the external scholars, who act as “gatekeepers” when assessing doctoral work, resulted in the acceptance of some PhD theses in which the doctoral students integrated their own creative practice into the doctoral project not only in an illustrative, but also in an argumentative way. This new practice began in 2004 (4). Thus the Doctoral Programme at the Oslo School of Architecture and Design has entered Frayling’s path of research through art and design as doctoral scholarship.

2.2. Summarizing the outcome of the second perspective of consideration

How time shapes doctorates and how it changes their status from “unthinkable” to “thinkable”

Several questions should be addressed in order to summarize what can be learned from the micro-study of the doctoral programme in Oslo. What kinds of changes have occurred with regard to the attitudes and knowledge stance in the research milieu in which the Doctoral Programme of the Oslo School of Architecture functioned? How did these changes influence the quality standards with regard to the process of training and to the results of that training? How did internal and external influences shape stances with regard to what is “thinkable” or “unthinkable” in terms of doctorates?

History and theory of architecture were initially recognised as the appropriate knowledge base for doctoral education. This was because the first cohorts of doctoral students were architects and because there were attempts made to legitimise the content of the doctoral education by emulating the practice of traditional academic disciplines. When new cohorts of doctoral students were enrolled, with a background from other practical-aesthetic professions, endeavours were made to build common intellectual grounds by extending the curriculum to include history and theory of those other fields of practice. This History and Theory concept of knowledge base, was extended to include also Criticism, this being the closest relation to practice (Dunin-Woyseth, 2005:154). The awareness of design practice as a shared reference with a clear impact on their research has become another common platform for all groups of doctoral students. At the same time a new awareness emerged of various roles of theory in the discourse of practical-aesthetic fields as distinct from its role in academic disciplines. That recognition slowly contributed to the pedagogical concept of research education changing from ‘learning about’ to ‘training in research practice’, and to regarding research as another form of practice. The growing demands for making explicit, and arguing for, a chosen “route” in one’s research work have made it necessary to introduce an overview of relevant research strategies and methods in the doctoral curriculum. A broad debate initiated by the Scandinavian

“Millennium Programme” made it clear that the doctoral students should be introduced to new forms of knowledge production through the problematique of Mode 1 and Mode 2. Some design theorists believe this opens up the potential for a more holistic use of the research potential of design.

Several recently accepted doctoral theses have been positioned within a “continuum from scientific research to creative practice”. The Norwegian doctoral regulations do not formally recognise the use of the candidate’s own creative practice in the argumentation of a doctoral work. The recognition of such research as academically viable by the international adjudication committees appointed by the School have now made such approaches possible. Looking back at the period 1990 – 2005, i.e. since the organised doctoral studies at the Oslo School of Architecture and Design were launched and until the present, it has to be recognised that what was regarded as “unthinkable” only a few years ago, has been acknowledged as “thinkable” in recent years.

3. THE THIRD PERSPECTIVE.

THE BOLOGNA-BERLIN PROCESS AND DOCTORAL SCHOLARSHIP IN ARCHITECTURE

3.1. The guidelines of the Bologna-Berlin Communiqué

The ministers in charge of higher education in all the countries taking part in the Bologna Process decided to adopt the future of doctoral programmes as a specific Bologna objective at the September 2003 meeting in Berlin. Doctoral education has been recognised as the third, highest cycle of education, after Bachelor and Master degrees.

Conscious of the need to promote closer links between the EHEA (European Higher Education Area) and the ERA (European Research Area) in a Europe of Knowledge, and of the importance of research as an integral part of higher education across Europe, Ministers consider it necessary to go beyond the present focus on two main cycles of higher education to include the doctoral level as the third cycle in the Bologna Process. They emphasise the importance of research and research training and the promotion of interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally. ...Ministers ask Higher Education Institutions to increase the role and relevance of research to technological, social and cultural evolution and to the needs of society (5).

In September 2003 the European ministers expressed the necessity of defining an overarching framework of qualifications for the Higher Education Area. “Ministers encourage the member States to elaborate a framework of compatible qualifications for their higher education systems,

competences and profile. They also undertake to elaborate an overarching framework of qualifications for the European Higher Education Area “ (6).

3.2. The ‘Dublin’ Descriptors

During the time following the Berlin Conference important work has been done in order to integrate the third education level into a whole concept of Higher Education in Europe.

The Joint Quality Initiative group formulated the so-called ‘Dublin’ descriptors for Bachelor and Masters, which were first suggested in March 2002. The JQI meeting on 23 March 2004 proposed a set of shared descriptors for the third cycle qualifications. They have been defined through five components: knowledge and understanding, applying knowledge and understanding, making judgements, communication, and finally, learning skill (7).

Qualifications that signify completion of the third cycle should be awarded, according to the guidelines of the Dublin Descriptors to students who: *have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field*. For architecture this criterion would mean that doctoral programmes should clearly define it as an autonomous field of study and present an overview of methods of research being applied in this field. Furthermore, a pedagogical framework within that doctoral programme should provide adequate training for mastering the necessary skills.

In order to *demonstrate the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity*, the research output should reach a level of quality that accords with academic standards in architecture. But there are various attitudes as to what is, and should be a process of research in architecture. These can be distinguished as the conservative, pragmatic and liberal attitudes. With regard to scholarly integrity, established scholarly ethics should be taught and doctoral students should be introduced to the practice of research.

The doctoral student in architecture will be expected to *have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international publication*. This criterion is open for various interpretations of what constitutes architectural knowledge and what is a substantial body of work in the context of this knowledge. It makes demands for publishable knowledge, which in architecture is not unambiguous. Internationally there are very few peer-reviewed, research-oriented publications that “count” as academic production. The professional journals seldom include architectural research in their spectrum of interest.

The criterion of *capability of critical analysis, evaluation and synthesis of new and complex ideas* could be again interpreted differently according to the various attitudes to research in architecture and to the kind of research as being “into”, “through” or “for” architecture.

The capacity to *communicate with their peers, the larger scholarly community and with society in general about their areas of expertise* would require that PhD students be trained in doctoral programmes which build upon a dialogical knowledge stance with regard to architecture both as a field of expertise and a field of inquiry rather than on a more autonomous position.

The demand for PhD scholars *to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society* seems to be open for various kinds of architectural research as well as for the equivalents of such research. It promotes plurality in approaches to doctoral scholarship as a vehicle to technological, social and cultural engagement. The ‘Dublin’ Descriptors propose an inclusive concept of research: “The word ‘research’ is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to traditional ‘scientific method’” (8).

As previously discussed in the text, this concept of research authorizes new forms of doctorates. It seems that prominent groups within the international research community, as represented by those who defined the Dublin Descriptors, would now be more prepared to accept as “thinkable” those kinds of doctorates that only a few years ago would have been stigmatized as “unthinkable”.

3.3. Recapitulating the guidelines of the third perspective:

The urgent need for further discussion on doctorates in architecture

The above discussion of the policies within the Bologna-Berlin process implies a profound change in the importance of doctorates. From being a kind of elitist, rather individual pursuit of one’s intellectual development at a higher level, the doctorate has been given a strategic role in the European process of transition toward the so-called society of knowledge. The objective of organised research education is to secure stronger professionalism and efficiency with regard to doctoral studies. In the Bologna-Berlin Communiqué there is expressed a clear intention that all kinds of doctoral education will have to prepare the prospective doctors to work in interdisciplinary contexts.

This was formulated with the hope and expectation of making European higher education globally competitive, as well as directly supporting the knowledge-intensive European economy. The 'Dublin' Descriptors are one of the first steps towards implementing the policies of the Bologna-Berlin process. Their criteria of "doctorateness", have been briefly reviewed above in the light of the issues which were examined in the earlier sections of this text (Perspective 1 and 2). The strategic character of the Bologna and the Bologna-Berlin processes requires that a broad and intensive discussion on the doctorate in architecture continues, and with a greater sense of urgency and priority than has been the case until now. Such a discussion should include both the general questions of knowledge stances in architecture as well as the practical ones, i.e. pedagogical implementation of doctoral pedagogy in research education for architects. The inclusive concept of research, as formulated in the 'Dublin' Descriptors, opens up for exploring the borders of what constitutes, or should constitute the criteria of "thinkability" in doctorates in architecture.

4. INTEGRATING THE THREE PERSPECTIVES

This text has approached the issue of "thinkable" and "unthinkable" doctorates in architecture from three perspectives:

The first one has been an attempt to sketch the background of the tradition of the doctorate and to point out the recent changes in the concept. A special emphasis was placed on the doctorates in architecture and on how the lessons from the current discussions of their short history could have influence on the future of doctoral scholarship. Doctorates in architecture have been considered in the broader context of the discussions on research in other practical-aesthetic fields and how various attitudes to research in these areas on the part of the academic community can influence what is regarded as "thinkable" or "unthinkable" doctorates. It was also pointed out that there already exists a broad scope of various types of doctorates in practical-aesthetic fields and each of them can be regarded as more or less "thinkable" or "unthinkable", depending on where and by whom it is being assessed..

The second perspective has been based on a micro-study of a specific doctoral programme, that of the Oslo School of Architecture and Design. It has been used to concentrate on the history, nature and purpose of the PhD, the experiences of those teaching on the doctoral programme and on the possibilities of reform in the context of external and internal influences and changing perceptions regarding "thinkable" and "unthinkable" doctorates. A recent development has been the acknowledgment as academically acceptable several theses that included the candidates' creative work as part of the reasoning of the dissertation. The adjudication committees who

unanimously assessed these theses represented the international community of design research, and as such, they seem to have impacted on the attitudes of the local milieu of the School.

Finally, a meta-level perspective of the external influence of the European guidelines, as formulated by the Bologna-Berlin process and by the subsequent work within this process resulting in the 'Dublin' Descriptors, has been discussed. On the basis of this discussion with regard to the doctorates in architecture an assumption has been made that there is now a supportive climate in Europe for developing various forms of doctorates within the broad scope of the earlier "unthinkable" and now increasingly "thinkable" doctorates. Such development seems to be promising for architecture both as a field of expertise and a field of inquiry.

Notes

1. This information was located at the web site of the School of Graduate Studies at the following address

<http://www.sgs.unimelb.edu.au/phd/enrolcandid/phdhubk/intro/history.html>. It was downloaded on 23 March 2005

2. The section on the colloquium "Discipline building; a short history of the Ph.D. in architecture", which was held at the Princeton University on 2-3 April 2004, is in its entirety built on the report by Professor Dr. Panos Mantziaras, School of Architecture in Lyon, under the title "Mise en oeuvre de la réforme LMD dans les écoles d'architecture", Groupe de travail "doctorat". Rencontres internationales sur le doctorat en architecture – Université de Princeton – 2-3 avril 2004. Compterendu et entretiens complémentaires – Panos Mantziaras, chargé de mission DAPA/BRAU, avril 2004. Ministère de la Culture et de la Communication, Direction de l'architecture et du patrimoine. Sous-direction des enseignements et de la recherche architecturale et urbaine, Bureau de la recherche architecturale et urbaine. Professor Mantziaras made this report accessible to this author and her colleague, Professor Liv Merete Nielsen of the University College of Oslo.

Thanks are given for his academic generosity. Any fallacies with regard to the interpretation of the text are this author's alone.

3. The section on the institutional contexts of doctorates in the UK is built on the author's contribution: "Architectural scholarship 'The doctorate way' — Some responses in a Scandinavian context" to the publication "The Four Faces of Architecture — On the dynamics of Architectural Knowledge" edited by L. Villner and A. Abarkan, School of Architecture, Royal Institute of Technology, Stockholm, 2005

4. The accepted theses are: "Mellan tecken, teckning, teori och text; arkitektning i ett kontextuellt, diskursivt och paradigmiskt perspektiv" by Eirin Pedersen (2004) and "Developing Digital Design Techniques: Creative Design Computing" by Birger Sevaldson (2005)

5. The document Berlin Communiqué, accessible at the web-site under "Documents" concerning Bologna process was downloaded on 5 March 2005 from the following Internet address: <http://www.bologna-berlin2003.de/pdf/Communique1.pdf> under Main

Documents of the Bologna Process

6. Information on the so-called 'Dublin' Descriptors, or as the original document is called, "Shared 'Dublin' Descriptors for the Bachelor's, Master's and Doctoral awards", was provided at the internet address below on 10 April 2005: 5: http://www.unibuc.ro/uploads/_ro/35714/Dublin_Descriptors_2004Doctor.pdf, downloaded on 8 April 2005

7. As above in Note 6.

8. As above in Note 6 and 7.

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Appendix

LECTURERS AT THE AHO DOCTORAL PROGRAMME 1992-2005

Abdellah **ABARKAN**, Dr, Associate Professor, Royal Institute of Technology (KTH), Stockholm, Sweden
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Sigmund **ASMERVIK**, Professor, University of Life Sciences, Aas, Norway
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Philippe **BALSIGER**, Dr, University of Nürnberg, Germany
Micha **BANDINI**, Professor Emerita, London, UK
Øyvind **BAUNE**, Professor, University of Oslo, Norway
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Petter **NÆSS**, Professor, Aalborg University, Denmark
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José Luis **RAMIREZ**, Dr, NORDPLAN, Stockholm, Sweden
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Brent **WILSON**, Professor, Penn State University, Philadelphia, USA
Marjorie **WILSON**, Professor, Penn State University, Philadelphia, USA
Jonathan **WOODHAM**, Professor, University of Brighton, UK
Walther **ZSCHOCKE**, Architect, Vienna, Austria
Anna Maija **YLIMAULA**, Professor, University of Arts and Design
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R.A. **YOUNG**, Dr, University of Northcumbria in Newcastle, UK
Aksel **ØIJORD**, Lecturer in Philosophy, University of Oslo, Norway
Svein **ØSTERUD**, Professor, University of Oslo, Norway

This list does not include the scholars who gave lectures to the AHO
doctoral students at the courses held outside the Oslo School of
Architecture. Such courses were offered: at the Chelsea College of Arts
and Design, London; Bauhaus Universität Weimar; Bergen School of
Architecture; Aarhus School of Architecture; University of Arts and
Design Helsinki; Royal Institute of Technology, School of Architecture,
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Contributors

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SIGMUND ASMERVIK worked in the late 1980s as manager at SINTEF in Trondheim, Norway, doing research within architecture and building technology. From 1990-1995 he was the directing manager of the research foundation of ALLFORSK in Trondheim. From 1992-2001 Asmervik was a professor at the Department of Geography at NTNU university in Trondheim. The last ten years he has been a full time professor in spatial planning at the Department of Landscape Architecture and Spatial Planning at the then Agricultural University of Norway, now Norwegian University of Life Sciences (UMB), located in Ås south of Oslo.

HANS BJUR has been Head of the Department of Urban Design and Planning since 1992, and Dean of Chalmers School of Architecture in Gothenburg, Sweden, between 1997 and 2002. In 2005 he became a professor of Urban Transformations at Gothenburg University, and professor of Urbanism at the Swedish Institute of Rome. He has been active as a teacher, a researcher and a consultant in urban design. His research has dealt with e.g. urban infrastructure, sustainable urban design, and theory and history of urbanism and urbanity. In 2005 he was the project leader of a cross-disciplinary research project in Rome: *Space, Movement and Artefacts in the Urban Landscape: Via Tiburtina*.

KRISTINA BJÖRNBERG is a landscape architect LAR/MSA with a degree in 1975 from the Swedish University of Agricultural Sciences. She works as Senior Research Officer at FORMAS — the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning. Earlier she worked as Senior Research Officer at the Swedish Council for Building Research (BFR). She has long experience of physical planning and investigative work at local authority and national level, and has also worked for three years as a district physical planner in Botswana, Southern Africa.

JAN CAPJON acquired a master degree in mechanical engineering from Norwegian Institute of Technology (NTH) in 1970. He has practiced as an industrial designer since 1985. He has lectured at the Institute of Industrial Design in Oslo since 1978 and has held a position of visiting professor there since 1990. Following industry employment he established product development consultancies *Gruppe for Produktutvikling a.s* in 1975 and *Invaco a.s* in 1984, and has been the manager of the latter since then. He has also led several research projects for the European Commission and the Norwegian Research Council. In 2004 he received a doctorate for his thesis *Trial-and-Error-based Innovation*. He is now a professor at the AHO.

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PER OLAF FJELD is an architect and professor of architecture at Oslo School of Architecture and design (AHO). He studied at Washington State University and University of Pennsylvania (Louis Kahn, MA 1973). He worked in Sverre Fehn's office 1973-75, and has had his own practice since 1995. His built projects include Oslo City Museum and Oslo Theatre Museum, and a number of residential properties, villas, additions and conversions, in addition to a small production of furniture. He has been a teacher at the AHO since 1984, full professor since 1995, and the AHO Dean between 1992 and 1999, Board member of European Association for Architectural Education (EAAE) since 2001, EAAE vice-president 2004, and EAAE president since 2005. Fjeld is the author of numerous publications on architecture. He also writes novels.

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INGUNN GJØRVA is currently employed as an adviser in the research administration at the Oslo School of Architecture and Design (AHO) where her focus is the administration of the PhD programme. She has been employed at the institution since 1998, and since that time collaborated closely with Halina. Ingunn Gjørva has a *siviløkonom* degree from BI — the Norwegian School of Management, where she specialized in International Management. She has also studied “German for business purposes” at the Norwegian School of Economics and Business Administration (NHH) in Bergen.

STEN GROMARK is a professor, PhD, Architect SAR/MSA and sociologist, active as a teacher at Chalmers’ Department of Architecture in Gothenburg, Sweden. He has been active in research on architectural sociology within international cooperation primarily concerned with housing issues but he has also recently published reflections on the influence of philosophical concepts within contemporary European architecture in the book *Amodern Architecture*, 2000. He is also heading a national research team about to finalize in 2006, an anthology for a joint research project concerned with the theme of an architecture of critical exploration.

MARTE GULLIKSEN works at the Telemark University College (Høgskolen i Telemark/HiT) as Assistant Professor and Head of Studies in Art and Design Education. She graduated with *Hovedfag forming* (Master of Art Education) from HiT in 1997, where she started working as a Research Fellow. She enrolled in the Doctoral Programme at the AHO in 2000.

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ROLF JOHANSSON is an Architect SAR/MSA with a doctoral degree from 1997. He is Professor in Built Environment Analysis at the School of Architecture and the Built Environment, Royal Institute of Technology in Stockholm (KTH) Sweden, and Visiting Professor at the department of Landscape Planning, Swedish University of Agricultural Sciences in Ultuna, Sweden. His main research interest is Quality in the Built Environment. He is teaching research methodology in the Doctoral Programme at the KTH, and other Nordic countries.

MATTHIAS KAISER was born in Leipzig, at a time when an Iron Curtain divided people into Easterners and Westerners. Meeting the world of the Westerners as a child turned him into a philosopher, since he realized quickly that most people, including those who portrayed themselves as authorities — East or West — had really no clue as to what they were talking about most of the time. Coming from Germany to Norway as a student he found how rewarding it can be to be in the centre of a periphery, rather than at the periphery of a centre. He also found it liberating to be at a place where academic tradition and intellectual elite is so thin and lightweight that it has no chance of disturbing the inquisitive minds of the younger generations. He wrote on the philosophy of science since he thought that science shapes our world (an obvious error he is about to correct), and this made him first a magister, then a doctor, and later promoted him to the rank of professor. Eventually he was hired as Director of the National Committee for Research Ethics in Science and Technology (NENT) in Oslo, Norway which is quite a mouthful, but nobody thinks it strange to have a philosopher there. This is in contrast to his position as adjunct professor in the doctoral education program at the AHO, where he still may appear as an exotic bird among a black-clad clan of artists, architects and designers.

JERKER LUNDEQUIST is an architect and professor of Design Methodology, Royal Institute of Technology (KTH), Stockholm. His PhD-thesis, *Norm and Model* (1982) dealt with theories of practical knowledge. He has written about 200 papers, articles and scientific reports, and participated in 25 multidisciplinary research projects, in six of these as a project manager. He has an extensive experience with doctoral education, having given about 35 post graduate courses at the Royal Institute of Technology in Stockholm (KTH), the Chalmers Institute of Technology in Gothenburg, Lund University of Technology, etc, on subjects like Research Methodology, Theory of Science, Theory of Design, Systems Analysis, CAD, Desktop Publishing, Theory of Architecture and Planning Theory. He has been the supervisor of a long line of PhD-students.

JAN MICHL is a professor of design history and history of design theories, at the Institute of industrial design, AHO, Oslo, Norway. He was born in the former Czechoslovakia and educated at the Purkyne/Masaryk University in Brno (PhDr. 1975) and in Sweden (fil kand 1971, Uppsala University) in the history of art, economic history, and languages. Between 1974 and 1981 he worked in Prague at the Czechoslovak Academy of Sciences. After emigrating to Norway in the early 1980s he was employed at the Institute of industrial design (since 1996 a part of the AHO) serving as Professor from 1997 and Head of the institute 1999-2001. Between 1997 and 2004 he was responsible for the design-related part of the AHO's doctoral education. His main research interest is the modernist philosophy of design. Over 30 of his design-related articles and papers are accessible online at www.geocities.com/janmichl

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FREDRIK NILSSON is an architect SAR/MSA, PhD, architectural researcher and critic. Nilsson is currently guest researcher at Chalmers School of Architecture, and is working at White Arkitekter, Gothenburg, Sweden. He has taught and lectured at several of the Schools for Architecture and Design in the Nordic countries, and written especially on contemporary architecture, architectural theory and the relation to philosophy. Among his published books are *Ur sprickorna i spegeln – Dekonstruktion, Derrida och arkitektur* (Stockholm: Byggförlaget, 1996), *Konstruerandet av verkligheter. Gilles Deleuze, tänkande och arkitektur* (Gothenburg: Chalmers, 2002), *Just White – Handbok för framtidens arkitektur*, co-editor with Katja Grillner and Lena From (Gothenburg: White, 2001), *Om arkitektur*, co-editor with Claes Caldenby (Stockholm: Byggförlaget, 2002), and he frequently publishes articles, architectural criticism and reviews of books in professional journals and daily press.

EGIL NORDIN is an architect, educated at NTH in Trondheim, Norway, where he graduated in 1958. Between 1960-1964 he served as a municipal architect in Jakobstad in Finland. From 1964 and until 1993 he had his own architectural office in Helsinki, Finland, with over 140 projects. Between 1979 and 1998 he was a professor in urbanism at the AHO, and after 1998 partner in Egner/Nordin architectural office in Oslo. He has also worked as a sculptor in wood and is a painter.

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JANNE BEATE REITAN is an Assistant Professor in Art and Design Education at Oslo University College (HiO), Norway. She has a Master Degree from the same institution awarded in 1992 which focussed on traditional Norwegian knitting. She is a doctoral candidate at the AHO. Her PhD thesis in progress, *Improvisation in Tradition*, is about the practice and learning of the vernacular design process of traditional contemporary Inuit clothing from North Alaska, USA. She is working in the management of research at the Oslo University College with the interdisciplinary research programme Technology, Design and Environment.

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INGER LISE SYVERSEN has had a broad international career as a practicing architect, teacher and senior advisor at the Institute of Architecture and Development Studies, LTH, Lund University, at the AHO, and for the Nordic Council of Ministers. She was educated as an architect from the AHO, graduating in 1986. Her studies at the AHO brought her to East Africa that later on became a decisive part of her professional life within academia and which also became the focal point of her Doctoral thesis on *Sustainable Architectural Heritage Management*. She is, for the time being, commuting between the Institute of Architecture and Development Studies in Lund where she is about to finalize her doctoral thesis and the AHO where she is engaged in setting up new clusters of international networks and managing schemes of international cooperation.

TOM SANYA graduated with a Bachelor of Architecture degree from Makerere University in Uganda in 1996. Since graduation, he has been lecturing at the Department of Architecture at Makerere University. In 2001 he received Master of Infrastructure Planning degree at the University of Stuttgart in Germany. In 2002 he came to the AHO for doctoral studies that are scheduled to end in 2006. His doctoral research aims at investigating the link between architecture and the concept of sustainable development. Concurrent with his academic career, he has been involved in architectural practice with Technology Consults, a multi-disciplinary consultancy firm.

THORLEIF U. SKJØNSBERG is professor emeritus of architecture at Oslo School of Architecture and Design, Oslo, Norway. He graduated at the same institution in 1963. In the 1990s he attended the doctoral program at the AHO and in 1996 he received his doctoral degree in design theory for his dissertation, *The Flat Space*. He has supervised both master- and Ph.D. students, and also runs an architectural practice.