Anne Solberg

Developing Doctorateness
in Art, Design and Architecture

The reaserch landscape and
the borders of doctorateness

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A PhD dissertation in
Culture Studies

Acknowledgements

Abstract

The topic of this doctoral work is the collective effort leading to the establishment of doctoral qualifications in art, design, architecture and adjoining areas. These are fields that do not have the same academic traditions as the classical university disciplines, but now endeavour to obtain a position in academic society. The project is an investigation into how the making of art and design in doctoral works can respond to the criteria of doctorateness in European formal frameworks; in particular the Dublin Descriptors of the Bologna Process. This is the main objective of my analysis of nine doctoral theses, all including components of artworks. The theses originate from four higher education institutions in four European countries, representing different adaptations of the international frameworks.

Sources of information for the investigation include a broad range of publicly available documents, including international agreements, national and institutional regulations and doctoral theses. These are interpreted from a hermeneutic perspective in a structure of curriculum inquiry. The theses are analysed through a mapping process, relating them each to the other, and to the broader research landscape. Issues arising from the analysis include the purpose and results of the research projects, the research methods that are used, and the role of artworks and the making of art and design in the projects. These issues are related to a continuum between two extremes in the research landscape: on the one hand that art *is* research, and on the other hand that art can only be the *object* of research.

The analysis indicates that doctoral candidates within art, design and architecture regard their disciplines to be emerging research fields, and that proper research methods are not yet fully defined. As a consequence the candidates make substantial efforts towards defining and legitimating research methods for their projects.

Art, design and architecture are dealing with our man-made environment from small scale to the planning of cities. This requires a broad variety of specialisms that cross the borders of academic domains – the humanities and the social and natural sciences. The artistic or creative practice tends to be an extra component, not included in these domains. This component of creative practice raises challenges for the making disciplines in their ambitions of meeting the demands of doctoral qualifications. The role of this element – the creative practice – in doctoral works is what I have investigated in my study.

The formal frameworks of qualifications tend to raise challenges for the development of doctorateness in these fields. What is seen through this study, is that conversely, the development of doctorates in art, design and architecture can also challenge the

formal frameworks. The incorporation of creative fields into academia is affecting the conventional university disciplines, causing a debate on questions such as the role of the making of art and design in doctoral projects, the methods of research in the arts or artistic research, and whether to allow artworks to be included in doctoral submissions. These questions have not been solved by the development of international formal frameworks, and there are different national and institutional solutions. This study claims that there is a twin track in this development, a dynamic process between governmental regulations on the one hand, and academic expertise on the other.

What is seen in the analysis of the international formal frameworks in this study is that there is an ambiguity in the Dublin Descriptors of the Bologna Process: on the one hand are the formulation of the descriptors that indicate a conventional concept of doctoral qualifications. On the other hand is a wide and inclusive definition of research, underscoring that this term is not to be used in a conventional or 'scientific' way, added in a glossary in a footnote to the descriptors. For the interpretation of the Dublin Descriptors, I needed to clarify their formal status in order to decide whether they raise obligations for the Bologna Member States or not. For this purpose, I have studied the Bologna Process, not to clarify the forces and powers as such, but as a means of identifying the formal status of the Dublin Descriptors.

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1. Introduction

The topic of this doctoral work is the collective effort leading to the establishment of doctoral qualifications in art, design, architecture and adjoining areas. These are fields that do not have the same academic traditions as the classical university disciplines, but now endeavour to obtain a position in the academic society. For this purpose they have to develop their epistemological foundations, their intellectual identity, and build their knowledge base. This means extending their borders of knowledge by means of research methods that are accepted by the academic community. At the same time, these disciplines need to maintain their relevance to the practice field. This has caused a vivid international debate.

One example of the debate is a comment by Michael Biggs and Henrik Karlsson (2011), who ask for an inquiry to clarify whether it is significant that arts-based research generates artefacts such as music composition, performances, paintings, etc. In their view, this is a striking difference of output compared to that of research in other areas. They state that to accommodate this difference, most universities have had to modify their doctoral regulations. The traditional expectation for a thesis is an extensive written report that contains critical analysis and an original contribution to the field. The newly incorporated art faculties have often demanded that they be allowed to, additionally or alternatively, submit non-textual material in the form of artefacts and artistic productions (Biggs & Karlsson, 2011, p. 2).

The present study addresses doctorates within art, design and architecture. I shall refer to these in brief as 'art and design', where architecture is included when acting as a design discipline. In the Nordic tradition these disciplines and affiliated areas are called *the making disciplines*. In a wider setting, they are part of *the creative fields*, which also include music, theatre, etc. This wider scope of creative fields is reflected throughout the study, because a number of the present discussions on doctorateness are relevant to this wider range of fields. On the other hand, architecture is given more space in my thesis because doctorates in architecture were established first, and there has been a more thorough debate on doctoral qualifications in architecture. Because of the common epistemological core of these disciplines, the debate on architecture is relevant to the fields of art and design.

There are multiple reasons for the present ambition of the creative fields to gain a position in the academic community. From an international perspective, one reason is related to university politics and reforms of higher education. In the European area, three major processes seem to be running simultaneously. *First*, a restructuring of

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higher education institutions by merging smaller entities into larger ones. During this process a number of schools within art and architecture have merged into universities. The disciplines thus entering the universities need to adapt to their new academic organisations. At the same time, the institutions have to adapt to the newcomers. *Second,* there has been a change in public governance and a shift from direct governmental steering towards the so-called *New Public Management*. This consists of a cluster of reforms that have prevailed from the 1980s onwards. Within higher education, the New Public Management entails increased competition between the institutions, result-based financing, and a stronger institutional accountability (Frølich, 2005; Lane, 2002). Following the result based financing system, there has been a certain retraction of governmental regulations and an increase in benchmarking procedures. In sum this means markedly stronger competition for financing, research funding, and student recruitment. For this reason, there is a need for all disciplines to contribute to economic income. In doing so, subjugation to rules of academic achievements and international harmonisation prevails. *Third*, there has been a strong force of international harmonisation, in particular as a result of the Bologna Process. This includes a three-cycle structure of higher education, a European credit-transfer system (ECTS), and recognition of academic degrees across national borders. A major achievement of the Bologna process is *The Dublin Descriptors*, a set of criteria of qualifications, originally planned to be implemented by 2012 in the Member States of the European Higher Education Area (EHEA). For the interpretation of these descriptors, I need to clarify their formal status in order to decide whether they raise obligations for the Bologna Member States. For this purpose, I have studied the Bologna Process, not to clarify the forces and powers as such, but as a means of identifying the formal status of the Dublin Descriptors.

Art and design deals with our man-made environment from small scale to the planning of cities, with a broad variety of expertise and specialisms. It crosses the borders of the academic domains, the humanities and the social and natural sciences, as observed by Daniela Büchler et al. in a study of Swedish architectural theses in 2007/2008 (Büchler, Biggs, & Ståhl, 2011). All the theses had affinities to one or more of three broad academic communities. However, creative practice proved to be an extra component, not included in these domains. This component of artistic or creative practice raises challenges for the making disciplines in their ambition to meet the demands of doctoral qualifications. At the same time, the introduction of creative practice into academia constitutes a challenge to the academic community. This element, the extra component of creative practice, is what I will investigate in my study.

The three disciplines art, design and architecture and adjacent fields of study have a common core of epistemological foundations. However, there are also obvious differences. While artists may take a role of commenting society, politics and human

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life, this is not the role of designers and architects, who have customers that order design for their specific purposes, whether of private or public character. On the other hand, artists may also make art for public spaces or private enterprises, with customers ordering their artworks in much the same way that architects do. What gives these fields of study a common core is that architecture is also regarded as a field of art, or a hybrid of art, engineering and urban design. I focus on the artistic aspect of architecture in this study. What I will investigate is the role of the creative practice component of art, design and architecture when these disciplines enter the academic community, needing to achieve a doctorate level. I shall view this in relation to the overarching frameworks of qualifications that are a result of general university politics, and the forces of international harmonisation in particular.

This investigation can be formulated as two research questions:

1.1.1. Research Questions

Can the making of art and design in doctoral works respond to the criteria of doctorateness?
Does the development of doctorateness in art and design challenge formal frameworks of qualifications, and if so, in what way?

1.1.2. The Doctoral Project

The present study has two components: an interpretation of the formal framework of the European Higher Education Area (EHEA), and an analysis of a sample of nine doctoral theses from the fields of art, design and architecture. The framework is a set of descriptors of learning outcomes for higher education. The focus of this study is on cycle three; the doctoral level. The descriptors are based on the Dublin Descriptors of the Bologna Process, and related to the parallel European Framework of Lifelong Learning developed by the European Union. The nine doctoral theses all include the making of art and design, in various roles in the doctoral work. They serve as examples on how these kinds of projects are handled in practice. In the study, they are related to each other, to the formal framework, and to the research landscape. The sample of theses originates from Belgium and from the Nordic countries of Finland, Sweden and Norway. These countries represent different solutions to doctoral degrees in the making disciplines and the implementation of the European frameworks. The theses are from the following institutions: The Catholic University of Leuven (KU Leuven) in Belgium, Aalto University in Finland, University of Gothenburg in Sweden, and Oslo School of Architecture and Design (AHO) in Norway. These institutions have different traditions and regulations for doctoral education in these fields of study.

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1.1.3.   My Professional Background

My interest in this issue was triggered by the establishment of a doctoral programme in Cultural Studies at Telemark University College (TUC), now University College of Southeast Norway, in 2012. This is the programme that I have attended for my doctoral studies. One of the ambitions of the initial proposition in the programme description was to include a combination of aesthetic practice and theory in doctoral work. One formulation in the programme description is concerning the concepts of 'research in art and through art, and the relation between art and research' (my translation) (Telemark University College, 2009, April). This application was rejected by *Nasjonalt organ for kvalitet i utdanningen* (NOKUT) [The Norwegian Accreditation Agency]. They characterised the proposed programme as a hybrid between a PhD and an institution based artistic development programme, which was outside the framework of doctoral programmes (NOKUT, 2009, September 23). The application was re-written, assuring that this was to be a PhD and that the artworks were to be empirical material for research: 'In a practical-aesthetical perspective focus will be on analysing the knowledge production that derives in an through creative processes', and 'practical-aesthetical products and processes will be regarded as material and documentation that will be analysed by scientific methods in the same way as other material' (my translation) (Telemark University College, 2010, December). Based on the re-written application the doctoral programme was approved by NOKUT, and the Ministry of Education and Research decided to establish the programme (The Norwegian Ministry of Education and Research, 2012).

One of the pillars of the doctorate in Cultural Studies is a master programme of Art and Design Education, that was established in 1976. For 40 years this programme has included a combination of three main areas: an aesthetic creative area, a pedagogical area, and a theoretical area, including methodology. A creative work of art or design and a written assignment are both included in the master thesis. The combination of the creative and the written part constitutes the result of the master work. I started to question what made this combination of aesthetic practice and theory acceptable at master level, but not at doctorate level. There must be a crucial difference between master and doctoral education. I decided to investigate the pivotal point: *doctorateness*, understood as a threshold concept for the doctorate level.

The two perspectives of this project, the making of art and design in doctoral works on the one hand, and the formal frameworks and regulations for doctoral education on the other, is accounted for in my academic and professional background. On one hand, I have a four year graduate study in ceramic art from Oslo National Academy of the Arts, followed by a Subject Teacher degree and Master of Art and Design Education, as well as some years of practice as a ceramic artist. In other words, I have the background of a practitioner, working with my hands, handling clay, composing glazes,

firing a gas oven and dealing with questions of artistic expression, originality, and assessment for peer reviewed exhibitions. On the other hand, I am also a lawyer with a six year law degree from the University of Oslo and my professional background includes nine years as a manager of higher education. This means striving to make room for academic activity within formal frameworks, competing for financing and funding, applying for academic staff, working towards achieving doctoral degree awarding power for my institution. Because of this dual background, my perspective on the topic of this doctoral work is from both sides: from the formal and bureaucratic side, and from the artistic and academic side.

1.1.4. Terminology

In the present study a number of terms is used that need some clarification. In the following, I shall focus on the terminology that is used in this thesis.

'**Art and design**' is used as an abbreviation for the three disciplines that are the topic of my research project: art, design and architecture. Design, then, covers both product design and architecture, reflecting the fact that design is the verb of architecture – what architects do when they work, and a noun – the result of that activity. Art and design is a wide term, including both the profession and the disciplinary aspect of these fields.

'**Artistic research**' seems to have an increasing prevalence amongst the numerous terms that are used for research in the arts. Helga Nowotny prefers this term, since it suggests an analogy with 'scientific research' (Nowotny, 2011, p. XXI). Other terms are research by art (RbA), research by design (RbD), practice-based, art-based or practice-led research. In the British tradition, practice-based research is frequently used, covering visual and performing arts, music, and architecture. The concept 'artistic research' has various meanings in different academic milieux. In this thesis, the term is used as a common denominator for research in the arts, acknowledging that in some academic milieux this term is regarded to be one branch – or one position – of research in these fields of study. A particular concept in art-based research is social research guided by aesthetical features (Barone & Elliot W. Eisner, 2012).

'**Creative practice**' is used in this study for the making of art and design, or the performance of art in a broader range of creative fields. Biggs and Büchler describe two modes of practice that can be included in research projects. Research in any area may have a 'generic practice' component. In architectural research, there may also be an element of 'creative practice', conducted by the architect as an architect-researcher (Biggs & Büchler, 2011b).

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A **'discipline'** is in this study used for an *academic discipline*, as categorised by their fields of study, and at the same time their knowledge making cultures. In a sociological perspective Foucault describes disciplines as 'groups of objects, methods, their corpus of propositions considered to be true, the interplay of rules and definitions, of techniques and tools' (Foucault, 1972, p. 222). Disciplines are abstract entities, with a heterogeneous international population, and they are identified as being the intellectual society to which the doctoral student aspires (Parry, 2007, p. 23). This study draws a distinction between the discipline and the profession. While the profession concerns knowledge for current professional practice, the discipline allows a study that is external to current practice (Andersson, 2001, p. 295). This makes the scope of the discipline wider than that of the profession, while at the same time less dedicated to professional practice.

'Doctorateness', once a neologism in quotation marks, is now widely used for qualifications needed to obtain a doctoral degree, f. ex. (Frayling et al., 1997, p. 10) Doctorateness is a threshold concept; a scholarly attribute of theses that examiners look for when judging their academic worth. Trafford and Leshem refer to generic features of the doctorate, 'features of received wisdom, which examiners often refer to as the 'gold standard' of the doctorate. When met, they constitute doctorateness, which is what examiners look for in theses' (Trafford & Leshem, 2008, p. 33). The recipient must be 'worthy of being listened to as an equal by the appropriate university faculty' (Phillips & Pugh, 2010, p. 31). In this study, doctorateness is also used for the doctorate level of a discipline, and for an institution being accredited to award a doctoral degree in a discipline.

A **'field of study'** and a **'field'** are broad concepts, including both material practice and inquiry. In this study, 'art and design' are fields of study in higher education. 'The creative fields' are used for a wide range of creative endeavours, including music, theatre etc. 'The term "field" implies … a discrete "area of operation or activity"; a subject of study, as well as the people playing the game' (Mottram, 2002, p. 71).

A **'profession'** is an occupation that needs expert qualifications, in my study used for professions that require higher education. It has certain characteristics that differentiate the professions from specialized vocations in general, the most important being the professions' claim of autonomy within a field. The distinction between a profession and a discipline are that while the profession concerns knowledge for current professional practice, the discipline allows a study that is external to current practice (Andersson, 2001, p. 295).

'The making disciplines' include art production, object design, industrial design, architecture, landscape architecture, urban design, and spatial planning (Dunin-Woyseth & Michl, 2001, p. 1). 'A Scandinavian concept of the *making disciplines* has

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been an attempt to formulate a kind of quality supportive framework for *making* discourse rather than of a *sensu stricto* traditional discipline' (Dunin-Woyseth, 2009, p. 9). When 'the making disciplines' is used in this study, it is because of its combination of the practice-oriented 'making', and the academic-oriented 'discipline', which is the core of this study. Implicit in this concept is a debated understanding of the word 'discipline' as an 'academic discipline'. In my study 'discipline' is used with the meaning 'academic discipline', on the understanding that the 'making disciplines' are academic disciplines, or in the verge of becoming academic. Because of the controversies on this issue, I shall use the 'making disciplines' when the 'making' aspect is of particular importance, acknowledging that this term may be debated. Of note is that owing to the multiple meaning of 'making', the 'making disciplines' and the 'making knowledge' often have to be written in quotation marks, as is the case in this study. The quotation marks are for only for clarity.

'The Making Knowledge' is used for the particular knowledge of the making disciplines.

'Research in the arts' is used for research in a broad range of creative fields, including architecture, design and affiliated areas, as in *The Routledge Companion to Research in the Arts* (Biggs & Karlsson, 2011). In this setting, focus is on the artistic and creative part of architecture, as opposed to the more technological aspects.

1.1.5.   Structure of the Thesis

The thesis is structured in the following chapters:

The Research Field is a brief comment on the particular features of institutional autonomy and academic freedom in the European University tradition, and an overview of the epistemological foundations and the phases in a brief history of developing doctorateness in art and design. The chapter includes a presentation of two previous analyses of doctoral theses in the field of architecture.

Methodology is a presentation of the research methods of the investigation. This includes mapping as a working method, curriculum analysis as a structure of the project, and hermeneutics as a system of inquiry. There is also a section on validity.

European Formal Frameworks is a study of the Dublin Descriptors as internationally agreed guidelines, their degree of obligation, their substantial content, and the implementation in the Bologna Member States.

Presentation of the Doctoral Theses is a brief description of the nine theses and the doctoral programmes they are submitted to.

The Analysis of the Theses is the main analysis of the doctoral theses, related to the first research question, on how the making of art and design can respond to the criteria of doctorateness.

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Challenging the Formal Frameworks. The Practice Field Strikes Back is a discussion of
the findings from the analysis directed to the second research question, on whether
and how the making disciplines may challenge the formal frameworks.

Concluding remarks is a brief summing up of findings and pointing at objects for
further investigation.

2. The Research Field

Chapter 2 is an overview of the research field as a background for my investigation. The choice of issues for this background chapter is based on what is needed for the two parts of the study; the analysis of the formal frameworks and the analysis of the selected doctoral theses. The first section is about the traditions and governance of the European universities, the traditions of academic freedom, and the perspective of an academic ethos. This is a background for the analysis of the formal frameworks in particular. The second section is about the development of epistemological foundations of the making disciplines and their ambitions to achieve doctoral level. This is relevant for the analysis of doctoral theses, which is also the case for the third section; a presentation of two previous analyses of doctoral theses of particular relevance to my investigation.

In order to perceive and understand the features of this research field, I find it relevant to study these issues diachronically. For the formal frameworks and the university reforms, this means traditions from the medieval university and onwards. For the development of art and design towards to a field of inquiry, it means a time-line from the 1960s until the present.

2.1 Traditions of the European University

The topic of section 2.1 is the governance and organisation of European Universities. Two major principles of importance to these institutions are the academic freedom of employees and the autonomy of the institutions. There is also a characteristic dynamic of developing new disciplines and specialisms, where the making disciplines are but one example. At the close of the chapter there is a brief comment on academic ethos as a profound structure that can contribute to keeping a steady course.

2.1.1. Institutional Autonomy and Academic Freedom

There are some particular features of the organisation and governance of universities that can be traced back to their origin, over a tradition of almost 900 years. Daniel Tarschys, the former Secretary General of the Council of Europe, traces the particular character of these institutions back to their origin as medieval corporations (Tarschys, 1998). They were private associations recognised by the state for pursuing a public purpose. Medieval universities exercised a monopoly of training for the professions of law, medicine and theology. Providing the society with learned professionals was the mission of the universities, and their right to teach was given either by the pope or by

the emperor. Jan de Groof[1] et al. describe the medieval university authority as an academic guild model; free-standing, self-regulating, self-financing, and gradually property-owning (De Groof, Neave, & Švec, 1998, p. 14). The guild model consisted of a collegial model of governance, which is still pleaded in these institutions, though, as I see it, under the constant pressure of new ideals. There seems to be parallels in the medieval university to the present ambitions of harmonisation and transparency. There was a general system of individual certification to teach, and there was even a regime of recognition of institutional qualifications, comparable to the present accreditation system. There were curricula and levels of certification resembling the present ambitions of transparency and recognition. In sum one may regard medieval universities as holding principles that are now promoted in the Bologna Process. (Neave & Maassen, 2007, p. 139)

The Reformation brought universities a step away from what used to be a universalism of spiritual authority, towards a territorial authority of nations and royal regimes during the 16th and 17th century (De Groof et al., 1998, p. 15). In the same period, alternative teaching institutions emerged, within fields of study such as navigation, military arts, and natural sciences. This constituted a schism of formal knowledge taught in the university and practical oriented knowledge taught in other institutions.

Some university structures have prevailed since the medieval university. The three medieval faculties of law, medicine and theology, and a fourth faculty of the *artes liberales,* have been upheld for centuries. The medieval faculty of the *artes* dealt with basic knowledge within a wide spectrum and for this reason was often regarded inferior. The first level, the *trivium,* were the *artes* of the humanities; grammar, logic, and rhetoric. The second level, the *quadrivium,* were the *artes* of science*:* arithmetic, geometry, astronomy and music*.* Their counterpart was the *artes mechanicae,* which was not included in the university*.* For centuries medicine was the only *ars mechanica* that resided in universities (Rüegg, 2010). In the Renaissance, new disciplines were introduced into the *trivium,* which then developed into the *studia humanitatis*. Natural sciences were not included in universities until the 17th century (Rüegg, 1996, p. 29), and technology and engineering not until the 19th century. Seen from a long term perspective, this development, even if over centuries, reflects a university dynamic of new disciplines entering academia, manifest today in the inclusion of art, design and architecture into the academy.

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[1] De Groof is a professor of law, president of the European Association of Education Law and Policy, and UNESCO Chargé de Mission for the Rights to Education.

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The medieval university education of professionals in theology, law and medicine was accountable to the church and the state. These constituted the 'higher faculties'. In 1798 Immanuel Kant published *Der Streit der Fakultäten* [The stride of the faculties] promoting the end of the distinction between lower and higher faculties. By this pamphlet, Kant contributed to the climate in which the Friedrich Wilhelm University of Berlin was established. The 'Humboldt revolution' of the 19th century is an important epoch in relation to the Bologna Process. Major principles were still in charge: the unity of research and teaching, the freedom of teaching and learning, the primacy of *Wissenschaft* [science] and research, and the concept of *Bildung* [education]. Of interest for the present reforms, is that von Humboldt regarded higher education as the second categorical imperative of the state, beside national defence, as the basis of a modern *Kulturstaat* [cultural state]. Worth noting is that he also used the utilitarian argument that higher education was needed for economic prosperity. He promoted institutional freedom for the universities within the state, claiming that new and original knowledge could only be produced in freedom. In the Humboldtian university, the professions, law, theology and medicine became '*Brotwissenschaften*' ['bread sciences'], while philosophy was given a superior role, thus turning the old academic hierarchy upside down. In this setting the previous 'lower faculties' were also given the right to offer doctoral education (Schwab & Borgdorff, 2014, p. 25). The principles of Wilhelm von Humboldt were at an ideological level (Nybom, 2007), and were also operationalised. Old ranking systems were broken and turned upside down, reflecting changes in the *ideological curricula* (Goodlad, 1979). In universities building on Humboldt's ideals, authority and power tended to rest with the professors, characterised by Nybom as 'a rule-governed community of scholars' (Nybom, 2007, pp. 60-64).

The establishment of the Berlin University and the Imperial University of Napoleon in the start of the 19th century represent the start of the modern European University (De Groof et al., 1998). During this period of modernisation of state government, continental European universities were brought into the ranks of State service. Legalisation processes incorporated them into administrative or constitutional law, thus weakening the traditions and customs of the academic guild model, which had prevailed since the medieval era. De Groof et al. suggest that in the United Kingdom and the United States, universities seem to have remained closer to the guild concept. Also, there has been a transition within educational law, from universities as a customary freedom in the 19th century to a social and cultural right in the 20th century. In an analysis of a Council of Europe report of 1998 (De Groof et al., 1998), the authors searched for features of institutional autonomy of universities. The report entails national contributions from 31 Member States. In sum these States report a trend towards decentralised decision-making, and a consequent extension of institutional freedom. Some national reports are of particular interest as a background for my

study: the Belgian non-state universities KU Leuven and University of Brussels had acquired what the authors regarded a 'corporative status', and the Universities of Gent and Liège had been endowed with substantial administrative autonomy. Extensive powers of self-government had been granted by Higher Education Acts in Finland (1986), Denmark (1992), and Sweden (1993). On the issue of institutional self-government, the authors identified a distinction between *process control* and *product control*. They found that institutional autonomy in the process domain did not reflect autonomy in the product domain. This means that control of the organisation does not necessarily constitute autonomy when it comes to the academic issues of the institutions, rather the opposite. 'It is a nice calculus indeed that would allow the individual university to determine whether the gains in process autonomy are worth the losses in product autonomy' (De Groof et al., 1998, p. 79).

Institutional autonomy and academic freedom of scholars are a European tradition that in some aspects date back to the medieval guild model, and to the Humboldt University. Both are major principles of the *Magna Charta Universitatum* (Magna Charta, 1988), a declaration that is a forerunner of the Bologna Process. The principle of academic freedom means individual freedom for scholars to teach, research, and express opinions in the area of their qualifications. This should be linked to the basic human right of free expression of opinions. The analysis of the Council of Europe report of 1998 (De Groof et al., 1998) shows that 'academic freedom' is often given legal or constitutional protection. In some countries, however, this principle is merely based on tradition, as reported for example from the Netherlands: 'There are two freedoms of importance; the freedom of education, which is guaranteed by the Constitution, and the freedom of scholarship, which is not explicitly guaranteed in the Constitution. The latter has been shaped in the long tradition of academic life within the universities' (De Groof et al., 1998, p. 86). Germany reports that there is a legal tradition that academic freedom within the area of academic endeavour and scholarship is an exemption from governmental instructions and intervention. A general principle in the Council of Europe Member States is that in universities with institutional autonomy, the academic freedom is protected either by law or constitution, or as a customary principle. At the international level, however, de Groof found no treaty that explicitly mentions academic freedom as such. There are a number of international non-governmental declarations with moral impact on this issue, but formally speaking none of them have the impact of international law (De Groof et al., 1998, p. 87).

2.1.2.   Disciplines, Doctorates, and the Academic Community

The merging of art and design education into universities, and the development of the making disciplines, should be seen in the light of the dynamic of universities in general.

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One characteristic of these institutions is a constant grouping and regrouping of disciplines and specialisms, and the creation of new disciplines.

> The ebb and flow within the various fields and sub fields that go to make up a discipline, fragments large units and brings about the merger of smaller ones. And since this pattern of movement is determined by the way the particular field of research evolves in the light of the findings made in it, it is a dynamic not easily controlled by administration, be it institutional or national. Indeed, the acceleration of knowledge which lies at the heart of the university enterprise, is one of the major uncontrollable factors of that undertaking (De Groof et al., 1998, p. 73).

Disciplines can be categorised according to their knowledge base and their academic content, while at the same time they are socially based disciplinary communities. They are characterised by 'the widely recognised elements of change, internal conflict and dynamisms inherent in the fabric of constantly developing knowledge domains and their associated cultural settings' (Parry, 2007, p. 19).

A number of new disciplines now entering academia are professions that require higher education. The making disciplines are in this category. They have their professional basis in art, design and architecture. Like the professions of medicine and law that were the very core of medieval universities, the education of professionals in the making disciplines is now positioned within the academy. In my understanding, the profession and the discipline intersect, but are not congruent. The professions are concerned with knowledge for current professional practice, artworks, design projects, building and planning. They are projective, bringing artefacts *into being*. The disciplines allow a study that is external to the current practice, including speculative projections about what *might be* (Andersson, 2001, p. 295). Stanford Anderson promotes the role of the discipline: 'I see the discipline as an open and liberating environment: the place where what appears anachronistic or visionary, currently inappropriate or unrealizable, can be thought, preserved, advocated' (Andersson, 2001, p. 304).

In his distinction between professions and disciplines, Anderson promotes a fruitful distinction between professional and research degrees, and a contribution from disciplines to professions and vice versa. As I see it, Anderson's distinction between professions and disciplines are to the point, as is his view on professional and research degrees. However, the present university reforms are not about establishing academic disciplines as a parallel to professional education. What is happening is that the professional schools are being merged into universities. This means that the distinction between professions and disciplines is dissolved in one and the same education. Hence the challenge of being relevant both to the practice field and to the academic community, central in the present debate on doctorateness, is not a doctoral problem only, but rather an issue for the education of professionals as a whole.

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At present one can see an increasing transgression of discipline borders. There is interdisciplinary and transdisciplinary cooperation, the latter including resource persons from non-academic fields. This is partly a result of larger and more complex research projects, which have evoked new ways of knowledge generation. This is the background of the concept of Mode 2 knowledge production (Gibbons et al., 1994; Nowotny, Scott, & Gibbons, 2001) (2.2.6. New modes of knowledge production). Hence, there are two parallel movements: an increasing number of disciplines being established or merging into academic society, and an increasing number of research projects transgressing the borders of these disciplines.

The recognition of new disciplines is generally in the power of faculties, by virtue of their role in assessing academic quality. This requires academic expertise. The faculty is the crossing point where the authority deriving from repute and the personal influence of the scholar in his specialty, meets the authority that derives from the law and the government, and the formal responsibilities of the institutional administration and leadership. The faculty also tends to be in charge of organising doctoral programmes, by institutional or governmental delegation.

Doctorates are a European university tradition, the title *doctor* dating back to the first medieval universities. However, these where related to teaching, and were awarded for advanced scholarship. The word 'teacher' derives from the Latin *doctor*. The present European concept of the PhD degree, the *philosophiae doctor*, rests on the Humboldt tradition from the 19th century. In this tradition, a doctorate includes original research that is documented in a thesis. The thesis is defended by the candidate and assessed by peers. The *viva voce* defence of the doctoral work makes the recipient meet the academic community of which he is going to be part. The recipient must be 'worthy of being listened to as an equal by the appropriate university faculty' (Phillips & Pugh, 2010, p. 31). The Humboldtian PhD concept also spread to the US, where a tradition of course work in the early phase of PhD study has been developed and is now spreading to Europe (Parry, 2007, p. 15). During the past three decades, an increasing number of professional doctorates have emerged focusing professional qualifications, which are outside the PhD regime, like the Doctor of Education and Doctor of Business Administration. In the field of art and design, there is the Doctor of Art that in some countries like in Sweden and Finland, is not a PhD. There has been an increasing number and diversity of doctorates the last decades, and since the 1990s they have been more tightly organised and regulated (Parry, 2007, p. 16).

Disciplines are closely linked to doctorates, and the academic cultures to which doctoral students are related. Disciplines are abstract phenomena, they are international, and they have heterogeneous populations. Their institutional organisation tends to be less important than their international disciplinary arena.

The Research Field

Considering that the doctoral thesis is the single indicator of disciplinary competence, and that it is examined, except in rare cases, by scholars drawn from the international disciplinary arena, 'it is the discipline and its norms that are of the most importance and value to doctoral students. For this reason the discipline is identified as being the intellectual society to which the doctoral student aspires' (Parry, 2007, p. 23). However, since disciplines – as knowledge making cultures – are constantly evolving and changing, there is a growing dimension of uncertainty in knowledge making settings. According to Parry, the emerging Mode 2 knowledge areas, including transdisciplinarity and applied areas with less established traditions, may contribute to more individually based doctoral study programmes and the candidates negotiate schools of thought and methodological options (Parry, 2007, p. 119).

Academic science may be described as a *culture*, 'a complex way of life that has evolved in a group of people with shared traditions, which are shared and transmitted by members of the group' (Ziman, 2000, p. 24). As a culture, academic science has a history of development and change, from the 17th century Scientific Revolution and even earlier. From the first half of the 19th century it has evolved as an elaborate social activity. Faculties, institutes and disciplines are academic communities in a social-psychological sense (Biggs & Büchler, 2011a). From Biggs and Büchler's perspective of cultural studies and activity theory, a *community* is a group of individuals who share common values. Academic communities share values of cultural, ontological and epistemological beliefs. Values and actions of a community constitute conventions, and academisation is the adoption of dominant academic conventions and the values that support them. Conventions of academic research are manifested in the regulations of doctoral studies, and in the requirements of research councils and academic journals.

Since the disciplines of creative and performing arts have been included in the academy, they have been aiming at the PhD as the highest level of academic qualification. However, the PhD is a research degree, different from the more professional oriented BA and MA degrees (Biggs & Büchler, 2011a, p. 88). Practitioner-researchers within these fields have been trained for one type of activity but are asked to perform another. According to the authors this hasty academisation has had a disruptive effect, causing the coherence between values and actions to be broken. In order to produce academic research, the practice community has adopted the conventions of the academic community. The result is a dissatisfaction both from the academic community, that practitioners do not make research, and from the practice community, that the values of the practice field are not represented in academic research (Biggs & Büchler, 2011a, p. 89). This mutual dissatisfaction is recognisable throughout the present debate of doctorateness. I regard this to be the very core of the challenges for the making disciplines: to be accepted by the academic community

as academic disciplines, and at the same time keeping their relevance to the field of professional practice. As suggested by Biggs and Büchler, the rapidity of the academisation is a problem. The process is *hasty*. This has been a problem from the start of doctoral education in architecture in the 1990s (2.2.4, Emerging Doctorates in the 1990s) to the present reforms of international harmonisation, by the Bologna Process in particular.

2.1.3. An Academic Ethos

During shifting university politics and higher education reforms there is also a need for continuity. What should be sought is a set of deeper values, a profound basis that survives temporary changes. There is a set of fundamental norms that I find appropriate for this purpose: the norms that were formulated by Robert Merton in a work of 1938 and in later publications on the normative structure of science, frequently referred to by the acronym *CUDOS.* From his sociological perspective Merton regarded this to be a summing up of norms that scientists feel bound to follow:

> The ethos of science is that affectively toned complex of values and norms which is held to be binding on the man of science. The norms are expressed in the form of prescriptions, proscriptions, preferences, and permissions. They are legitimized in terms of institutional values (Merton, 1973, p. 269).

The norms are not codified, but Merton regards them as a moral consensus of scientists reflected in their writings, and a moral indignation towards contraventions of the ethos. The four norms are *Communalism*, *Universalism*, *Disinterestedness* and *Organised Scepticism*, later to be superseded by *Originality* and Scepticism. The norms are given an institutional frame of motivation rather than the personal approaches of the scientist. In brief, the content of these norms can be summarised:

Communism is the common ownership of scientific discoveries. The substantive findings of science are a product of social collaboration and are assigned to the community as a common heritage. Property rights on science are withered down to a bare minimum. The scientist's claim to his intellectual property is limited to that of recognition and esteem.

Universalism prescribes pre-established, impersonal criteria for truth-claims, not to be dependent on personal attributes of the protagonist, like race, nationality, religion or class. Objectivism precludes particularism.

Disinterestedness reflects the ideals of integrity of the scientist, supported by the public and testable character of science.

The Research Field

Organised Skepticism is both a methodological and an institutional mandate, demanding that all ideas must be tested and are subject to rigorous, structured community scrutiny (Merton, 1973, pp. 270-278).

These norms have been widely discussed in the academic community. They are often regarded as traditions rather than moral principles. One major critique is that they constitute stratification within the academic community, since honours and resources tend to accumulate to people that already have them. Another critique is that the norms are too high-minded and not true to life. As general norms, meant to cover a number of disciplines, they are also rather vague. In my experience, the norm of disinterestedness is particularly debated within the creative fields, since academic distance and neutrality tend to be inappropriate to the emerging field of artistic research, when the researcher is at the same time the artist that is making the object of art.

John Ziman regards the norms to be a particular system of social practices (Ziman, 2000, p. 31). C*ommunalism*, reflecting the academic systems of publishing in peer reviewed journals, gives the articles a social distinctiveness. Hence communalism makes a social institution that is important to academic science (Ziman, 2000, p. 37). In the same way, *universalism* is about the social context of research. *Disinterestedness*, applying to the reliability of research results, means that scientists know that their research claim will be subject to public criticism. They live and work in a social environment that relies overwhelmingly on personal trust (Ziman, 2000, p. 40). Disinterestedness is appropriate for 'academics' whose livelihood does not depend directly on the material outcomes of their research activities. This is also the case for *originality*, which means that researchers have to be fully updated on their field of investigation so that they do not repeat issues that have already been investigated. As I see it, the character of social practice of these norms reflects the fact that they are generally accepted as values of the academic community. Since they were once formulated as a summing up of norms that scientists felt bound to follow, they should be reflected in social practices, given that the academic community value them highly.

Some major changes have occurred since the origination of these norms that may challenge their authority. Ziman, in his discussion of post-academic science, regrets that science is no longer protected against social interests and the power of governments or industrial corporations, which have acquired considerable power over the initiation of research projects and the publication of the results (Ziman, 2000, p. 330). However, he still regards post-academic scientists as trying to respond to a shared belief in an intelligible world outside themselves, and to eliminate personal bias from their own findings.

Merton's ambition when formulating the norms, to summarise what scientists felt to be their obligations, counts on a long term perspective, reflecting values that are developed by the academic community over time. As I see it, this is the complement of academic freedom: the value of personal integrity for the researcher, recognised as obligations by the academic community. In my view, ethical norms are what we need in the present wave of reforms, owing to their power to maintain academic traditions and values. This is a mission of the ethical norms: keeping a steady course through shifting winds and heavy waters, like the keel of the sailing boat; deep, heavy, and invisible. The keel is what makes it possible to use the forces of a changeable wind for steady sailing, even when crossing against the wind.

2.2.   Epistemological Foundations

The topic of section 2.2 is the search for epistemological foundations in the fields of art, design and architecture. This serves as a background for the analysis of the doctoral theses, as a brief overview of the landscape where they are located. At the same time, each new thesis is a contribution to the epistemological foundations. Hence, the analysis of the theses complements the study of the background. This way, the theses have an impact on my choice of issues for the description of the landscape.

The first part of section 2.2 regards the particular kind of knowledge required in these fields of study. The following sections are concerning the efforts to become an academic discipline: a design science in the 1960s, a constructivist approach of knowledge production in the 1980s, pioneer doctoral education in the 1990s, and the present debate on doctorateness and research in the arts.

The entering of creative and performing arts into the academy has caused a need to build an epistemological platform as academic disciplines, or to build theoretical frameworks that enable an informed dialogue with academic disciplines. As a theory of knowledge, epistemology resides in the realm of philosophy. On the other hand, knowledge building includes social and cultural factors that extend beyond the area of philosophy (Ziman, 2000, p. 6).

When entering the academy, where is the residence of art and design? Do they belong to the humanities, or to the social or natural sciences? Henk Borgdorff (2011) identifies a kinship to all of them. There are relations to the humanities through a number of disciplines: art history, architectural theory, musicology, and others, and numerous relevant research strategies: hermeneutics, structuralism, semiotics, deconstruction, pragmatism, critical theory, and cultural analysis. However, these are all approaching the arts with a theoretical distance and an interpretative, verbally discursive approach, while, in Borgdorff's view, the prime focus of artistic research is on concrete, creative

practice. He also relates it to philosophical aesthetics, with Baumgarten, Kant, Adorno and others. The social sciences have relevant research methods, such as ethnography, action research and case studies. According to Borgdorff, the *practice turn* in the humanities and social sciences shed light on the constructive role of practices and a shift from text-centred to performance-centred research. The natural sciences and technology are relevant for the technical and material sides of art, with some research methods suitable for research by design (Borgdorff, 2011, pp. 47-53) (2.3. Two previous analyses of doctoral theses).

When entering the research landscape, what kind of research is performed within art and design? Three major approaches are identified by Christopher Frayling: research *into* art and design, *through* art and design and *for* art and design (Frayling, 1993). Research *into* art and design is what he regards the most straightforward. It relates to historical research, aesthetic or perceptual research, and research into economic, political, ethical or cultural perspectives. Research *through* art and design can be the investigation of materials, constructions etc., development work, or action research with practical experiments. Research *for* art and design is 'research where the end product is an artefact – where the goal is not primarily communicable knowledge in the sense of verbal communication, but in the sense of visual or iconic or imagistic communication' (Frayling, 1993, p. 5). This is the most controversial. Frayling's prepositions have been followed by other variants. Ranulph Glanville argues that 'We do not need knowledge *of*, but knowledge *for'* (Glanville, 2005, p. 122), meaning that we do not need more understanding, but to design better. Borgdorff introduces another variant in the terminology: research *on* the arts, *for* the arts and *in* the arts, with the latter as the most controversial, as the performative perspective (Borgdorff, 2006, p. 12). I find the categories of Frayling clarifying as an initial exposition of the basic approaches and objectives of research in art and design. However, the variety of terminology is more confusing than clarifying. As I have shown, the prepositions can easily be interchanged or used in different meanings. Hence they are hardly appropriate for the present debate.

2.2.1.   The Knowledge Base. A Different Kind of Knowledge

The topic of this section is the knowledge base of art, design, architecture and affiliated areas. It concerns the efforts of building the knowledge base and the particular character of knowledge in these fields of study. In the Dublin Descriptors of the Bologna Process (4.2. The Dublin Descriptors) one criterion of doctoral qualifications is 'extending the borders of knowledge'. Hence each doctoral work is supposed to be a contribution to the knowledge base. The knowledge base plays a critical part in shaping social factors that facilitate the induction of individuals into academic disciplines (Parry, 2007, p. 17). Dunin-Woyseth regards the knowledge base

as 'the intellectual identity of a field of study' (Dunin-Woyseth, 2005, p. 161). From this point of view, as the intellectual identity, the knowledge base should be built from within the discipline. Of note is that this does not prevent contributions from the outside. There is a wide scope of knowledge needed for the practice of art and design, on materials and techniques, ecology and sustainability, sociology and the built environment, and the history of art and design – knowledge that is generated in various disciplines. The issue in this chapter is the particular 'making knowledge' that is built from inside the discipline. Achieving a doctoral level for a field of study requires taking control of the knowledge base.

There will be a certain bias in this section: a disproportionate number of the references are from the field of architecture because in general, doctoral degrees have been established earlier in architecture than in other making disciplines. The focus is on discussions between scholars within these fields of study. The deeper understanding of how knowledge is constituted in human beings and how the brain works in this respect, as in psychology, pedagogy or neurobiology, is not focused upon.

In the debate on doctorateness, there is a consistent plea that the knowledge of the making disciplines is *different*. In the 1980s Donald Schön complained that universities seemed to reject knowledge that included practical competence and professional artistry, while on the other hand he observed that professionals of this kind of competence failed to explain what was their knowledge (Schön, 1983, pp. vii-viii). Some decades earlier, Gilbert Ryle had launched the concepts of knowing *that* and knowing *how*, still frequently cited in the debate. Knowing *that* represents theories and cognitive repertoires, while knowing *how* represents competences on how to perform and act (Ryle, 1949, p. 28). Dunin-Woyseth and Michl regard the knowing *how* as a *making knowledge* (Dunin-Woyseth & Michl, 2001, pp. 2-4). Ryle promotes the unity of thinking and acting. 'Intelligent actions' do not connote two separate actions, one of thinking what to do and another of doing it, because both are included in doing *one* thing (Ryle, 1949, p. 32). From this standpoint he also rejects the Cartesian dualism of body and mind, which he – in a metaphorical concept – calls 'the dogma of the Ghost in the Machine' (Ryle, 1949, p. 16). Scholars have discussed particular 'designerly ways of knowing' and designerly ways of thinking (Archer, 1984; Cross, 2006; Dunin-Woyseth, 2004). Linn Mo, teaching philosophy of science for architects, says that not even philosophers have realized how differently architects think, even differently than in aesthetic theory (Mo, 2003). She argues that what we have rewarded so far in academic ways of thought has been an analysis of what *is* through philosophy, of what we have *seen* through empirical experience, and how this can be *seen as* or interpreted. In her view, art and architecture go beyond all this, to *as if*, which brings it into the world of imagination (Mo, 2003, p. 172). Dunin-Woyseth says:

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> There is evidence of a specific design thinking related to design practice. In this
> context, it is worth examining whether organised design knowledge is possible,
> what it may be, and how it may be systematically developed through research in an
> advanced academic manner. Design scholars maintain that because of the new
> conditions and problems meeting professional designers and society at large, there
> is a need for developing such design knowledge, and that the way to do so should
> first and foremost be through doctoral education and advanced research. While the
> 'making' professions represent diverse fields of expertise, design scholars maintain
> that it is possible and desirable to seek a discursive unity of all design/'making'-
> related knowledge as a common field of inquiry (Dunin-Woyseth, 2004, p. 62).

A number of scholars describe a particular kind of knowledge that is *immediate* or *un-reflected*. This is a major concept of Pierre Bourdieu in 'The Logic of Practice' (Bourdieu, 1990). In a similar way, Borgdorff argues that 'artistic research – embedded in artistic and academic contexts – is the articulation of the unreflective, non-conceptual content enclosed in aesthetic experiences, enacted in creative practices and embodied in artistic products' (Borgdorff, 2011, p. 47). Borgdorff's argument is that pre-reflective artistic actions embody knowledge in a form that is not directly accessible for justification. The works of art are situated and embedded, their meaning is generated in interactions with their surroundings. The experience and insight that artistic research delivers are embodied in the resulting art practices and products. Borgdorff relates this non-conceptual character of artistic research to phenomenology, referring to Husserl, Heidegger and Merleau-Ponty. A similar approach is promoted by Pirkko Anttila (Anttila, 2009) in her concept *expanded* knowledge. By this she means knowledge that is not only propositional, to be expressed with words, but also non-discursive or unconscious. Expanded knowledge is tacit – things that we know but cannot easily explain to others. All sensations, visual, auditory, haptic and kinaesthetic, are channels for transmitting this kind of knowledge (Anttila, 2009, p. 16). Anttila regards knowledge that is the result of creative thinking and intuition to be qualitatively different from knowledge that is related to the external evaluation of an object. If the purpose of investigation is to form an understanding of something, then craft works should be understood through perceptions, emotions and intellectual insights, rather than providing knowledge of how the objects are *de facto* (Anttila, 2009, p. 16).

There are scholars who refute the concept of art as an un-intellectual activity. Mark Johnson (Johnson, 2011) rejects this idea, which he traces back to Plato who notoriously denounced pictures as distant copies. Plato regarded them to be feeding the passions, thereby undermining our rational knowledge. Johnson also criticises Kant's taxonomy of judgement on this basis. Kant is giving aesthetic judgement no cognitive potential, arguing that knowledge is to be propositional judgements, based on conceptual syntheses, while aesthetic experience is subjective, based on feelings, outside the realm of knowledge (Johnson, 2011, pp. 143-145). Anttila admits that craft

researchers have a great challenge to develop new valid methods for the transmission of extended knowledge. She underscores that speaking of reflective actions is not sufficient, and asks: in what way can sensations, internal feelings, experiences and other elements of expanded knowledge be recorded and externalised so that a valid interpretation is possible? (Anttila, 2009, p. 21). Dunin-Woyseth refers to a body of design knowledge that has been developed during the history of professional design practice, and that most often has been tacit, personal and private. Through doctoral education, this knowledge has been systematically sought to become more explicit, general and public (Dunin-Woyseth, 2004, p. 64).

A major characteristic of the knowledge of the making disciplines is the *practice* component, the *artistic or creative practice* in particular. Jerker Lundequist regards the combination of science and art as the formula for professional knowledge, art then in the old meaning of skills and experience. Our modern art concept, he says, came about during the nineteenth century. He refers to the motto *'Science and Art'* of the School of Architecture at the Royal Institute of Technology in Sweden. 'This means that the professional practitioner's knowledge shall be based both on scientific, theoretical knowledge, and on proven, practical experience' (Lundequist, 1996, p. 79). Mo argues that research education fights against everything the students have already learned when it comes to ways of thinking (Mo, 2003, p. 171). In five years of intensive architecture education the goal has been to get rid of ways of thinking from high school – learning an architectural form of discourse. They have been trained to believe in themselves and their own feelings. They have learned to defend intuition or introspection as a method because it is a part of themselves. They cannot discard this in order to obtain something more academic. This is about their identity as architects.

In an effort to formulate a comprehensive concept of *the making knowledge*, Dunin-Woyseth & Michl (2001) refer to four categories of knowledge by Matthias Kaiser: *scientific expert knowledge, practical skills, folk knowledge* and *tacit knowledge*. Kaiser characterises folk knowledge as a set of beliefs related to local and situational environments and groups, and tacit knowledge as the non-articulated knowledge that every agent carries with him, without being aware of it, as his background for understanding and acting. Tacit knowledge comprises elements of experience, learning and culturally transmitted conceptual schemes (Kaiser, 2000, pp. 155-168). Dunin-Woyseth and Michl regard all the four categories as included in making knowledge. In this respect, one category of knowledge is not superior to another. There should be an ambition to make as much as possible of this knowledge scientific viable, regardless of category.

There is a two thousand year tradition of distinguishing between different kinds of knowledge. The present academic terminology reflects this. The Aristotelian categories of knowledge still prevail: *episteme, techne and phronesis,* where *episteme* is

knowledge, understanding or meaning, as in epistemology, *techne* and *poiesis* are production and making as in technology, and *phronesis* and *praxis* relates to wisdom, as in prudence. In Bernt Gustavsson's terms *episteme* is what we know, *techne* is what we do, and *phronesis* is how we act (Gustavsson, 2004). As I see it, the categories *knowledge*, *skills* and (*general*) *competence* in the European Qualifications Framework for Lifelong Learning (EQF) reflect this Aristotelian triad of *episteme*, *techne* and *phronesis*. Hence, there is a continuous line from Aristotle and antiquity to the present European formal frameworks. Of note is that there are no distinct borders between these categories of knowledge. As seen in a later discussion (4.2.1. The reception of the Dublin Descriptors), the Norwegian Academy of Music found the *knowledge* category too narrow because in many fields of art *skills* are a prerequisite for gaining knowledge. Also, the Aristotelian distinction between episteme and techne suggest that techne is distinct from episteme, hence outside the realm of epistemology owing to its practice orientation, which is the core of the problem area of my study. Hence I suggest that the Aristotelian categorisation of knowledge, if understood literally, may not be appropriate to a contemporary understanding of knowledge.

What can be seen in these examples of the debate is that the particular kind of knowledge found in the making disciplines is more than one thing. There are the un-reflected and immediate, the tacit and embodied, and the practice and artistic oriented knowledge, and there is the projective and deontic approach. These are all included in the making knowledge, as facets of knowledge suited for different tasks within these disciplines. As I see it, the reason for conflicting definitions of knowledge is probably that the definitions are sectorial. One defines scientific based knowledge, another the tacit knowledge, both parts of the multifaceted concept of 'the making knowledge'. Different facets of knowledge are needed for different tasks within these fields; there are other aspects of knowledge needed for the artistic expressions in painting and sculpture than for the planning of cities. In my view, there is still the common core of 'making knowledge', which is also embodied in the concept of the making disciplines: 'While the "making" professions represent diverse fields of expertise, design scholars maintain that it is possible and desirable to seek a discursive unity of all design/'making'-related knowledge as a common field of inquiry' (Dunin-Woyseth, 2004, p. 62).

For art and design, and the making disciplines, inasmuch as they are based on professional knowledge and skills, building a theoretical framework is part of developing the knowledge base in an academic setting. Of note is that this does not mean that theory building is separated from practice. The first work of architectural theory that is known, and often cited: Marcus Vitruvius Pollio *Ten Books of Architecture,* ca 15 BC. His work includes knowledge that is applicable for practitioners,

as well as references to theory of proportions and the cosmological order. The duality of practice and theory is explicit:

> The architect should be equipped with knowledge of many branches of study and various kinds of learning, for it is by his judgement that all work done by the other arts is put to test. This knowledge is the child of practice and theory. Practice is the continuous and regular exercise of employment where manual work is done with any necessary material according to the design of a drawing. Theory, on the other hand, is the ability to demonstrate and explain the productions of dexterity on the principles of proportion (Vitruvius, 1960 (ca 15 BC), p. 5).

In spite of such 2000 year old books of architecture, theory in this field of study seems to have been relatively scarce over the course of time. In a comment in his doctoral work, *Intentions in Architecture,* Christian Norberg-Schulz (1963) regrets what he regards the lack of a satisfactory architectural theory. In his view, architects have been reluctant to develop theory because they have feared that this would kill their creativity (Norberg-Schultz, 1963, p. 7). Norberg-Schulz was part of the milieu at Oslo School of Architecture and Design (AHO) (2.2.4.1. Pioneer doctoral education). His comment on this reluctance to theorize was expressed thirty years before AHO launched their doctoral degree, and, as I understand it, was right to the point. The education of architects was predominantly professional and practice oriented. In his theory building, Norberg-Schulz developed a phenomenological platform, particularly prevailing in his later works (Norberg-Schultz, 1963, p. 7). From another philosophical position Péréz-Goméz (1998) argues that architectural theory *is* hermeneutics. In his view the issue for architecture is not merely aesthetic or technological, it is primarily *ethical*. Architectural practice should be guided by a notion of the common good, reflecting the human search for stability and self-understanding. He regards instrumental theories as unable to account for this dimension, and suggests the hermeneutic ontology of Gadamer, Ricoeur and Vattino. When Péréz-Goméz proposes architectural theory as hermeneutics, he understands this as a projection into language of the ontological insights that are found in the philosophy of Merleau-Ponty (Pérez-Gómez, 1998, p. 23).

An early example of theory building is a triadic concept of *history, theory* and *criticism* (HTC) that was established when the first universities in USA established doctoral degrees in architecture in the 1960s, and is followed by other milieux, as f. ex. AHO. There were demands that the new doctorate should have a defined knowledge base, and the theoretical basis of history, theory and criticism was a result of this demand (Dunin-Woyseth, 2005, p. 152)

 This theoretical basis was developed in a cooperation between scholars of architecture and other disciplines at the universities. *Criticism* has the potential of being regarded as a bridge between architectural practice and the practice-oriented

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discourse, and a way of strengthening this discourse (Dunin-Woyseth & Michl, 2001, p. 4). It requires knowledge of the field, and the ability to participate in discourse. In Ryle's words 'The intelligent performer operates critically, the intelligent spectator follows critically' (Ryle, 1949, p. 55). Criticism is a criterion of doctorateness in the Dublin Descriptors, which demand that the students shall demonstrate 'the capacity of critical analysis' (Bologna Working Group, 2005, p. 68). Dunin-Woyseth and Nilsson have found criticism and 'connoisseurship' in the concept of Elliot W. Eisner to be useful and operative for research in practice-related fields. They refer to connoisseurship as an informed perception and appreciation of nuances in a particular field of practice, while criticism is about disclosure and communication of characteristics to a broader audience. They regard the connoisseur to be embedded in practice, while the critic builds on this connoisseurship while at the same time is able to take a step outside the practice, taking a critical distance, and be articulating and communicating with others that do not have the connoisseurship or not being inside the field (Dunin-Woyseth & Nilsson, 2012, pp. 2-6).

Briefly, as I understand it, HTC is a concept of building a theoretical framework by interdisciplinary dialogue and by making the knowledge of practice communicable in academic discourse, focusing a critical perspective. I regard this as an effort of including the particular 'making knowledge' into a theoretical framework. Again, these examples are from architecture, but in my view they reflect a way of theory building that is relevant to the breadth to the making disciplines.

2.2.2.   Efforts of Becoming Academic. Design Science in the 1960s

The 1960s saw a marked effort to include the field of design in the academic community. While doctorates in architecture were established in the US, as discussed above, this was not yet the case in Europe. The 1960s was the era of systematising design methods as a *design science*. Downton describes this approach as 'research into what design should be' by attempts to improve the design process (Downton, 2003, p. 39). Of note is that in this period, Herbert Simon (Simon, 1969) observed a merging of professional schools into universities that caused a need for them to obtain academic respectability. He was alarmed by a drift away from what he called the 'artificial sciences' towards the natural sciences in the universities and warned that only a few doctoral works were dealing with design problems. Simon observed that the artificial sciences were regarded soft, intuitive and informal, needing to be developed into a science that was intellectually tough, analytic, formalisable, and teachable. On this basis, he pleaded for the development of a science of design in the universities. He named this 'the science of the artificial', as opposed to the science of the natural. Dunin-Woyseth & Michl describe the work of Simon as a start of the process towards a

disciplinary construction of the 'making knowledge' (Dunin-Woyseth & Michl, 2001, pp. 2-4).

A question of importance to my investigation is whether the concept 'design science' in the 1960s meant that design was actually regarded a science as such. And when the design process was described as based on scientific methods, did that mean that the design process was regarded a *research* process? If so, was the designed product, as an artefact, regarded a result of research? I shall use these as leading questions in the following.

The most important information sources of the design science movement are conference proceedings, from the British conferences on design methods in particular. The first British conference was held at Imperial College in 1962. The contributors were from a broad field of disciplines, including engineering, architecture, industrial design, graphics, painting, psychology and cybernetics. In the next 20 years a number of conferences followed. With one exception, these conferences are documented in papers and proceedings which are sources for the anthology of Cross (1984) on *Development of Design Methodology*. The year 1965 saw the birth of the Design Research Society (DRS) which also launched a journal, the *Design Studies*, in 1979. DRS arranged an international conference in 1971 and a number of consecutive conferences, the most recent one in Brighton in June 2016. More conferences are being planned.

Building design as a scientific discipline was promoted by a number of scholars in the 1960s. J. Christopher Jones defines the design of man-made things as a hybrid between art, science and mathematics (Jones, 1970, p. 15). Design sciences was regarded an investigation of design method as a process of constituent operations (Gregory, 1966). Gregory argues that design science need to develop its interdisciplinary potential and take what is available from systematic design and system engineering, as well as from management sciences (Gregory, 1966, pp. 323-324). Some doubts on this concept were presented by Geoffrey Broadbent, who advocated *creativity* as an element of design. 'For some time now, the aim has been to devise rationalized procedures analogous to the mathematician's algorithm, sets of instructions for solving particular problem types which require no access of creative thinking whatsoever' (Broadbent, 1966, p. 111). The scientific perspective of design is endorsed by Broadbent, even in his promotion of creativity. He assures that the design process as such rests on scientific methods, and he legitimises creativity as a component of the design process by referring to the scientific methods of Dewey, and by describing creativity with scientific connotations and the potential of being investigated by quantitative methods. As I understand it, Broadbent does not hold that design *is* a science as such, but rather that the design practice is based on scientific methods.

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From the positivist approach of the design science, a marked change is observable in the anthology *Development of Design Methodology* (Cross, 1984), which covers the period of the 1960s and 1970s. A remarkable trend in this anthology is that a number of authors refute the design science as an abandoned position:

> In the seventies I reacted against design methods. I dislike the machine language, the behaviourism, the continual attempt to fix the whole of life into a logical framework. Also there is the information overload which swamps the user of design methods (in the absence of computer aids that really do aid designing). I realise now that rational and scientific knowledge is essential for discovering the bodily limits and abilities we all share but that mental processes, the mind, is destroyed if it is encased in a fixed frame of reference (Jones, 1984, p. 333).

A shift from considerations of strength, costs, and durability to qualitative considerations, such as comfort, beauty, and ethics is promoted (Archer, 1984, p. 347). Péréz-Goméz says: 'Once it adopted the ideals of a positivistic science, architecture was forced to reject its traditional role as one of the fine arts. Deprived of a legitimate poetic content, architecture was reduced to either a prosaic technological process or mere decoration' (Péréz-Goméz, 1983, p. 11). Archer admits that in retrospect he could see that he had wasted a lot of time in trying to bend methods of operational research and management techniques to design purposes.

> My present belief, formed over the past six years, is that there exists a designerly way of thinking and communicating that is both different from scientific and scholarly ways of thinking and communicating, and as powerful as scientific and scholarly methods of enquiry, when applied to its own kinds of problems (Archer, 1984, p. 348).

In sum, the era of design science concerns *design* methods rather than *research* methods. From the positivistic start, qualitative approaches were introduced. As I understand it, the aims of the design science movement was to establish design science as an academic discipline, and the design method as a scientific method or a method based on scientific principles. The research perspective was not focused in the same way as in the present efforts of achieving doctorateness. The discussions on research methods are a major aspect of the discussions of doctorateness, while in the era of design sciences, the discussions was rather on the design methods as such, and efforts on systematising these methods and relating them to scientific principles.

2.2.3.   The Reflective Turn in the 1980s

What is seen in the previous section are a number of efforts to describe and develop a design science. In the following are efforts to describe the design process from the perspective of the designer, how the designer works. In this respect, r*eflection* proves

to be a vital concept. Downton describes this era as 'Research into what designers do' (Downton, 2003, p. 48).

In the following, I shall give a special attention to Donald Schön, who published his seminal work *The Reflective Practitioner* in 1983. This work is still frequently referred in the debate on research in the arts. Schön promoted a shift from the positivist oriented investigation of design methods to a constructivist oriented investigation of how practitioners *think* when they act, and how they generate knowledge from practice. He rejected 'the technical rationality' and the design science of the 1960s, as directed towards solving well-formed problems only, whereas professional practices have to deal with messy, problematic situations that need other working methods. 'Reflecting-in-action' was his answer to this. He searched for an 'epistemology of practice' implicit in the artistic, intuitive processes, as a dialogue with the situation; the *reflective practice* (Schön, 1983, p. viii). The argument was that our knowing is *in* our action. The working-day life of a practitioner depends on tacit knowing-in-action. He also suggested a research perspective: 'When someone reflects-in-action, he becomes a researcher in the practice context' (Schön, 1983, p. 68). Schön argues that this kind of research may gain legitimacy by developing an epistemology of practice which places technical problem solving within a broader context of reflective inquiry, and a broader, deeper, and more rigorous use (Schön, 1983, p. 69). On the basis of this idea, Schön worked on developing reflection-in-action into a research method. He conducted case studies (Schön, 1991) where he combined reflection-in-action with a number of existing research approaches. The different roles of the researcher in these cases constituted a continuum of distance from the research object, from 'pure' studies by a disinterested observer on one extreme, to interventionist inquiries and participatory action research on the other. He discussed these approaches related to criteria of validity and rigour, including the three traditional tests of correspondence (does it fit the facts?), coherence (is it internally consistent?), and pragmatism (does it work?), as well as the falsification doctrine of Karl Popper of 1968 (Popper, 2002). His conclusion was that more investigation was needed to make the reflection-in-action a rigorous method. On the other hand, he also argued that all forms of intervention research require reflection-in-action (Schön, 1991, p. 358).

The main criticism of Schön is that his works are lacking the rigour needed for a scientific theory, which he also recognises himself and tries to overcome in his case studies that are described in 'The Reflective Turn' (1991). There is a remarkable interest in the theories of Schön in the present debate, more than 30 years after *The Reflective Practitioner,* in the creative fields in particular. A major reason may be that his examples are close to the reality that is familiar to practising artists and practicing-researchers, and that the working processes and the way of thinking in practice is recognisable. In addition, his text is readable and understandable.

'Reflection' is frequently used as a concept in discussions on research in the creative fields. Pirkko Anttila (2009) states that most authors agree that reflection is an active, conscious process. Anttila argues that it is a strong methodological tool, a process of reviewing an experience of practice in order to describe, analyse and evaluate that practice. Reflection enables practitioners to assess, understand and learn through their experiences. It is a personal process that usually results in some change or new learning for the individual. It can also be an interpersonal process. Reflection is an active process that reviews, analyses and evaluates experiences, draws on new concepts and ideas, and thus provides an action plan for future experiences (Anttila, 2009, p. 18). Cross comments the role of reflection this way:

> We need to draw a line between what is a work of practice and works of research. I do not see how normal works of practice can be regarded as works of research. The whole point of research is to extract reliable knowledge from either the natural or artificial world, and to make that knowledge available to others in re-usable form. This does not mean that works of design practice must be wholly excluded from design research, but it does mean that, to qualify as research, there must be *reflection by the practitioner on the work*, and the communication of some re-usable results from that reflection (my italics) (Cross, 2006, p. 102).

A number of doctoral programmes, both within the PhD regime and in the Doctor of Arts, that allow art or design as a result of the doctoral work, demand a written part that includes a reflection on the creative practice. The concept is that the artist reflects on his work, either simultaneously, or in aftermath, and that the two parts together constitute a research project. In the regulations of PhD in Art at KU Leuven, there is a demand for an artistic or creative component, and a reflective, textual component. The written part – the dissertation – is to be distinct from, but reflecting upon, the artistic or creative product (KU Leuven, 2009). The reflective aspect includes position of the research in the field, the research questions, the methods followed, the results found, and an outline of future work (5.4, KU Leuven). To me, this is the concept of Donald Schön in a new setting, a systematising of the reflective practitioner, or – rather – **the reflective artist.**

2.2.4. Emerging Doctorates in the 1990s

While the 1960s was the era of developing design as an academic discipline, the 1990s and onwards is the era of developing the doctoral level. This leads up to the present debate on doctorateness in the making disciplines. There is a marked correlation between these efforts and waves of university reforms in Europe, preceding the Bologna Process. A comprehensive description of these reforms and their impact on doctorates is beyond the scope of my doctoral work. Instead, in order to illuminate this issue, I shall present a Nordic example. This includes a time-line of the development of doctorates, and an example of the pioneer phase of a new doctoral degree. There is

also an example of how university reforms have impact on the development of academic concepts in Sweden and Norway. Following this is a wider perspective from European countries from the Delft conference in 1996 and a discussion on the academic stance of the new doctorates in the UK report by Frayling in 1997.

2.2.4.1.   *Pioneer Doctoral Education. A Scandinavian Example*

The Scandinavian example is chosen partly because this gives me access to documents that need not be translated, and partly because Scandinavia reflects a general European situation, while pioneer doctorates in the field of architecture started as early as the 1990s. The start of doctoral education at AHO (Oslo School of Architecture and Design) is use as an example in the following. This was one of the early European doctorates in the creative fields. The doctoral programmes in this Scandinavian example are in the PhD tradition.

Obtaining doctorateness is not a personal ambition only, but also an ambition for the fields of study as such – in this respect I will call them disciplines – and for higher education institutions. For the disciplines, this means aiming at the academic top level. For the institutions, it means aiming at achieving the degree awarding power at the top level. Gatekeepers are the Ministries of education or accreditation agencies that are given their authority from the Government. Institutions at university level may have the authority of accrediting doctorates in new disciplines.

From a Scandinavian perspective, Dunin-Woyseth describes four periods of development of doctoral scholarship in architecture from the 1970s onwards (Dunin-Woyseth, 2011). *The first phase* was a 'preparatory' stage, until the middle of the 1970s. At that time, doctoral education was mainly an arrangement between candidate and supervisor. Most of the supervisors were practitioners with high professional esteem, but without a doctorate degree. The language of the doctoral theses in this period was that of informed professionals. As seen in a previous discussion, this preparatory phase is contemporary to the efforts of developing design science as an academic discipline (2.2.2. Efforts of becoming academic).

The second phase, from the mid-1970s to 1990, was influenced by a reform of higher education in Norway and Sweden that introduced research-based teaching as a requirement for all academic disciplines. This created a need to include research as an activity in the creative fields, thus developing them from fields of practice to fields of inquiry. As a consequence of the requirement for research based teaching, faculties of architecture started to look to other disciplines for research models; the social sciences and the humanities in particular. In doctoral theses from this period, the candidates tended to discuss architectural issues in a dialogue with various other disciplines. (Dunin-Woyseth, 2011, pp. 69-70). Drawing a parallel, this was also the era

of the constructivist approach and the reflective turn, as discussed in the previous section (2.2.3. The reflective turn).

The third phase was the 1990s, with the establishing of a number of doctoral degrees in architecture in Nordic architectural schools. This coincided with the demand for organised doctoral education, and was triggered by the university reforms of the 1990s. By the turn of the millennium, a Nordic co-operation, the Millennium Programme, was established. According to Dunin-Woyseth and Nilsson, this phase showed a growing awareness of the potential of a designerly way of thinking as a prospective contribution to knowledge production. They observed a new intellectual self-confidence in doctoral theses from that period, and there was an emergence of field specific architectural scholarship. Scholars of architecture became reluctant to adopt research methods from other disciplines without reflections on the specific character of architecture (Dunin-Woyseth & Nilsson, 2011, p. 87).

In *the fourth phase*, from the turn of the millennium, Dunin-Woyseth suggests the introduction of Mode 2 knowledge production as one of the future approaches. This is the era of the Bologna Process, which has caused a number of structural reforms of higher education, and a strong force for internationalisation. During the three waves of higher education reforms that are mentioned above, the scope of doctoral regulations have been extended from the institutional level in the 1970s, to the national level in the 1990s, and to the international level in the 2000s.
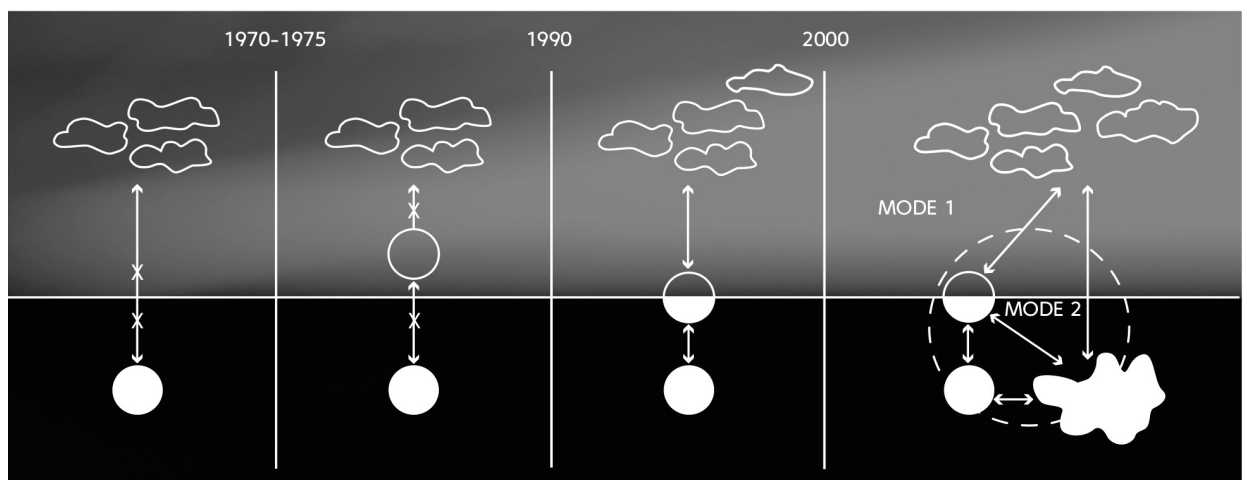
Img 1 Diagram by Dunin-Woyseth and Nilsson, digital design by Monika Hestad (Dunin-Woyseth & Nilsson, 2011, p. 91)

The diagram shows the four phases of building doctoral scholarship presented by Dunin-Woyseth and Nilsson. The horizontal line divides the field of practice (below the line) from the field of research (above the line). In phase one, architecture is solely within the field of practice. In phase two, architecture is still in the field of practice, but is adapting approaches from academic disciplines. In phase three, architecture is

building a position that includes both practice and research. In phase four, the interconnections between practice and research are changing. There is even a crossing of the border into practice by the academic disciplines. This includes Mode 1 and Mode 2 knowledge production.

One of the early new doctoral programmes in the 1990s was established in 1991 in the Norwegian School of Architecture and Design (AHO). The first group of students started in 1992. This reveals the attempts to develop doctorateness in a field of research in the making, in a practice oriented institution, and in a situation where national regulations were not yet established. This is described in a series of publications by the institution, the *Research Magazine,* from 1991 onwards. A self-evaluation of the doctoral education at AHO in 2003 (Dunin-Woyseth & Gjørva, 2003), and an analysis by Dunin-Woyseth (Dunin-Woyseth, 2005) give a survey of this development.

Oslo School of Architecture started as a series of emergency courses after World War II for students that had been deprived the opportunity to complete their architectural education during the war. These courses were based on studies at the Oslo National School of Arts and Crafts. This affinity to art and craft education is reflected in the orientation of architectural education at AHO. 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. In 1997 AHO was given the task of providing doctoral education to a broader field of studies, including architecture, urbanism, design, fine arts, and art and design education. The profile of the doctoral programme has been shaped by this broad field of practical-aesthetic fields. The history and theory of architecture were initially recognised as the knowledge base for doctoral education, but subsequently developed into a wider field of disciplines. Criticism was added to this knowledge base, with a close relation to practice (Dunin-Woyseth, 2005, p.154). At present the doctoral programme at AHO is concentrated on architecture and design.

The national regulation of formal research education was implemented in Norway in 1992, after preparatory discussions with the academic community. The result was a set of objectives, in line with doctoral regulations in the UK:

    (i) providing a structured transition from lower to higher grades of research work
    (ii) developing a common disciplinary identity
    (iii) broadening students' understanding of their own discipline
    (Dunin-Woyseth & Gjørva, 2003, p. 15)

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From a curriculum investigation perspective these guidelines are at the ideological level. There were no national formal curricula, that is, there were no criteria or standards to be met by the candidates or for the academic content of this kind of doctoral programme. The institutional curriculum at AHO was developed according to these objectives, which also became the basis of a new academic orientation for Norwegian architectural education. However, there could be no transition from a lower to a higher degree of research, as recommended in the guidelines, since there was no research work at the lower level at AHO. The education of architects and designers was oriented towards design practice. The doctoral level had to be established in spite of this schism. The lack of a common disciplinary identity was an epistemological project within architecture in the first place, when AHO was also assigned the task of supplying doctoral education to a wider field of studies. This project was subsequently widened to a broader academic enterprise. The notion of 'the making disciplines' is a result of this widening of the doctoral degree at AHO to meet the need for a common denominator.

The new doctoral education was structured as a formalised course programme. While previous, traditional doctorates had been based on apprenticeship and a one-to-one relation between supervisor and candidate, the new doctoral education was structured into student groups where they could communicate with each other and with more than one teacher. According to Peder Olesen Larsen, who presented a report on 'Nordic co-operation on quality assessment of research training' in 2003, the product of the traditional model had been the dissertation whereas in the new model the product was to be education and research, and the provision of new researchers. On the balance between depth and breadth in research training, Larsen says:

> It is generally assumed today that research training must involve the students into research in depth and at the frontline of international research in a narrow area and at the same time to give the students knowledge and skills in a wider area. Today it is also considered important that the student acquire social skills, experience with working in a group and with teaching and proficiency in written and oral communication. The student must learn to discover, integrate and apply knowledge as well as to communicate and disseminate it (Larsen in Dunin-Woyseth & Gjørva, 2003, p. 16).

The pioneer work of developing a doctoral degree at AHO was paralleled by the establishment of similar doctorates in the other Nordic countries. A Scandinavian network for co-operation on doctoral education in what was then called the making professions was established early in the 1990s. The Nordic collaboration on research education, the 'Millennium Programme', had contributions from each country for a common research school in architecture between 1999 and 2001, incorporating almost 10 years of development and cooperation between these countries. The doctoral students at AHO attended the Nordic research education programme.

2.2.4.2.   The Impact of University Reforms. The Concept of Artistic Research

This section is a reflection on the relation between university reforms and the development of the epistemological platform in the creative fields. The use of the terms 'artistic development work' and 'artistic research' in Sweden and Norway is used as an example.

The term 'research' has been questioned and discussed in relation to the creative fields for decades. It had not been regarded fully appropriate for these fields. On the other hand, a number of reforms of higher education have made it urgent for these fields of study to strengthen their academic orientation. One alternative concept is 'artistic development work'. This was launched as an equivalent to research in the Swedish Law of University Colleges (Högskolelagen). The introduction of the new concept was a result of the demand in this law that higher education was to be research-based. Artistic development work was explained as experiments with artistic forms of expression, and also as research (Högskolelagen, 1992). Thorsten Kälvemark observed that this resulted in an 'academic drift' in order to develop a research equivalent (Kälvemark, 2011, p. 4). Issues of discussion have been the degree of scholarship in this concept, and how artistic development work should be related to knowledge building. In a Ministerial report on research and innovation, artistic development work is characterised as 'activities in the intersection between artistic work and research' (Prop. 2000/01:3, 2000, pp. 165-167). Gradually there has been a change of terms from 'artistic development work' to 'artistic research'. In 2008/09 the Government declared that at a later stadium it may be reason to consider the term 'artistic development work' in the law of universities and university colleges in order to change it with better terms for artistic research, development and knowledge building (Prop. 2008/09:134, p. 21). The present Swedish Law of University Colleges (Högskolelagen, 1992) § 2 now states that higher education is founded on scientific [vetenskaplig] or artistic basis, and includes the categories *research*, *artistic research* and *development work*.

A new category of doctorate, the Doctor of Art, was established in Sweden in 2010, as a parallel to the PhD. This has changed the structure of higher education in Sweden. At present there are three categories of Swedish exams at ground level and advanced level: general exams, artistic exams and vocational exams. At the doctoral level there are two categories: general exams and artistic exams, both including the Swedish structure of licentiate and doctoral degree. In the proposition for the Doctor of Art are references to Swedish research education in the creative fields that have for a long time been leading to conventional licentiate and doctoral degrees. Of interest to this study is that one of the institutions that are mentioned for their contribution to this kind of research education is the University of Gothenburg. However, the Government argues that the descriptions of exams at research level that were given 1 July 2007 are

elaborated for scientific work, not for research education in the artistic field (Prop. 2008/09:134, p. 16). They regard this a problem both for the artistic and the scientific fields. In order to meet the criteria of exams, the artistic educations have to use conventional scientific terminology and structure of research education. At the same time, the conventional scientific terms and norms have to be widened out in order to be appropriate for education in the field of art. In the proposition this is regarded to be a risk of diluting the concept of science. On the other hand, it also regarded as to be a risk that the artistic adaption to the traditional scientific norms can cause a loss of the particular character and content of the artistic educations.

In Norway, PhD was introduced as the general doctoral degree for all academic disciplines in 2003 [2]. At the same time a three year fellowship programme, the Norwegian Artistic Development Fellowship Programme, was established, as three year post-graduate programme, but not a doctorate. The programme is now renamed the Norwegian Artistic Research Programme in English. The concept 'artistic development work' is also included in the Norwegian Law of Universities and University Colleges (LOV-2005-04-01-15) §§ 1-1 and 1-3, with the formulation 'research and academic and artistic development work' (my translation). There are discussions on whether artistic development work is actually equivalent to research in this formulation. There is also a discussion on whether all higher education at the third level should be included in the PhD degree (Universitets- og høgskolerådet, 2012). The board of the Norwegian Artistic Research Programme has been working for the candidates of this programme to achieve a PhD degree (Nasjonalt råd for kunstnerisk utviklingsarbeid, 2015, p. 23) and the (The Norwegian Association for Higher Education Institutions, 2016). This was approved by the Ministry for Education and Research in October 2016, though how this will be established is not yet decided (The Norwegian Ministry of Education and Research, 2016).

What is seen, is that the concept 'research' was not found appropriate for the creative fields in the 1970s. For this reason terms that exposed a different, but parallel approach had to be found. Then the concept 'artistic development work' has gradually been replaced by 'artistic research', in both countries. I see three reasons for this. *First*, artistic research is an emerging international designator for research in the arts. *Second*, research in the creative fields is no longer an unthinkable enterprise. *Third*, artistic development work parallels academic development work, which in Norway is not a parallel to research when it comes to financing and funding. Research is what is published in refereed journals. Development work is not. Hence the transition from

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[2] In addition, the traditional *Dr. Philos* is retained. This doctorate is not based on research education and does not apply supervision of the candidates.

artistic development work to artistic research implies rising this field of research to the highest category.

What is seen in these examples, is that the reforms of higher education have been causing an academic drift of the creative fields. On the other hand, these fields have been working their research methods and their epistemological platform. Gradually they have changed the concept of their endeavours from academic development work, which was a way of communicating that this is not research, to artistic research, which communicates that research is what this is. As seen in the quotes from the Swedish Ministry, this change is recognised by the authorities and has been implemented in legislative text. Hence, I regard this an example of what I have discussed earlier, a twin track, the intertwined relations between governmental and academic actions in the intersection between of university reforms and academic development (4.1.1. The twin track).

2.2.4.3.   *The Delft Conference on Doctorates in Design and Architecture*

Given the Nordic example in the previous section, a wider European outlook is required. Again, conference proceedings are contemporary information sources for the state of the art. The 1996 Delft conference addressed the issue of doctorates in design and architecture. Proceedings are presented in an anthology (van der Voordt & van Wegen, 1996). Volume 1 is addresses the state of the art, and gives an insight into it at this particular time by contributors from 11 countries. The contributions from Sweden, Belgium and Norway are particularly relevant as a background for my analysis of doctoral theses. The 1996 conference is the middle of three consecutive Delft conferences on research in design and architecture at the Delft University of Technology (TU Delft). The first (1992) was on *Research Related to Architectural Teaching.* The second (1996 Delft) is the conference of *Doctorates in Design and Architecture .* The third (2000) was what came to be the seminal conference on *Research by Design*. The following is a summary from the proceedings of the 1996 conference. The proceedings concern the state of the art in various European countries.

From Norway it was reported that the National Doctoral Code of 1992 recommended mandatory research training courses. A thesis of high academic standard was to be the specific goal of doctoral education. The emerging research education in architecture referred to two worlds: the Universities, with the Doctoral Code, and the professions, with the complex background of international discussion (Dunin-Woyseth, 1996). Dunin-Woyseth argued that the situation of the professions differed from that of the sciences owing to the challenge of combining knowledge and action, with theory and

practice; a combination that is crucial to their identity. Doctoral studies should have a twofold objective: to educate researchers, and to contribute to the development of a more comprehensive understanding of the knowledge base of architecture (Dunin-Woyseth, 1996, p. 72).

In Sweden three institutions were providing doctoral degrees in architecture, all linked to Faculties of Technology (Lundequist, 1996). This tradition had prevailed for 30 years. Lundequist found that the results of this education had not been satisfactory. He argued that it was a mistake to take over research methods and other intellectual tools from the established sciences. The practice based character of this field of study had not been taken into account. In his view, articulation of architectural practice should be the main task of architectural research, and the aesthetic and ethical questions of judgement should be the centre of theory and practice. For this purpose a deep familiarity with the knowledge and experience is needed, accumulated over a long time through the practice of architecture. He promoted a historical perspective, and argued that the goal of architectural research should be to clarify the fundamental concepts of architecture in order to articulate architectural practice, to identify its *deep grammar* (Lundequist, 1996, pp. 78-84).

In Belgium, doctoral degrees were by law a mission for universities only. Universities had been teaching architecture from the 1960s, while academies and the Flemish *hogescholen* had a long tradition as architect educators, dating back as far as the 17th century (Heynen, 1996). There was a distinction between doctorate of sciences for the university trained architects and doctorate of applied sciences for architects trained at academies and *hogescholen*. By the mid-1990s they were all to be included in a PhD in applied sciences. The non-university educated architects would need a pre-doctoral course programme. The idea was to replace the medieval face-to-face model of candidate and supervisor with a more team-based model including research courses and dialogue between the students. An individual dissertation would be the major part of the study. Hilde Heynen described the basic demands of a doctorate in architecture: First; *identifying a specific problem in a certain field*, which means that one has to circumscribe the field one is working in, and has to be familiar with its questionings, working methods, and existing literature. Second; *addressing the topic in a number of ways,* which means that merely one approach to the issue of investigation would be insufficient. Most dissertations in architecture included combinations of methods. Third; *making a consistent and original contribution to the field,* which means that the dissertation must withstand criticism and be recognized by authorities of the field as an important new step (Heynen, 1996, p. 36). As for the inclusion of practice in doctorates, Piet Lombaerde commented on the lack of actual designing in doctoral courses, arguing that it would be essential for architectural research (Lombaerde, 1996, p. 32).

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In Germany design oriented faculties in general did not provide methodological and theoretical bases for doctoral research comparable to other faculties (Bollerey & van Hoogdalem, 1996, p. 64). In the Netherlands research schools in architecture had recently been introduced and in principle a PhD in design practice was possible, but rare (van der Voordt & van Wegen, 1996). There was a discussion on design as a form of research and the need for a research methodology for this approach. In Italy doctoral schools were divided between the subjects of architectural composition, theory, technology, history, urban planning and others (Caso, 1996). There were two tracks of postgraduate education: the doctorate school and the specialisation school. A major question was whether design is research by itself, and whether a design project can become a doctoral thesis. The answer had been left to the academic expertise of the various doctorate schools. A general idea was that design can be a doctorate thesis when it goes hand in hand with a written contribution that shows the relevance of the design in relation to a research theme. Thus the doctoral thesis is firstly a theoretical output, which can incidentally contain the development of new tools for the profession (Caso, 1996, p. 95).

In the UK, doctorates in design and architecture had previously resided in the conventional PhD. By the mid-1990s the amalgamation of universities and polytechnics into a single system had made it necessary to consider how design could be regarded a legitimate research activity accepted by a wider academic community (Yeomans, 1996). Some schools were exploring new kinds of doctorates, some as PhDs with practice included in the doctoral work. Discussions had arisen on whether practicing art, design or architecture can be a way of undertaking research. According to Yeomans, a 'design doctorate' should include critical questions in a particular field, thus the students would need to be familiar with work in that field and where to direct investigation in order to gain new knowledge. They would have to plan and carry out a piece of work that extended the field of knowledge. Conclusions should be drawn in the same way as in a conventional PhD (Yeomans, 1996, p. 119).

In sum, the Delft Conference of 1996 revealed an increasing interest in doctoral education in design and architecture in Europe, and the emergence of systematic doctoral education and research schools. There was a surge of discussions on the structure and content of doctorates within these fields, in which a major issue of debate was the inter-linking of practice and theory. In general, restructuring of the higher education sector was said to have affected the development of doctoral education in these fields of study. A number of proceedings were discussing what was to be the demands of doctoral candidates. Of note is that the proceedings of this conference expose the state of the art close up to the Bologna Process, which was initiated two years later.

2.2.4.4. The Frayling Report on Practice-Based Doctorates in the Creative and Performing Arts

The year after the 1996 Delft conference, a UK report on practice-based doctorates in the creative and performing arts was issued (Frayling et al., 1997). The background for this report was that there were an emergence of the so-called practice-based or professional doctorates in the UK. According to Candy and Edmonds, this development was due to a change in UK regulations for doctoral degrees in 1988, set down by the Council for National Academic Awards (CNAA), that allowed the inclusion of artefacts in a PhD submission. The authors argue that this seems to have migrated to the Arts & Humanities Research Council (AHRC) (Candy & Edmonds, 2011, p. 133). New kinds of material presented for examination led to a confusion of criteria for doctorateness. Against this background the UK Council for Graduate Education (UKCGE) ordered a report on practice-based doctorates within the creative and performing arts. The task was given to a working group chaired by Christopher Frayling, at that time the head of the Royal College of Art in London. Although disputed, this report can supplement the Delft conferences for an overview of the state of the art in this era. The report is based on a survey of doctoral programmes in the UK. 116 institutions were included in a questionnaire, and the response rate was high. About half of the responding institutions reported that they had established practice-based or professional doctorates. These doctoral programmes had a combination of creative work and a written thesis of equal importance. The written part was 30-40.000 words. An exception was the field of music composition, where performance was the predominant part, and the written thesis only 3-5.000 words (Frayling et al., 1997).

From the survey the working group extracted the demands of doctorateness, which they presented as two axes: *breadth*, representing methods, techniques, contexts and data, and *depth*, representing the content itself, competent, original and of high quality. A general demand for research was new, original, communicable knowledge. They formulated a set of basic standards for doctoral degrees:

The work must be a recognizable contribution to knowledge and understanding in the field of study

The student must demonstrate a critical knowledge of the research methods appropriate to the field

There must be a submission that is subject to an oral examination by appropriate assessors, and specified within national or institutional regulations (Frayling et al., 1997, p. 11).

The report explains a fundamental distinction between the DMus, DArt and Design, or DDance Performance and the PhD in Music, PhD in Art and Design, or PhD in Dance Performance. The distinction is between the quality of the created product or the

performance that is the focus in the former case, and the focus on the created product in an academic context in the latter case. Some of the institutions that answered the questionnaire were not precise on this matter.

The group found that some of the doctorates with practice components should be regarded as traditional 'doctorates by research' rather than practice-based doctorates. The characteristic of practice-based doctorates is that they advance knowledge by the means of practice. 'It is distinctive that significant aspects of the claim for doctoral characteristics of originality, mastery and contribution to the field are held to be demonstrated through the original creative work'. These submissions must show 'doctoral level powers of analysis and mastery of existing contextual knowledge, in a form which is accessible to and auditable by knowledgeable peers' (Frayling et al., 1997, p. 18).

The working group described a 'continuum from research to creative practice'. They argued that '… it is neither valid nor worthwhile to differentiate a PhD in a practice-based subject from a PhD in any other subject. It is the research orientation that is paramount' (Frayling et al., 1997, p. 20). The intention of the candidate should be decisive: the researcher/academic role would be suited to those who aim at analysis or evaluation of the creative product, as well as excellence in its expression, as an integral part of the thesis. The artistic role, and a doctorate of art, would be appropriate when the purpose of the candidate is to achieve a formal recognition of the highest achievement within his subject area (Frayling et al., 1997, p. 37).

The working group asked for nationally agreed standards for the award of doctorates '...sufficient rigorous to secure demonstration of the qualities necessary, but sufficiently inclusive to allow all subjects to find expression within them' (Frayling et al., 1997, p. 20). They recommended that

> Where 'equivalence' is concerned, it appears both possible and desirable to formulate criteria for a submission for a PhD award in which the production of original pieces of work is an integral part of the process as well as the product, and to employ the same judgemental stance as if they were a more conventional research-based submission (Frayling et al., 1997, p. 23).

The working group recommended a formulation of the criteria for a PhD award, in which the production of original pieces of work could be an integral part of the process as well as its product, and to employ the same judgmental stance as if they were a more conventional research-based submission (Frayling et al., 1997, p. 23).

In sum, the working group recognised the distinction between practice-based doctorates and PhD, but they recommended a common set of criteria for both, where artworks could be included both in the research process and in the product of the

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project. One conclusion of the Frayling report is that there was a need for nationally agreed criteria for this purpose. As I see it, this conclusion shows that the request for formal criteria (nationally agreed criteria) for doctoral qualifications was posed by academics themselves. This serves as a background for the study of the formal frameworks in my study (chapter 4. The formal frameworks).

2.2.5. Present Academic Positions. The Continuum of Research in the Arts

The fields of research and doctoral education in the making disciplines are still under construction, and the epistemological foundation is in the making. There are contradictory approaches and worldviews.

The UK working group (Frayling et al., 1997), that recognised a continuum of research in the arts, suggested two possible strategies: either accepting that the outcomes of creative work can be seen as equivalent to a traditional scientific model, or broadening the existing model to encompass the entire continuum from scientific to practice-based research. The latter would entail a re-definition of the conventional scientific model. A visual presentation, which is *per se* a simplification, could be like this:
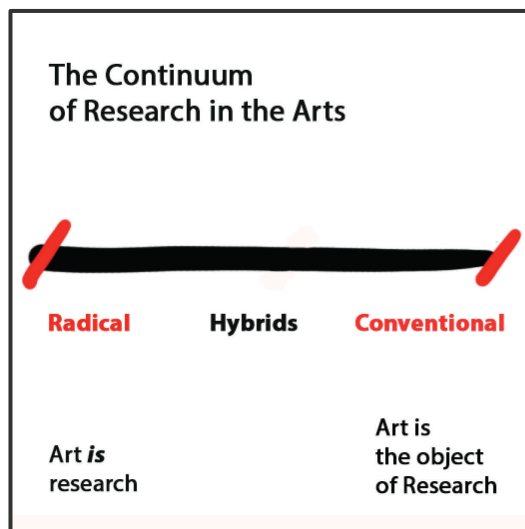
Img 2. The continuum of research in the art

In brief, the radical position in its purest form is the view that the making of art and design *per se* is a way of conducting research, also regarded by some as sufficient as a means of communication and dissemination, without a supplement of oral or written words. This is the ultimate position of research *through* the art. The counterpoint, the conventional position, is constituted by classical university disciplines, some of them also newcomers not too long ago, where the artworks are not accepted as research

output. In this position, works of art and design are the *object* of research. Between these extremes are various hybrids, combinations of approaches with different positions on the continuum and different weighing of radical and conventional components. For doctorates, a major distinction is whether works of art and design are allowed as the result of the doctoral research project. In the following is an initial division of approaches into hybrid and radical positions, for the most part leaving the conventional position out of this particular discussion.

2.2.5.1.   Hybrid Positions

Hybrid positions cover a wide range of different positions on an imaginary axis between the radical and the conventional extremes. One characteristic is that these positions do not endorse the idea that the making of art and design as such **is** research. Groat and Wang describe the difference by on one hand the concept of the design process *as* research, on the other hand research *about* the design process (Groat & Wang, 2002, pp. 105-107). They regard the former as an attempt to subsume an inherently non-propositional reality (generative design as a mode of art production) under the domain of a propositional activity (analytical research), which raises logical difficulties. The latter searches a deeper understanding of the non-propositional process of design, which does not raise logical problems. Groat and Wang regard sketching and drawing as tactics or working methods in a research process, as distinct from the generative design process. Research about design may inform the design process. The generative design process and the process of research about the design process are both worthwhile, but fundamentally different. The authors show examples of the coexistence of the two.

Another example of what I regard as a hybrid position is posed in the editorial of *The Routledge Companion of Research in the Arts* (Biggs & Karlsson, 2011). According to their editorial stance, the authors are not sympathetic to what they call 'special pleading', a strategy based on the view that the creative disciplines require completely new approaches and are incomparable with other academic disciplines. They argue that what is today regarded as traditional and unproblematic disciplines in the academy have once been 'the problematic newcomer'. What are now established methods and subjects – such as qualitative research and cultural studies – have once had difficulties being established in academia (Biggs & Karlsson, 2011, p. xv). Linda Candy and Ernest Edmonds warn against a position outside the academic community, the isolationist discipline position, which they find unhelpful and results in poor scholarship. They recommend more finessed rules as to what practice based research is, rather than definitions that are isolationist and hence do not bear comparison with other forms of research (Candy & Edmonds, 2011, p. 136).

The Research Field

There are numerous comments from scholars that research in the creative fields needs to be developed further. There is a research tradition in the practice community of finding out something that one does not know, while *academic* research is finding out what *nobody* knows and then is published in journal articles and books as part of the production and consumption of knowledge in an academic community (Biggs & Büchler, 2011a, pp. 88-89). Architecture is neither a real science nor a real art (Heynen, 1996), not purely theoretical nor should it be reduced to purely practical knowledge on how to build buildings. Heynen refers to a long history of reflexivity and critique in architecture, and argues that the history of architectural writing – from Vitruvius to Tzonis – is full of claims of 'scienticity', but she also describes a tendency among architects to enter science and the humanities 'in an almost freewheeling way', as if their very specific object of interest – architecture – allows them to skip working methods that are considered necessary within the community of scholars (Heynen, 1996, p. 35). Her argument is that since architecture challenges accepted research methods, it is all the more required to accept the normal standards. Heynen recommends approaching architecture from a most rigorous point of view.

A crucial question in this kind of research is whether artworks are included as part of the research output or not (Biggs & Karlsson, 2011). While including artworks as research output is obvious in the radical extreme of the continuum, it will hardly occur in the opposite extreme. In the in-between hybrid area, both alternatives will occur, thus assuming different positions on the continuum line. According to Candy and Edmonds, research objects may either be the nature of artefacts or the process of making them. In both cases, the artefacts form natural parts of the research process, and sharing the research output may be impossible without reference to those artefacts. From their Australian position, they state that while some universities have facilitated research that includes artefacts in explicit ways, other universities have explicitly ruled out artefacts as part of a PhD submission (Candy & Edmonds, 2011).

Some scholars recommend what can be regarded as a merged research approach, frequently called artistic research, as the future research strategy in these disciplines, as in the two following examples. Sten Gromark recommends that artistic research and artistic development work is recognised as a legitimate path to knowledge in architecture (Gromark, 2000, pp. 186-187). He emphasises the importance of scholarly rigour as a necessary condition for recognition and respected participation in the community of scientists. At the same time he regards architecture as a unique and independent discipline distinct from other fields of research. Scientific insight should be produced from the twofold process of learning through creation and creating on the basis of knowledge (Gromark, 2000, p. 188). In the field of art education Juha Varto also promotes artistic research as a particular research strategy. He advocates the identity and independence of artistic research as a new science, and making it visible

to outsiders (Varto, 2009, p. 142). Varto argues that when we aim to create a science of art education, practice should be what motivates this research, and we should not lose sight of that. There is a need to clarify the borders of artistic research, drawing a distinction between artistic research and research methods that is employed by other sciences. The demarcation problem is of utmost importance for the identity of art education research. Varto's argument is that if we apply the methods of cultural studies to art education, we get cultural studies as an outcome. Although the methods of another field might contribute to the practice of art education, they fail to develop this practice from the perspective required by the field of art education itself. 'There is no such thing as a neutral research method' (Varto, 2009, p. 159).

There is a *projective* character of art and design: architecture is concerned with the deontic rather than the descriptive – 'things as they ought to be, rather than things as they are' (Duffy & Hutton, 1998, p. xv). In the field of urbanism, Nel Janssens says: 'The research approach that I propose entails a shift of focus from synthesising qualities to *projective* qualities. The aim is redirected from decision making to sense-making, which implies seeking not for a synthesis of existing values, but rather the creation of a new asset of values' (Janssens, 2012, p. 232). Janssens relates projectivity to the concept of Utopia as a tool for inquiry based on designerly ways of knowing and thinking. Van Duin and Wegen regard design as the activity that tries to change existing situations into more desirable ones, finding out how things should be. In their view, this makes it clear that the design process contains a research dimension which legitimises the term *Research by Design* (van Duin & Wegen, 2000, p. 26). Nowotny emphasises the similarities between science and art, which both share a creative impulse. The main driving forces of both are curiosity and imagination. They thrive – and struggle – in the zone of uncertainty where what is yet to be explored is residing. Uncertainty is inherent both in scientific research and in the artistic production of new knowledge (Nowotny, 2011, pp. XVIII-XIX). As I understand these authors, they are in a hybrid position, promoting the rigour of research yet still in the landscape of imagination, projectivity and speculative thinking.

2.2.5.2. Radical Positions

The radical position is contrary to the conventional position and different from the hybrid positions when it comes to the role of art and design in research projects and doctorates. Of note is that since this imaginary axis is a continuum, there are no fixed distinctions between radical and hybrid positions.

The very purpose of research in art and design is an issue of debate. As described earlier, Ranulph Glanville argued that the aim of research should be to design better, not to understand more (Glanville, 2005, p. 122). His argument is that architecture research has two main forms: historical research and research into the physics of

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buildings, which both seem to have little connection with either the medium of architecture, which is space, or helping architects to design better. Architecture historians throw much light on history, but little on architecture. Glanville argues that we need research in architecture that makes it less subject to other, imported or externally applied approaches. His arguments are in the field of architecture, but – as I see it – transferable to the wider field of art and design.

One author in what I regard as the radical position is Peter Downton. He says 'Design is a way of inquiring, a way of producing knowing and knowledge; this means it is a way of researching' (Downton, 2003, p. 2). He admits, however, that there are a lot more people against this view than for it. In other words, he knows that his standpoint is controversial. Downton's argument is that scientific knowledge is not the only source of reliable knowledge, and that a design process produces knowledge that is different from, but not inferior to, scientific knowledge. This kind of knowledge has the distinct character of being embodied in the process of designing itself. He describes a cumulative process: 'The knowledge produced in design is stored, transmitted and learnt through works in a manner such that design knowledge leads to more design knowledge' (Downton, 2003, p. 55). Downton regards this to be a complete system of cumulative knowledge production, building a knowledge base of stored knowledge, dissemination, learning, and critical examination, all embodied in the design process. 'This renders it hard to examine other than via the self-interrogation of designers' (Downton, 2003, p. 55). He points at the common characteristics between art and research: both are supposed to lead to a clear end, to be conducted in an orderly manner and to deliver new knowledge. Both are activities, not simply bodies of knowledge, and the most important knowledge in both of them is 'how to do it'. This is mainly learnt by experience. Knowing is embodied in practicing. He describes 'method' as a way of doing things that has been reflected upon, considered and evaluated, and is considered to be repeatable and likely to produce the same outcome if followed by another user. He sees no one single method or approach of 'design research', but a possible collection of methods, approaches and ideas of practices that might collectively be called design research (Downton, 2003, p. 13).

As in the previous section of hybrids, there are also scholars within more radical positions that promote artistic research as a research strategy. Borgdorff describes some characteristics of artistic research (Borgdorff, 2011): *Questions* expose that artistic research usually is not hypothesis-led, but discovery-led. *Methods* include that the research is conducted in and through the creation of art, using artistic means and methods in the research process. *Outcomes* are partly artworks and performances, partly a written text. It is commonly agreed that a discursive justification or contextualisation is needed. Artistic research contributions must be *original*. Borgdorff distinguishes between the *knowledge of facts* and the *skills* – knowing *that* and

knowing *how*, and between vocal and tacit knowledge. He also adds the component of *experience*. Artistic practices are always in a *context*, always situated and embedded. Because artistic research addresses itself both to the academic forum and to the forum of the arts, *dissemination* must include both. He refers to the concept of research *for* art and design by Frayling: 'Research where the end product is an artefact – where thinking is, so to speak, embodied in the artefact, where the goal is not primarily communicable knowledge in the sense of verbal communication' (Frayling, 1993 in Borgdorff, 2013). Borgdorff concludes that 'We can justifiably speak of artistic research (research in the arts) when that artistic practice is not only the result of the research, but also its methodological vehicle, when the research unfolds in and through the acts of creating and performing' (Borgdorff, 2011, p. 46). As I understand it, this statement by Borgdorff includes both the making of art as a research strategy and the artwork as a research output.

One comment from the radical position may be surprising: Schwab and Borgdorff (2014) regard artistic research as corresponding to the Bologna Process and the striated structure of bachelor, master and doctoral education in the European Higher Education Area. However, they also suggest another perspective:

> There is, however, another way of looking at it. If we were to accept that historically art has always been an epistemic activity, that has never required a notion such as 'artistic research', nor institutes of higher education for its existence, we might accept that art is already part of 'knowledge society'. If this is the case, the focus should be placed not on establishing the epistemic in particular in the context of academia, where other epistemic practices, most importantly the sciences, have a longer history. The danger is that as the art academy enters academia, art may be subjected to epistemic regimes that are not suitable to, and this might compromise, the kinds of practices and knowledges in which artists engage (Schwab & Borgdorff, 2014, pp. 9-10).

In order to assume a fresh approach to this issue, Schwab & Borgdorff look beyond higher education institutions to international organisations that are free to have a perspective on academia that would not otherwise be possible. Such organisations are the Journal for Artistic Research (JAR), the Society for Artistic Research (SAR) and the Artistic Research Catalogue (ARC). On academic writing, Schwab & Borgdorff propose that practice as such may be a way of reflecting practice, and that academic writing may actually be superfluous. They argue that academic writing is another practice, which artists are usually unable to negotiate as part of their artistic practice, since it is determined by academic standards. The authors suggest that

> … if what is expected of writing is actually carried out as a component of practice, the need for additional academic texts may vanish, or, more provocatively put, we may open our eyes to modes of 'academic writing' that produce hybrid texts, or even no texts at all (Schwab & Borgdorff, 2014, p. 16).

From my perspective, a doctoral thesis with no text at all, just the works of art and design, or commented with other media than words, is an extreme radical position on the continuum of research in the arts.

2.2.6.   New Modes of Knowledge Production

As an emerging research field, new and emerging modes of knowledge production has been of interest in the present debate on research in the arts, in particular Mode 2 knowledge production (Gibbons et al., 1994; Nowotny et al., 2001). In brief, while Mode 1 is traditional discipline-based research including a distinction between fundamental and applied science and between the theoretical core and other areas of knowledge, Mode 2 is characterised by transdisciplinarity and a constant flow back and forth between the fundamental and the applied, between the theoretical and the practical. There is a shift from a search for the fundamental principles to a search for knowledge produced in the context of application (Gibbons et al., 1994). Mode 2 is a way of transgressing borders, where research is carried out through a dialogue between different actors that bring heterogeneous skills to the problem solving process (Nowotny et al., 2001). The following definitions may clarify the difference:

> Mode 1: 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 enquiry and ensure its compliance with what is considered sound scientific practice
>
> Mode 2: Knowledge production carried out in the *context of application* and marked by its: *transdisciplinarity*; *heterogeneity;* organisational heterarchy and transcience; social accountability and *reflexivity*; and quality control which emphasises context-and use-dependence. Results from the parallel expansion of knowledge producers and users in society (Gibbons et al., 1994, p. 167)

As seen in this definition*,* Gibbons et al. regard t*ransdisciplinarity* as a key component of Mode 2. On this concept they say:

> Transdisciplinarity: Knowledge which emerges from a particular *context of application* with its own distinct theoretical structures, research methods and modes of practice but which may not be locatable on the prevailing disciplinary map (Gibbons et al., 1994, p. 167).

Features of Mode 2 knowledge production are regarded to be appropriate to art, design and architecture (Biggs & Büchler, 2011b; Doucet & Janssens, 2011; Dunin-Woyseth & Nilsson, 2011; Schwab & Borgdorff, 2014), Schwab and Borgdorff even regarding art as the most extreme case of Mode 2 knowledge production. While knowledge production by transdisciplinarity and creative practice has been regarded

as an extreme position, a more inclusive model of research has been developing in the last decade, where more practice-based approaches are on the way to achieving academic recognition as well as gaining the interest of practitioners (Dunin-Woyseth & Nilsson, 2011, p. 92). Hence the academic positions are moving over time, so that what was initially an extreme position may be accepted and included in a more central position. In his discussion of *post-academic science,* Ziman regards Mode 2 knowledge production as having some 'post-modern' features that are much needed corrections to what he regards as an excess of 'scientism', and it also helps to rescue the scientific imagination from entrenched specialisation (Ziman, 2000, p. 329).

One striking similarity between the radical and the hybrid positions in the present debate is that there is an interest in Mode 2 knowledge production and the concept of artistic research as an emerging strategy in both. In one way this may suggest that the contrasted positions are approaching each other. However– as I see it – it might rather be evidence that artistic research is a not yet a fully developed strategy and thus open to different academic positions. Artistic research is regarded by many as the strategy of the radical positions, but also as a broad term synonymous with research in the arts. One issue of the present debate is who wins the power of defining this concept.

The emergence of artistic research may prove to be a new system of inquiry, or a new research paradigm. In that case, we are in the midst of this change, which means that we can hardly survey the situation yet. The analysis of Swedish architectural theses by Büchler, Biggs and Ståhl (Büchler et al., 2011) hypotethised an emerging new paradigm (cf. 2.3. Two previous analyses of doctoral theses), and found a few theses in a large sample that might indicate this.

2.3.   Two Previous Analyses of Doctoral Theses

The topic of section 2.3 is two previous analyses of doctoral theses in the field of architecture that I find particularly relevant to my analysis of doctoral works. One is a study by Linn Mo at the Norwegian University of Technology in 2003. The other is a study conducted by a research team, Michael Biggs, Daniela Büchler and Lars-Henrik Ståhl in Sweden in 2007/08.

The Study of Architecture Theses by Linn Mo

The study of Linn Mo is included in her book on philosophy of science for architects (Mo, 2003). She presents examples of doctoral theses in architecture, and shows how these follow research models from a wide range of academic approaches, including

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natural sciences, social sciences and the humanities. She presents examples of architecture theses that are related to the fields of physics, building engineering, anthropology, geography, history and music, all disciplines that include aspects that are relevant to architecture. An example of a doctoral work in architecture following the natural science model is the thesis of Anne Gunnershaug Lien in 1995. Her topic is insulated glass, which Lien evaluates according to thermal, energy conservational and visual qualities. The conclusion includes results for technical applications, as well as an evaluation of aesthetic quality. The thesis includes extensive documentation in the form of drawings and photographs. Within the natural science model, some theses were written by architects, some by engineers, and in some cases architects had submitted their theses to the discipline of engineering (Mo, 2003, pp. 45-46). An example from the social science model is the thesis of Hoshiar Nooraddin in 1996. His topic is *al-fina*, an Islamic concept of town planning with narrow, twisted streets, which protect the inhabitants from sun and sand storms and promotes outdoor street life. Nooraddin had to study a number of Islamic texts in order to get a cultural understanding of this phenomenon. He also presents ten streets of this kind in the way architects would present their projects. According to Mo, only an architect could have written this thesis. Drawings and maps are a major means of communication. At the same time, the researcher used methods from the social sciences, adapted to an architect's purpose (Mo, 2003, p. 80). An example of a model of the humanities, is the thesis of Catharina Dyrssen, who analyses architecture by comparing it to music. She compares the modernistic concert hall in Gothenburg to Mozart's Haffner Symphony. The topic of the project is the reciprocal contribution of music and architecture. She uses different research methods in her work. According to Mo, Dyrssen exposes a metaphoric relationship between music and space, with *meaning* explained through translation to another medium (Mo, 2003, p. 110). Mo also presents doctoral theses that differ from the conventions of traditional doctoral works. As an example, she use the thesis of Evelyne Anderson at AHO, who has written in her thesis in a poetic language throughout:

> The concept 'the perfect space' is in its content and its definition (the 'complete' and 'all-inclusive space') a phenomenon that transcends any physical and empirical 'reality'. It is the idea of 'space' in its widest uttermost consequences we meet: the unformed 'space' in any thinkable sense. When this 'space' is important it is because 'the perfect space' (as it is interpreted here) represents all architects' potential content and form of expression an all thinkable and unthinkable understanding and experience of what 'space' can be (Evelyne Anderson in Mo, 2003, p. 164).

As is seen in these examples, architectural theses may adopt widely different research approaches and academic domains. In her book, Mo describes a situation where architects were beginning to seek their own form of research, while doctoral programmes suffered from lack of supervisors having doctoral degrees. She observed

an emerging interest in the philosophy of science. Of note is that in the rapid development of this field of study, changes have occurred since 2003.

> Architects are pulled between art and science, between being a practice profession and being in an academic environment. The education has not been related to research as a way of thought. Research is being done anyway, on a great variety of topics, many of which have been influenced by other disciplines. Practitioners complain about the tendency of researchers to move away from the questions most relevant to practice. Practice involves a good deal of quasi-research that is important to the profession, but doctoral researchers must pay more attention to the more formal requirements of a research project (Mo, 2003, p. 11).

In her study, Linn Mo has made a selection of doctoral theses known to her from her position as a professor at a Norwegian university, in order to expose and exemplify the different characters of the research projects, and their affinity to various academic domains and disciplines. She has described each thesis in the light of what she needed to expose and explain. There is no complete survey of a cohort of theses or quantitative approach to analysing them, but instead a number of examples are chosen and described for a particular purpose. In this respect, her study has common features with my doctoral project. The wide scope of academic disciplines affiliated to doctoral works in architecture, as described in her study, is recognisable in other publications, including the following example, the study of Swedish Architecture Theses.

The Swedish Architecture Theses project by Büchler, Biggs and Ståhl

The Swedish Architectural Theses project by Büchler, Biggs and Ståhl (2007/08) is a critical mapping of doctoral theses in order to find out how architectural design practice contributes to research (Biggs & Büchler, 2011b; Büchler, Biggs, & Ståhl, 2009; Büchler et al., 2011). In the following I am referring to the two articles from 2011. As a starting point, the project hypothesised that academic research containing what the authors call practice based research (PbR) may constitute a novel paradigm. The first research question was whether existing research models were appropriate to these kinds of studies or not. The second question was how researchers attempt to combine creative practice as an element of academic research. The project has two perspectives that are of particular relevance to my study. It identifies different research approaches and roles of the architect-researcher, and it shows how doctoral works in architecture are related to various academic communities.

In order to select theses for the study, the researchers made a library search using a set of keywords, followed by a refined search that narrowed the sample. The criteria for selection were based on a previous study (Biggs & Büchler, 2008). This study claimed that if PbR was to be regarded as a significant form of research, the artefacts

produced should have an essential role in the conduct of the research, so that the research could not be conducted or communicated without them. The architectural theses were grouped in a provisional model of three cultures of knowledge, corresponding to what Goodman (1978) calls 'worldviews', according to the perspective of their research projects: The *Humanities and Human* (H&H), the *Applied and Social* (A&S), and the *Natural and Technological* (N&T). In brief: the H&H culture explores theoretical, historical and philosophical aspects of issues through criticism and interpretation. The A&S culture enhances knowledge of how society functions and how cultural values are developed and disseminated. The N&T culture explores materials and/or techniques through empirical methods that imply objectivity or disinterest on the part of the researcher. The perspective of the theses determined to which culture of knowledge they best adhered. As an example, the authors explain that the empirical consideration of emotion, experience and perception would reside in the culture of A&S, while the philosophical investigation of these would indicate the culture of H&H. Of particular interest to my project, is the comment from the authors that the act of 'reflecting' on one's own work could be an indicator of A&S, in the case of there being a reflective participant, while the presence of a so-called 'reflective practitioner' is a characteristic of the architectural position. The investigation of creative processes would fall into the culture of A&S, while the process that arises from the 'insider' knowledge of practice would indicate the architectural practitioner position (Biggs & Büchler, 2011b, p. 68).
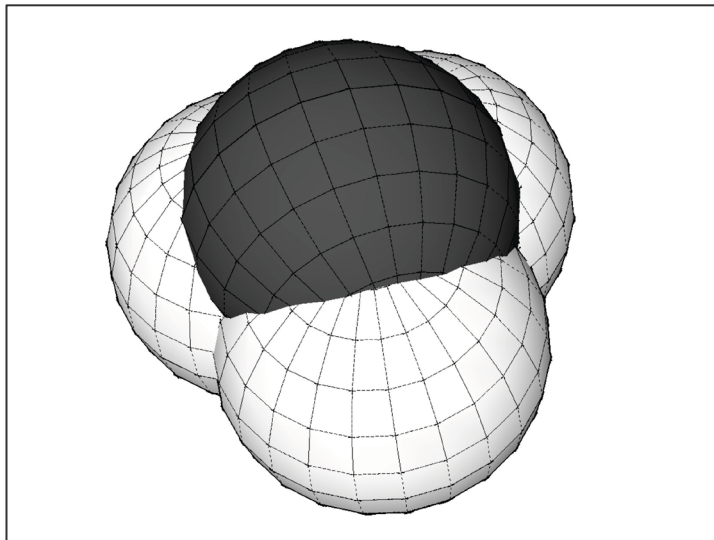
Img 3. The three main cultures of knowledge, H&H, N&T and A&S, and the position of the creative practice component (Biggs & Büchler, 2011b, p. 70).

The Research Field

The authors concluded that all the architectural theses were related to one or more of the three cultures H&H, N&T and A&S. However, they also identified one element that did not fit into any of these cultures: the creative practice component.

At one stage of the study, the authors narrowed the sample further, in order to find theses with an inner consistency between practice and traditional research elements. 17 theses met this criterion. From a closer study of these theses, the authors found that creative practice proved to play different roles in the theoretical argument, from illustrations that were not essential to the argument, to practice that contributed to the production of knowledge, and were hence essential to the argument. They made a distinction between theses merely having creative practice, and theses where this creative practice had an instrumental role, a discretionary versus an essential role. They regarded this difference as important to the demand for a new research paradigm, which would not be needed if there were appropriate existing paradigms. In their terminology, they found three alternative criteria for practice based research (PbR):

(1) creative and/or non-traditional practice is an integral part of the development of the research, or
(2) the conceptualisation of the problem and solution to that problem is born out of practice, or
(3) there is no conscious distinction or separation between research and practice on the part of the researcher (Büchler et al., 2011, pp. 323-324).

One conclusion of the investigation was that the mere presence of creative practice is not necessarily an indicator of the presence og PbR. Another conclusion was that the use of creative practice can mask a lack of integration between the aims of the research and the actions that are undertaken. The authors found that only 6 per cent of the theses in the sample was potentially of the PbR kind. They claim that in this aspect PbR must not duplicate types of research that are already established elsewhere. In order to establish a new paradigm, PbR must also be in accord with the aims an worldview of the community. In their sample of theses they found five theses that seemed to meet these criteria.

Biggs & Büchler (2011b) discuss the character of the practice component and the role of the researcher. They distinguish between generic and creative practice, and argue that any research project may have a generic practice component. This kind of practice is unproblematic as long as it is related to research methods that can accommodate it. In architectural research, there may be an element of creative practice conducted by the architect as an architect-researcher. The architect-researcher brings skills from architectural design into the academy. Research projects with an architect-researcher are outside the three cultures of knowledge, and for this reason architect-researchers

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do not have direct access to established models of research. Biggs and Büchler argue that practice-based approaches, when in need for research methods, can either preserve or transform elements from established academic models. They identified three modes of adaptation to academic communities by the architect-researcher: First, the researcher might adopt the values of the other community completely. He would then wear the hat of the researcher and the hat of the practitioner alternatively, what the authors call the *Changing Hat Practice*. Second, the architect-researcher might take the values of his own practice and use them in an academic context. He then would try to bring in values from his practice field into academia, to be recognised there. This is what the authors call the *Reflective Practice*. Third, the architect-researcher might use established academic models and transform his practice according to these. This would provide scholarship and credibility to the practice activities. As an example, they describe the architect-researcher's own work used as a case study and analysed by established models and defended in scholarly terms. This is what the authors call *Academicized Practice* (Biggs & Büchler, 2011b, pp. 72-73).

In sum, the study of Mo and the study of the Swedish doctoral theses give insight in the present state of the art of doctoral works in architecture that I regard as relevant for my study. Since they are both limited to architecture and urbanism, they may not be fully transferable to the broader field of art, design and architecture that is the topic of my study. Also my selection of theses and approach of investigation is different from both, and my sample of theses is smaller. However, even the larger number of Swedish architectural theses counted down to a small sample when it came to projects where the creative practice had an instrumental or essential role. This role of the creative practice and the role of the practicing researcher are features that I look for in my analysis of doctoral theses.

2.4.   Summing up Chapter 2, The Research Field

The development of the epistemological foundations has undergone changes of foci during the last five decades, from the systematising of a design science in the 1960s to the present debate on how to obtain a doctoral level, and whether it is necessary to develop a new and independent research strategy, and if this constitutes a new paradigm or a new system of inquiry.

The knowledge base is a question of academic identity, and the particular 'making knowledge' is related to the creative practice component of the making disciplines. As I see it, the reason why an historical perspective is relevant to epistemological foundations, is the cumulative effect of the scientific method. The principle of standing

on your predecessors' shoulders is what knowledge building is about: getting an overview of the present knowledge in a field, and then contributing to an extension of the borders of knowledge. This means that the ideas of design science of the 1960s is still part of the knowledge base, since the historical perspective includes the experiments and the experiences of the past. This is also the case for the historical lines of the European university and academic freedom. The present situation reflects the lines leading up to it. Identifying similar structures in the medieval university and in the ambitions of the Bologna Process, adds a dimension to the study of formal frameworks and the present university reforms. The waves of university reforms have affected the development of doctorates and research in the arts, from the concerns of Simon in the 1960s when art schools were merged into universities, to the massive Bologna Process (4.1. The Bologna Process).

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In order to structure the project, I use a concept developed by Linda Groat and David Wang (2002). This is a model of three concentric frames: *Tactics* is the inner, narrow frame. These are the working tools, like interviews and literature search. *Strategies* is the mid-frame. This is the area of research design. *Systems of inquiry* is the outer, enclosing frame. This refers to the broad categories of positivism, constructivism and others. The three frames are related to each other, in the way that what is in the inner frame, fits into the scope of the mid-frame, which again fits into the outer frame (Groat & Wang, 2002, pp. 10-11). In the following, I shall use this model, and the terminology. For the 'tactics' I prefer to use the term *working methods*.
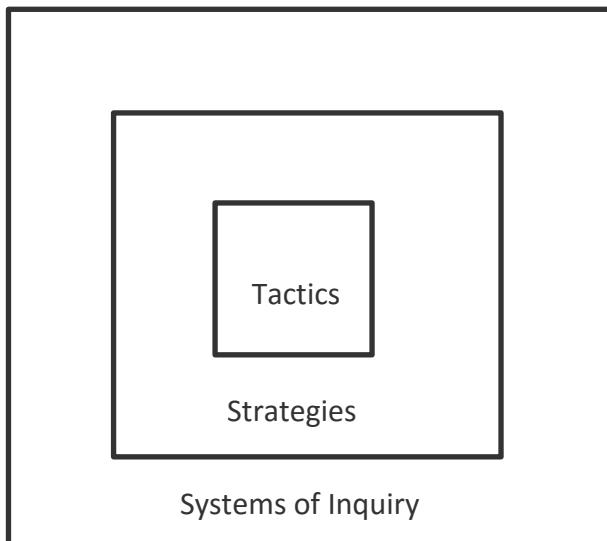
Img 4. The model of tactics, strategies and systems of inquiry by Groat and Wang

For the inner frame, the tactics, I use two working methods of mapping: *Systems Oriented Design* (Sevaldson, 2013) and *Assemblage* (Dyrssen, 2011). These are both related to *Systems Thinking*. For the mid-frame, I use the structure of *Curriculum Inquiry* by John Goodlad (Goodlad, 1979). For the outer frame, I identify *hermeneutics* to be the systems of inquiry for the project. At the same time, it is of note that – like all models –this is but a simplification in order to keeping track of a more nuanced structure. The mapping, which I position in the inner frame, has a potential of being an overall strategy of the project as well. Hermeneutics, which I identify as the systems of inquiry, is a working method for interpretation as well. This exposes the connection between the frames, also in the way that approaches may belong to more than one of them.

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As the researcher of this project, I have an inside perspective, from a position within the making disciplines, and within higher education as well. Presumably, the reason for my choice of Systems Oriented Design as a working method, is my background as an artist, being trained in sketching, drawing, and developing visual concepts, searching for ideas and solutions, in brief, a way of *design thinking* (Cross, 2011).

3.1. Working Methods: Mapping

Working methods is the inner frame of the model of Groat & Wang, the working methods, in their terminology the 'tactics'. The working methods of mapping described in this section, also relates to the mid-frame of the project, the research strategy, because they include structuring and systematising. However, as the map is not to be the result of the investigation, but a stage in the process, I find the inner frame the most suitable. By this, I may be drawing the inner frame a bit wider than the mere working methods.

There is a shared view that the epistemological platform of the making disciplines is still in the making. The vivid discussions that are going on at present, also show that there are conquering views and opposite positions in this field. This makes a complex and disorganised situation. I need an overview, an initial mapping, of what I perceive as a blurred and rugged landscape. The working process of mapping is the stage of collecting information and structuring it. The mapping includes the situation of epistemological foundations and the analysis of theses, and the relations between them. During this stage of the project, the study of the epistemological foundations and the analysis of doctoral theses are running simultaneously. Each reading of a thesis makes the need for more information on epistemology. Each step of completing the map of epistemologies, completes the background for understanding the theses. When re-reading a thesis, this epistemological background has been more nuanced. My efforts of achieving an overview of this situation, include numerous drawings of models and patterns, partly related to a landscape metaphor, partly as abstract models. Some of these are included in this thesis. Of note is that the mapping process is a phase of analysis, followed by, or – rather – paralleled by a phase of synthesis. By synthesis, patterns are sought and conclusions drawn.

3.1.1. Systems Oriented Design

At AHO, a research team lead by Birger Sevaldson are developing a working method that they call Systems Oriented Design (SOD). Sevaldson characterises SOD as a combination of modern systems thinking and experimental design. The core of the concept is a shift from traditional solution-oriented design to an attention to the interrelation between objects at a systems level. The strategy is to search as many

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interrelations as possible, not striving for simplifications, but for richness. In an initial phase of this process, they use a working method that they call Giga-mapping. Sevaldson relates Giga-mapping to the concept of *research by design*. He regards Giga-maps as research-by-design driven. Hence, he promotes a designerly skill of dealing with fuzzy and wicked problems. He regards the strength of design as a way of sorting, ordering and visualising complexity (Sevaldson, 2013, p. 15). Sevaldson explains that the designerly approach to mapping made him aware of the importance of designing as a way of investigating. The GIGA-maps developed into design artefacts, this way connecting designing and analyses and reasoning into one device. Designing was used in close relation to analysing and synthesising, and designing the response and output from the mapping very early was connected to the research. In this process new questions emerged followed by new roles of inquiries and mapping.

On the relation between Systems Oriented Design and Systems Thinking, Sevaldson tells the following story: He was part of a design team which, in a period of design experiments, realised that there was a need for very broad maps with a great variety of information as a starting phase of their projects. They drew these broad maps in order to support the design process. During the elaboration of this mapping method, causal relations emerged, and the design team realised that they were moving into the area of systems thinking (Sevaldson, 2013, p. 20). Investigating this, they found 'hard' systems models not quite appropriate for their purpose, but discovered that *Soft Systems Methodology* was more convenient. This was developed by Checkland and Poulter through a research project where they explored the use of systems thinking in different kinds of institutions (Checkland & Poulter, 2006, pp. XV-XVI). In the context of design, the Soft Systems Methodology is a descriptive process, and a mind-set, a way of thinking, more than a fixed method. What had to be added for the purpose of design, was a bridge from these descriptive actions towards generative design actions, and to include design as a central approach in the mapping process. The result was a free-styling, media-rich mapping, which Sevaldson and the milieu at AHO called *Giga-Mapping*.

The Systemic Design Research Network arranges annual conferences of Relating Systems Thinking and Design (RSD). The third RSD conference, in Oslo September 2014, included a course in Giga-mapping which I took part in, to see whether this might be relevant for my research project. Sevaldson was the leader of this course. He presented Giga-maps as very large and information-dense diagrams. On these broad maps, frames of the design project are drawn and redrawn. Visualisation is used as a working tool. Key points are defined and placed on the map, but focus is to be on the *links* between them right from the start. Sevaldson relates this working process to systems thinking. He regards this a mind-set that means shifting attention from the objects and entities as such to the relations between them. This means a shift from

object-oriented to systems-oriented. For the systems-orientation, he uses ecology as an example. This is an interdisciplinary science constituted by the interplay between numerous species and their environment. The science of ecology cannot be reduced to single fragments (Sevaldson, 2013, p. 13).

The design-oriented working-method of visualising that is described by Sevaldson is close to the way of thinking and working that I am trained to perform as an artist. I regard pen and paper as the tools that are closest to the *immediate*, the not mediated. These are tools for visualising, in a materialised form, the process of thinking in abstract mind-maps. At the start of my project, I found the research landscape and the debate on doctorateness of the making disciplines an utterly complex situation that I could not overview. In this phase the working methods of Giga-mapping proved to be good working tools, including drawing broad lines on large sheets of coarse paper on the walls of my office. However, the question should be asked whether Giga-Mapping and Systems Oriented Design are appropriate working methods for a research project. Sevaldson regards Giga-mapping to be a bridge between inquiry and design (Sevaldson, 2013, p. 12). As I see it, there is a difference between using research as a means of a process where design is the objective, and using design as a means of a process where research results is the objective. The connection between research and design is seen in the concept *research design*. I draw the following parallel: Referring to the recommendation of Sevaldson that Giga-mapping should be paralleled with concrete *design* work at an early stage, that in a research project, Giga-mapping should be paralleled with concrete *research* work. Giga-maps may be the initial stage of a research process as well as design projects. As for a design project, Sevaldson recommends that the design process should start as early as possible and run parallel to the mapping process. In my understanding, this means that patterns should be sought parallel to the collection and structuring of information, or in other terms, that synthesising should run parallel to the analysis work. In my view, the research process is similar to the design process, and should start as early as possible and run parallel to the collecting and structuring of information.

3.1.2.   Assemblage

Catharina Dyrssen uses the concept *assemblage* for a three-dimensional mind-map. The assemblage is of a dynamic character, allowing for continuous updating and revision (Dyrssen, 2011). For this mind-map, she describes three components: *key points, links*, and *relationships*. In her terminology, the key points, or nodes, are trigger points of special interest for actions to be taken. Links are established between key points. Some links will be strong enough to constitute what she calls relationships. This concept of assemblage is included in a broader scope of art based research approaches which she has described in her article *Navigating in Heterogeneity* (Dyrssen, 2011). The

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issue of this article is architectural research, in a wide sense. I regard her concept relevant to affiliated disciplines. In her article, Dyrssen describes assemblage as one of six approaches to architectural research. The other five are architectural thinking, performance and performativity, explorative experiments, modelling and simulation, and critical construction and reflection. The other approaches may be used as working tools when constructing an assemblage, or, the other way round, the assemblage may be the starting point, a mind-map for investigation, generating a need for other working tools. Dyrssen identifies four basic modes of performative actions within a research process: *Mapping* is the collection and structuring of information. *Exploratory actions* reveal the unknown and the unexpected. *Solution-oriented actions* produce statements during the research process. *Discursive or critical actions* discuss alternative perspectives that may question the constructed assemblages and its components (Dyrssen, 2011, p. 236). Summing up, Dyrssen regards architectural research as spatially founded making-composition-actions, critical reflection and setting of assemblages. She describes this as a multiple, non-linear way of working with constructions of knowledge. Dyrssen argues that most people have the senso-motoric ability to make spatial analogies and experiences of models and maps; landscapes that can be imagined and constructed. Therein lies the opportunity for a more extensive use of new tools for modelling and imagery, and of making-action-performance (Dyrssen, 2011, p. 239).

Dyrssen relates her assemblage model to the concept of assemblage of Giles Deleuze and Félix Guattari (1987), and a further development by Manuel de Landa (2006). Briefly, in this setting, assemblages are gatherings of components that are organising units, meant to cover a wide variety of wholes that are constructed of heterogeneous parts. These are not seamlessly connected or totally integrated, thus they do not constitute reified entities, but maintain their assemblage character, as in the above example of ecology. Dyrssen relates this to the rhizome concept that Deleuze and Guattari are using (Deleuze & Guattari, 1987). The rhizome is a non-arboreal structure that has no stem, but, resembling the fungus hyphae, constitutes a network with no particular starting and ending point, allowing plants to shoot from the nodes. In academic terms, *rhizomatic* means that findings emerge in a network structure rather than as a result of one single line of progress. Dyrssen relates the concept of assemblage to systems thinking and a non-linear approach.

For my purpose, I find the assemblage concept of Dyrssen fruitful as an underscore of the spatial and dynamic character of mind-maps, and an exposition of mapping as part of a wider variety of research methods. Dyrssen also relates the mapping process to other actions, revealing the unexpected by exploratory actions, producing statements during the research process, and critically discussing alternative perspectives on the

assemblage and its components. I use the term assemblage for mind-maps that emerge during my search for key points in the theses.

From the start, I use Giga-mapping tools for the analysis of theses and their relation to the research landscape. I read and re-read the theses in search for key-points that can answer the research questions. During this process, lines of special interest emerges, becoming lines of inquiry. In the terminology of Dyrssen, these are called 'relations'. Parallel to the analysis of theses, I read literature that contributes to building a background of theory. The theses are linked to or positioned in this background. (6.1. The structure of the analysis).

3.2.   Research Strategy: Curriculum Inquiry

Strategy is the mid-frame of the model of Groat & Wang. This is the area of *research design*, structuring the whole project. For this purpose, I use the structure for Curriculum Inquiry by John Goodlad (1979). Goodlad developed his structure for curriculum inquiry during a number of research projects on school curricula. He describes it as

> a conceptual system, characterised as a carefully engineered framework designed to identify and reveal relationships among complex, related, interacting phenomena; in effect, to reveal the whole where wholeness might not be thought to exist. Such a system consists of categories abstracted from the existential phenomena. The system is designed to describe and classify categories which can be readily discussed and manipulated at consistent, clearly identifiable, levels of generality and which can be developed from different perspectives (Goodlad, 1979, p. 19).

In Goodlad's concept, the term 'curriculum' is used in a wide understanding, including the diverse domains of ideology, perception and experience. I use the concept of curriculum the way Goodlad uses it. Of note is that a frequent use of the term 'curriculum' is more narrow, meaning a detailed description of a course of study. One example is the Bologna working group, who had had this understanding of the term when they elaborated the Dublin Descriptors (chapter 4. European formal frameworks).

Goodlad describes three phenomena that are included in curriculum practice as well as in curriculum inquiry (Goodlad, 1979, p. 16). *The first* is substantive, concerning the content of curricula; goals, subject matter etc., which he regards the commonplaces of any curriculum. This is about the nature and worth of curricula, which are in the core of my research project. *The second* is political-social, concerning the forces of interests and power which affect the constitution of curricula. In my project, the academic

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perspective on one side, and the governmental or bureaucratic perspective on the other, are within this political-social phenomenon. *The third* is technical-professional, concerning processes of development, approval, implementation, evaluation and improvements of curricula. This applies for the Bologna Process and the implementation of national qualifications frameworks. Hence, the three phenomena that are included in Goodlad's concept, are all relevant to my project. The structure of curriculum investigation includes five curriculum domains:

Ideological curricula are the results of planning processes and policy making, focusing ideas and goals. Policy documents, preambles of formal documents and underlying intentions that they contain are used for investigation.

Formal curricula are the written formulations approved by authorities, stating what teachers are to communicate and students are to learn. The formal curricula are concretisations of ideas and goals of the ideological curricula.

Perceived curricula are 'curricula of the mind', in Goodlad's expression, meaning how teachers and supervisors interpret and understand the formal curricula. At higher education level I regard students' interpretation and understanding to be included, since they are obliged by the same set of formal curricula.

Operational curricula are what actually happens in classrooms and auditoria, and presumably in the supervising context.

Experienced curricula are about the students' experience of this (Goodlad, 1979, pp. 58-65)

I find that these curriculum domains correspond to the different levels of my investigation: Policies, frameworks, regulations, study programmes and doctoral works. My choice of this concept as a structuring device, also is a reminder that curricula are more than the written documents that are adopted by governments and boards of institutions.

One critique of Goodlad is that he has not described the relation between the curriculum domains (Gundem, 1998, p. 217). According to Goodlad some of his previous models of hierarchical levels were disturbed by the impression that curricula construction was a top-down process starting with national legislators or institutional school boards, while actually the process can start elsewhere (Goodlad, 1979, p. 27). For this reason he rejected the term 'level', preferring instead to use the term 'domain'. However, 'level' may be an appropriate term in practice. Liv Merete Nielsen regards 'level' to be an extension of the perspective from the more narrow 'curriculum' (Nielsen, 2009, p. 27). She uses 'curriculum' for the 'formal curricula' only, the concrete school curriculum. In the present research project, an hierarchical structure is a substantial part of the topic. For this reason I prefer to use the term 'level'. I find this unproblematic, as long as it is clear that in this kind of structures processes can move either way; as top-down or bottom-up processes.

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Another critique of Goodlad, that there is a lack of critical analyses of ideological and socio-cultural context (Gundem, 1998, p. 217; Inglar, 2011). Inglar emphasises the historical line, the role of negotiating stakeholders, and the socio-political perspective (Inglar, 2011), which I find relevant, too. Two main perspectives of context are following my project throughout: On the one hand a political and governmental context, on the other hand an academic and scientific context. Hence, in practice, I endorse the comments on Goodlad's structure as further developments of his concept, and include them in my research projects.

In the following is a description of how my project corresponds to the structure of curriculum investigation:

The formal curricula have a three-levels structure in my project. These are the international, national and institutional level. As a result of the Bologna Process, the international level have a substantial effect on the national level. Further, the national level have the authority to impose obligations to the institutional level. In this structure, the international and national levels are frameworks of generic descriptors, while the institutional curricula also include field specific programme descriptions. There may also be field specific national programme descriptions. The degree of generality or specificity are varying at national and institutional level.

The ideological level relates to the formal curricula at the international level in particular. The Bologna process was launched based on political and ideological ideas, as embodied in the Bologna Declaration and the *Magna Charta Universitatum*. On the other hand, this ideological level should be reflected at any other level, whether formal, perceived, operational or experienced. However, the freedom of the Member States to adapt the Dublin Descriptors to their national needs, in respect of their cultural diversity, means that national policy and ideologies may be decisive for the elaboration, and the understanding, of national regulations. Thus, there will be ideological curricula at the national level as well. Because of institutional autonomy within higher education, there may also be ideological curricula at the institutional level, reflecting values that are embodied in institutional policies and strategies. It is likely that there is a shift in character of the ideological curricula: At the international level, policies of harmonisation and mobility are prevailing; at the institutional level, academic quality presumably will be the core.

The perceived level, the curriculum of the mind, is how the formal curricula are understood.

The operational level is the solid ground of my project, where the doctoral education is taking place, and the empirical material, the analysis of the doctoral theses, is constructed. This is where the sample of doctoral theses relate to each other and to the research landscape.

The experienced level, how students and teachers have experienced the doctoral
   education, the curriculum, the facilities, and the doctoral work as such. A limited
   part of this is reflected in the doctoral theses.

3.3.   Systems of Inquiry: Hermeneutics

The systems of inquiry is the outer frame of the model of Groat & Wang. Hermeneutics
is my choice for the systems of inquiry. The main information sources for my
investigation are publicly available documents. The documents constitute a hierarchy
of text, from international agreements and national legislation to institutional
curricula, as well as the sample of doctoral theses. Thus, the hierarchy of text covers all
the levels of curriculum investigation. Different principles of interpretation is needed
for the different categories of text.

Since its Renaissance origin, hermeneutics has dispersed in a number of branches. The
original model of the circle of reciprocal understanding of parts and whole, is regarded
the 'objective' hermeneutics. In what may be called 'alethic' hermeneutics, the circle
rotates between preunderstanding and understanding. Yet another model is the
'hermeneutic arc' of Paul Ricoeur, moving between explanation and understanding,
oscillating between scientist and humanist methods (Alvesson & Sköldberg, 2009, p.
92). For my interpretation of the formal curricula, the objective hermeneutics is the
preferred orientation. The part to whole dynamic is prevailing, and the purpose of
interpretation is an objective oriented understanding of normative text. For this
reason, the Italian philosopher, jurist and theologist Emilio Betti seems to be of
particular relevance. Betti is regarded the foremost exponent of modern objectivist
approach (Alvesson & Sköldberg, 2009, p. 105). He has launched a set of four
hermeneutic canons, two concerning the object of interpretation, and two concerning
the subject. Canon 1 is the hermeneutic autonomy of the text, which should be
understood in terms of its own immanent criteria. Canon 2 is the coherence of
meaning between the parts and the whole, the hermeneutic circle. Canon 3 is the
actuality of understanding. By this, Betty includes the personal frames of reference of
the researcher, which means that interpretations always constitute re-shaping, of
personal creativity. By this, Betty includes the importance of preunderstanding, but at
the same time, he warns on giving this too much attentions, thus losing sight of the
object. In Betti's view, the alethic hermeneutic makes the interpretation process a
monologue of the research subject. Canon 4 is the hermeneutic correspondence of
meaning, the adequacy of meaning in understanding. When the pivotal role of the
preconception is reduced, the researcher must instead submerge himself into the
mental processes in which various thoughts originally came into being. According to
Alvesson and Sköldberg, this process is recognisable in other terms, such as *verstehen*
and 'empathy'. As I see it, the canons of Betti are transferable to my research project.

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What I need, is an objective approach of interpretation, focusing the immanent criteria of the texts and the classical hermeneutic circle of parts and whole. On the other hand, I also need to include the personal frames of reference of the interpreters of the documents in question, as well as my personal academic and professional background as a reference for my own interpretation. However, the profound role of preconception may not be the most weighty when interpreting formal text, nor for the academic text of doctoral works, since they are publicly available documents presenting formal frameworks, and academic responses to these.

In an objective hermeneutic process, there is a distinct distance between the interpreting subject and the object of interpretation. There is a presumption that there is an inherent meaning in the object that is to be found by interpretation, like in other objectivist scientific approaches. This is close to classical hermeneutics, searching for the substantial content of normative text, or the right understanding of classical literary texts. When Pérez-Gómez argues that architectural theory *is* hermeneutics, as referred in my chapter of epistemological foundations, he adheres to a different concept of hermeneutics. His argument is that architectural practice preserves a dimension of politics in the human search for stability and self-understanding, which instrumental theories do not account for. For this purpose he promotes recent hermeneutic ontology, referring to Gadamer, Ricoeur and Vattino. Thus, Pérez-Gómez relates his architectural theory to the philosophical – or new – hermeneutics. 'I propose architectural theory as hermeneutics, understood as the projection into language of the crucial ontological insights present in the philosophy of Merleau-Ponty (Pérez-Gómez, 1998, p. 23). In a similar way Juha Varto (2009), professor within the field of art education, holds hermeneutics as the basis for artistic research. He identifies a set of profound presuppositions for the purpose of establishing the science of art education. These are about the view of man, view of the world, ideology, standardisation of practice, imprinting (which is a metaphor from biology), self-identification, and methodological readiness. Thus, Varto, himself a philosopher, relates his concepts to philosophical hermeneutics rather than the objective orientation that is needed in my research project.

In their concept of *reflexive methodology*, Alvesson & Sköldberg have developed a method of 'quadri-hermeneutics', described as 'the open play of reflexion between various levels of interpretation' (Alvesson & Sköldberg, 2009, p. 271). They promote a process where the primary interpretation is reflected in new interpretations by other research approaches. As an example, they use four approaches as reflective layers: The empirically based approach, hermeneutics, ideological criticism and post-modernism. Other approaches are available, and other numbers of approaches may be suitable. The authors regard this to initiate movements between different elements of research, saving us from being locked into one particular philosophical position. Reflection

occurs when one mode of thought is confronted with another. In practice, research will often glide between different levels: handling empirical material, interpretation, critical interpretation, and reflections upon language and authority. In my research project, there are empirical material at each level of curricula.

For the research questions, how the criteria of doctorateness are met, and whether and how they can be challenged, the sample of doctoral theses is the main information source. The analysis of the theses is a process of identifying key points, as defined issues of investigation, in each of the theses, and relating them to each other in lines of inquiry. Hence, I am not making separate, in-depth studies of each thesis in particular, but an overall study on how they relate to each other. In sum, these lines of inquiry contribute to answering the research questions. An example may clarify this: To understand the role of the artwork in one thesis, I need to see the corresponding role of artwork in others. The role of artworks are key-points that I search for in all the theses. This makes a line of inquiry on the role of artworks. Reading and re-reading the sample of theses for different lines of inquiry, make a map of the these relate to each other, for each line separately. At the same time, there are connections between the lines of inquiry. Step by step this also makes a map of how the theses as such relate to each other. This map of the whole sample of theses, each key point of investigation is better understood. As I see it, the dynamic of reading and re-reading the theses, each thesis contributing to the understanding of the others, and to the understanding of the sample as a whole, is an example of a classical hermeneutic circle, or rather a spiral, of interpretations.

In their work on *Education Research* by Meredith and Joyce Gall and Walter R. Borg (2007) discuss qualitative interpretation of text. In an interpretation process, they recommend to include purpose of writing the documents, the context in which they were produced, their intended and the factual audience, and even the audience's purpose of reading the documents (Gall, Gall, & Borg, 2007 p. 292). Referring to this for the interpretation of doctoral theses, the purpose of writing them is to obtain a doctoral degree. Hence, the examination committee is the crucial target group. A wider target group includes other stakeholders, colleagues in the field of study, the academic community as such, and members of the practice field. The theses as such are not written for the general public. Crucial context is the formal curricula; doctoral programmes, the institutional and national regulations of doctoral degrees, and national qualifications frameworks. At the operational level, the role and the qualifications of the supervisors and the examination committee are vital. However, this is not easily traceable, only their names are usually presented in the acknowledgements of the theses. For this reason, I will not focus the role of supervisors and examination committee in my study. Other context of importance,

such as working conditions of candidates etc. are also hardly traceable, and not included in my study.

On the formal frameworks the hierarchy of international and national documents is the main information source. The Dublin Descriptors will serve as an example of the interpretation process: I need to clarify the formal status of this document, whether it is based on a legally binding treaty or not, in order to decide whether it creates obligations for the Member States. For this purpose, I have studied the Bologna Process, not to clarify the forces and powers as such, but as a means of identifying the formal status of the Dublin Descriptors. These descriptors represent the formal curricula in the structure of curriculum inquiry of Goodlad. The ideological level of the descriptors are embodied in the Bologna Declaration, the *Magna Charta Universitatum*, and others. The Bologna policy documents serve as means of interpreting the Dublin Descriptors. Thus, the ideological level contributes to the understanding of the formal curricula. On the other hand, the Dublin Descriptors serve as a means of interpreting the National Frameworks of Qualification, and again institutional curricula and syllabi. These are all included in a striated system of formal curricula. The perceived level, the curricula of the mind, is how teachers and candidates understand the regulations and descriptions of the study programmes of their institutions, and also the National Frameworks of Qualifications, as steering regulations for the institutions. Hence, the interpretation process follows the structure of curriculum investigation, or, the other way around, the structure of the curriculum investigation is a structure of interpretation.

For formal documents, the same elements are vital for the interpretation: the purpose of writing them, the context of their production, and the target groups. The *purposes* of policy documents and legal documents are vital for understanding them. The purpose is often included in preambles or in declarations of intentions that are formulated in the initial section of the documents. The context of their production includes who elaborated them, who adopted them, and in what setting. This is crucial to decide their legal status, whether they are legally binding or not. The context is also a major clue to find the substantial content of the documents, what is their actual meaning. The target groups of the documents affect the terminology, and the style of the text, for example, if the documents are elaborated for a number of Ministers from a broad range political and cultural diversity and native tongues, this will affect the formulation of text. This must be identified during the interpretation process. Defining their formal status and identifying their substantial content, are both included in the interpretation process.

Interpreting formal documents also includes reading different parts in the light of each other in a reciprocal process. As an example, a declaration of intentions in the preamble, indicates how to understand the rest of the document. At the same time,

the content of the rest of the document, indicates how to understand the formulation of intentions. There is a dynamic process of understanding the whole document by reading parts of it, and understanding parts of the document by referring them to the whole document. For the formulations of national law texts, there is a systems of references between paragraphs and from paragraphs to the whole act. This system of references is a prerequisite for short and concentrated formulations of law texts. For interpretation of legal texts, knowledge of this system is a prerequisite. Details of the interpretation process of the formal documents is described throughout Chapter 5, European Formal Frameworks. This structure of text causes a classical hermeneutic dynamic of interpretation. Of note is that the starting point of hermeneutics in the 17th century was the interpretation of classical texts within theology and law. Thus, there is a four hundred year hermeneutical tradition of interpreting normative text.

3.4.   Validity

There are two sections of validity in this thesis. The present section is concerning the research project as such. Line 5 of inquiry is about discussions of validity in the nine theses that are the empirical material. The particular questions on validity that arises when artworks are included in the doctoral work, are discussed in Line 5. For my study, I have chosen three issues that I find particularly relevant for the question of validity: One is the selection of theses for analysis, related to questions on representativeness and transferability. Second is the role of the mapping approach as a working tool for analysis. Third is the insider's perspective of the researcher, related to the question of reliability and researcher effect.

I regard validity as a combination of trustworthiness, credibility, and confirmability of the results of the study, and have had the intention of considering this throughout the planning and the conduct of this study. The present section is a summing up and a discussion of these considerations. In general, this is a characteristic of the issue of validity as such: It is a necessary perspective of a research project, and should be in incorporated throughout the enterprise. In qualitative studies, that cannot be verified and replicated in the same way as in quantitative or observable studies, validity is a question of good research methods, implicit in the text throughout, and in methodology chapters in particular.

Validation, reliability and generalisability are components of the overarching concept verification (Kvale, 1996). In this thesis, validity is given the most attention. Validation means to check, to question, and to theorise. The crucial question is whether the research methods are appropriate for investigating what they are intended to investigate, or in other words, what the researcher thinks he is investigating. Hence, securing validity includes the fundamental question of what is truth. The broad,

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philosophical question of truth is beyond the scope of the present study. For this purpose, three classical criteria of truth related to validity will serve: *Correspondence*, whether a statement of knowledge corresponds to the objective world, related to a positivist tradition. *Coherence*, concerning the inner consistency of arguments, related to mathematics and hermeneutics. *Pragmatism*, connecting the question of truth to the practical consequences (Kvale, 1996, p. 238). The present study, with its hermeneutical systems of inquiry, is positioned within the realm of *coherence*, with a focus on the inner consistency of arguments. Hence, validity is a question of good craftsmanship. This requires a critical outlook. For this purpose, Kvale mentions a number tactics, in my terminology working methods: Checking for representativeness and for researcher effects, triangulating, weighing the evidence, checking for meaning of outliers, using extreme cases, following up on surprises, looking for negative evidence, making if-then tests, ruling out spurious relations, replicating a finding, checking out rivalling explanations, getting feedback from informants (Kvale, 1996, p. 242). This kind of tactics may be grouped into four categories. First: checking data. Second: Looking at 'unpatterns'. Third: Testing explanations. Fourth: Testing with feedback. (Miles and Huberman in Groat & Wang, 2002, p. 196). For my purpose, I find the following tactics particularly relevant: For the analysis of theses: Checking for representativeness and researcher effect. For the interpretation of the formal frameworks: Weighting the evidence and replicating the findings (chapter 4, European Formal Frameworks).

The ambiguous character of validity is expressed by Guba and Lincoln, arguing that validity is not like objectivity. While objectivity may be wanting, even within positivist frameworks, validity cannot be dismissed, since it points to a question that has to be answered: Are these findings sufficiently trust-worthy for me to trust myself in acting on their implications? Would I feel sufficiently secure about these findings to construct social policy or legislation on them? At the same time, radical reconfigurations of validity leave researchers with multiple, sometimes conflicting, mandates for what constitutes rigorous research (Guba & Lincoln, 2008, pp. 271-272).

The Selection of Doctoral Theses. Representativeness and Transferability

The fact that nine doctoral theses are chosen for analysis, raises the question of representativeness. This relates to the purpose of the analysis, what I am searching for. My research question is on *how can*, which means that I am searching for *examples*. I need good examples that can illustrate the breadth of the problem area. For this reason, I have chosen theses that present different academic traditions, from different countries and institutions. I have also searched for different research strategies. The theses cover the three disciplines that are the object of my study, art, design and architecture. Within architecture, what may be called the artistic part of this field of study is focused. One of the theses is from Australia, which is outside the

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frameworks of the European Higher Education Area. In one respect, this is not relevant for the research question on the European frameworks. On the other hand, a European university college has chosen this Australian institution as their as their partner for their doctor education.

The size of the sample is adapted to the research method. Analysing a large number of theses by qualitative research methods, would exceed the scope of a doctoral work. The opposite, a very small number, would not expose the variety of the field. Hence, the nine theses are a manageable sample for investigation. The choice of examples as the empirical material makes this a study of single cases. This raises questions on transferability and generalisability. Kvale (1996) uses case law as an example. In legal systems based on case law, preceding cases are used as references for subsequent similar cases. The court decides whether a previous case is relevant, whether there is an adequate analogy to the present case. Each case then has the potential of transferability. Even if the items in my sample are examples, each thesis also is a contribution to the development of this emerging research field. By analogy one approved thesis may contribute to the approbation of another thesis, if the examination committee endorses the approval of the first one. There is a potential transferability from each new thesis (Kvale, 1996, p. 233).

The Role of Mapping and Assemblage

The use of mapping as a research approach raises some questions. Studying examples means investigating single cases. A comparative case study model would provide systematic validation procedures. For my purpose, a full comparison of the cases is not preferable. Rather, I need a process that allows working on a broad overview and drawing links between key points of the items, without aiming at a complete comparison. I need to draw lines of inquiry through the sample of theses, without needing to include all of them. This way, the theses can serve as examples on different issues in question, thus contributing to answering the research questions.

Of note is that the result of a mapping process impliedly is a map. If these are the result of the investigation, one might ask of the validity and the generalisability, or whether they are rather some kind of postmodern assemblies without conclusions. In my study, I use mapping as a working method in the analytic phase, before syntheses and conclusions are drawn. The mind-maps allow me to search through the sample, a criss-crossing of the empirical material, before concentrating and concluding.

The Insider's Perspective. Reliability

This section is about reliability, discussed with the insider's perspective as the pivot point. Reliability concerns the consistency of the research findings (Kvale, 1996, p.

235). It questions whether the researcher and his project is trustworthy. I have an insider perspective on the making disciplines, and on higher education. When investigating the doctoral theses, I am also a doctoral candidate myself. For projects where the researcher is part of what is investigated, Mats Alvesson (2003) has launched a research strategy called 'self-ethnography', or alternatively 'insider-ethnography'. I would prefer the latter. In this setting, the researcher is part of the community he is investigating, as a part-time researcher, but still a full member of the group. While conventional ethnography is basically a matter of the stranger entering a setting and 'breaking in', trying to create knowledge through understanding the natives from their point of view, self-ethnography is more like a struggle of 'breaking out' from the taken for grantedness of a particular framework and study the material from a certain distance (Alvesson, 2003, p. 176). While a challenge for the conventional ethnographer is to avoid 'going native', the challenge for the insider-ethnographer is to avoid 'staying native'. Even if I do not conduct an ethnographical study, I have a closeness to my object of research and a need for not staying native. When interpreting the doctoral theses, my personal background will affect my analysis. One advice from Alvesson is to work systematically with 'reflexivity', in which one tries to change the level of interpretation, using a meta-level of one's initial interpretations, inspired from another stand-point. This other standpoint functions in a meta-theoretical way, when used for study one's own interpretations (Alvesson, 2003, p. 86).

Validity and reliability concern the profound values of trustworthiness and credibility. These have ethical perspectives that can be related to the Mertonian norms. *Communalism*, because the public need research results that can be counted on, and shared. *Universalism*, because scientific knowledge shall be the property of a universal community. *Disinterestedness,* because the behaviour of the researcher must avoid personal bias. This concerns reliability, and demands that the researcher is trustworthy. This norm combines with those of communalism and universalism in order to turn science into a communal product. The norms of universalism and disinterestedness in particular, have been regarded inappropriate to the creative fields (6.3.6, Validity of the research results).

4. European Formal Frameworks

The topic of chapter 4 is the formal frameworks of qualifications of Europe, in particular the Dublin Descriptors, which are now the qualifications framework of the European Higher Education Area (EHEA). The main issue of this chapter is the interpretation of the Dublin Descriptors. There is an introduction to the Bologna Process that serves as a background, as well as a summary at the end of the chapter.

Qualifications frameworks constitute the formal curricula in Goodlad's structure of curriculum investigation. There are three levels of formal curricula in this study. The Dublin Descriptors are the international level. They are implemented at the national level, which ultimately steers the institutional level. Focus of this chapter is on the international level; the overarching framework that is shared by all the Bologna Member States.

4.1.   The Bologna Process

The Bologna Process has proved to be a strong force for university reform, compared by some to major changes of the past such as the 'Gutenberg revolution' of the 15th century and the 'Humboldt revolution' of the 19th century (Nybom, 2007). The reforms of the Bologna Process have been achieved during a remarkably short span of time. This enterprise has been the subject of numerous research projects within various disciplines, such as political theory, institutional theory, sociology, and others. My perspective is the formal status and the substantive content of the agreements and decisions of the Bologna Process.

4.1.1.   The Twin Track

What is now known as the Bologna Process was launched close to the turn of the millennium; a time for looking forward into a new millennium and back at almost 900 years of European university history. The initiative was taken in 1998 at the celebration of the eighth centenary of the University of Paris. At this occasion the British, French, German, and Italian Ministers responsible for higher education had agreed to meet. They issued a declaration on the architecture of higher education in Europe, the Sorbonne Declaration (Sorbonne Declaration, 1998). Major objectives of this declaration are the development of a common European framework for teaching and learning, mutual, cross-national recognition of degrees, and a system of European Credits. The European cultural dimension and respect for cultural diversity is emphasised. The four Ministers invited all European States to participate in this effort, and summoned them to a meeting the following year. The response was that Ministers

of 29 States met in Bologna in 1999. The result of this meeting was a joint initiative on harmonising the structure of European higher education, embodied in the Bologna Declaration. At present this declaration is signed by 47 States. The Bologna Declaration reaffirms the principles of the Sorbonne Declaration. It promotes six basic principles: compatibility and comparability of the systems of higher education, readability of diplomas, transparency, employability, and international attractiveness and competitiveness of European higher education. One ambition is 'to establish a more complete and far-reaching Europe, in particular building upon and strengthening its intellectual, cultural, social and scientific and technological dimensions' (Bologna Declaration, 1999, p. 1). For this purpose they decided to establish the European Higher Education Area (EHEA) in 2010. The declaration includes concrete action lines in order to achieve this.

Ten years earlier, at another University celebration: the ninth centenary of the University of Bologna, 388 rectors of European universities had proclaimed another document: the *Magna Charta Universitatum* (1988). At present this charter is signed by 788 universities in Europe and beyond. The charter bears four fundamental principles: first, universities are autonomous institutions that must be morally and intellectually independent of all political authority and economic power. Second, research and teaching must be inseparable in order not to lag behind 'changing needs, the demands of society, and advances in scientific knowledge' (Magna Charta, 1988, p. 1). Third, there must be freedom in research and training. Fourth, a university is the trustee of the European humanist tradition. Its constant core is to attain universal knowledge. It transcends political and geographical frontiers and affirms the vital needs for different cultures to know and to influence each other. Universities' mutual exchange of information and documentation, student and teacher mobility, and the mutual recognition of status, titles, and examinations are encouraged. Magna Charta includes concrete means to reach these objectives.

The significance of the cultural dimension is stressed in both documents. A major difference is that the Magna Charta takes a global outlook, while the Bologna Declaration has a European perspective. On the other hand, the Magna Charta addresses the governments on their relations to the national universities, and does not have the intergovernmental setting of the Bologna Declaration. The principles of attractiveness and competitiveness, reflecting the European perspective, are included in the Bologna Declaration only, while formulations of academic freedom and institutional independence are solely in the Magna Charta. However, the Bologna Declaration explicitly endorses the principles of the Magna Charta:

> European higher education institutions, for their part, have accepted the challenge and taken up a major role in constructing the European area of higher education, also in the wake of the fundamental principles laid down in the *Magna Carta*

> *Universitatum* of 1988. This is of the highest importance, given that the universities'
> independence and autonomy ensure that higher education and research systems
> continuously adapt to changing needs, society's demands and advances in scientific
> knowledge (Bologna Declaration, 1999, p. 2).

What might be noted is the modification embodied in this statement: the principles of
the Magna Charta are endorsed only if the universities are engaged in a continuous
process of change. It may also be noteworthy that for this issue the Declaration is
using the formulations of the Charter word for word. In the quote above, the
Declaration says 'changing needs, society's demands, and advances in scientific
knowledge'. In principle number 2 of the Charter says: 'Teaching and research in
universities must be inseparable if their tuition is not to lag behind changing needs, the
demands of society, and advances in scientific knowledge' (Magna Charta, 1988, p. 1).
By repeating the formulations of the Magna Charta, the Declaration indicates a direct
link between the two documents.

As I see it, the Magna Charta and the Bologna Declaration expose a twin track of the
reform process, one academic track initiated by the university rectors and one
governmental track initiated by the Ministers.
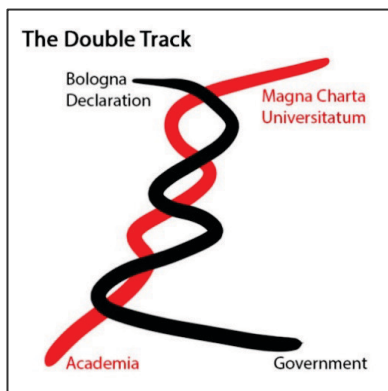
Img 5. The twin track of the Bologna Process

From the principles of the Magna Charta and the Bologna Declaration a shift of agenda
can be observed in the course of the Bologna Process. A principle of knowledge as an
economic factor in society has progressively gained importance. This is not an issue in
the Bologna Declaration. There is a development from initially leaning on the ideals of
the Magna Charta towards an influence from the EU Lisbon Strategy of 2000, where
one ambition is that Europe shall be the most competitive and dynamic knowledge
based economy in the world. A utilitarian perspective on education can be traced in EU
Commission documents since the 1990s, while from the start the Bologna Process was
based on a cultural perspective that was rather in contrast to this. The economic

perspective was explicit in the Bologna Process for the first time in the Berlin Communiqué of 2003 (Neave & Maassen, 2007). In my view, this change of direction contributes to an amplification of the duality of the process: the shift towards economic objectives is strengthening the governmental perspective.

As an international enterprise the Bologna Process is organised in a particular way. The intergovernmental perspective is embodied in a series of biannual Ministerial Conferences where the strategy for the following two years is decided. The decisions of the Ministers in these conferences are documented in ministerial communiqués. A governing board and a small secretariat have been established, and a Bologna Follow-Up Group (BFUG) is given the task of managing the process between the Ministerial Conferences. All in all the Bologna organisation is small and the budgets are restricted. The Bologna reform has been said to be a moving target (Kehm, Huisman, & Stensaker, 2009) because in the first years every ministerial communiqué added further elements to the agenda. In the course of time the reform goals have gradually shifted from structural changes to curricular reforms, quality assurance and qualifications frameworks.

Even though there have been numerous Bologna Seminars on different issues, with academic experts and students involved, the Bologna Process is a Ministerial driven enterprise. From the very start the University Rectors decided to watch this process. A small organisation, the Magna Charta Observatory, was established to act on behalf of the Signatory States of the Magna Charta Universitatum. Their declared mission is to ensure the integrity of intellectual and scientific work in the institutions and in society (Magna Charta Observatory, 2016). Another organization, the European University Association (EUA) – according to their mission statement – aims at being the voice of the universities and take forward their interests (European University Association, 2016). This interplay between governmental and academic forces exposes the dynamic of the twin track (fig. 2).

The basic ideals of the Magna Charta and the Bologna Declaration constitute the ideological curriculum that is underlying the development of the formal curricula. By the endorsement of the Magna Charta principles, the Bologna Declaration includes the academic ideals that are embodied in the initiative of the university Rectors. However, even if the two tracks are combined and intertwined, different roles and different ideals persist. This causes a tension and a dynamic in the reform process. Strong forces have been drawing and bending the direction of the ideological curricula during the progress of the Bologna process.

4.1.2.   Intertwined Relations with the European Union

More than half of the EHEA Member States are also members of the European Union. For these States the Bologna Process and education policy in the EU are intertwined. Within EU education is an area with prevailing national authority that according to de Groof is a privileged domain within the Union ruled by soft law rather than hard (De Groof, 2009) (4.2.2.1. Formal status). National governments within the EU have defended their educational systems against harmonisation. Their arguments have been the cultural and linguistic diversity of the Member States and the subsidiarity principle of EU. This principle is fundamental to decision making in EU, demanding that decisions are to be taken as closely as possible to the citizens. This means that the Commission shall not take action if a case can be properly dealt with by national authorities (art 3B ECT) (De Groof, 2009, p. 87). For EU Member States the Bologna reforms are in a particular position: the Bologna Process is an intergovernmental enterprise with almost half of the Member States from outside EU, while at the same time it has a strong influence on higher education within the Union. In spite of the intergovernmental character of the Bologna Process, de Groof regards the distinction between this process and the competences of the Community to be fading. In his view this causes a legal balancing act on a tightrope. He regards the Bologna Process as a paradox: on the one hand it is part of the Community's momentum. On the other hand it goes beyond the treaty stipulations, because of its intergovernmental nature (De Groof, 2009, p. 83).

The ideas underpinning the EU approach to higher education have been contested. One example is the opposition from the Member States to the Commission's Memorandum on Higher Education of 1991. The opponents rejected the economic and utilitarian orientation that was permeating the Memorandum, and claimed that the Commission was trespassing on the national domain. According to Åse Gornitzka this may be a reason why the Bologna Process was instigated as a process outside the EU. The four Ministers who issued the Sorbonne Declaration were from central EU Member States; Germany, France, Italy and UK, and hence – in Gornitzka's formulation – 'sitting in the driver's seat'. Their initiative was built on technologies and traditions of cooperation that had been developed in the EU, but without being subjugated to the EU (Gornitzka, 2010, p. 539).

Although the Bologna Process is directed at higher education as a whole, there is no particular focus on research in the Bologna Declaration. The research perspective has been strengthened in the course of the process. The Lisbon Strategy of the EU has a focus on research. According to Gornitzka the triple mission of modern universities – teaching, learning, and research – is not fully reflected in the governance of the institutions. There is a split between teaching and learning on one hand and research on the other, which is also reflected in political organisation at the national level.

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'Hence, the university straddles differentiated policy domains, with one foot in education policy and the other in research policy' (Gornitzka, 2010, p. 537). At the same time *interaction* between sectors is a fundamental dynamic of change. This should be understood in terms of 'interaction and collisions among competing institutional structures, norms, rules, identities and practices' (March & Olsen, 2006, in Gornitzka, 2010, p. 537). Since doctorates are in the education sector, but deal with research, they are related to both sectors. Strategies and policies in the research sector have an impact on doctoral education. This includes research funding agencies and private and public buyers of research.

As a parallel to the EHEA frameworks the EU has developed the European Qualifications Framework of Lifelong Learning (EQF), adopted by the European Parliament in 2008 to be implemented in the Member States during 2012. The EQF covers the whole range of education structured in eight levels, with higher education as the top three. Like the Dublin Descriptors the EQF does not impose legal obligations on the Member States (NQF Working Group, 2007, p. 10), and the Commission recommended 'soft' instruments for implementation, such as a high level of commitment and the principle of mutual trust. Thus, for the EU and EEA Member States there are two qualifications frameworks, both to be implemented by 2012. In a number of States the two have been integrated. This has caused a reformulation of the Dublin Descriptors.

According to Gornitzka et al. the impact of European harmonisation in the field of education has also taken the shape of a legal integration in areas such as staff working conditions, the Professions Directive and the Recognition Directive. The authors suggests that a stronger European integration is dependent on loosening the grip that national governments have over the university (Gornitzka, 2007, pp. 200-201).

The aim of the Professions Directive is to ensure free movement of professionals through the recognition of professional qualifications. Practicing architects are included in this directive. The qualification demands of this directive are likely to interfere with architect education:

Architectural design, the quality of buildings, their harmonious incorporation into their surroundings, respect for natural and urban landscapes and for the public and private heritage are a matter of public interest. Mutual recognition of qualifications should therefore be based on qualitative and quantitative criteria which ensure that the holders of recognised qualifications are in a position to understand and translate the needs of individuals, social groups and authorities as regards spatial planning, the design, organisation and realisation of structures, conservation and the exploitation of the architectural heritage, and protection of natural balances (The Recognition of Professional Qualifications, 2013).

Another perspective is taken by the World Trade Organisation (WTO), which has stated that education is a trade of services (World Trade Organization, 1998). Thus governmental funding and legislative priority to the classic universities may be questioned by the regulation of free trade and competition laws

4.1.3.   National Frameworks of Qualifications

This section is a brief introduction to the process of developing the National Qualifications Frameworks for the EHEA Member States. In my study I focus on the common international framework and the institutional regulations (cf. chapter 5). Hence I will give the national frameworks less attention. Examples from national implementation in Sweden and Norway are discussed below (cf. 4.2.2. Reception of the Dublin Descriptors).

Sjur Bergan, *rapporteur general* of the Bologna Process, has given a visionary comment on the two levels of framework: the EHEA framework shall be an overarching framework that should create transparency between national frameworks and facilitate mobility, and face the Bologna qualifications to the rest of the world (Bergan, 2005b). These visions and objectives represent the ideological level of the Dublin Descriptors. The National Qualifications Frameworks are the materialisation of the overarching framework and the link between this framework and the institutional regulations. They are also the link between the ideology of ideals and visions and the operational level where the doctoral education is taking place.

Bergan states that the EHEA framework will make transparency in European higher education and that it is an articulation mechanism between national frameworks. The overarching EHEA framework provides a future 'new style' national qualifications frameworks. He admits that it will be perfectly possible to build a national framework that makes no reference to the EHEA principles, but he warns that any country establishing such a framework would be unlikely to be accepted into the Bologna family (Bergan, 2005a, p. 6). This way Bergan communicates the non-binding status of the EHEA framework, while at the same time he underscores the commitment and the moral obligation of the Member States.

There is no international authority that has the power to drive forward the implementation of the EHEA frameworks. For this purpose the parties have established procedures of self-certification. Competent national bodies shall certify the compatibility of the national frameworks with the EHEA framework. The self-certification and the evidence that supports it shall be reported and published. Thus the regime of implementation is constituted by soft means of control that underscore national accountability. This arrangement shall ensure that minimum criteria are

fulfilled. These include the learning outcome approach, the use of ECTS credits, and the structure of three cycles.

Hence the National Qualifications Frameworks within the EHEA are varying even if they have the Dublin Descriptors as their overarching framework. I will use the example of two neighbouring countries as an illustration. As seen previously (4.2.1. Reception of the Dublin Descriptors) Sweden has established the Doctor of Arts as a parallel to the PhD. The decision was made in 2009 and the programme started in 2010. In Norway PhD is the only doctoral degree for all fields of study, except for the Doctor of Philosophy, which is a personal degree outside the ordinary doctoral programmes. A parallel to the doctoral degree was established in 2003: the Norwegian Artistic Development Fellowship Programme, later renamed the Norwegian Artistic Research Programme. This is a national three year post graduate programme within the creative fields, where focus is on artworks of high international quality. However, there has been a process aiming at having this programme to be accredited as a PhD. A formal application was sent to the Ministry of Education and Research in August 2015. In October 2016 the Ministry decided that an artistic development programme will be established in Norway (Ministry of Education and Research 31.10.2016, no 16/1487). According to the Ministry, this will be a parallel to the existing doctoral degree, which is based on scientific [*vitenskapelig*] activity based on the Salzburg Principles and the Principles for Innovative Training (cf. 4.2.2.2. The substantive content). Hence the neighbouring countries Sweden and Norway, which have had different regimes of doctorates, now seem to be converging towards a parallel policy of doctoral education.

Previous national frameworks throughout Europe have had different formal status. The national implementation of the Dublin Descriptors has required legislative revisions in a number of Member States (Bologna Working Group, 2005, p. 16). By these processes European aspirations have entered higher education at the national level. They also underscore the means of policy coordination as an alternative to hard law, and a dynamic where *standards* represent ideas that have hardened into regulations. They argue that standards have been moved from the academic arena into administrative or political-administrative spheres, by the establishment of national accreditation agencies that administer the quality assurance regimes of the Bologna Process (Gornitzka, 2007, p. 204). It is my view that since standards tend to harden into regulations, the Dublin Descriptors tend to have stronger impact on the national level than their character as overarching standards would suggest.

The structure of unbinding agreements at the international level and legislative procedures at the national level means that different processes of preparatory work have been followed at international and national level. National legislative procedures have involved universities, university colleges and affiliated institutions as consultative

bodies in hearing procedures before the adoption of new legislation. From an EU perspective de Groof comments a paradox: there is a *democratic deficit* in the Bologna decision-making process. On the other hand, there has been a direct involvement of institutions of higher education in the national procedures of legislative revisions, and in spite of the international harmonisation, the autonomy and accountability of higher education institutions are still a constitutional tradition in a number of Member States (De Groof, 2009, p. 84).

Given that standards tend to harden into regulations and national implementation tend to have legislative implications, one may ask whether the Bologna reforms are challenging the tradition of the institutional autonomy of universities. In their report the Bologna Working Group emphasised that the national frameworks shall be an academic architecture 'within which autonomous higher education institutions can flourish and be supported' (Bologna Working Group, 2005, p. 17). The working group argued that the role of the national frameworks is to facilitate academic independence within a system of responsibility. It provides higher education institutions with parameters for the development and assessment of their qualifications. This way they can be held responsible and accountable for their activities while at the same time having ownership of their curricula.

The intentions of the Bologna Working Group reflect the ideal of institutional autonomy that is one of the major principles of the Magna Charta Universitatum. On the other hand, the working group also emphasises institutional accountability. As I see it, this reflects the twin track process: the expertise and autonomy of higher education are endorsed, while at the same time they are subjugated to reporting regimes and the power of quality assessment procedures and accreditation agencies.

4.2.   The Dublin Descriptors

Section 4.2 is a presentation of the Dublin Descriptors and how they have been received. The descriptors of the third cycle are presented *in extenso,* with their definition of research that is of particular relevance to research education. There are examples of how the Dublin Descriptors were perceived and understood in academic milieux within the creative fields.

The Dublin Descriptors were adopted at the Bergen Bologna Conference in 2005 by the Ministers responsible for higher education in the Bologna Member States. Two years earlier, at the Berlin Bologna Conference in 2003, the Ministers had decided that a common framework for qualifications was to be developed. The Berlin Communiqué

includes a number of detailed principles for the forthcoming framework. A working group was adopted in March 2004. This group had 6 working meetings. Their final proposal was presented and adopted in 2005. On this occasion, the Ministers also decided that national frameworks were to be developed on the basis of the Dublin Descriptors, and were to be implemented in the Bologna Member States by 2010, subsequently postponed to 2012.

The Dublin Descriptors are structured in three cycles, broadly referring to the degrees of Bachelor, Master and Doctorate. They include five components of qualifications:

- Knowledge and understanding
- Applying knowledge and understanding
- Making judgements
- Communication
- Lifelong learning skills

(Bologna Working Group, 2005, p. 9)

For the third cycle the demands are that the students shall
- have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;
- have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;
- 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 refereed publication;
- are capable of critical analysis, evaluation and synthesis of new and complex ideas;
- can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;
- can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society (Bologna Working Group, 2005, pp. 68-69).

In a footnote called 'Glossary' is a definition of three central terms, one of them '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 a traditional 'scientific method' (Bologna Working Group, 2005, p. 68)

I shall not discuss each descriptor as such. As a general comment, the Frayling report can be used to illuminate the demands from the academic community at the time of the Bologna initiative. The working group asked for standards that were '...sufficiently rigorous to secure demonstration of the qualities necessary, but sufficiently inclusive to allow all subjects to find expression within them' (Frayling et al., 1997). Seen as a whole the Dublin Descriptors meet the two dimensions of qualifications asked for in the Frayling report: breadth, representing methods, techniques, contexts and data, and depth, representing competent and original results of high quality.

For the distinction between connoisseurship and criticism, Dunin-Woyseth and Nilsson regard the criteria of the 'Dublin Descriptors' as demanding competences of both. They regard the 'systematic understanding of a field of study including mastery of the skills and methods of research' as well as the 'ability to conceive and pursue a substantial process of research with scholarly integrity' and the needed 'contribution through original research' as the competences of a connoisseur. The 'capacity of critical analysis and evaluation' and 'ability to communicate with peers, the larger scholarly community and with society in general' are competences of a critic (Dunin-Woyseth & Nilsson, 2012, pp. 7-8).

The concept of research is central in the third cycle. It is present in the first three descriptors and in the glossary. The relation between the descriptors as such and the glossary of definition is an issue of discussion in the following.

4.2.1. Reception of the Dublin Descriptors

The Dublin Descriptors have been widely disputed. There were a number of seminars and meetings in the preparatory process of elaborating the descriptors, but there was no formal hearing procedure before they were adopted by Ministers. As discussed above, higher education institutions were consultative bodies at the hearings prior to national legislative revisions. However, the National Qualifications Frameworks are not identical, and in some cases they may differ markedly from the formulation of the Dublin Descriptors. Hence the national hearings respond to the national variants of frameworks, not the Dublin Descriptors as such. Nevertheless, I regard comments at national hearings to reflect the understanding and reception of the Dublin Descriptors in various academic milieux. Some comments from the Norwegian legislative process can serve as examples (Kunnskapsdepartementet, 2007). Of note is that the Norwegian Qualifications Framework (NQF) has some formulations that deviate from the Dublin Descriptors. Most importantly, *artistic development work* is added. Hence

the formulation is 'research and academic and artistic development work' throughout. However, in the hearing Oslo School of Architecture and Design (AHO) and Bergen Academy of Art and Design (KHIB) [3] commented that the descriptors were inappropriate for education in the arts. KHIB referred to the approaches of research *in*, *on* or *through* the arts by Frayling (1993). In their view the descriptors were based on knowledge *on* the arts, while research *through* the arts should have been included, as the basic approach for art and design practice. KHIB also wanted descriptors for learning outcomes through personal, independent work and the transformation of knowledge into art or design results. There was also critique from the Norwegian Academy of Music (NMH), arguing that the *knowledge* category was too narrow, since in many fields of art *skills* are a prerequisite for gaining knowledge. Hence, even if 'artistic development work' is included in the NQF, the descriptors were regarded as inappropriate by academic milieux in the creative fields.

In Sweden a similar problem was formulated by the Ministry of Education in the process of adopting the Doctor of Art in 2009. This is a parallel and an alternative to the PhD. As discussed previously, in the proposition for this reform the Ministry formulates their concerns:

> In order to meet the demands of the descriptors of exams, artistic education must emanate from conventional scientific [*vetenskaplig*] terminology and structure of research education, while at the same time the established scientific concepts, norms and practice must be extended in order to be used for this education. Adapting conventional scientific norms and practice to the needs of artistic fields can, as the Government sees it, risk diluting the concept of research. The Government also considers an adaptation of artistic research to traditional scientific norms a potential risk in which artistic education may lose its particular content and character (Prop. 2008/09:134, p. 16) (My translation).

For the reception of the Dublin Descriptors at the international level a field specific framework within music, elaborated by the Polifonia network, may serve as an example. Polifonia is an ERASMUS Network for Music, launched in 2004, and has proactively addressed European higher education policy issues from the perspective of music higher education. A number of recommendations are elaborated intended to be of help to institutions in their implementation of the Bologna principles, explaining how these can be relevant for music, taking into account the specific characteristics of music training (Tomasi & Vanmaele, 2004-2007, p. 3). The Polifonia framework follows the Dublin Descriptors word for word with a few additions, which in the following are written in italics. The Polifonia descriptors introduce music in the first descriptor: 'a

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[3] From 1 January 2017 integrated in the University of Bergen

field of *musical* study'. In the following descriptors the more general term 'artistic': '*artistic and* scholarly community', '*artistic and* scholarly integrity', '*artistic* understanding' are used. The Dublin Descriptors formulation 'national or international refereed publication' is changed to 'national or international *recognition or dissemination through appropriate channels*'. The Dublin Descriptors' definition of research is appended to the Polifonia framework (Polifonia. Erasmus Thematic Network for Music, 2007; Tomasi & Vanmaele, 2004-2007, p. 11) Thus, unlike the Norwegian framework, the Polifonia descriptors also integrate the artistic perspective directly to the concepts of understanding, scholarly integrity and scholarly community, as well as recognition and communication.

The Tuning Project has elaborated Sectorial Qualifications Frameworks (SQF) in a broad range of disciplines (The Tuning Project, 2012). The Tuning Project was launched in 2000, funded by the European Commission and related to the Lifelong Learning programme. The ambition of the project is to link the political objectives of the Bologna Process to the higher education sector. The Bologna ambitions of transparency and comparability of education across national borders are endorsed, as well as the shift in paradigm to student-centred, competence-based descriptors of learning outcomes. The Tuning Project recommends that universities look neither for uniformity in their degree programmes nor unified, prescriptive European curricula, but simply look for points of reference, convergence and common understanding. The SQF for Creative and Performing Disciplines includes art, design, dance, theatre, architecture, and music education. A particular feature of this SQF is that it allows the integration of the candidate's own creative work at the doctorate level.

In the present debate there are also scholars and academic milieux that find the Dublin Descriptors appropriate for the creative fields. Henk Borgdorff regards artistic research as coinciding with the reforms of the Bologna Process, which he also regards as compatible to the practice turn of philosophy (Borgdorff, 2013, p. 148). As I understand it, Borgdorff's view corresponds to the wide definition of research that is connected to the Dublin Descriptors. He describes three positions on artistic research, one of which is a *critical* perspective that may be related to the protest against the Bologna Process by German speaking countries, and the critical force of research in the arts. He regards these to be in opposition to the neoliberal tendency to subsume deviance under one single umbrella. The other perspectives are an *academic* perspective, that can be related to the UK and the English-speaking world, valuing traditional academic criteria, and a *sui generis* perspective, associated by some with the Nordic countries, preferring artistic values for assessing research in the arts. Dunin-Woyseth suggests that the Dublin Descriptors authorize 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' (Dunin-Woyseth, 2005, p. 168).

Thus a paradox is emerging: in a number of academic milieux the Dublin Descriptors are regarded as inappropriate for the creative fields, even creating a demand for a separate category of doctorates in the arts. At the same time there are scholars and milieux within these disciplines that regard the descriptors as particularly suitable for these fields of study, allowing doctorates that had previously been 'unthinkable'. Hence the interpretation and understanding of the Dublin Descriptors can be very different within academic milieux in the same fields of study. This paradox is the starting point for my interpretation of the descriptors.

Of note is that the opposites in the reception of the Dublin Descriptors do not seem to correspond to what is previously described as radical and conventional positions in the present debate (2.2.5. Present academic positions).

4.2.2.   Interpretation of the Dublin Descriptors

For the interpretation of the Dublin Descriptors I shall have in mind the paradox that emerged in the previous section: a number of milieux regard the descriptors as inappropriate to doctorates in the creative fields, while others find them particularly relevant. I shall focus on this dualism rather than each of the descriptors as such.

My approach of interpretation is an objective oriented understanding of the text in line with classical, objective hermeneutics (Alvesson & Sköldberg, 2009, p. 105) (3.3. Systems of inquiry). The interpretation process is structured in two parts. First, the question of obligation and commitment, which requires a study of the formal status of the descriptors. Second, the substantive content of the descriptors, referring to interpretation principles for international agreements.

The main information sources are the Bologna Declaration (Bologna Declaration, 1999), the report of the working group (Bologna Working Group, 2005), and the Bergen Communiqué – the document that enshrines the adoption of the Dublin Descriptors (Bergen Communiqué, 2005).

As a starting point of the following discussions, I will refer to a statement by the Ministers in the Bergen Communiqué: 'We all share the common understanding of the principles, objectives and commitments of the Process as expressed in the Bologna Declaration and in the subsequent communiqués from the Ministerial Conferences in

Prague and Berlin' (Bergen Communiqué, 2005, p. 1). One may ask whether a common understanding of the Dublin Descriptors may be stated so absolutely.

4.2.2.1.   Formal Status. The Question of Obligation and Commitment

Even if the Bologna reforms – with the Dublin Descriptors as a major achievement – have had a decisive impact on European higher education, the question of obligation needs to be discussed, that is to what degree the Dublin Descriptors constitute obligations on the Bologna Member States.

The Bologna Process is an intergovernmental initiative with the Bologna Declaration as the founding document. There has been no national ratification procedure. This means that the signatures of the 29 Ministers on the declaration did not constitute a legal bind for their respective States. In the declaration they conclude:

> We hereby undertake to attain these objectives – within the framework of our institutional competences and taking full respect of the diversity of cultures, languages, national education systems and of University autonomy – to consolidate the European area of higher education. To that end, we will pursue the ways of intergovernmental co-operation, together with those of non governmental European organisations with competence on higher education (Bologna Declaration, 1999, p. 4).

Hence the Ministers, while referring to their institutional competences, explicitly state that intergovernmental co-operation is the means to be used in the Bologna Process. They agree to 'engage in' co-ordinating their policies to reach specified objectives within the first decade of the third millennium (Bologna Declaration, 1999, p. 3). These objectives are formulated as a number of action lines. They include the provision of readable and comparable degrees, a system of two main cycles, a system of credits, the promotion of mobility, co-operation of quality assurance, and the necessary European dimension in higher education. In a comment on this, the European university rectors argue: 'The Bologna Declaration is not just a political statement, but a binding commitment to an action programme' (Confederation of EU Rectors' Conferences and the Association of European Universities, 2000). However, this 'binding commitment' does not imply binding in a legal sense. The action lines in the declaration do not constitute legal obligations on the Member States. Hence the 'binding commitment' that the university rectors observed is rather of a moral character. The fact that there are concrete action lines, and even a time limit for the achievements, makes this a strong commitment that was confirmed in the Bergen Communiqué:

European Formal Frameworks

> We confirm our commitment to coordinating our policies through the Bologna Process to establish the European Higher Education Area (EHEA) by 2010, and we commit ourselves to assisting the new participating countries to implement the goals of the Process (Bergen Communiqué, 2005, p. 1).

This commitment is also asserted for the national implementation of the Dublin Descriptors: 'we commit ourselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007' (Bergen Communiqué, 2005, p. 2).

Hence the degree of obligation of the Bologna Process is reflected in the means of intergovernmental cooperation and the Ministerial commitment. There is only one legally binding treaty integrated in the Bologna Process: the Lisbon Recognition Convention (CETS No.: 165) (Europe, 1997), which is a Council of Europe and UNESCO convention. This is an agreement on mutual recognition of qualifications in higher education. Another Council of Europe convention of importance to the process is the European Cultural Convention (CETS No.: 018) (The European Culture Convention, 1954). This is the gatekeeper for the Bologna Process: only signatory states of this convention are admitted as members.

As I see it, the Bologna Process reflects a characteristic feature of international harmonisation: there is no superior authority. State sovereignty is the basic principle. This is also the case for international law. Since the Bologna Declaration is not a binding treaty, it is not within the area of international law, but I find some features of the development of international law relevant as a background. In his introduction to international law, Antonio Cassese says that at present there seems to be a tension between traditional international law, which is firmly grounded in national sovereignty, and 'new or nascent law, often soft and hazy, inspired by new community values' (Cassese, 2005, p. V). According to de Groof, the Bologna Process is regarded as a perfect example of *soft law* (De Groof, 2009, p. 87). Howeer, from an EU perspective he questions whether the term 'soft' is really appropriate. Karseth and Solbrekke (Karseth & Solbrekke, 2010, p. 565) also use the term 'soft law' for this issue. They describe a situation where regulations are constituted through political convergence, which includes implicit discursive mechanisms. Of note is that using the concept 'soft laws' may be questioned. According to Cassese (2005) the term 'soft law' is used for a body of standards, commitments, joint statements and declarations of policy or intentions that are not legally binding. Their non-binding status, however, does not mean that these instruments do not have legal effects. Antonio Cassese identifies three features of soft law instruments. First, they indicate the modern trend of international collective bodies promoting actions of general concern. Second, they deal with new concerns to which the international community has not been

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sufficiently aware. Third, they deal with matters in which it has been hard for the States to obtain legally binding commitments (Cassese, 2005, p. 196). Since the Bologna Process includes no intention to make legally binding commitments at the international level, I do not find the term soft law fully appropriate. Also the very existence of soft law is disputed. In this respect Cassese refers the argument of Prosper Weil that there is no soft law, only law or not law, and if it is not binding, it is not law. De Groof suggests that the Bologna Process can be interpreted as *para-law* rank, with a *quasi-binding* effect. In his view, the technique of the Bologna Process debates the traditional top down and supranational EU-method and explores to what extent new forms of European governance – intergovernmental and non-governmental – can be promoted (De Groof, 2009, p. 88). Hence, whether soft law or not, the Bologna Process has some features that resonate with the 'soft' means of implementing regulations at the international level. Of note is that most of the Bologna Member States have had to revise their educational laws in order to adapt to the Bologna reforms, so that at the National Qualifications Frameworks tend to be legally binding to a larger extent than the international framework.

In sum, the Dublin Descriptors are non-binding for the Bologna Member States. Nevertheless they have a decisive role in the development of the National Frameworks of Qualifications, which the Ministers decided to be elaborated 'compatible with the overarching framework for qualifications in the EHEA' (Bergen Communiqué, 2005, p. 2). Karseth and Solbrekke observe that the Member States will adjust their national frameworks of qualifications to the international frameworks in a way that they believe will move them closer to what they define as the norm (Karseth & Solbrekke, 2010, pp. 572-573). De Groof describes what he calls 'the inevitable enforceability of the international norm' (De Grof, 2009, p. 85). He argues that the constant penetration of international conventions and declarations into domestic legal systems is inevitable. As I see it, the Dublin Descriptors – in spite of its non-binding status and the soft processes of implementation – represent this enforceability of the international norm.

4.2.2.2.   The Substantive Content. The Descriptors and the Footnote

This section is a discussion of the substantive content of the Dublin Descriptors. The descriptors and the definition of research in the footnote are the texts for interpretation. I shall suggest a set of interpretation principles for this purpose. The intentions of the framework, the preparatory work and the circumstances of the conclusion of the agreement are the main components of the interpretation process.

Interpretation Principles

The approach of interpretation is objective hermeneutics, where the purpose of interpretation is an objective oriented understanding of text, as promoted by Betti

(Alvesson & Sköldberg, 2009, p. 105). Of particular relevance is Betti's Canon 1, the hermeneutic autonomy and immanent criteria of the text, and Canon 2, the coherence of meaning between the parts and the whole; the hermeneutic circle. Additionally and importantly, in a hermeneutical approach the context is to be included (3.3. Systems of inquiry: hermeneutics).

The Dublin Descriptors have some particular features that should be taken into account. They are part of an international reform process, and they were adopted as an agreed document by co-operating parties in an intergovernmental setting. A set of general interpretation principles for international treaties is enshrined in the Vienna Convention of the Law of Treaties (VCLT) of 1969 (UN convention No 18232). This convention is a codification of international customary law, which means that it is based on practice that has been developed over time. However, VCLT is applicable for binding treaties only. Since the Bologna Process has a non-binding status, VCLT is not applicable. However, as I see it there are likely to be similarities between binding and non-binding agreements at the international level, when it comes to how they are prepared and adopted, and by customary formulations in these kinds of documents. For this reason the principles of VCLT may be useful as a background. The main principle of VCLT is that 'a treaty shall be interpreted in good faith with the ordinary meaning of terms of the treaty, in their context and in the light of its object and purpose', (art. 31.1). The term 'context' is specified. It includes agreements that are made in connection with the conclusion of the treaty, subsequent agreements and practice, and relevant rules of international law. There are also regulations for particular formulations in a treaty: 'a special meaning shall be given to a term if it is established that the parties so intended', (art. 31.4). There are also regulations in case the results of the interpretation prove to be 'ambiguous, obscure, absurd, or unreasonable'. For that situation, art. 32 prescribes the use of supplementary means of interpretation. These include preparatory work and the circumstances of its conclusion.

Purpose and Intentions

The object and purpose of an agreement is decisive for the interpretation. This is also stated in the VCLT art. 31.1. The purpose and intentions of the Dublin Descriptors are embodied in the report of the Bologna Working Group, and in the Bologna Declaration. In their report the working group emphasises that national and international frameworks cannot be divorced from the underlying goals, priorities and assumptions of higher education, which are embodied in the Bologna Declaration and the Prague and Berlin Communiqués. These underlying goals and priorities are what I regard to be the ideological level of curriculum investigation. By their emphatic statement the

working group ties the formal curricula inseparably to the ideological level. The working group explicitly remarks that the descriptors meet the majority of the ten action lines that are set forth in the Bologna Declaration. They argue that the three-cyclic structure, the credit transfer system, and the description of learning outcomes will contribute to transparency and mobility, which are underlying goals of the Bologna Process. The working group claims that the autonomy of higher education institutions will be secured by the Dublin Descriptors. By this assertion they refer to the significant Magna Charta principle of institutional autonomy. Thus the Dublin Descriptors are linked to ideals that the university rectors had embodied in the Magna Charta. Hence the Dublin Descriptors should be understood in the light of the underlying ideals and values of the Bologna Declaration and the subsequent Ministerial Communiqués. This reflects the feature of the Bologna Process as a moving target: the Bologna Declaration is supplemented with subsequent documents that add new objectives and action lines to the process. The Berlin Communiqué includes the Ministerial decision to have a framework of qualifications elaborated, and some guidelines for this framework, including the approach of learning outcomes and the addition of the third cycle.

The Preparatory Work

As I see it, the paradox that is seen in the reception of the Dublin Descriptors may be related to the ambiguity inherent in the descriptors, by the formulation of the descriptors on one hand and the attached definition of research on the other. In case of ambiguity, VLCT art. 32 prescribes preparatory work and the circumstances of the conclusion of the agreement as supplementary means of interpretation. As I see it, this context is also needed for a study of the Dublin Descriptors.

The report of the working group includes information on the preparatory work. Some notes and working papers from the JQI group are publicly available, as well as some notes from seminars and other meetings. The report of the working group includes a thorough discussion of the structure and systematic components of the Dublin Descriptors, the three cycles, the credit system and the approach of learning outcomes as the basic educational building blocks. However, unlike these structural components, there is little discussion or reasoning behind the formulation of the descriptors, such as the meaning of 'skills and methods of research', 'scholarly integrity', 'extending the frontier of knowledge', 'development work', and others. There are glossary definitions of three terms: 'professional', 'competence' and 'research'. There is no definition of what kind of 'knowledge' is required. For the creative fields this is a crucial question. Since the descriptors cover all fields of study, the term must be given a broad meaning.

European Formal Frameworks

The process from the Ministerial stage of ordering a qualifications framework to the adoption of the Dublin Descriptors lasted two years. This seems to be a short time for the comprehensive preparatory work that was needed and the process of adoption. The structure of biannual Ministerial meetings may be one reason for this time schedule. Another reason may be that the Bologna working group did not actually develop the descriptors. Instead they chose to accede the Dublin Descriptors, which had already been developed by another working group; the Joint Quality Initiative (the JQI group). This group had been established by a personal initiative of experts of higher education within the Bologna Process setting, with Dr. Marlies Leegwater as a driving force, from the start focusing quality assurance of European higher education. This informal group had elaborated a draft of the Dublin Descriptors as early as 2002, the year before the Ministers' decision at the Berlin Conference. The first drafts of the descriptors followed the structure of two cycles that was described in the Bologna Declaration. The introduction of a third cycle was decided at the Berlin Conference. Hence the JQI group introduced the third cycle. The JQI group arranged a conference in London in February 2004, which showed a substantial support for the concept of a European Framework. Principles for the new framework were discussed. The framework was not to have detailed alignments. Major aims were to provide for compatibility between national frameworks. It should not have a regulatory function, but rather assist regulation at the national level. It should facilitate recognition and mobility. The Dublin descriptors were regarded as useful as external reference points. Descriptors for programmes, subjects or disciplines was a matter for disciplines or institutions to elaborate. Core elements of the overarching framework could be three cycles, common language and a glossary (Leegwater, 2016, p. 4). The Dublin Descriptors were endorsed by the Bologna working group for their proposition to the Bergen Conference of 2005. Hence the JQI working process is highly relevant. Some documents from the JQI group are publicly available. However, in the same way as the Bologna working group, the JQI group was also focusing the structure of the framework, which is the core of this enterprise. Tone Flood Strøm, a member of the JQI group, states that they regarded the academic content of the descriptors to be an issue for academic expertise [4].

The JQI working group mentions three different categories of doctorates: predominantly research based doctorates, professional doctorates, and the so called higher doctorates. The latter are comparable to the Habilitation degrees that are used in a number of European countries. The JQI group decided that the Dublin Descriptors

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[4] This comment was given in a dialogue in May 2014, reference allowed by Flood Strøm

were to cover both the PhD and the professional doctorates, but not the higher doctorates (Joint Quality Initiative, 2004, March 23).

For the formulation of the descriptors, the JQI group used four previous frameworks as models. The model frameworks were from Ireland [5], Denmark (The Danish BFUG QF working party, 2003) , England including Wales and Northern Ireland (EWNI) [6], and Scotland (QAA, 2001). These four frameworks had the approach of learning outcomes, which was explicitly ordered by the Ministers in the Berlin Communiqué of 2003. According to the Bologna working group, the frameworks of EWNI and Scotland responded to an inquiry of higher education in 1997. The Irish framework was initiated by an act of parliament, while in Denmak the framework was directly inspired by the Bologna Process (Bologna Working Group, 2005, p. 141)

The four model frameworks were of different orientation. The Danish framework of 2003 was elaborated with reference to the Bologna Declaration. It incuded the whole range of education from primary school to PhD. The framework focused on three categories of learning outcomes: Intellectual competencies, academic and professional competencies and practical competencies. For the PhD level the practical competences were referring to the practice of research. The criteria for the doctorate level are comparable to the Dublin Descriptors: The candidates should be able to communicate large amounts of knowledge both orally and in writing, structure long-duration, continuous research projects, conduct research at an international level, and evaluate the appropriateness of research methods. They were to demonstrate specialist understanding of cutting-edge scientific theories, display responsibility in relation to their own research, and maintain academic and professional responsibility for complex tasks based on scientific and experimental methods (The Danish BFUG QF working party, 2003, p. 26). The English framework had descriptors for level 8, the doctoral level, and also described the professional doctorate, or practitioner's doctorate, to be achieved through a study programme based on a validated curriculum, for this reason sometimes called taught doctorate. The Scottish framework included both PhD and professional doctorates. There were five categories of learning outcomes in this

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[5] Irish National Framework of Qualifications. Unpublished. Previous URL-address http://www.jointquality.org/content/ireland/Shared%20descriptors%20Ba%20Ma.doc

[6] Quality Assurance Agency Framework for higher education qualifications. Referring to the NICATS of Northern Ireland, the CQFW of Wales, NUCCAT OF Northern England and SEEC of Southern England. Unpublished. Previous URL-address: http://www.qaa.ac.uk/crntwork/nqf/nqf.htm

framework, one of which was called 'Practice: applied knowledge and understanding'. In this category the learning outcomes were the ability to:

> Use a significant range of the principal skills, techniques, practices and materials associated with the subject or discipline. … Apply a range of standard and specialised research / equivalent instruments and techniques of enquiry. Design and execute research investigative or development projects to deal with new problems and issues. Demonstrate originality and creativity in the development and application of new knowledge, understanding and practice (QAA, 2001, p. 37).

Of note is that the practice category of the Scottish model framework is not integrated in the Dublin Descriptors, even if criteria of applying knowledge and skills are included. The specific criteria that had been developed for the category of practice and applied knowledge and understanding in the Scottish framework were not included. Hence the Dublin Descriptors are to cover both the predominantly research based doctorates and the professional doctorates, but the descriptors have no formulations that specify a practice oriented approach [7].

The conclusion of the agreement

The particular context of the conclusion of the Dublin Descriptors is the setting of Ministers responsible for higher education in all the Bologna Member States who needed to agree on a set of general descriptors. The Ministers were representing States of different language and cultural diversity, and different structures of higher education. When the JQI working group elaborated the descriptors, and the Bologna working group prepared their report to the Ministers, they had to bear this in mind. The proposition of the descriptors was discussed in the Bologna Seminar Copenhagen II in January 2005. One of the workshops at this seminar presented their conclusions.

> 'The descriptors represent the best current consensus on the generic outcomes of Higher Education. Experience has shown that they can be applied in greater detail within national systems, but that it is not possible to reach multinational consensus for more detailed generic descriptors' (Copenhagen Conference Workshop II, 2005)

In this working group was also discussed whether the concept of *profile* should have been added to the descriptors. A profile was included in the order from the Ministers at the Berlin Conference. The workshop concluded that while the view was expressed

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[7] The Scottish framework is mentioned as a source in the draft of the Dublin Descriptors' of 23 March 2004 (Joint Quality Initiative, 2004, March 23), not in the draft for a JQI meeting 18 October 2004 (Joint Quality Initiative, 2006, October 18). However, in the final report of the Bologna working group, the Scottish framework is included (Bologna Working Group, 2005, p. 141)

that cycle should be an optional element in the European framework, 'it emerged that there was no agreement on what the profile description should look like, so it cannot be proposed at this time' (Copenhagen Conference Workshop II, 2005). Tone Flood Strøm states that one prerequisite for the formulations of the descriptors and the definitions in the glossary was to obtain consensus in the Ministerial meeting. She also states that the formulation of the definition of research was elaborated within the JQI working group[8]. These comments show the significance of this particular context: the need for consensus between the Ministers. In addition to the demand for reflecting a broad cultural and political diversity, the descriptors should also be generic formulations for the complete range of academic disciplines and fields of study. The formulations of the descriptors must be understood in this context. This would require wide and inclusive formulations. Since there is no practice component in the descriptors, and they were to cover all fields of study, they may have appeared too constrained for their purpose. As I see it, this is why there was felt to be a need for a definition of research that underscored a wide and inclusive understanding [9].

The VCLT says that 'a special meaning shall be given to a term if it is established that the parties so intended', (art. 31.4). I find this principle appropriate for international agreements outside the scope of the VCLT. The footnote containing the glossary definition of research was included in the proposition report (Bologna Working Group, 2005) for the adoption of the descriptors at the Bergen Conference. Hence, as I see it, the glossary definition establishes a special meaning to the term 'research' in the Dublin Descriptors. However, at the present EHEA website the footnote is not included. Hence, the glossary definition seems to have been surpressed in the process of publication. In general, it is not uncommon for a footnote to be omitted when this kind of text is published. Hence the understanding of the Dublin Descriptors may vary according to whether the footnote is present or not in the publication of the framework, and whether this definition is regarded as steering the understanding of the descriptors. My conclusion is that the understanding of the Dublin Descriptors is to follow the definition of research in the footnote.

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[8] The reference for this comment is a dialogue in May 2014, reference allowed by Tone Flood Strøm

[9] A memo from a JQI working meeting in London, February 2004, refers to a discussion, concluding that a glossary was needed (http://archive.ehea.info/folder?year_selected=4&issued_by=349). In a draft of the descriptors April 2004 a glossary was added.

European Formal Frameworks

The Salzburg Principles, the Frascati Manual and EU principles for Innovative Doctoral Training

Research education has been the topic of a number of international events within and outside the Bologna Process. In the following is a brief comment on three central documents concerning the third cycle and the concept of research. As a context this kind of documents contribute to the understanding and the third cycle of the Dublin Descriptors.

The third cycle of the forthcoming Dublin Descriptors was the topic of a Bologna Seminar in Salzburg in February 2005. This seminar counted more than 300 delegates, including a substantial involvement of university researchers. The essence of the seminar, formulated as ten principles for doctoral education, is still regarded as a basic document for this level of higher education. The general rapporteur (Kirsti Koch Christensen) reported that this seminar was the first major forum to discuss the new Action Line in the Bologna Process, which was entitled 'European Higher Education Area (EHEA) and the European Research Area (ERA) - Two Pillars of the Knowledge-based Society' (Bologna Salzburg Seminar, 2005). The first of the ten principles confirms that the core component of doctoral training is the advancement of knowledge through original research. At the same time it also claims that doctoral training must increasingly meet the needs of an employment market that is broader than academia, and prepare for professional career development opportunities. The second principle states that doctoral candidates should be regarded as early stage researchers and recognised as professionals. Further principles recommend four years of study, emphasise the crucial role of supervision, and the need for a critical mass and appropriate funding. The principles endorse of the rich diversity of European doctorates, recommend increasing mobility geographically as well as interdisciplinary, and promote innovative structures (Bologna Salzburg Seminar, 2005). The ten principles were forwarded to the Berlin Conference where the Dublin Descriptors were adopted.

The Principles of Innovative Doctoral Training of 2011 (European Commission. GD for Research and Innovation, 2011) is an EU generated set of principles. They are generated by good practice in EU Member States, Marie Curie experience, and based on the Salzburg principles. These principles are elaborated with the help of experts from university associations, industry, and funding organisations, and are adopted by the ERA Steering Group on Human Resources and Mobility. They endorse striving for research excellence, and recommend academic standards set via peer review procedures. Cross-disciplinarity and exposure to industry in a broad sense are promoted, as well as international networking. The principles recommend transferable skills and training. Quality assurance should be established on the research base of doctoral education and for that reason should be separate from the quality assurance in the first and second cycle. It is not about the quality assurance of

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the PhD as such, but rather the process or life cycle from recruitment to graduation. (European Commission. GD for Research and Innovation, 2011).

Since the definition of research is a crucial element in the interpretation of the Dublin Descriptors, I regard the definitions of research in the Frascati Manual as relevant (OECD, 2002). In this manual, b*asic research* is defined as experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view (OECD, 2002, p. 77). In its *basic* form it has no aims of economic or social benefits or problem solving. In its *oriented* form it may serve as a background for problem solution or recognition of future possibilities. *Applied research* is original investigation directed towards a specific practical objective. *Experimental development* is systematic effort, based on existing knowledge from research or practical experience, directed toward creating novel or improved materials, products, devices, processes, systems, or services (OECD, 2002, pp. 78-80). Hence the Frascati Manual distinguishes between research and experimental development, while the Dublin Descriptors definition of research includes 'innovation'. Combined with the emphasis that research to be understood in an 'inclusive way', not limited to any 'traditional or scientific approach' one may assume that experimental development work is actually included in the Dublin Descriptors' concept of research, or that there is an intention of integrating the areas of research and development work. If so, the Dublin Descriptors' concept of research differs from the Frascati Manual in a substantial way. On the other hand, the meaning may also be to demonstrate a wide and inclusive approach in general. As I see it, since innovation is not a precise or defined concept, and the inclusion of this term in the definition of research is not explained or discussed, this is insufficient to draw a definite conclusion on where the borders of research are intended to be drawn.

Conclusion

The Dublin Descriptors are intended to cover both the predominantly research based doctorates and the professional or practice-based doctorates. However, the descriptors do not include particular criteria of practice. In a number of milieux the descriptors are regarded as inappropriate for doctorates in the creative fields even though the definition of research explicitly includes these fields of study. I regard the definition of research as decisive for the understanding of the descriptors. The definition is attached to the descriptors in a footnote, which seems to be surpressed or omitted in the process of publishing the descriptors. Hence, even if the definition is to be used as a guideline for understanding the descriptors, it may lose this role since it is not an integral part of the descriptors themselves.

4.2.2.3.   Structural Reforms and the Academic Development of Doctoral Education

Since the major achievement of the Bologna Process is structural reform, one may ask whether this reform has impact on the academic development of doctoral education, the knowledge production and the development of epistemological foundations.

The Bologna reforms have structured higher education in a 3 + 2 year model of bachelor and master, and doctoral education as the top level. For the creative fields the previous structure can be described this way:

The bachelor degree is for being a professional.
The master degree is for being a master of the profession.
The master degree is for teaching in secondary school.
The doctoral degree is for doing research and developing the field of study.
The doctoral degree is for teaching in higher education.

In this structure, doctoral education should have a twofold objective: to educate researchers, and to develop of a more comprehensive understanding of the knowledge base (Dunin-Woyseth, 1996, p. 72). In this setting PhD is a research degree, which is different from the more professionally oriented BA and MA degrees (Biggs & Büchler, 2011a, p. 88).

In recent years there has been an increasing number of doctoral students in an increasing number of doctoral programmes. This means that not all the doctoral candidates can achieve an academic career. As reflected in the first Salzburg principle, doctoral training must increasingly meet the needs of an employment market that is wider than academia, and prepare for professional career development opportunities. This is also reflected in the establishment of professional doctorates. As discussed previously, the confusion about how to structure and assess this new kind of doctorate provided the background for the Frayling report (Frayling et al., 1997). However, the very structure of the three-cycle building block system, may cause a change. If you are ambitious about your career, you go for the top. The three cycles of the Dublin Descriptors, the three building blocks, with the same kind of terminology, and an increasing progression from bottom to top, does not expose a different *orientation* of the building blocks. Since the Dublin Descriptors do not distinguish between PhD and practice based doctorates, the third cycle tends to be regarded as a general top level. What seems to happen is that there is a shift from the previous mission of the doctorates as research education to the role of a top education for professionals. Given a shift from merely a research education to a top education for personal skills for one's own professional practice, the output of doctoral research projects may be affected. The consequence may be that research projects turn towards improving one's personal achievements as a professional practitioner. This concerns the very

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core of doctoral education: the orientation of the curriculum, the purpose of the research project, the research questions, the results to be expected, and the research methods for achieving these results. Hence the structure of three consecutive cycles may affect the very concept of research.

4.3.   Summary of the Study of the Formal Frameworks

Looking back, the Frayling report – here as representative of the academic community – asked for nationally agreed standards for the award of a doctoral degree. Emerging practice-based and professional doctorates raised a need for clarification. The Bologna Ministers – here as representatives of governmental steering – provided an internationally agreed framework that covered both the predominantly research based and the practice-based doctorates. The major achievements of the Bologna Process are structural reforms: the three cycles, the system of European credits and the approach of learning outcomes. The academic content is an area for academic expertise.

More than a decade after the adoption of the Dublin Descriptors there are still distinctions between a PhD and different kinds of practice based or professional doctorates. Doctorates in the creative fields may reside in either. There are different solutions to this issue in the Bologna Member States. Hence the Dublin Descriptors do not solve the particular problems of the incorporation of the creative fields into academia.

There is an ambiguity inherent in the Dublin Descriptors: a discrepancy between the formulation of the descriptors and the glossary definition of research that is attached in a footnote. While the descriptors may be regarded as theoretically oriented and inappropriate for the creative fields, the definition of research is wide and inclusive, and explicitly includes the creative fields. It also states that it is not only relying on the traditional 'scientific method'. The definition was present in the proposal that was adopted by the Ministers. My conclusion is that this definition of research is decisive for the interpretation of the Dublin Descriptors. However, since the footnote tends to be omitted from published versions of the descriptors, this understanding of the descriptors tends to be compromised.

5. Presentation of the Doctoral Theses

Chapter 5 is an overview of the sample of theses, the candidates and the institutions and programmes in which they are participating. The analysis regards both research questions: concerning how the making of art and design can respond to criteria of doctorateness (discussed in chapter 6), and concerning how the making disciplines challenge the formal frameworks (discussed in chapter 7). These two issues are intertwined. The purpose of the analysis is to see *how* the doctoral theses fulfil the criteria of doctorateness, and *how* the making of artworks contributes to this. *Whether* the criteria are fulfilled will already have been decided by the doctoral examination committees.

The doctoral theses are the empirical material of the research project. Thus, the analysis of the theses is based on the operational level in the structure of curriculum investigation (Goodlad, 1979), the level of solid ground where the doctoral work takes place. For the analysis, formal curricula need to be consulted as steering documents for the doctoral work. These are the syllabi and the institutional regulations of doctoral programmes. In general, these are adopted by the board of the institutions or delegated, to be decided by the boards of the doctoral programmes. The level of detail and how the criteria of doctorateness are described in these documents prove to differ in the various institutions, and thus are not fully comparable. National qualifications frameworks are reflected in the institutional frameworks, which again reflect the overarching, international frameworks. The ideological curricula at the international and national level are discussed in the chapter on the formal frameworks. There are also ideological curricula at institutional level, formulated in strategy documents and reflected in study programmes, and in the teaching and supervising by the academic staff.

In general the lectures and supervision given by teachers at the programme will be influential on the candidates' perception of the formal curricula. However, information on this is not systematically included in institutional archives. Interviews with students and teachers would be needed to get such information. Since my project is based on written sources, information on the perceived level is limited to what is reflected in the doctoral works.

Since the theses are the empirical material, a number of quotations from the theses will be presented, in order to let the voice of the authors be apparent in my research project. I have chosen quotations that expose the problem areas of my research project. Thus, they will be of varied length and number, and not necessarily the most important utterances of the author. This is also the case for my presentation of

artworks. This does not reflect the importance or quality of the works, but the contribution they make to answering my research questions.

The following criteria are followed for the selection of theses. They must have been accepted for the doctoral award. They must include both a written part and a work of art or design. They must represent the three fields of Art, Design and Architecture. Preferably they should represent a certain variety of approaches. For practical reasons, they must be written in English. To find theses for the project, I have searched in institutions with relevant doctoral programmes. From a brief preview of relevant theses, I have chosen examples that in sum make a sample with the breadth needed for my investigation. There are three theses in art, three in design and three in architecture. A number of them cross the borders of disciplines and cover more than one field of study.

Nine theses from four European countries are chosen, from one institution in each country. The Nordic area is represented by the neighbouring countries Finland, Sweden and Norway. Continental Europe is represented by the Flemish part of Belgium. As seen in the chapter of the formal frameworks, the three Nordic countries have different solutions for incorporating the creative fields into the regime of doctorates, while Belgium represents yet another solution. Finland and Sweden both have the double track of a Doctor of Arts as a parallel to the PhD. In my sample the two theses from Finland are awarded the Doctor of Arts from Aalto University. The thesis from Sweden is a PhD from the University of Gothenburg. Norway has no Doctor of Art Programme yet, and the three theses from Norway in the sample are PhDs from Oslo School of Architecture and Design. In Flanders doctoral education is governed by five universities. The three theses in my sample are by candidates from LUCA School of Arts and Faculty of Architecture Campus Sint Lucas Brussels/Ghent. Two candidates have been following a PhD programme at KU Leuven and one has been following a PhD programme at Royal Melbourne Institute of Technology (RMIT). KU Leuven is in the Flemish part of Belgium.

In the following, the institutions are presented in alphabetic order, as are the candidates from each institution.

Presentation of the Doctoral Theses

5.1.   Aalto University

Two of the doctoral theses in the sample are from the University of Aalto: Arild Berg and Nithikul Nimkulrat. They are both awarded the Doctor of Arts degree.

In the Doctor of Arts programme, artistic work is included in the output of the doctoral work, and assessed by a committee for the artistic work by criteria of artistic quality. There is one set of general criteria that cover both the Doctor of philosophy, the Doctor of Arts (which includes art and design) and the Doctor of Sciences (which includes architecture). In addition to the general criteria, there are field specific criteria for the Doctor of Arts and for the field of architecture. The general criteria are formulated as 'the aims *are'*. The additional field specific criteria are given the formulation 'the aim *may be'*. The general criteria are that the student

1) become well-versed in their field of research and its social significance and gain knowledge and skills needed to apply scientific research methods independently and critically and to produce new scientific knowledge;
2) become conversant with the development, basic problems and research methods of their field; as well as
3) gain such knowledge of the general theory of science and of other disciplines related to their field of research as enables them to follow developments in them. (Aalto University, 2013)

The specific criterion for art and design is that 'the aim may be that the student gains the knowledge and skills for independently conceiving methods of artistic creation or creating products, objects or works which fulfil high artistic demands.' Specific criterion for architecture and landscape architecture is 'the aim may be that the student acquires a deep understanding of the significance of artistic expression in defining the research question' (Aalto University, 2013).

5.1.1.1.   Arild Berg: Artistic Research in Public Space. Participation in Material-based Art

Doctor of Arts, 2014, Aalto University

Supervisors: Dr. ing. Mette Mo Jacobsen, professor Susann Vihma 2006 2013, professor Juha Varto from 2013. Internal advisors: Roar Olsen, Chris Heape
Procedure of examination: Exhibition and oral defence

Presentation of the Doctoral Theses

The doctoral project of Arild Berg is in the field of material-based art, within the material of ceramics. His investigation is a study on how art can change public space through participation. The project includes three art projects in public institutions: a school, a hospital and a church. Staff and users of these institutions participate in art-based transforming processes.

Img 6   Img 7   Img 8

Im6-8. From the art project in the school. Photo: Berg

5.1.1.2.   *Nithikul Nimkulrat: Paperness. Expressive Material in Textile Art from an Artist's Viewpoint*

Doctor of Arts, 2009
Aalto University, Helsinki

Supervisor: Professor Susann Vihma. Co-supervisor dr. Leena Svinhufvud
Procedure of examination: Oral defence and exhibition of works of art

The doctoral work of Nithikul Nimkulrat is in the field of textile art. In her research project, she explores the artistic expression of the material paper string. Her doctoral work includes artworks in paper string and two exhibitions of the artworks.

Presentation of the Doctoral Theses

Img 9   Img 10   Img 11

Img 9. Detail from 'The Growing Curtain'. Photo: Phakphum Julnipitawong

Img 10. 'Private Garden' from the exhibition 'Seeing Paper'. Photo: Nimkulrat

Img 11. From the exhibition 'Seeing Paper Photo: Nimkulrat

5.2. University of Gothenburg

The University of Gothenburg is a Swedish institution with a long tradition of doctoral education in art and design. In my study there is one candidate from this university: Otto von Busch. He was awarded the Doctor of Philosophy in Design at the Faculty of Fine, Applied and Performing Arts in 2008. Thus his PhD project was formed before the Doctor of Arts was established in Sweden in 2010. The curriculum of research education in design (University of Gothenburg, 2000, May 3) says that this field of study is about the relation between man and artefact in the perspective of the making of the artefacts. The issue in question is the making and use of artefacts. The curriculum communicates that this is a new study programme with the objective of giving a distinct research profile to this field of study, which has previous had a vocational education profile. The research education reflects the aim to make a synthesis of traditional artistic and scientific working methods. In the doctoral thesis, artistic and scientific [*vetenskapliga*] elements shall be combined. There are different options for this combination: There may be artistic and scientific components, artistic and scientific research questions, or artistic and scientific innovations. The thesis can include artworks that are relevant from a scientific point of view. A general demand is that the thesis shall show the candidate's ability to identify, delineate and conduct a research project with relevant methods (University of Gothenburg, 2000, May 3).

5.2.1.1.   Otto von Busch: Fashion-able. Hacktivism and Engaged Fashion Design

PhD in Design, 2008
University of Gothenburg

Supervisors: Professor Peter Ullmark and professor Joanne Entwistle
Procedure of examination: The examination was an oral defence

The doctoral work of Otto von Busch is within the field of fashion design. His project includes a number of participatory design workshops and exhibitions with collaboration between designers and non-designers, in order to explore ways of developing a new role for the fashion designer.

Presentation of the Doctoral Theses

Img 12

Img 13

Img 14

From the Hackers and Haute Couture Heretics workshop, Istanbul. Photography: Otto von Busch

5.3.   Oslo School of Architecture and Design

AHO has one doctoral programme, covering architecture, urbanism, industrial design, and affiliated areas. The doctoral programme was established in 1992. Three of the doctoral candidates are related to AHO: Janne Reitan, Arne Magnus Johnsrød and Pavlina Lucas. Janne Reitan was in cohort number 3, which started in 1995. This was the first year that AHO admitted candidates from other disciplines than architecture into their doctoral programme. Johnsrød was admitted in the next cohort, number 4, in 1997. Pavlina Lucas started in 2008, cohort number 9. The three candidates were subjected to different regulations of doctoral education [10]. The regulation for the doctorate of AHO of 21 June 2006, which concerns the doctoral work of Lucas, includes a brief description of the demands. The thesis shall be an independent, scientific work that fulfils international standards in the field of study regarding ethical demands, academic level and methods.

> The thesis shall contribute to the development of new knowledge at a level that makes it suitable for publishing as part of the scientific literature of architecture and design (my translation) (Oslo School of Architecture and Design, 2006.06.21).

The regulations at AHO are quite brief, but there is a mandatory research school (45 ECTS) with a detailed programme that complements the regulations. The AHO regulations refer to 'international standards of *the field of study*', which, as I understand it, relates them to academic expertise, as well as formal standards. From the start of the doctoral programme at AHO works of art or design were not accepted as part of the result of the doctoral work. This was the case for the student cohorts of Reitan and Johnsrød. When Lucas attended the programme in 2008 she was part of a group of candidates that had applied for scholarships within the strategy of Research by Design (RbD). In the announcement of these scholarships stated that 'relevant development work within architecture and design will most successfully take place through creative project work, in which practice work is combined with critical reflection'. Priority was to be given to 'project applications within research that is practically biased, i.e. projects that combine research with development work of artistic, architectural or design related character' (Lucas, 2013, p. 7, Practicing-research).

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[10] Detailed regulations from AHO from the various cohorts are not available.

Presentation of the Doctoral Theses

5.3.1.1.   Arne Magnus Johnsrød: Microbial Patination of Copper and Brass

PhD, 2009
Oslo School of Architecture and Design

Supervisors: Professor Bjørn Sandaker and Dr Professor Rolf Arnt Olsen
Procedure of examination: Oral defence.

The topic of the project of Arne Magnus Johnsrød is patination of the surface of copper and brass by means of microbial processes for the purpose of being of use to artists in the field of metal work. He has been collaborating with scientists within biology in an interdisciplinary research project.

Img 15

Img 16

Microbial patination of metal sheets. The mages show bacterial cultures in sectors of test samples on copper and brass sheets, each 3*5 cm. Photo: Johnsrød

Presentation of the Doctoral Theses

5.3.1.2.   Pavlina Lucas: The Photographic Absolute: An Architectural Beginning

PhD, 2014. (Book printed in 2013 – project defended in 2014 March)
Oslo School of Architecture and Design

The book is composed of five volumes plus a USER'S MANUAL
MY BEGINNING IS MY END…
LOGBOOK
PRACTICING-RESEARCH: TOWARDS A MATHESIS SINGULARIS
PHOTOGRAPHY IN PRACTICE
…IN MY END IS MY BEGINNING

Supervisors: Professor emerita Halina Dunin-Woyseth and professor Per Olof Field
Examination procedure: An exhibition of elements from the artistic work produced as part of the research project supplemented the (otherwise standard) PhD defence.

The doctoral work of Pavlina Lucas is in a crossover field of architecture and art. This research project was propelled by the wish to introduce intuition at the outset of the creative process towards an architecture and was based on the proposition that photographic practice opens a way of disclosing intuitive insights that can be brought into the production of spatial experience.

Img 17

Img 18
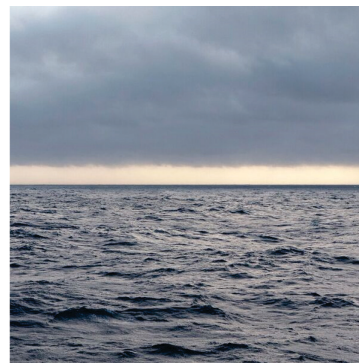
Img 19

Img 17. Logbook p. 151
Img 18. Logbook p. 132
Img 19. Logbook p. 158

*5.3.1.3.   Janne Reitan: Improvisation in Tradition. A study of contemporary
vernacular clothing design practiced by Iñupiaq women of Kaktovik,
North Alaska*

PhD, 2007
Oslo School of Architecture and Design

Supervisors: Professor Søren Kjørup and professor Thorleif Uchermann Skjønsberg at
the beginning of the project, professor Tellef Kvifte and professor Liv Merete
Nielsen at the last part of the project.
Examination Procedure: Oral defence of the thesis.

The doctoral work of Janne Reitan is in the field of vernacular textile design, on
traditional Iñupiaq clothing. She has investigated the working processes of making
vernacular design, and the way this is taught and learned. She has participated in this
process, making her own design works in the Iñupiaq tradition *in situ.*
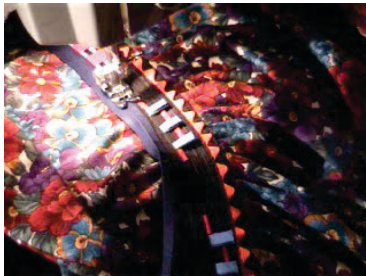
Img 20

Img 21

Img 22

Making Iñupiaq clothing. Photo, video stills from fieldwork: Reitan

5.4. KU Leuven : LUCA School of Arts and Faculty of Architecture Campus Sint Lucas Brussels/Ghent

Two of the Belgian theses are from the Katholieke Universiteit Leuven: Thierry Lagrange at the Faculty of Architecture Campus Sint Lucas Brussels /Ghent, and Wendy Morris at LUCA School of Arts. Arnaud Hendrickx is from the School of Architecture and Design at RMIT University (Royal Melbourne Institute of Technology), related to the collaboration between Sint Lucas School of Architecture and RMIT University.

When Sint Lucas School of Architecture started Research Training Sessions (RTS) in 2006, the school was associated to the University of Leuven (KU Leuven) but not yet a full-fledged faculty within the university structure. As a result they did not have the authority to award a doctoral degree. Undertaking a doctoral study could only be done in collaboration with the KU Leuven or another university. To broaden the options for practice-based PhD, Sint-Lucas initiated a collaboration with two other universities: Chalmers University of Technology in Sweden and Royal Melbourne Institute of Technology (RMIT) in Australia. Within the structure of the associated schools of Sint Lucas School of Architecture and Sint-Lucas School of the Arts the IVOK (Institute for Research in the Arts) was established. Teachers from the School of Architecture and the School of the Arts who wanted to pursue a practice-based or artistic doctoral study could do so within the IVOK, under the umbrella of the KU Leuven. The IVOK, collaboration with Chalmers and the collaboration with RMIT constituted three tracks of doctorates at Sint-Lucas school of Architecture (now KU Leuven, Faculty of Architecture, Campus Sint Lucas Brussels or Ghent). At the Sint-Lucas School of Arts (now LUCA Faculty of Arts, KU Leuven) artistic doctorates were established within the IVOK. These were not in the regime of joint degrees. The candidates were enrolled in doctoral studies at the collaborating institutions as ordinary students. Lagrange and Morris attended the same doctoral programme, a PhD at IVOK, Lagrange within architecture, Morris within the field of art. Hendrickx attended the PhD programme at RMIT.

The general regulations for the doctoral degree at KU Leuven are to be followed in both the doctorate in architecture and the doctorate in art, in addition to specific regulations for this programme. The specific regulation (KU Leuven, 2009) includes an explanation of this particular kind of research: it differs from other types of doctorates by the object and methods of research, and by the dual requirements of both an artistic or creative component, and a reflective, textual component. The object of research is the creative process of artistic achievement or the practice of art. It is emphasised that this kind of research does not coincide with the practice of art as such. The result includes an artistic and creative product and a dissertation as equally

weighed components that shall constitute two aspects of one single research project. The dissertation is to be a textual component of about 75 pages, distinct from, but reflecting upon, the product. The dissertation shall open the research for discussion and verification by peers. The research should be original, resulting in new works of art or other forms of artistic practice. The artistic and creative product should meet the criteria of whatever international standards apply in the field. The reflective aspect includes the position of the research in the field, the research questions, the methods followed, the results found, and an outline of future work. Both the artistic and creative product and the dissertation must make possible bases for publications. From the regulations for the Doctor of the Arts, the following general criteria are given a particular focus:

> the importance of the research object in the field;
> the critical framing of the research within the research traditions;
> the innovative, creative nature of the research, as indicated by the research
>   question and the execution;
> the manner in which the research deals with empirical data;
> the profundity of the research;
> the methodological reasoning behind the research;
> the presentation of the research in texts that are open to verification and discussion
>   by peers;
> the paths and questions opened up for further research (KU Leuven, 2009)

The programme at RMIT that Hendrickx has followed is characterised by a strong emphasis on the creative component. Works of art and design are to be the major part of the doctoral dissertation. The candidates are encouraged to conduct their doctoral research by means of real-life design projects, and the doctoral research can start from the professional practice of the researcher. Professor Richard Blythe, Dean of the Faculty of Art and Design, describes the programme as practice based research (Blythe, 2016). The PhD study programme is organised in six practice research symposia. The doctoral project is driven forward by these symposia in a progress of reflection and investigation of the candidates' own practice, progressively relating this to the community of practice and a broader practice field. The candidates remain in their practice during the PhD project, and they research into their own practice from within their practice. The result of the process is examined by peers in a final exhibition and exegesis (Blythe, 2016).

At RMIT PhDs are understood to be by thesis or project and are required to meet the same research standards specified by the RMIT School of Graduate Research (which is independent of each of the disciplinary schools). The School of Graduate research operates within a Federal Australian government system of Doctoral degrees and the requirements are specified in what are called the AQF Australian Qualifications

Presentation of the Doctoral Theses

Framework which in turn, responds to global communities including Bologna (Richard Blythe in E-mail, 2016 November 16).

The Australian Qualifications Framework was first introduced in 1995. The second edition, 2013, entails criteria for doctoral qualifications in three categories: knowledge, skills and application of knowledge and skills. It demands a substantial body of knowledge both in the field of study and on the research methods. There are criteria of cognitive skills 'to demonstrate expert understanding of theoretical knowledge and to reflect critically on that theory and practice' and 'use of intellectual independence to think critically, evaluate existing knowledge and ideas, undertake systematic investigation and reflect on theory and practice to generate original knowledge'. There is also a demand for 'expert technical and creative skills applicable to the field of work or learning'. Further criteria concern communication skills for examination and dissemination, and expert skills to conduct research that makes 'a significant and original contribution of knowledge and/or professional practice' (The Australian Qualifications Framework Council, 2013, p. 63). Hence this qualifications framework refers to theory *and practice*, and accepts contribution of either knowledge or professional practice or both. This reflects the two forms of Australian doctoral degrees: the Doctoral Degree (Research) and the Doctoral Degree (Professional), which both have the same descriptors. The research Doctoral Degree use to be referred to as a Doctor of Philosophy and makes a contribution to knowledge, while the professional Doctoral Degree is titled Doctor of a field of study, and makes a contribution to knowledge in the context of professional practice. The Doctoral Degree (Research) is a programme of independent supervised study that culminates in 'a thesis, dissertation, exegesis '*or equivalent*' (The Australian Qualifications Framework Council, 2013, pp. 64-65).

Presentation of the Doctoral Theses

5.4.1.1.   Arnaud Hendrickx: Substantiating Displacement

PhD, 2012
RMIT University, School of Architecture and Design

Supervisors: Professor Richard Blythe and professor Johan Verbeke
Examination procedure: Oral defence and art exhibition

The doctoral work of Arnaud Hendricks is in a crossover field of architecture and art. The topic is a reflection on his architectural practice. His doctoral work includes five art exhibitions made in collaboration with artists.
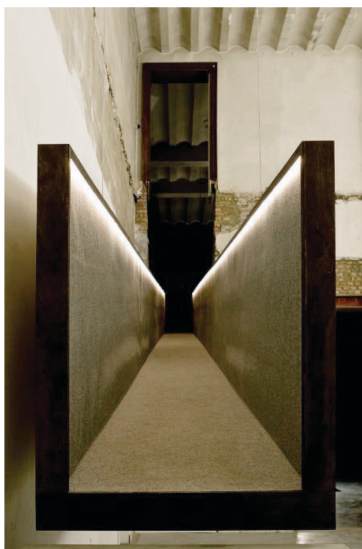
Img 23   Img 24   Img 25

From art project 1: ProMotion. Gabriël Lester and Arnaud Hendrickx.
Photographs: Arnaud Hendrickx

5.4.1.2.   Thierry Lagrange. The Matrix Project. Mapping Design Trajectories

PhD 2012
KU Leuven, Faculty of Architecture
The PhD of Lagrange was the first doctorate at the Faculty of Architecture

Supervisors: Professor Hilde Heynen, professor Paul Cruysberghs, and professor Rolf Hughes
Examination procedure: Oral defence and presentation of the video work and photography during the defence

Presentation of the Doctoral Theses

The doctoral work of Thierry Lagrange is within the fields of architecture and photography. The topic of the thesis is 'the act of looking', a close look of architecture, also by the use of camera, and development of the Matrix, During the course of his PhD works, he develops *the Matrix Method*, a working method for generating ideas, which he tries out in participating workshops.
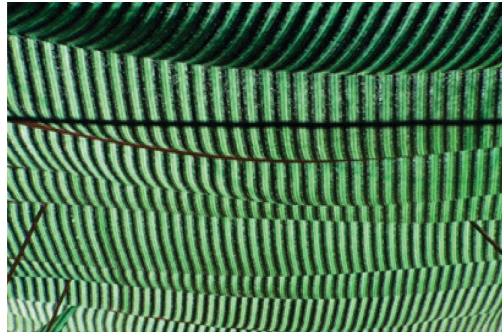
Img 26   Img 27

Img 26: Hybrid Mont Blanc
Img 27: Hybrid Seoul
Photo: Stills from videoworks. Thierry Lagrange

5.4.1.3.   Wendy Morris: Drawing on the past. Implicit: Explicit: Complicit

PhD, 2013
KU Leuven, LUCA School of Arts

Supervisors: Professor Dr. Hilde van Gelder, KU Leuven, and Dr. Maarten Vanvolsem. Examination procedure: Exhibition and oral defence of the doctoral work. The exhibition consisted of three films, the Postings book, the set of 52 letters themselves, a walking journal, and a number of charcoal drawings from the films

The topic of the doctoral work of Wendy Morris is the making of animated films based on coal drawings. Her works of art include three animated films. Writing is developed as an integrated part of the artworks.

Presentation of the Doctoral Theses

Img 28

Img 29

Img 28: Still from Heir to the Evangelical Revival
Img 29: Moths to the Light. Orlando's Book.
Drawing and photo: Morris

Presentation of the Doctoral Theses

6. The Analysis of the Theses

Chapter 6 is the analysis of the nine doctoral theses. This is the investigation of the empirical material of my study and thus an essential part of the project. The doctoral theses reside at the operational level, the bedrock, where the doctoral work is taking place. This is where the formal frameworks are perceived and understood. This is also where the ideologies and visions for the frameworks are to be realised. The focus of the analysis is on the first research question:

> Can the making of art and design in doctoral works respond to the criteria of doctorateness?

Chapter 6 is structured in four sections. Section 6.1 is a presentation of the structure of the analysis. Section 6.2 is the first part of the analysis, aiming at a survey of the sample of theses. This part is structured in two blocks of assemblage. Section 6.3 is a further investigation of objects of particular interest. This is structured in six lines of inquiry. Section 6.4 is a summing up of chapter 6.

6.1.   Structure of the Analysis

The first phase of the analysis is a broad mapping process in order to get an overview of the sample. For this purpose I will make two searches through all the theses, structured in what I call two *blocks of assemblage*. As discussed in the chapter of methodology (chapter 3), I understand – in brief – the concept of assemblage as a construction of key points and lines, a mind-map for handling complexities. I shall use this mind-map as a means of grasping the complexity of the theses and the research field they belong to. Each thesis is a separate system of questions, strategies, findings and conclusions. All the theses are searched and critiqued in each of the two blocks of assemblage. The topic of block 1 is *the product*, the purpose and results of the theses. Block 2 is concerning *the process*, the working methods and the research strategies. The two blocks constitute a survey of all the theses in the sample. In this double search through the theses I will look for key points of interest to the research questions of my study. Lines can be drawn between similar key points in different theses, thus relating the theses to each other in various aspects. Hence the analysis is not a systematic comparative study, but rather a construction of relations. From this structure I have identified objects for deeper investigation. This strategy means that the analysis is not an in-depth study of each analysis *per se*, which they sincerely deserve, but an assemblage of key points and relations between them that I need for the purpose my own study.

The Analysis of the Theses

The second phase of the analysis is constituted by six lines of inquiry that run across the theses in search of key points of particular interest for a deeper investigation. The lines of inquiry do not include comments on all the theses, but concentrates on examples that can serve to illuminate the problem in key areas in question. The topics of the six lines of inquiry are: the structure of the theses, the concept of reflection, the insider position of the artist-researcher, the concept of making tacit knowledge explicit, models of participating or collaborative working methods, and the question of validity. The lines of inquiry also stretch beyond the theses to the research landscape of which they are a part, and to the formal frameworks of qualifications.

This working process entails a continuous reading and re-reading of theses in a hermeneutical process of interpretation, each time in search of specific issues, gradually getting a better understanding of each thesis and the relation between them. What I will look for is what the candidates themselves say on the issues in question. Since each reading and re-reading will give a deeper understanding of the issues in question, further re-readings would have made my understanding better than the present. The following analysis is my understanding of the issues in question at this point of reading. Hence it will not give full justice to the complete works of the candidates.

This structure of the analysis may cause some iterations and discontinuity in the text. The double search and the lines of investigation that run through the theses will inevitably cause some repetitions of text. This also applies to the quotations of the text of the authors, which in some cases will be used in more than one block and more than one line of inquiry. Since the nine theses are my empirical material, I have the intention of presenting the voice of the candidates to the readers. For this reason I will include frequent quotations of some length from their theses.

One practical piece of information on the quotations is needed. There is a challenge presented by the thesis of Lucas on the matter of referencing. The thesis is constituted by separate, interchangeable sections, each paginated separately. In the following I have used this pagination and an abbreviation for the sections:

- *Introduction* and *Closure:* the fixed sections in the start and the end of the thesis
- *Logbook*: notes and photographic works
- *Practicing-research:* the section on working methods
- *Photography in Practice:* the section of students' works.
- *User's Manual*: the un-paginated folder that guides the reader through the work. I use page numbers according to the structure of the folder.

The Analysis of the Theses

6.2. Blocks of Assemblage

For the survey that is constituted by the two blocks of assemblage I will comment the theses in different ways and to a different extent. This does not reflect the importance of a thesis or the topic of its research project, but the purpose of illuminating the variety of the projects and trace similarities and differences between them.

6.2.1. Block 1: The Product. Purpose and Results

Block 1 is an overview of the purpose and results of the doctoral works. This reflects the intentions of the candidates and the results they have achieved.

One characteristic of the sample of theses is that they all include a creative practice component, a process of making art and design. I will search for what may be the purpose of this kind of research. Another characteristic is that all the candidates are professional artists, designers and architects. I want to find out how this background affects the purpose and the results of their research. As a starting point I shall use a tentative distinction between research that is intended to contribute to a bettering of the practice field, and research that is intended to give a better or deeper understanding of the field of study. As discussed previously (2.2.5. Present academic positions) this is an issue of debate in the creative fields. A major part of previous research in these fields has been conducted by scholars from other disciplines, such as the history of art and architecture, sociology, etc. Even if valuable research for the creative fields, it necessarily has an outsider's perspective. There has been an increasing demand for research from an insider's perspective, closer to the artistic performance and the professional practice, and building on the qualifications and knowledge of the practitioners in these fields. As discussed previously, this is formulated as a claim by Glanville that what we need are contributions on how to design better, not to understand more (Glanville, 2005, p. 122). I shall use the first overview of the sample of theses as an opportunity to search for this distinction.

In general, the purpose of a doctoral project is formulated as research questions. Conventionally these are presented in the initial part of a thesis. Most of the theses in the sample follow this convention. However, some of them do not have explicit research questions at all, or there are emerging questions formulated in later chapters of the thesis. In either case concentrated research questions are not sufficient for a proper understanding of the purpose of a PhD project. A full understanding requires a wider reading of the thesis. This also applies to the research results. I consider a wide reading of the theses necessary for my investigation.

The Analysis of the Theses

Arild Berg

Img 30   Img 31   Img 32

Tiles / sketches of tiles for the Chapel of Rest in the church. Photo: Berg

Purpose

The main research question of Arild Berg is:

> How can participatory processes contribute to material based art?

This is followed by three supporting questions. First, how can collective concepts emerge in a participatory process? Second, how were the concepts materialised into artworks? Third, how could the artworks be implemented into a specific institution in order to be a dynamic part of a living culture? (Berg, 2014, p. 31). As I understand it, the three supporting questions refer to three stages of his art projects. *Conceptualisation* is the discussion on the concept and content of the art projects. *Materialisation* is the sketches of artworks and the finished artworks; drawings and material samples that are produced by the artist and discussed and tried out in participating work processes, and elaborated as final artworks. *Implementation* is the integration of the artworks in the public buildings.

Berg describes a twofold intention of his project. First, he wants to contribute with ideas on the role that material-based art can have in society. Second, he wants to contribute to a new practice of participation in material-based art in contextual aspects. He says that the aim has been to create meaningful art in the environment for the other people involved (Berg, 2014, p. 34).

As a background for his project he refers to a current trend in material-based arts: a shift from functionality and decoration to contextual aspects. Through a literature review on previous research he identifies a *lacuna* of knowledge that he wants to investigate. He found research on material-based art in contextual aspects from an

artist's perspective, on the use of materials in participatory working processes, and on creative practice and research practice coming together. However, he found no previous research on the combination of participatory development of material based art and public space.

The results

The results of Berg's project are presented in a written thesis that includes photographs of the artworks. The artworks are integrated in public buildings in Norway. They are included in the result of the research project and assessed by an artistic committee.

The works of art are ceramic items, in Berg's terminology 'material based art'. They constitute three art projects in three public institutions: a school, a hospital, and a church. The ceramic works are integrated in the public areas of the buildings. They are objects to be sit on in the school lobby, objects to touch and hold in your hands in the hospital, and decorative tiles on the wall in the Chapel of Rest in the church. The objects in the school lobby have text included, and the tiles in the church include figurative images. Hence the works of art are a combination of spatial and material expression, and what may be called the 'literary meaning' of images, symbols and text.

The participatory process of making the artworks has been an object of investigation throughout the project. On the result of this investigation Berg says:

> A new space for communication was created by participatory processes in material-based art. The practical result of the study was that everyday surroundings changed their nature by the use of art, and were turned into new rooms, which, with their physical design, invited to a dialogue. All of the artistic projects were accepted and valued in their environment. The material-based art has thus emerged so that it has become an integral part of various arenas in the three institutions in Norway. This was a practical result of the study (Berg, 2014, p. 227).

The participatory process revealed that some issues could not fully be communicated from the artist to the participants in the working group:

> Understanding space was another challenge with such a participatory approach. Space manipulation was difficult for people who were unfamiliar at imaging form solutions. The example of painting on the wall surfaces showed that the abstract part of an artistic solution was crucial, but that it was not perceived or understood by all of the participants before they saw the physical and final solution by the artist (Berg, 2014, pp. 226-227).

This example shows that sketches – a major working tool for the artist – were not understood by the participants in the group, because they did not have competence

and training that would enable them to imagine results in the room, in architectural space, from small sketches. The artist had to make sketches and samples of materials in real size, in the actual room where the artworks were to be included, for the participating group to grasp it. Two examples show the use of material based sketches:

> The materialness or the meaning produced by the material quality was exemplified in the study. The example of the colour blue showed that the material surface quality could create completely different meaning, and that the meaning could be adjusted through an understanding of materials and material experimentation, but first and foremost, by the ability to form an integrated composition that was in the spirit of what was revealed in the focus-group interview. Material surface qualities such as colour and texture could from this perspective not be seen as detached from the concept because the materiality in the colour quality gave a special meaning to the subject.
>
> … Similar to these descriptions, the case study in the church exemplified how the special, natural crystalline blue surface of the ceramic material became a key element in the final solution in the Chapel of Rest in the church, an example that showed how colour with special material-based art characteristics can have an essential value in a participatory process (Berg, 2014, pp. 225-226).

The two examples show the effect of artistic means – materials, surfaces and colours – on the *meaning* of the artworks. As mentioned above, the aim of making art for the public institutions was to make meaningful art for the people involved. The participating working group contributed to the artistic expression by their response to the sketches of the artist, explaining how they interpreted and understood his proposals. The artistic results were achieved by this interaction of the artist making sketches, and the participants exposing their understanding of the works. Berg claims that his project shows that a sustainable connection between art, people and the environment can constitute a transformative social force of the collective imagination.

Research methods are a vital part of Berg's project, as discussed in block 2. In this respect Berg concludes that he has shown how artistic research can connect to research in sociology, pedagogy and relational art. He describes the contribution of his project as an early-stage epistemological framework for participation in material-based art, and at the same time an early-stage ontological circle for artistic research (Berg, 2014, p. 8).

Hence, the results of this project have three components. First, a tangible result, the artworks that are integrated in public rooms. Second, a working process, an interdisciplinary participating process in the field of art. Third, a contribution to the epistemological development of artistic research. The main research question focuses the contribution of the participatory processes rather than the artistic achievement. However, the three supportive questions also direct the making of the artworks and

how they can be integrated in public space. In sum, the participatory working process and the making of art are both included in the research questions and in the results of the project.

In my search for an overall intention of this project, I find Berg's project clearly related to the orientation of a *bettering of practice*. He wants to contribute with ideas on what role material-based art can have in society, and a new practice of participation in material-based art in public space. On the other hand, this project also contributes a deeper understanding of works of art, the meaning and understanding of symbols and artistic expressions, which I regard as a position of *better understanding*.

Nithikul Nimkulrat

Img 33   Img 34   Img 35

Img 33. Detail of 'The Lamp' with opened paper string representing leaves in nature.
Photo: Kanako Takimoto

Img 34. Paper string was knotted around metal wire structure on the female figure mould.
Photo: Nimkulrat

Img 35. 'The Coffee Cup' and 'The Table. Photo: Kanako Takimoto

The Analysis of the Theses

Purpose

The research questions of Nithikul Nimkulrat are:

- How does paper string, when used to create an artistic work, influence a textile practitioner, her artistic processes, and resulting artworks?
- How does expression arise in artistic processes by using paper string as the chosen material?
- What could be considered an expressive quality of paper string? (Nimkulrat, 2009, p. 25)

The object of investigation is the expressivity of materials. For this purpose Nimkulrat has chosen paper string for a study of *paperness*. She submits an initial hypothesis: if paper string has the quality of being expressive, this quality will contribute to artistic expression when used in works of art.

As a background for her project she argues that textile artists use to discuss techniques and materials as such, while the *meaning* of the material within creative processes is rarely discussed (Nimkulrat, 2009, p. 23). She wants to contribute to a discussion on this subject between design artists, and at the same time making this discussion more extensively verbalised and shared.

The Results

The results of Nimkulrat's project are presented in a written thesis, which includes photographs of the artworks. The works of art have been presented in two public exhibitions. The artworks are an integrated part of the result of the research project, and are assessed by an artistic committee.

Nimkulrat has worked as an artist throughout the project, making textile sculptures for the two exhibitions 'Seeing Paper' and 'Paperworld'. The artworks are three-dimensional objects made of paper string, all white, with no colours added. They are transparent, white sculptures made by networks or basketworks of paper cords. She has used her work as an artist to investigate the expressivity of materials, but also the working process of the artist. On this interaction she says that the ability of expression is not in the mind of the artist only, but in the interaction between the hand, eye, and mind of the artist and the material (Nimkulrat, 2009, p. 213). One example shows her reasoning:

> When textile artists experience a tangible material, they not only feel its physical characteristics such as strength and weaknesses and lightness or heaviness, but also relate these qualities to their own expressive capacity. The material is therefore not limited to its physical qualities but to the sense of bodily movement and animated

modes of expression of the person experiencing the material. In other words, a physical material indicates a relationship between the material's physical characteristics and artistic expression in a creative process.

… The creation of an artwork in an artistic process takes place when the maker or artist intends the object to mean something and then creates it. Her act of making the artwork embeds meaning in the physical material gradually transformed into an object, an artwork, which in turn defines and articulates this meaning through its physicality, visible to some attentive viewers. The formed material in which meaning is embedded in the creation process brings forth not only the physicality of the artwork (i.e. physical form) but also a conception of it (i.e. meaning, content). The artwork thus becomes the artist's material expression and the physical thing in which its maker's expression and the physical thing in which its maker's expressive and creative thought is embedded (Nimkulrat, 2009, p. 208).

As I understand it, her references in this quote to 'textile artists' and 'the maker or artist' imply a generalizability of the results of her study. She concludes that her belief on the artistic expressivity of materials has been confirmed in this project. She emphasises the relation between the material expression and the *meaning* of the artwork. One claim of hers is that paper string expresses the power of material over form. Her argument is that when the form of the artwork corresponds to the shape of a utilitarian object, but the material does not, the artefact becomes imaginative. She claims that this way her artworks made of paper string give new expression to the object represented, and also reveals the object's basic characteristics, which are related to its function, owing to the reproduction of its form and scale (Nimkulrat, 2009, p. 220). As I see it, this is not a feature of paper string in particular. Other materials could have given the same effect. However, the character of paper string, a thin, knotted string used for constructing a white, transparent network, gives the object a light, fragile character that adds a particular expression to the sculptures, as a strong contrast to the real chair that is also present as an art object in one of the sculptures. I understand the particular material expressivity of paper string to be the core of this project, rather than the power of material over form.

From feedback and interviews in the exhibitions Nimkulrat learned how her artworks were perceived and understood by the audience.

The study set out to clarify the potential of material, paper string in particular, beyond its mere physicality, by exploring its relationship with artistic expression in textile art practice …

The study has shown how this specific material could shape interpretation when someone experienced an artwork and its material. Although I intended the artwork to have a meaning relevant to the material used, this was not evident, but tended to be open to interpretation, i.e. people seemed to have different opinions about the artwork. As interpretation brings out the meaning of something understood by

> an individual, meaning cannot occur as one single truth. This implies that a tangible thing can carry multiple meanings depending on who produces the interpretation and what previous experience the person possesses as well as where and when the interpretation takes place, and so on. (Nimkulrat, 2009, p. 2006)

Hence the meaning of an artwork depends on the interpretation of individuals, so that meaning cannot be one single truth. The intentions of the artist are not necessarily understood by the audience. In the Seeing Paper exhibition there were two layers of metaphor. The sculptures are metaphors of female dresses, which again are metaphors of human beings. However, from a questionnaire she learned that the audience did not imagine the dresses as metaphors for women, but rather as stiffened garments. In the next exhibition, the Paper World, there was one layer of metaphor only. Because of her experience from the first exhibition of the audience's perception and understanding the artworks, she had the context of the art gallery and the context of the exhibition in mind when she worked in her studio making the sculptures for the second exhibition. She found that when making the objects, she as an artist had her narrow studio perspective, close to the objects, the eye, the hand, and the material, detached from the surroundings. When the audience entered the exhibition, their perspective was broader, including the context of the gallery. When building the exhibition, she created a space and a context for the artworks, which the audience included in their understanding of the works. Hence the audience did not perceive the artwork the way that she had foreseen during her studio work. Nimkulrat brought this experience from her first exhibition into the studio work for the second exhibition. Her initial intention of materials metaphorically *living* in the world, was expressed in another way for the second exhibition. Inspired by Heideggerian phenomenological thinking, this time the exhibition context was included in her work. The artworks were related to each other *and* to the exhibition context, because she had found that the experience of artworks is inseparable of all entities surrounding them.

This finding was not a response to the research questions, which focused on materiality and expressivity, but emanated during the research process. She relates this to the research strategy of the project: 'as this study was experimental, it seems to produce questions as well as answers. The research problem has evolved and new problems have emerged during the progressive line of enquiry, revealing the various findings depicted in this chapter' (Nimkulrat, 2009, p. 234). Hence she counts the results of her research from three perspectives. First, material influence on her as an artist during the art production. Second, material influence on the content of the artworks. Third, a new perspective on the exhibition context (Nimkulrat, 2009, pp. 234-235). Nimkulrat also critiques her research results from the perspective of an artist-researcher:

> Researching my own creative practice may yield results that are different from those that an outside observer or another artist-researcher might have achieved, even if the study were conducted with the same research questions. However, this does not mean that the knowledge I have gained through researching my art practice cannot be applied to others. Quite the opposite: other practitioners can learn about my process when attempting to develop and better understand their own artistic practices. When the artist-researcher is able to seek a suitable means of connecting practice to research, research can not only transform ways of designing or creating art, but also theoretically inform creative practice so that the practice can develop the artist's aesthetic intelligence (Nimkulrat, 2009, p. 234).

She discusses the consequences of the particular role of being both the artist and the researcher, and whether results from this kind of research can be transferable. Her conclusion is that the knowledge she has gained can be applied by others. She argues that research can 'theoretically inform creative practice', and even claims that practice can develop the artist's aesthetic intelligence.

Nimkulrat participated in the Doctor of Art programme at the Aalto University, where artistic work is included in the result of the doctoral work, and assessed by a committee for the artistic work by criteria of artistic quality. A specific criterion for art and design is that 'the aim may be that the student gains the knowledge and skills for independently conceiving methods of artistic creation or creating products, objects or works which fulfil high artistic demands'. The object of investigation in Nimkulrat's project, the expressivity of materials, responds to this criterion by contributing to the quality of her sculptures and her art exhibitions.

Searching for the overall intention of Nimkulrat's project I regard the major orientation as *better understanding*. She has studied the inherent expressivity of materials through her own process of making works of art, and through the audience's perception and understanding of the artworks. One result is that this contributes to a change of practice between the first and the second exhibitions in her doctoral work, and will contribute to a bettering of her personal practice in aftermath. By dissemination it may also have a potential of contributing to a better understanding of material expressivity in the field of textile art as such.

The Analysis of the Theses
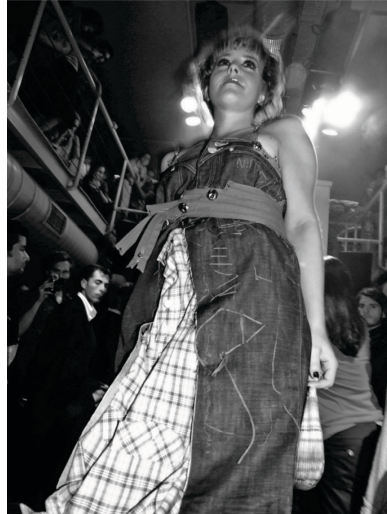
Img 36   Img 37   Img 38

Img 36. Redesigned denim from the Swap-O-Rama, Istanbul, 2007
Img 37. The Swap-O-Rama catwalk
Img 38. Disneyland can wait collection, 2007

Purpose

There are no explicit research questions in the thesis of Otto con Busch. He legitimises this by an appeal to the strategy of *artistic research*:

> This thesis is part of the emerging field of artistic research, in which the studies are not framed and focused on specific research questions and do not aim at results that can be applied independent of the context. This type of research is based on ideas for development of a new kind of art and on the practice of art and practical projects. It is a matter of presenting unknown possibilities (von Busch, 2008, p. 27).

In spite of the lack of formulated research questions, aims and ambitions of the project are clearly expressed. Von Busch wants to explore and develop a new form of fashion design practice, and a new role for the designer (von Busch, 2008, p. 27). He introduces a number of terms that – as I see it - indicate his intentions as well as his standpoint. Two examples, both from the title of his thesis, are *fashion-able* and *hacktivism*. The latter is a fusion of hacking and activism. He explains that hacking in this context is to be understood as a cunning construction, not as illegal activity in cyberspace. Activism is to be understood as political or social activism. As a background for his project he describes the present situation of fashion as exclusive and led by auteurs, while at the same time there is also a trend of mass-homogenisation as a result of designers cooperating with high-street companies like H&M. His intention for the project is stated in the following quote:

The Analysis of the Theses

In this work I will explore other paths for designers to engage Everyman in the creation and re-creation of fashion. Perhaps this can be a complementary form of exclusivity, an exclusivity of participation and engagement where we can share tools and techniques to build together in collaborative ventures. This can be an interesting field to explore: where engagement and participation meet the exclusivity of fashion (von Busch, 2008, p. 32).

Hence the ultimate intention of von Busch is to develop a new role for the designer and to change the fashion industry.

Results

The results of this project are presented in a written thesis. Throughout the thesis there are photographs of design-works and design workshops that are discussed in the text, and also text-blocks, small posters etc. that are positioned outside the main text. Some – or rather only a few – of the photographs present design works by von Busch himself. The works of design as such are not presented as results of the research, and were not assessed by the examination committee for their artistic quality.

A major part of the design-works is the result of participatory workshops. Von Busch has the role of researcher, designer, and facilitator of the workshops. There are various models of collaboration between designers and laymen, giving the projects a transdisciplinary approach. One example is a redesign workshop in Istanbul, with collaboration between neighbours and a local art group that used to work in the *relational aesthetics* field. The idea of the project was to underline the history of recycled garments, instead of the future-oriented promises that fashion usually offers. The participants brought garments to the workshop, each garment followed by a story. The garments were cut to pieces and re-used in other clothes. During the process it became evident that the stories that the garments carried were too valuable to be deserted. 'These stories are cheap yet still priceless and are a hidden asset among recycled clothes' (von Busch, 2008, p. 135). Another example is a set of larger workshops, the Swap-O-Rama, with the same concept of bringing garments that are swapped and re-used. These events had no artistic leadership. Von Busch regards the radical approach of the Swap-O-Rama as the creation of a setting, a new scene, and a new fashion. In his view this challenges the exclusivity of fashion by involving wide participation and 'the shared luxury of advancing your aesthetic skills in companionship with your friends' (von Busch, 2008, p. 193). He comments the collaboration between professionals and amateurs, which he calls *Pro-Ams:*

So what would this Pro-Am approach mean for the fashion system? I see it as another layer of fashion, a rhizomatic, viral and engaged level, that cuts diagonally through the system, that draws unexpected lines and consciously connects to the existing flows. It would consist of Pro-Ams, user-innovators and a distributed scene

that dissolves the strict borders between designer and consumer. New tools and practices would create a broader grey zone between these roles, in which a multiplicity of practices experiment with new protocols, models for organization, and where hacktivist practices would form to create a wild blend of fashion intensities and energies (von Busch, 2008, p. 237)

This quote exposes von Busch's vision of a new fashion system, based on his ideology of changing the system, and the experiences from the workshops in his research project. It also shows his affinity to the ideas of Deleuze and Guattari, by using their terminology and metaphors. Some examples of von Busch's personal design works are exposed in his thesis; for example a set of manuals and a book on the redesign of clothes. In the photographs of these works he aims at being anonymous, and for this reason used a latex mask to cover his face. Later he realised that this had given the images a reference to sub-cultural scenes and S&M, expressing a dark and 'evil' side of the projects (von Busch, 2008, p. 99). Even if it was not intended from the start, he chose to let this dark side of the project be expressed in his thesis by including these photographs.

As there are no explicit research questions, there are also no concluding answers. However, there are concluding comments presented at the end of each of the five sections. At the conclusion of the section *Heresy*, he says:

In this chapter we have seen how various lines of practice can be organised in other ways than the traditional stratified 'cathedral' model. Heresy, liberation theology, fashion activism and communal self-enhancement offer us more 'bazaar-like' concepts of organization, where collaborative practices are highlighted and where lifestyles are built from a praxis stemming from below. We have seen the theology of liberation organizes its conception of church through a network of small communities, anchoring the faith in the local situations rather than in the Vatican alone. Similarly we could see how fashion based communities could work hands-on with the existing resources to create their own local scenes for interpretation, co-design and production. The role of the designer in projects like these is to organize the base communities and platforms that enable a community to 'talking back' to the system through crafting and designing their own standpoints and issues brought up in their new 'material publics'. Future design projects can explore further how these participatory platforms can address other issues through hands-on practice (von Busch, 2008, pp. 148-149).

The thesis has five sections with the headlines *Hactivism*, *Heresy*, *Fan Fiction*, *Small Change Protocols* and *Pro-Ams*. *Fan Fiction* is about being in media. Von Busch summarises that the chapter has shown how amateurs and designers can engage to create their own vectors and 'talk back', and promote an empowerment tactic. *Small Change Protocols* is about starting with small projects, and trying to find multipliers that can give synergies. *Pro-Ams* is about blurring the distinction between

professionals and amateurs. Von Busch concludes that the scenes of these groups need not be separated, but can offer new forms of knowledge production and a shared development of methods, practice and skills.

> It is this symbiosis between the DIY approach and exclusive fashion that can offer new ways for reflection and participation and open passages through the border between active and passive, auteur and audience, producer and consumer, professional and amateur. Here we see a designer role active, the 'catalyst crafter', a fearless facilitator creating new action spaces and material publics where the once separated fields meet to form new alliances, complementary to the established fashion system (von Busch, 2008).

In sum the project of von Busch is permeated by his ambition to contribute to a new role of fashion design, where the participatory design process is paramount. The working process, the 'making' aspect, is the object of the research, rather than the design products that are made. At the same time, in the foreword von Busch states that artistic quality is a prerequisite; it is essential both to fashion design and to artistic research. The participatory processes are concentrated on design and the craft of making garments, as also has the ambition of changing the concept of fashion. The personal works of design by the design-researcher are tuned down. Still the role of the researcher in the workshops and in the doctoral research project is unbreakably tied to his competence and professional identity as a designer.

This research project is clearly on the *bettering of practice* side. However, the overall intention is merely a change in the ideology of the fashion field by turning the hierarchy upside down, rather than a bettering of the performance of designing and crafting as such.

The Analysis of the Theses

Arne Magnus Johnsrød
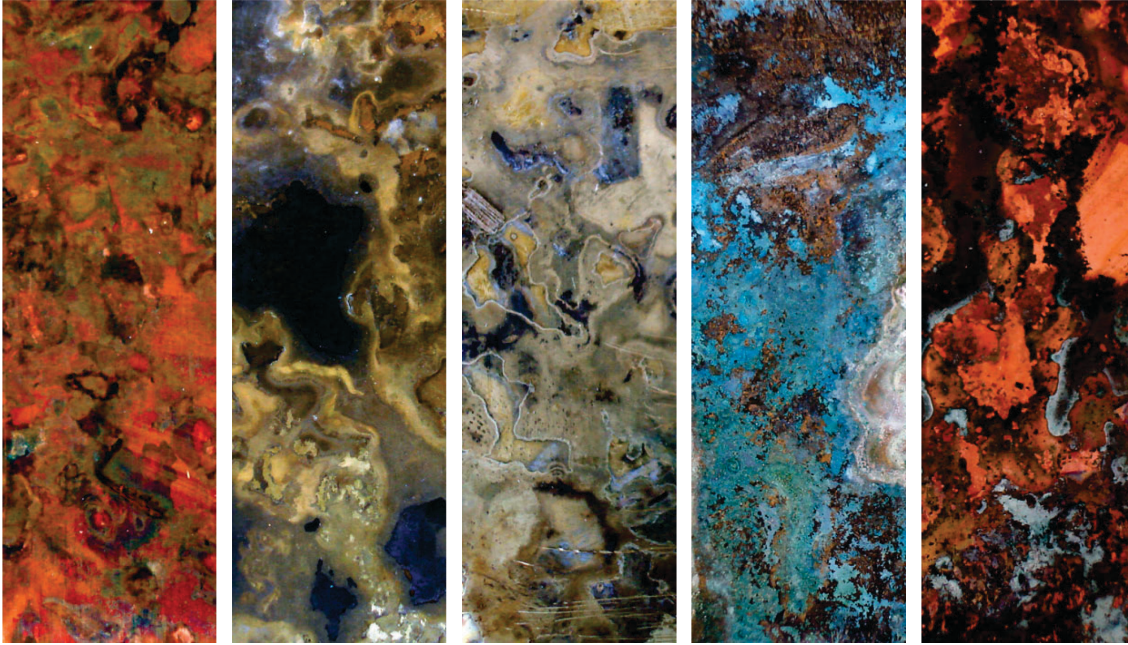
Img 39   Img 40   Img 41   Img 42   Img 43

Patination in controlled envoronment by proteins and carbohydrates in bacterial decomposition.
Photo: Arne Magnus Johnsrød

Purpose

The research questions of Arne Magnus Johnsrød are:

- What kind of biological processes can possibly start a reaction in contact with metals and what colours can be expected to occur in the patina during the process?
- Can this process be a new method to create the same variety of colours on metals as traditional chemical patination?
- How can I, as an artist, do research in a field unknown to me – microbiology? (Johnsrød, 2009, p. 10)

The two first research questions cover the ontological level, how to make biological patination of metal surfaces, and whether these can give the colours needed. The third question is regarding the epistemological level, how an investigation on this can be conducted.

The purpose of this project is to develop new techniques for artistic work. Johnsrød intends to develop a new artist's method for the patination of brass and copper by the use of biological processes. This new technique is to be available to the practice field, to art students and artist colleagues. A major reason for this enterprise is the potential danger of traditional chemical patination, both for the artist in the working process

and for the environment. What trigged his idea for this particular method was an accidental experience: after a fishing trip, he had left behind one trout fish, laying on a steel covered bench in the cottage that that he had used for overnighting. On the return to this cottage some time later, the decaying fish had etched through the metal sheet that covered the bench, and even through the underlying plywood (Johnsrød, 2009, p. 246). This incident exposed how biological material can attack metal sheets. Johnsrød asks:

> Why bother about science while working with art? Does art have to become scientific? Questions like that were working in my mind during the beginning of the doctoral program. There can be many answers to such a wide question, and for me it started to be important to investigate my own profession's research possibilities and to understand the insufficient theory connected to the making disciplines. Such an approach demands investigating 'tacit knowledge' and non-traditional methods connected to scientific research with terms like 'build the road while walking' and 'learning by doing' (Johnsrød, 2009, p. 247).

This quote exposes his consideration on the possibilities of research in his field, and in the making disciplines as such, as reflected in the third research question, directed at the epistemological sphere.

Results

The results of this research project are presented in a thesis that includes photographs of a vast number of test samples of biological patination on brass and copper sheets. The samples include a broad variety of colours and visual structures, all produced by various biological processes. The test results are documented by photographs and descriptions of the microbiological processes. There are also textual reports on the characteristics of the visual appearance of the test samples. Johnsrød concludes that:

> The main objective of this research was to describe multicolour patination on brass and copper by microbial treatment, and to investigate the microbial processes involved in the patination. The results show the possibilities such microbial processes offer for patination on metals compared to classical patination methods based on chemicals. The various experiments show that many microorganisms are able to grow on the metals copper and brass (Johnsrød, 2009, p. 231).

The test results include a wide variety of colours and structures that artists can use. There is also a study of the durability of the patination. The surfaces were tested by mechanical loading to simulate friction on the oxide layers, and exposure to oxide air for 6 months in all weather conditions. The tests of microbial patination showed a quality similar to tests of chemical patination concerning the durability of the surface when exposed to weather, and over time.

> In order to get the best patina result, the test sheets were polished with wax to prevent further oxidation processes in air and to make colours reflect and shine as brightly as possible. In experiments comparing wax with synthetic varnish lacquers, wax showed to give definitely the best results, since lacquers made the surface faint and dull (Johnsrød, 2009, p. 233).

This test exposes the artistic perspective of the project. The visual qualities, which are essential to artists, are tested out. The quality of the preserving method is characterised by the ability to make the colours shine as bright as possible. One of the methods failed because it made the surface 'faint and dull'. For himself as an artist, he also states that the project has released new ideas for creating art by the microbial treatment of surfaces, but also by the photography of the micro-cosmos that was used for the documentation of the research results. In his final reflection he describes a journey through a mysterious microbial world of various fantastic microscopic landscapes, which revealed a world of surprising multi-colours that released in him new ideas for creating art. From another perspective he also considers objections to the biological method, as ethical challenges related to artists' use of living material (Johnsrød, 2009, p. 249).

There are few references to artistic processes or artistic work as such. There are no tests of the microbial patination method on artworks, and there are no examples of artworks where this method of patination is used. On the other hand, the initiative of the project is from the artistic side. The objective of the project is to meet artistic needs for better techniques and artistic expressions.

The overall intention of this project is a *bettering of practice*, that is, artistic practice in the field of metalwork, which is also the practice field of the researcher. In addition there is an intention to contribute to a bettering of research practice in the making disciplines by transdisciplinary cooperation with other academic disciplines.

The Analysis of the Theses

Pavlina Lucas
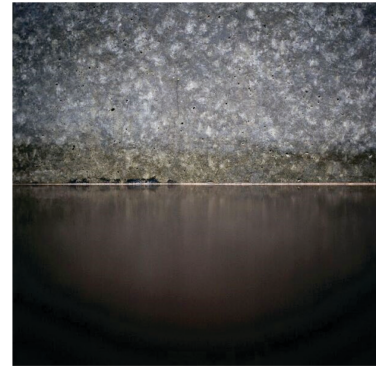
Img 44   Img 45   Img 46

Img 44. Logbook p. 126
Img 45. Logbook p. 129
Img 46. Logbook p. 124

Purpose

The research questions of Pavlina Lucas are:

> How can I disclose my intuitive insights, and how can I bring these into the
> production of spatial experience? (Lucas, 2013, p. 1 User's Manual).

A following statement of the intention of the project is:

> My wish originates in the cognizance that analytic thought has come to dominate
> the design of architecture, and it is founded on my belief that starting from intuition
> and engaging this in a transactional relationship with the intellect endows the
> architect's creative authenticity, which is currently urgently needed (Lucas, 2013, p.
> 1 User's Manual).

The research questions are formulated in the first person modality, which may suggest
that the purpose of the project is a bettering of the personal achievements of the
researcher. On the other hand, the intention of the project shows that the ambition is
a contribution to a bettering of the practice of architecture as such. The background of
the project is what she describes as an urgent need for creative authenticity in
architecture. She also comments that present architectural practice tends to be
dominated by analytic thought.

Lucas submits the initial proposition that intuition is a prerequisite for obtaining
architectural authenticity. Her intention is to explore this through her research project.
She describes her working method as unfolding questions rather than closing

The Analysis of the Theses

hypotheses, and her research result as just one of a myriad of possible results (Lucas, 2013, pp. 5-6 Closure). Hence, in my understanding, her intention is not to verify or reject her initial proposition, but rather to use it as the starting point for an explorative research process.

Results

The results of Lucas' doctoral work are presented in a written thesis; in her terminology a 'doctoral report', with numerous photographs included. Her artistic works are photographs. Some of the photographs were presented as large prints in an exhibition at the viva. A view of this exhibition was included in the arrangement of the viva, and a performance was included in this presentation. The works of art are part of the result of her research project and were included in the assessment by the examination committee.

Her doctoral report is a thick leather envelope containing five interchangeable sections. The colour of the leather corresponds to the subdued colour tones of her photographs. The paper and the printed text also reflect this subdued colour tone. Hence there is a visual coherence between the artworks, the doctoral report and the presentation and exhibition at the viva. As seen in the following, Lucas also writes poetic comments in her logbook, and tends to use poetic images in her text. This underscores the artistic approach of her project.

The artwork of Lucas is photographs taken by various cameras, without post-processing. The photographs are presented in the logbook section of her thesis. The motifs of the photographs are related to *spatial experience*, a concept that is included in her research questions. Two examples illustrate the nature of the artworks and her working procedure: one series of photographs constitutes the dichotomy of nature and culture, by combining two photographs on each sheet. 'Each photographic act concentrated in my being-in-the-world at that particular instant, and it was *absolute* in terms of this concentration' (Lucas, 2013, p. 51 Loogbook). As I understand it, this concentration explains the *photographic absolute*, which is the title of her doctoral project. Two series present square photographs with a horizontal line in the middle. One series is of details of buildings (Kunsthaus Bregenz). The other series is of sea, sky and the horizon (from Azores). Poetic text is included in the artistic work. One example is a text reflecting the sense of being-in-the-world:

> This horizon is time and place
> coming together as one
> containing what has passed
> carrying what will come
> collapsing memory

> and imagination
> in an enduring
> per-formance
> (Lucas, 2013, p. 161 Loogbook)

Lucas presents the result of her research as having one ontological and one epistemological part. The ontological part is a mode of working, which she regards as a testament to the creative potential of intuition. The epistemological counterpart is the development of a research strategy that she chooses to call *practicing-research*. While the ontological part corresponds to architectural practice, the epistemological part corresponds to research practice. In her view, the contribution to knowledge production in these two perspectives appears to be of equal importance. She says:

> As a sample of practicing-research, this project contributes to the discussion on this mode of knowledge production. Yet, while existing within this framework, my project – like all other projects of this kind – is singular in its ways, and constitutes thus a novel contribution to its epistemological milieu, akin to a star in its sky. When a critical mass of projects is present in this firmament they will form constellations, the map of which will be continually revised as new projects appear. *Ergo*, the position and significance of my project to its epistemological milieu will keep shifting according to the currently unforeseeable evolution of its map. Yet, in view of the *status quo* of practicing-research, I believe that the most pertinent contribution of my research report on this level is not the particular exploration it encloses *per se*, but the manner in which the episodes of this exploration have been brought together in a synergetic whole.

> As an ontological example of a creative practice grounded in intuition, this project is essentially an invitation to the creative community *en masse* towards this mode of working. My choice to enact my research through photographic practice does not preclude other means of approaching similar endeavours. Therefore, the contribution of my research project on this level is situated in the realm of the consequences of the wish it unfolds, rather than in the particular way that the wish has been unfolded. This project report does not put forward a step-by-step recipe and it is not an exemplar to be copied, but it remains a testament to the creative potential of intuition (Lucas, 2013, p. 8 Closure).

In sum, I read the formulations above as a conclusion on the two parts of her project: the epistemological and the ontological. In the first paragraph is a conclusion of the epistemological part, 'the manner in which the episodes of this exploration have been brought together in a synergetic whole'. As I understand it, her conclusion is that her major contribution is the intersection between artistic and academic work. In the next paragraph, regarding the ontological part, she concludes that at a distance she sees the integration of the intuitive hands-on production and analytical reflection as the *eidos* of her project (Lucas, 2013, p. 8 Closure). As I read her concluding reflections, even if she has considered the epistemological and the ontological contribution as

equal, the epistemological perspective still appears to be the core of the project. On the other hand, the photographs are a substantial contribution to the project as a whole. Of note is that photography is not indicated in the research questions. As I understand it, photography – the making of photographs – and the photographs themselves, are the means of responding to both research questions, the disclosure of her intuition, and the spatial experience.

The project of Lucas is in the *bettering of practice* sphere since she intends to contribute to architectural authenticity by means of intuition. This is the ontological part of her project. In the epistemological part her intention is to contribute to the practice field of research by trying out the research strategy of practicing-research. On the other hand, her work also includes theoretical foundations that contribute to a better understanding of these issues.

Janne Reitan
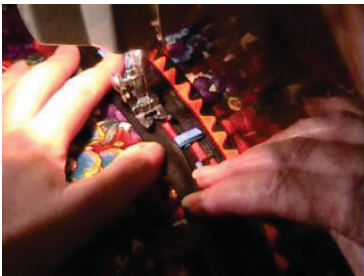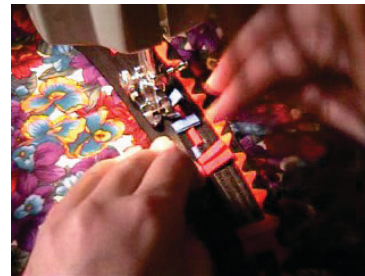
Img 47   Img 48   Img 49

Kaktovik woman sowing Iñupiaq clothing. Photo: Video stills from fieldwork, Reitan

Purpose

The research question of Janne Reitan is:

How do women of Kaktovik practice and learn designing of contemporary Iñupiaq clothing? (Reitan, 2007, p. 32).

The purpose of her project is to investigate on one hand the vernacular design process, and on the other hand the learning process that is involved. The Iñupiaq way of designing is an improvisation technique. The clothes are designed while the seamstresses are working with the material, not by drawing in advance. This practice requires a thorough knowledge of the process of sewing and of the materials, as well

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as traditional design concepts. Reitan's purpose has not been to investigate the culture of the Iñupiat of Alaska as such, but the vernacular design process carried out by the women of Kaktovik as a *case* of a design process (Reitan, 2007, p. 66). She underscores that her object of investigation is the design process as such. She does not intend to reveal any underlying meaning in a hermeneutic sense (Reitan, 2007, p. 79).

In a literature review Reitan found a growing body of scholarly literature on design research since the 1960s, but the topic of vernacular design was not included. Thus, one aim of her project has been to mitigate this lack of investigation into the design process of non-professionals. By this enterprise she also intends to contribute to an increased understanding of design processes in general. As a background for her project, Reitan draws attention to a tremendous change in Iñupiaq culture in recent years. The traditional skin clothing is no longer prevalent because new materials have come into use. Hence, as a participant in the present production of Iñupiaq clothes, she has not studied traditional skin clothing, but rather the contemporary use of textile materials.

Results

The result of Reitan's project is presented in a written thesis including a number of photographs. The photographs show Iñupiaq clothing and the working process of making it. Reitan has made this kind of clothing as part of the research project, but the artefacts that she has made are not included as research results as such, and are not assessed by the examination committee by artistic criteria.

Reitan's works of design are Iñupiaq clothes sewn in the traditional way. During her fieldwork she learned the basic techniques and design concepts to a degree that made it possible for her to improvise in the way the Kaktovik women did. One example is:

> The qupaat – the special kind of trim on the annugaat – were made of different kinds of fabric tapes. Although each single qupak [11] was unique – no two garments were the same – they were all related, part of a common tradition. This kind of trim was made all over the Iñupiat-speaking area. This is something I have never seen anywhere else, this technique and design seem unique to the Iñupiat … The shape of the different kinds of garments were approximately fixed, except for adjustments of length and size. The quapaat, however were supposed for creation in form of improvisation within the tradition (Reitan, 2007, p. 113)

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[11] The variation of the spelling of the Inuit words represent different grammatical modalities

The Analysis of the Theses

Reitan describes how Iñupiat practice and learning through improvisation means that the seamstresses are always expressing themselves in new creative ways, al

ways by developing and combining elements from a rather narrow cultural corpus. She finds this interesting as a kind of actionable knowledge that can be inspirational for art and design education in Norway as well. The parallel investigation of how the design process is taught and learned, shows that the most common strategy is what she calls *learning by watching*. Learning to make the clothes is based on observation of what is demonstrated in practice. Teaching and learning is incorporated in practice as a collective and continuous process integrated in daily life. This is a collective more than an individual enterprise, and a continuous process, with no specific beginning or end. Reitan found that the knowledge of the sewing of clothes was always demonstrated in a context. It was not written, and never theorised or tested. She relates this way of learning to Schön's concept of the reflective practitioner and Wenger's theories of learning.

In sum, the major intention of Reitan's project is *better understanding*. The result of the project is better understanding of the 'making' aspect rather than the finished results, and the particular process of designing while sewing, in the dynamic of improvisation within a tradition.

The Analysis of the Theses

Arnaud Hendrickx

Img 50

Img 51

Purpose

Hendrickx does not formulate explicit research questions in the introduction of his project, but describes the intentions of his project in broader terms. He characterises his PhD project as a reflection on his architectural practice through new creative practice:

> The PhD project aims at revealing and questioning the frameworks I work with(in), by actively engaging with mediators (i.a. art & artists) in the design and creation of new work, in order to explore the transitional space between subject and object. (Hendrickx, 2012, p. 7).

- different models of how a spatial artistic practice bridges the subject-object gap
- a method to reveal and question the conceptual frameworks a creative practitioner works with(in)
- the role of and different modes of engaging with mediators in the creative practice (Hendrickx, 2012, p. 7).

The Analysis of the Theses

His objects of research are three consecutive stages of his working life: one stage of education, one of professional architectural practice, and one of research (Hendrickx, 2012, p. 167).

From these formulations I understand a major purpose of Hendrickx' project as the creation of a foundation for making new works through a deeper understanding of his earlier practice, and vice versa, a better understanding of his own practice by means of new creative practice. However, Hendrickx claims that even if Substantiating Displacement departs from reflecting on his own practice by means of his practice, the research question aims at topics that are relevant for practice in general and trans-disciplinary practice in particular: the overlapping field of art and architecture.

Results

The results of Hendrickx' doctoral work are presented in a written thesis which includes photographs of the artworks. The result of the artistic creative work is a series of artworks called Art as Vacancy. These are five art projects that he has made in collaboration with different artists. An exhibition accompanied the final presentation of the PhD. The artworks are an integrated part of the project and the research results. The thesis includes a three-section catalogue, reflecting three stages of his architectural work: 'Evasive Action', regarding his education as an architect, 'Building a Practice', regarding his architectural practice, and 'More than R.A.W', regarding his research activity. The reflection of his architectural practice is presented as a textual component in the thesis, where he describes his professional development as an architect and researcher, the changes of approaches and ideologies in his personal development related to the context and the role and potential of architecture in society.

The retrospective study of his previous practice reveals his personal development as an architect from student to practitioner. As examples he observes that an initial formalism in the first phase of his practice changed to a more philosophical direction in the course of time. He also describes a change of course in his professional work in the architectural firm RAUW, as a shift from architecture as an object, giving materials form, towards the potential and role of architecture for the shaping of human activity. These phases in the development of his personal practice are related to the context of a broader development of architecture in society in these periods.

According to Hendrickx, his research project presents evidence on, contextualises and reflects on four issues. The first issue concerns how different modes of artistic practice bridge the *object subject gap*. The second concerns a method of revealing and questioning the *conceptual frameworks* with which and within which a creative practitioner works. The third concerns the role and different modes of engaging with *mediators* in creative practice. The fourth concerns the conceptual framework of

intensive thinking. He claims that the project evidences his displacement from the centre of architecture to a more liminal position in the overlapping fields of art and architecture, which reveals and questions the fundamental frameworks within which he works. He concludes that the ultimate extract of his PhD is 'substantial displacement' (Hendrickx, 2012, p. 167).

Hence, I understand the overall intention of this project as *better understanding*, in this case better understanding of the architectural practice of the researcher. On the other hand, with this project Hendrickx also intends to redefine his future practice, and so there is also a component of a bettering of his personal practice. His conclusion is that this project reaches beyond his personal creative practice.

Thierry Lagrange

Img 52

Img 53

From Matrix Method workshop with students. Photo: Thierry Lagrange

Purpose

Thierry Lagrange does not present initial and explicit research questions for his doctoral work. The topic of his research project is encircled in the two first chapters of the thesis, the 'Introduction' and 'Contextualisation'. His initial strategy is to use the act of looking as a starting point for the project.

> As an architect, I can look at the elements constituting my profession in a practical way. For instance, when I am inspecting the work of a contractor, interpreting technical drawings, observing the proceedings or persuading a client to make a decision. However, I will not always be looking at things from the technical,

> strategic, administrative or economical point of view. I can look at the same subjects with a completely different intention.
>
> This way of looking, that precedes and initiates the object of my profession, is an intuitive action. I am not always aware of any intention on my part to start looking at things that way, so maybe an unconscious trigger sets me off. This way of looking at a problem, a design or a project originates from my Self, my knowledge, my character, and my moods… (Lagrange, 2012, p. 73)

In this quote Lagrange explains a particular way of looking as an intuitive action. He combines this with a metaphor of himself as a cartographer who is exploring an unknown landscape. This way he decides to have an explorative, open ended approach from the start, and to use his intuitive way of looking as a means for this exploration. From this open-ended, explorative start he begins to use video for his artistic work, and structures his photographs and words in a matrix that becomes the basis for the *Matrix Method*; a working method for creativity and idea generation. Hence the project changes from the initial open-ended exploration to the making of concrete artworks and a method for creativity.

Results

The results of the doctoral work are presented in a written thesis which includes photographs from the artworks of the projects. The artworks are the video works 'ZOOM', 'Old Masters' and 'Landscapes'. The videos were made as a part of the PhD project and were presented on wide screens at the defence of the project. There is also a selection of photographs from his previous twenty years, structured in matrices, and a book called 'The Matrix'. The motifs of the photographs are architecture and landscapes, in survey and detail, including nature, art, materials and structures. In his words the Matrix Project book is an essential component of his PhD project. The video works and the Matrix Project book are included as research results of the PhD project.

The video 'Landscapes' is presented in the thesis on pp. 148-153. On the video-work, he says:

> Until this moment I had been operating in many respects from a personal point of view. I developed an artistic trajectory in which self-reflective reasoning prompted the video work. This is how my thinking was established: I used ideas and concepts that seemed essential to me as well as actions intended to provoke that special way of looking, such as deciding whether to film a sequence or not, choosing to go somewhere or not or focusing on certain elements or not … I worked intuitively, unhindered by inhibitions or restrictions of any kind. I always worked very attentively, so as to be fully conscious of all aspects of the act of filming. I used my personal material to set up a mental tool. Moreover, I worked in a specific, 'designerly' way on these new mental spaces (Lagrange, 2012, p. 155).

The Analysis of the Theses

The Matrix Project book is consists of numerous photographs off architecture and landscapes. They are selected from 20 years of practicing photography, and presents the final choice of photographs for the project. The enterprise of the project is the selection of images, the grouping in themes associated with key words, and the structuring in matrices. From one perspective this may be regarded as a work of art as such, setting a new scene for the images. As I understand it, the making of video films and the construction of the Matrix Project book are prerequisites for the development of the Matrix Method, which is one result of the project.

The Matrix Method was developed and tried out by students, and then in broader settings, one workshop involving actors, and a series of workshops for organisational development and collective problem solving. On the results of his project Lagrange says:

> The research output is situated on a personal level and on a general level. On a personal level, this has been a self-reflective trajectory. On a general level, it has produced views on the development of analogous spaces and the development of a creative technique called the matrix method. The use of matrices has given rise to a view on looking – as an event in space and time – at the way a person is looking, which occasionally leads to some creative insights (Lagrange, 2012, p. 25).

In sum, I regard Lagrange's project mainly as an enterprise of *better understanding*. The act of looking draws a continuous line throughout the project. On the other hand, the Matrix Method is a means of creativity that contributes to a bettering practice for architecture and – as is exposed in the thesis – for a broader range of activities.

The Analysis of the Theses

Wendy Morris

Img 54

Img 55

Img 54. Mealie. Off the Record
Img 55. Grenade. Off the Record

Purpose

Wendy Morris has no initial research questions in her thesis. In the Summary chapter at the end of her thesis she describes four lines of research that include statements of purpose and intentions of her project. This reflects the particular structure of her thesis: the main text is constituted by 52 consecutive thought-pieces, called *postings*. The four lines of investigation, drawn in retrospect, run through these postings.

The major purpose of Morris' project is to expose how her drawing films are made; the working process and the decisions to be taken during the work. The purpose of the first line of research is to find an engaged position from which to speak about the past. The background for this is her African heritage, and the fact that she now speaks from a position on the outside. She felt a need to relate her present position to her own story as a South African of settler origin. The result of the investigation in the first line is that she started to feel emotionally and intellectually connected to this period of the past.

The purpose of the second line is to decide what kind of investigation the films are, what kind of discourse they open and what genre they present. One conclusion of this research line is that to be discursive, the films have to be supplied with text. Another conclusion is that there is no need to use methods of history research, since the films are not fully documentary.

The Analysis of the Theses

The purpose of the third line is a better understanding and communication of the complexities of the working methods and decision-making of making animated films by drawing. She states that these working processes and this particular artistic expression are seldom described. Hence she regards this as a way of making tacit knowledge explicit. The result of the third research line is a detailed and accurate description of the components of this artistic practice (Morris, 2013, p. 21).

The fourth research line is an investigation into writing as an integral part of this artistic practice. The purpose is to investigate writing as an integrated part of the films, focusing the interrelationship of form and meaning.

Results

The results of the project are presented in a written thesis including photographs of the works of art. The artworks are drawing films and coal drawings that are used for the making of the films. The artworks are integrated in the research process and were assessed by the examination committee.

The films are created by a stop-frame animation technique in which charcoal drawings are filmed, altered, and re-filmed in a consecutive process. There is no digital animation. Some of the drawings that have been used for the making of the films were found to be suitable for exhibition, and are presented in the doctoral work. These drawings have traces of the changes that were made during the process of filming. The drawings are large, about 1,80 x 1,50 m. They are exhibited in conjunction with the film of which they are a part. An exhibition also includes a wall of written text and historical objects related to the film.

A major intention of Morris is making tacit knowledge explicit for the artistic work of making drawing films. She describes her working methods in great detail and accurately, meticulously explaining each step. This way she gives her colleagues and students access to a repertoire of tacit knowledge that would otherwise have remained unknown to others. Hence, the project contributes to an extension of the knowledge base within this field of study. Her postings also include considerations of the artistic character of her films:

> In my work I increasingly avoid reference to literary, dramatic or artistic history. I take rather a documentary approach. My work is more concerned with a politics of memory, narrativized through interactions of objects of material culture – souvenirs, postcards, enigmatic or fetishized objects, diaries, archival photos and so on. It is those objects that have been left over from a prior time, dislocated from their original or intended use, that interest me as vehicles for examining traces of the past in the present

The Analysis of the Theses

> ... When I am drawing and thinking a film I want it to be analytical metaphoric. I want to draw comparisons. I want to take images that are recognized and make them no longer recognizable, not by altering them but by setting them into relationships with other objects or images in ways that defamiliarize them. Though I am working with notions of history and memory I try to avoid any sense of the nostalgic or the melancholic (Morris, 2013, pp. 27-28).

In sum Morris' project is in the sphere of *better understanding*. Studies of her position as an artist based on her African heritage, the working process of making the films and the artistic considerations and decisions that need to be made during this process. This all concerns her own work as an artist. On the other hand the intention of making tacit knowledge explicit, means giving public access to this particular way of artistic working. The fact that there is little literature on this artistic field means that she is covering a lacuna in the knowledge base with this project (cf. Line 3: Making Tacit Knowledge Explicit).

Block 1: Summary and Discussions. Meeting the Criteria of Doctorateness

The analysis in block 1 has given the first survey of the doctoral works.

In this first search through the sample I have followed a tentative distinction between two overall intentions of the projects: either bettering of practice, or better understanding of the field of study. Traditionally, better understanding has been the purpose of historically and theoretically oriented research projects conducted by researchers from other disciplines. Presumably research conducted by professionals within these fields, by artists, designers and architects, should contribute to a bettering of practice: better art, better design and better architecture. This is the claim of Glanville's postulate: we do not need research in order to understand more, but to design better.

As is seen in the survey of block 1, some of the candidates in this study orient their projects directly to a bettering of practice. Johnsrød wants to develop better patination methods for artists in metalwork, better for the artists and better for the environment. Von Busch wants to change the fashion industry and turn the hierarchy of fashion upside down. Berg wants to develop working methods for artworks in public space by including the users of the buildings in participatory working processes. Lucas wants to contribute to authenticity in architectural practice, which she regards as urgently needed.

Other candidates have projects where better *understanding* seems to prevail. Hendrickx investigates his architectural practice and makes a reflective study of his professional development related to trends and contexts of architecture in this period. Lucas investigates intuition and the use of artistic means for this purpose. Morris

investigates her working methods as a maker of animated films, the decisions to be made, the degree of documentation that characterise the films, the artistic expression, and the need for text in addition to the visual media. In another direction, Reitan studies the making of vernacular design by women in Kaktovik and the process of learning how to do it. Her intention is not to make their design process better, but to understand it and learn from it. Nimkulrat investigates the use of paper cord in order to get a deeper understanding of the inherent expressivity of materials. In addition most of the candidates express an intention to make their achievements known to the practice field and to a wider public. Nimkulrat has observed that when textile artists discuss materials, they tend to ignore the expressivity of the materials. She wants to contribute to a better understanding in the practice field. Lucas has observed a lack of authenticity in architectural practice, and wants to contribute to a bettering by communicating the results of her inquiry. In this way, projects of better understanding also have a potential of bettering professional practice.

Most of the candidates have an explicit intention of making their acquired knowledge known to the practice field. In this way, projects that are oriented towards better understanding have the potential of contributing to better practice. At the same time, making the projects publicly accessible is a requirement for all doctoral works. In the Dublin Descriptors the dissemination aspect is formulated as a learning outcome: '…can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise' (Bologna Working Group, 2005, p. 68). Doctoral works are publicly available through libraries and commonly by the institutions where they are submitted. Hence some actions of dissemination are included in institutional routines. This means that an objective of doctoral works as such is a potential contribution to various practice fields. Hence a particular intention of the candidates to communicate their research results to colleagues and the practice field may be superfluous. On the other hand, I have observed this to be a major objective for a number of the candidates: they want to give public access to their working methods, their artistic considerations and decision making, the use and expressivity of materials and colours, and so forth. In this way, the study of the making of their own artworks becomes a way of verbalising and communicating this kind of knowledge, the designerly way of knowing and the designerly way of thinking.

Some of the projects deal with the *meaning* of art. Berg includes discussions on symbols and the meaning of images in the chapel where people are mourning. There are expressions of loneliness and isolation between young people in school. Morris includes studies on the character of her art, what genre it is, and how she can find the discourse she wants to initiate. There are reflections from the standpoint of artist, the inside or outside perspective of her African heritage, and the conflict and violence that is the issue of her films. Nimkulrat studies the expressivity of materials, material and

form, and the transition of everyday artefacts into images of the artefacts. She reflects on the interaction of eye, hand, and material in artistic work, in a process of understanding and trying out the expressivity of materials. In my view these projects are contributions to a deeper *understanding* of artworks by interpretive approaches that are closer to theory and history of art and design. At the same time, these are contributions to interpretation from the standpoint of artists and designers themselves. The meaning of artworks is studied by the artists who are actually making them, in dialogue with participating working groups, with the audience at exhibitions, or with collaborating artists. As a result the perspective is different: it is a maker's perspective and an insider's perspective, based on artistic qualification as a means of understanding.

In conclusion I argue that whether the overall intention has been bettering the practice field by research conducted by practitioners, or the intention has been a deeper understanding of the artworks and the process of making them, the fact that the researcher is also the maker of the art is paramount. This is what generates and communicates the designerly way of knowing. Johnsrød is assessing the aesthetic characteristics of his samples of patination. When von Busch arranges his workshops, his knowledge as a designer is crucial. When Lagrange starts his exploratory journey, the act of looking is tied to his qualification as architect. When Reitan studies the making of vernacular clothing, her skill as a textile designer is a major prerequisite. This decisive role of artistic qualification counts for every one of the projects in this sample. All the candidates bring their qualification as practitioners in the making and performing of art, into the toolbox of the research projects. Hence these projects are close to artistic practice. Artistic consideration and judgements are embodied in the projects, which – hopefully – make these projects particularly relevant to the practice field.

Meeting the Criteria of Doctorateness

The Dublin Descriptors demand that the students shall contribute to extending the boundary of knowledge. This means contributing to building the knowledge base, which can be regarded as the identity of a field of study. Building the knowledge base raises the question as to what kind of knowledge this is, and whether the knowledge in these fields of study is something *different* (2.2.1. The knowledge base).

What I have found in the analysis of the theses is that most of the candidates focus on the creative and intuitive part of their professional practice. The following example illuminates this. In their daily work, architects deal with building constructions, economic restraints, municipal regulations etc. They communicate with customers,

suppliers, and broad teams of consultants. In their doctoral works the architects in the sample investigate the disclosing of their intuition, the act of looking, the approach of going by their intuition, and their personal development as architects. They use artistic means for their investigations, two of them use photography, one of them makes art projects in collaboration with artists. Hence, these doctoral works do not expose the day to day activities in their profession as architects. On the contrary: they have used their doctoral works as an opportunity to step back, to take a distant look at their practice and their profession, and to investigate one aspect of their practice: the artistic, creative component.

In this respect it is worthwhile to mention that in general the professional life of artists differs significantly from that of architects and designers. The artists tend to be in a more free position, where the artistic, creative aspect of their profession is more prominent and appreciated. However, when making art for public space the context of the artist is similar to that of the architect, dealing with budgets, material technology, customers and participating working groups. This also reflects the common core of these fields of study, which is also the core of the concept of 'the making disciplines', which, according to Dunin-Woyseth and Michl, need to build a common discipline identity (Dunin-Woyseth & Michl, 2001).

As I see it, the focus on the artistic and creative practice also reflects the continuous plea from scholars in the making disciplines that there is a particular designerly way of thinking, and a designerly way of knowing. I regard this to be the artistic and creative component in the qualifications of artists, designers, and architects. Hence, investigating this component is a way of building the knowledge base of these fields of study. By setting this aspect of their professional practice in the spotlight, and by the transparency and openness that is characteristic of the projects in this sample, they contribute to making this component of their tacit knowledge more explicit. I see their contributions of investigating the component of artistic creativity as contributions to building the knowledge base of these disciplines.

One particular question regarding knowledge production is whether artworks can be submitted as research results. There are different answers to this question, even in the small sample of my study. Two of the institutions, KU Leuven and Aalto University, both have doctoral programmes where artworks are a mandatory part of the result of the doctoral work. At KU Leuven these are PhD programmes. These are followed by Lagrange in the field of architecture and Morris in the field of art. Hendrickx has followed the RMIT track. At Aalto the Doctor of Art is not a PhD. This programme is followed by Berg and Nimkulrat. The doctorate in architecture is included in yet another parallel, the Doctor of Science. Having artworks as part of the PhD in Design is optional at the University of Gothenburg. This is the programme that von Busch has followed. At Oslo School of Architecture and Design, works of art are normally not to

be included in the doctoral work. This was the case when Reitan and Johnsrød started their doctoral projects. The cohort of Lucas was participating in a particular strategy based on Research by Design. In recent years the strategy of AHO has moved in a more theoretical direction.

As can be seen, the small sample of theses in my study represents a variety of institutional solutions to the problem of doctorates in the field of art. This is also the case for the national solutions. In Sweden and Finland there are separate trajectories of PhD and Doctor of Arts. In Norway there is only the PhD, while there is also the Artistic Research Fellowship Programme, the post-graduate programme for the creative fields that is not a PhD. This variety of national and institutional backgrounds within this sample of nine doctoral theses indicates the complexity of the problems of these kind of doctorates.

There are strong demands for artistic quality at both KU Leuven and Aalto University in the doctoral programmes where artworks are a mandatory part. The criterion at Leuven is that artistic and creative product should meet 'the criteria of whatever international standards apply in the field' (KU Leuven, 2009). At Aalto the criterion is that the products, objects or works fulfil high artistic demands. In both institutions these criteria are additions to the general criteria for PhD. An inherent risk in this way of adding criteria for the artistic or creative work is that the workload of the students tends to be heavier. Their doctoral works must meet both the general demands on doctorates and the additional demands of high artistic quality. This may cause confusion for the examination committee on how to assess the two components of these kinds of doctorates. A reasonable conclusion would be that since there is a wider set of criteria for the doctorates in art, the threshold level for each of them should be somewhat lower. In other words, in these kinds of doctorates the general demands of doctoral qualifications should be lowered. This may raise the problem that the same formulation of criteria has different meanings in different doctoral programmes. There may also be a problem of prestige and reputation when the criteria for doctorates in art have a lower threshold of doctorateness. The weight of the artistic or creative part can also be different in various doctoral programmes. The students from Sint Lucas could choose between different models in this respect. For the KU Leuven track the artistic or creative part and the dissertation shall be components of equal weight. For the RMIT track the artistic or creative part is to be dominant part. Hendrickx has followed the RMIT track. The volume and weight of the artistic or creative component is of importance for how the criteria are supposed to be met.

The doctoral programme at KU Leuven (KU Leuven, 2009) demands that the artistic or creative component and the reflective, textual component shall constitute two aspects of one single research project. The dissertation is to be distinct from, but reflecting upon, the product. The programme demands that that the creative process of artistic

achievement or the practice of art is the object of research. This means that the object of investigation is actually set in this programme. If you choose the Doctor of Art, your own artistic work is the object of your research. This exposes the close integration between the artistic work and the research process. As I understand it, this makes the making of art and design and the finished artworks the *objects* of research as well as the results of research. In addition the making of art and design are the research tools.

Six of the candidates have artworks integrated as research results. These are Berg and Nimkulrat from Aalto University, Lucas from Oslo School of Architecture, and Hendrickx, Lagrange and Morris from KU Leuven. They have all submitted a written thesis, where photographs represent the artworks. The two components, the artworks and the written thesis, are integrated, intertwined, both included in the research result. However, none of these candidates have the making of artworks as the only or even the primary objective of their doctoral project. They all have research questions or areas of investigation that go beyond the making of good artworks. In brief, Nimkulrat wants to investigate the expressivity of materials, Morris wants to make explicit her tacit knowledge, Lucas wants to investigate how to disclose her intuition, Berg wants to try out participatory working processes, Hendrickx wants to study his architectural practice, and Lagrange wants to explore the research landscape, and in the next phase to develop workshop methods for creativity.

In three of the projects, works of art and design are not included as research results: the projects of Johnsrød, Reitan and von Busch. This does not mean that the process of making art and design has a minor role in the projects. Design has a crucial role in the project of von Busch throughout, which is an artistic research project. The making of artefacts is a working tool for investigation and the objective of the workshops. Design is the very *topic* of the project. However, this does not mean that the artefacts as such are submitted as research results. In Reitan's project her making of design is a research tool, a means of conducting the research. They are a crucial part of the project, but they are not included in the research results. At the time of Reitan's project, the making of art or design was not to be included in the doctoral works at AHO. Neither are the artefacts that Reitan made during her fieldwork the object of research, to be studied as empirical material. The *making* of the artefacts is the crucial element. Johnsrød has yet another approach. He does not make works of art in his doctoral work, but he works as an artist when experimenting with techniques for the use of artists. He combines documentation of visual characteristics with scientific research methods, thus including the artistic perspective in the research methods. The bettering of artistic practice is the purpose of the project and the overall guideline for the development of the experiments.

6.2.2.　　Block 2: The Process. Research Methods

Block 2 is the second search through the theses for an overview of the sample. The topic of this block is the research methods and the working processes that are used in the doctoral projects. This is at the core of research question 1, on whether and how the making of art and design responds to the criteria of doctorateness. Hence the aspect of 'making' is given particular attention in this section.

Block 2 includes comments on all the theses. My objective is to identify the variety of research methods, and to see them in relation to each other. As with block 1, the aim of block 2 is not at an in-depth study of each doctoral project per se, but to use the theses as material for the survey that is needed for my own study. For this reason the theses will be critiqued in different ways and to a different extent. This does not reflect the importance of a thesis or the research methods it represents.

For this second search through theses I will have as a starting point a tentative distinction between existing research methods and new or emerging methods. Since the making of art and design is included in all the theses, I find a formulation of Borgdorff on artistic research useful as an initial characteristic: 'we can justifiably speak of artistic research (research in the arts) when that artistic practice is not only the result of the research, but also its methodological vehicle, when the research unfolds in and through the acts of creating and performing' (Borgdorff, 2011, p. 46). Of note is that this formulation of Borgdorff includes both the artworks as such and the act of making it. I would add that the artistic practice can also be the object of research. In brief, I will seek to find out whether artworks are the object of investigation, the research method or the result of the research in the sample of doctoral projects.

In the fields of art, design, and architecture the choice of research methods is a challenging enterprise. My ambition in block 2 is to expose how the candidates conduct their research project, how they search for research methods, and how they legitimise their choices. I intend to include some quotes from each of the candidates in order to expose what kind of thinking and reasoning is used for research projects in these fields of study. Again, my choice of quotes and argumentation from each of the candidates is made for the purpose of the survey, and does not reflect the importance or value of the comments.

Because of the research strategy I have chosen for my study the separation of the overview in two blocks, one for the product and one for the process. As a result some repetitions of texts and arguments are inevitable.

The Analysis of the Theses

Arild Berg

Arild Berg makes an initial summary of the research strategies he uses in his project. A major strategy is *artistic research,* referring to how Juha Varto uses this concept (Varto, 2009). For the artistic endeavours he also refers to *practice-led research* within art and design and the concept *artist in fieldwork* by Summatavet 'because the artistic practice gave access to the field and created a space for exploration as a participant observer' (Berg, 2014, p. 32). His inquiry is structured as a *case-study*, with references to Robert K. Yin. Ethnography is used as a working method for collection of data. Hence Berg combines a number of existing research methods. On the character of his research project he says:

> Although the study is not purely inductive, it is very much informed from practice. The case study is inspired by a combination of the inductive and deductive research design, from experimental-research traditions as well as fieldwork, because the case-study method is more similar to a qualitative experimental-research design, rather than to a completely open inductive approach, as in grounded theory (Berg, 2014, p. 31).

His role is that of a participant artist-researcher, collaborating with working groups for each of the three art projects of his doctoral study. He argues that as the creator of the artworks he has access to the artistic process, which is often closed to inquiry from the outside. At the same time he is expanding his role as a performing artist into that of a qualitative researcher. In this role as an artist-researcher and a participant observer he is collecting documentation from an insider's perspective (Berg, 2014, p. 33). This insider perspective is combined with participatory working processes, which include members of staff and users of the public buildings where the artworks are to be implemented.

> It was [therefore] relevant to choose an approach as a participant artist-researcher because the aim was to create meaningful art in the environment for the other people involved. To act as an objective observer from the outside was not appropriate. A position as a participant-researcher (Skjervheim, 2003) suited the process in a better way in terms of exploring the research questions. As individuals, we were all subjects among other subjects, but when we aimed for a higher degree of inter-subjectivity (Bal, 2002, p. 11), and for a higher degree of common understanding of the concepts in transition, the approach was similar to how concepts can be transformed and changed through an interdisciplinary dialogue (Bal, 2002, p. 14). Thus, we aimed for a mutual understanding in a fusion of

horizons; where the old and new are always combining something of living value, without either being explicitly foregrounded from the other (Berg, 2014, p. 34).

The procedure for creating the material-based art had similarities in all the three cases of the study, but with adaptions to the specific context for each site and each case. In all the three cases the procedure was to invite the participants to collaborate in workshops where the art was touched, seen and felt during the process of production. In the workshops the environment was part of the dialogue. To stimulate communication in the workshops, art objects were created between the meetings and used as part of the dialogue. This contributed to a special type of communication between the participants. They became involved in the task, and the process developed a character of being a common exploration where a common understanding of the appropriate materials and artistic considerations evolved. According to Berg this approach proved to have a significant impact on the final solution.

The participatory processes are painstakingly documented. Meeting reports, e-mail correspondence and interviews are filed for the purpose of research. Sketches, drawings, and swatches of materials and colours have accompanied the process throughout, and are documented and filed. There is a thorough interweaving of the artistic and the participatory working process.

In his concept of artistic research Varto has developed a set of basic values for a hermeneutical approach of artistic research, which Berg refers to in his own work. Berg defines his project according to each of the categories of Varto. This way he identifies his ontological and epistemological position. Briefly, Berg identifies his *view of man* as based on the collaboration between artist and groups of people. His *world view* is sustainability. His *self-identification* is that he aims to create an expanded understanding through a hermeneutic and descriptive research approach, referring to Gadamer (Berg, 2014, pp. 22-25). On *ideology* Berg says:

> The ideology (Varto, 2009 p. 145) in the study is based on the idea that art can contribute to well-being and more being in society. It can contribute to cultural identification – where a fusion occurs between man and environment and where the interplay between art and people is seen as goal. The environment is not seen merely as a functional, technological framework around people, but as a meaningful context that creates room for imagination, communication and dialogue (Berg, 2014, p. 217).

Berg regards *hermeneutics* as the basis of his study. He describes this as a natural human practice of reflection. The hermeneutic approach enables the artist-researcher to have an outlook from a specific professional background, which is necessary to create a deeper understanding. Hence, in the structure of Groat and Wang (2002)

hermeneutics is the systems of inquiry for Berg's project. Referring to Gadamer, Berg argues that 'in the hermeneutic view of the world, every person has an individual experience of a phenomenon, and because all people are different, they will think differently' (Berg, 2014, pp. 214-215). Berg describes art as both practice and theory in the project, with artistic research as a dialectic movement between practice and theory. The project shows that a practically oriented thesis may have theoretical touchpoints that inscribe art practice into a larger research community, thus contributing towards bridging the gap between artistic practice and research.

The making of the artworks is integrated in the research project from the start. The art projects are the reason and the object for the participatory processes. Berg is the performing artist who makes sketches and material examples for the participatory groups. Artistic issues, such as materials, surfaces and colours, and solutions for their integration in architectural space have been discussed. The artist's qualifications are a prerequisite for this process. The 'literary content' of the artworks, their *meaning*, symbols and associations, is an important issue for the participating process. The artworks proved to evoke feelings and associations in the participatory groups. This was related to mourning and grief in the Chapel of Rest in the church, and the solitude and loneliness that can be one of the feelings of pupils in the school. One example shows how meaning is the issue under discussion in the participatory working group. For the Chapel of Rest in the church, Berg presented pieces of ceramic tiles to the participatory group. These were to be placed on the wall in this room. On one tile was a drawing of a sparrow. The priest, who was a member of the participatory group, rejected this, because a sparrow would not be a proper image in a room for mourning in church. There was a dispute about this in the participatory group. One opposing argument was that the Bible says that not even a sparrow falls to the ground without the decision of God. After thorough discussion, the sparrow was accepted. The debate in the participatory group was an integrated part of the development of the artworks (Berg, 2014, p. 83). In the school, one intention was to focus the pupils' relationship with words. Hence words were included in the artworks. During conversations one girl said that 'some pupils are always on the outside'. This was the basis of the text on one of the objects of this project, in Norwegian *Alltid på utsida* [Always on the outside] (Berg, 2014, p. 149). Thus, the artworks concern profound questions of human life, questions that were exposed in the participatory process.

As discussed previously, in the Doctor of Art programme at Aalto University, works of art and design are a mandatory part of the research project and are to be included in the result of the doctoral work. One specific criterion is regarding the research methods: 'the aim may be that the student gains the knowledge and skills for independently conceiving methods of artistic creation or creating products, objects or works which fulfil high artistic demands (Aalto University, 2013).

The Analysis of the Theses

In sum, Berg has used a combination of existing research methods and emerging artistic research methods in his project. He has followed the concept of artistic research of Varto, while Varto himself states that artistic research is not yet a complete research method, but a concept that is still in the making. By following well known case study methods as described by Yin, Berg uses a recognised research method for structuring the project. This also includes methods for validation. The three cases of the project all include components of participation, the development of collective concepts, materialising these into artworks, and implementing the artworks into the architectural space. This way the problem area is illuminated by three different cases but with the same research questions to be investigated. In addition the use of established research methods is completed by the inclusion of the ethnographic methods of the participant researcher. As I see it, this project is an example of compensating for what may be the unfinished concepts in artistic research by combining them with the recognised methods of case study and ethnography. At the same time, what may be a divergence from the established methods when it comes to the 'making' aspects in the established methods is compensated by strategies of artistic research.

The Analysis of the Theses

Nithikul Nimkulrat

Nithikul Nimkulrat characterises her strategy as *practice-led research*. By this she means studies carried out by researchers who undertake their own professional creative practice for their study. Initially she characterises the state of the art of this kind of inquiry:

> Literature on methods of conducting research that involve creative practices as a process of enquiry (i.e. practice-led research) has only recently appeared. Although the issue of methodology used in this form of research has been topic of scholarly debate in the United Kingdom and Finland for over two decades, no explicit consensus has been reached, and thus no standard package of methods is available for a novice researcher to follow. However, attempts to introduce methods for performing practice-led research in art and design involves multiple methods, primarily visual, originating from practice or adopted for practice-led research from other research paradigms (Nimkulrat, 2009, p. 49).

From this state of the art Nimkulrat infers that practitioner-researchers seem to be encouraged to develop their own approaches, according to their specific research questions. She refers to two Finnish research projects where art production and artworks play a central role. One is the PhD of Marit Mäkelä of 2006, where she developed the concept *retroactive approach*. This is an interaction between making art and research in retrospect by means of a hermeneutic framework, including literature studies. This research constitutes the base of new artistic work. The other project is the study of Outi Turpeinen of 2006. This work includes an interplay between literature studies, museum visits and artworks. In Nimkulrat's view these projects show that practitioner-researchers can maintain and present their creative qualities in their academic research. She argues that by using explicit research approaches and verifying them throughout a research process, it is possible for a study that contains the creative production of artefacts to gain acceptance in the practice field of the researcher as well as in the academic community (Nimkulrat, 2009, p. 51).

Nimkulrat states that the making of art for the exhibitions in her doctoral project was different from her general artistic work, because of the purpose to gain knowledge and understanding by the artworks, and because of a process of reflection-in-action. This required documentation by photography and writing during the process of the creative work, and also a critical reflection on the process. She reveals a phenomenological

The Analysis of the Theses

> To learn about my conscious experience of making the work, ranging from thought memory, imagination, and emotion to action and decision, I studied literature on phenomenology in which the structure of the experience could be described. For example, when I touched and manipulated a type of paper string, its tactile and visual qualities reminded me of something. According to Merleau-Ponty's phenomenological philosophy, tactile experience gained through touching the material could establish a connection with my consciousness, thus recalling memories of experiences from my past (Nimkulrat, 2009, p. 66).

During her exhibitions she conducted quest-back inquiries in the audience. The visitors were asked a number of questions regarding the works of art and the exhibitions as such. For studying the quest-back inquiries she refers to the structure of experiences in Heideggerian phenomenology: 'people know how they will interpret things before they actually see them, by relating what they are experiencing to the meaning of similar things they have already experienced' (Nimkulrat, 2009, p. 73).

Nimkulrat argues that knowledge is embedded in an artistic process, while the problem is that this knowledge is personal and embodied in the artist and her creative work, and may not be clearly recognised afterwards. Hence knowledge tends to end with the creative process. This can hardly be called knowledge in a research context because it is neither evaluated nor validated by others, nor is it captured in a textual format and disseminated. On the combination of artworks and text she says:

> The lack of literature about artworks written by artists has made research that includes the researcher's art practice or practice-led research seem unconventional. Actually, practice-led research is about artistic processes and courses of action which lead the research process, and are disseminated to others not only in the form of artefacts, but also in the form of text. Both text and artefacts are means to communicate what one profoundly gets to know about a topic (Nimkulrat, 2009, p. 232).

Nimkulrat compares her study of her own practice to *in situ* ethnographic research in the social sciences. She does not use ethnographic methods in her study, but emphasises the relationship between practice-based research in art and ethnographic research and the concept of autoethnography.

In Nimkulrat's project the works of art are the object of investigation. Through questionnaires and interviews with the audience at the exhibitions she learned how they understood her works of art. At the same time the process of making the artworks is also an object of investigation. There are two phases of making art, and two phases of reflecting on it. This means that in two stages of the project the making of art is the object of investigation, and in two phases the exhibited artworks are the object of investigation.

The Analysis of the Theses

Regarding the research methods Nimkulrat rejects that the creation of artefacts can be considered a research method as such, but she argues that it can be used as a means to try out thoughts or ideas in practice (Nimkulrat, 2009, pp. 52-53). In her research project she has used the making of art to investigate the expressivity of materials. Hence the making of art is a research tool for trying out the expressivity of materials, and the knowledge gained is used for making the sculptures that are integrated in the research output. Hence the making of art is an intertwined research method, in combination with other research methods.

In sum, the making of art and the finished artworks are objects of research. The making of art is an integrated part of the research methods, and the artworks are an integrated part of the research output.

Otto Von Busch

Otto von Busch characterises his research strategy as *artistic research*. He describes this as a strategy in the making, in which he is developing his own way. In his view it is characteristic of this kind of research that aesthetic considerations and judgements play a major role, and that personal ambitions are driving forces. Von Busch underscores the need to obtain results that are useful outside the personal context. To obtain this the research process must be related to other on-going processes in society. In his view a continuous procedure of position-making is needed in order to constitute the quality of artistic research in the process of knowledge production (von Busch, 2008, p. 27).

Since von Busch describes artistic research as an emerging research strategy in which he finds his own way, I regard the strategy of this project as his version of artistic research. In his words the core of this research strategy is that it does not reduce complexity to clear-cut conclusions. All aspects, aesthetic as well as commercial, are regarded as supporting the process of trial-and-error in design. In his project a multiplicity of single examples and events are united in a temporary alliance. These components become a set of cross-references that allow pattern comparisons, matching and triangulations. By this kind of artistic research he wants a more sophisticated discussion on design practice. He also aims at a broader intellectual

reference to complement other academic research in this field of study (von Busch, 2008, pp. 28-29).

Structurally he draws a number of research lines through the thesis, while his main comments on the research methods are presented in an appendix. He uses various approaches, artistic research, action research, development studies and others, regarding these as supporting practice and the discussions of practice rather than as tools for strict analysis (von Busch, 2008, p. 243). In his terminology, lines of methods are finally gathered in a rhizomatic mesh. Of this structure he says:

> For my research the idea of lines has helped me articulate a process that allows both a smooth transition through texts, projects and examples of others and which, as in my own practical work, values each part as equally important. All these lines form an *alliance*, an assemblage of forces that are gathered to shape the thesis, a multiplicity in itself, that gives boost to the reader's energy and encourages him to ride on and try new things (von Busch, 2008, p. 244).

Von Busch relates this to the ideas and the terminology of Deleuze and Guattari and De Landa. References to Deleuze and Guattari run throughout his thesis, and also accounts for the *non-arboreal structure* of his thesis. He explains that the latter is a structure with no stem and no root system, with no strict beginning and no strict ending. His thesis does not follow a classic progressive or deductive format, but cross-examines and contextualises a series of experiences that must be interpreted and re-situated (von Busch, 2008, p. 28). Another concept of Deleuze and Guattari and de Landa is *the nomadic sciences*. These are contrary to the classic research process, which he describes as the linear exercise that aims at stabilising a system of data from observations and experiments, and reduces complex disorder to understandable variables and functions. In contrast to this is a process more like a line that goes through an unsorted reality or mass of practices that preserves its dynamics and imbalances. This method follows a meandering line through a system, focusing on interactions and intersections between other lines. Von Busch argues that the idea of lines has helped him to articulate a process that allows smooth transitions through texts and projects, and allows each part to be valued as equally important. The lines in this kind of structure gather in an assemblage of forces, in his case in order to form a doctoral thesis. From a designer's perspective, lines are interwoven with practical design projects and ideas so as to become a *nomadic practice* that consists of a meshwork of *lines of practice* (von Busch, 2008, p. 244). He deepens the nomadic practice as a method focusing on doing and becoming rather than having and being; built upon lines rather than points, searching for processes rather than fixed meanings or essences: in de Landa's terminology a *non-reductionistic holism*.

The project of von Busch is a meta-design, explaining how design can redesign itself. The vision of his project is a fashion system of Pro-Ams and user-innovators, where the

borders between the fashion-industry and the consumer are dissolved. He regards this to be another layer of fashion, a rhizomatic, viral and engaged level, that cuts diagonally through the system, that draws unexpected lines and consciously connects to the existing flows (von Busch, 2008, p. 237). Hence, the Deleuze and Guattari terminology and metaphors that he uses to describe the research methods, also reflect his visions of a renewed design process.

The participating role of design is paramount in von Busch's ambitions to change the fashion industry. This is also a working method throughout his doctoral project. In one way the design works themselves and their aesthetic quality, are not be the main issue of the projects. It is the *making* of the design works that prevails. The ambition to change the fashion industry is not basically about creating a new style, but about the process of *making* the clothes, and the process of *making* the design. The personal works of the design-researcher are held back. The working process – a means of running the project in the form of action research – is the object of research. On the other hand, design is the core of the workshops and as a design-researcher von Busch's qualifications as a designer are a prerequisite.

When von Busch attended the PhD in Design programme at the University of Gothenburg, this programme allowed, but did not demand, elements of artistic expression to be included in the doctoral work. The works of art are not assessed on their artistic quality as part of the result of the doctoral project. In the version of this programme that von Bush was following there was a demand that the artworks should be relevant from a scientific [*vetenskaplig*] point of view. The curriculum (University of Gothenburg, 2000, May 3) specified that the PhD in Design was a new study programme with the objective of giving a distinct research profile to this field of study, which previously had a vocational profile. In the doctoral thesis, artistic and scientific elements were to be combined. There were different options mentioned for this combination: there might be artistic and scientific components, artistic and scientific research questions, or artistic and scientific innovations.

Characteristic of the project of von Busch is the mesh structure that replaces the conventional sequential structure of a research process, and the open-ended inquiries that replace research questions and corresponding results. Artistic research is combined with a number of existing working methods at the level of working methods. According to von Busch there is a close connection between research methods and design methods. The research project reflects his practice, and the research methods are of help to the design projects.

In sum, it is not the works of design as such that are the object of research, nor the results of research in this project, even though design is the core and the topic of the project as a whole. It is the *making* of art and design that is the object of research and

the purpose of the project. In my understanding the meta-perspective of this project makes artistic research both the research strategy and the system of inquiry, the worldview, and a major reference to his visions of changing the fashion industry. The concepts of Deleuze and Guattari that permeate the project create a close connection between the research strategy, the system of inquiry and the purpose of the project.

Arne Magnus Johnsrød

The project of Arne Magnus Johnsrød is a cross-disciplinary enterprise at the intersection between art and biology. Himself an artist, he has conducted his project in collaboration with scientists within biology. Art is the starting point and the motive for the project. Johnsrød offers a curiosity of different possibilities of research in a context of working with art methods and techniques from other disciplines. 'The reason for such interest is the professional's everlasting search for new ways to express art and to create new artistic methods' (Johnsrød, 2009, p. 7).

Artistic and biological perspectives are running simultaneously throughout the project. Johnsrød conducts his research using working methods of biology and chemistry in cooperation with scientists from these fields. From an artist's point of view he develops an artistic way of characterising and describing the visual and structural character of the test samples from the experiments. On the combination of art and science in one study, Johnsrød says:

> With regard to the making professions, one aim is to use scientifically and methodologically sound research to discover a method for patination based on untraditional combinations, methods and techniques. Starting a research project in the tradition of art, but related to the natural sciences, initiated an information-seeking process. During this process, it was impossible to find similar research projects spanning these two disciplines. It was difficult to build a scientific question on which to build the research. … (Johnsrød, 2009, p. 7).

The story of the decaying trout that had caused a hole in the metal sheet on the work bench, was the starting point of a series of experiments with natural patination, by exposing metal sheets to air, soil, and heat. However, he had to discard these experiments altogether, because the results could not be controlled. The next set of experiments included the use of a controlled atmosphere with the variables of

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humidity, temperature and time. The result was a biological coating or a microbial oxide film on the surface, similar to those formed by chemical treatments. To proceed in this direction, Johnsrød had to study basic microbiology, not in order to be a biologist, but to be able to execute experiments in a laboratory. He then conducted two parallel research lines, one of chemical and one of microbial patination. As a preparation for the experiments ancient patination – that is the result of exposure to air and weather over a long time – were analysed in order to identify which chemicals had caused the patina. The results of the experiments are documented by photographs, presenting large rows of metal sheet samples covered with patination of different colours and structures. Microbial transformation of biological substance created surfaces on the test sheets with different crystal structures in the microbial oxide layer. Different crystals could be observed in a dissecting microscope. The most interesting crystal structures were chosen for further analyses by XRMA (x-ray microscopy analyses) and chemical tests.

The tests were conducted by applying microbial material to metal sheets, based on biological research methods. This included an investigation into the effect of microbial decomposition of proteins and carbohydrates on the surface of copper and one of its alloys; brass. The microorganisms were categorised according to conventional classifications, and at the same time Johnsrød described them in visual terms using the Visual Comparative Method that he had developed. Of note is that he did not regard the VCM as a scientific method. Johnsrød made a table that compared the scientific descriptions with his own visual descriptions. His description of the colours as they appeared on the test sheets was used to describe results from both traditional and microbial patination.

Based on several chemical recipes composed for traditional metal patination, test sheets of copper and brass were coloured by three different methods … to show various examples of semi-colours. Using traditionally patinated reference test sheets … and comparing semi-colours with those on the microbial test sheets, it was possible to determine visually which reactants acted on both test sheets by reading the table containing the specific name of chemicals used.

Johnsrød states that microbiologists do not show much interest in the colours appearing on a metal sheet during a microbial process. Their focus is on the different reactions that are caused by bacteria in the microbial oxide-film. Artists, on the other hand, will want to solve the mystery of microbial colouring on the metal surface for use in a creative process. This illustrates the difference between the use of knowledge in different disciplines: biologists search for what biological and chemical course the process takes, while the artists want to find a practical use for the results in their creative work (Johnsrød, 2009, p. 14).

The Analysis of the Theses

> The fields of art and the natural sciences represent two different categories of experience and understanding. Art produces art without a conscious connection to scientific research and is not part of the tradition of science; art historians have traditionally apprehended art scientifically as a research objective. Biology has a place in the tradition and professional methods of the natural sciences. When exploring the field of biology in the process of creating art, art and biology meet. In fact, art and biology have some mutual professional traditions as well as institutions and patination can be seen as one example of these traditions (Johnsrød, 2009, p. 234).

Johnsrød draws a historical line of combinations of art and science. He uses the example of Leonardo da Vinci, who represented both, and examples from recent years of interdisciplinary research and the crossing of disciplinary borders. He describes his work as 'research between two chairs'. Referring to this background he proclaims that research in the arts should be related to science, not only to the humanities. And even if he uses research methods of other disciplines, he also uses his qualifications as an artist in the project. In this respect he refers to Schön's concept of the reflective practitioner.

In sum, the project of Arne Magnus Johnsrød is unlike the other projects in this investigation, since the test samples are the only practice-related works, and no designed and produced works of art or design are included. In this respect the project resembles studies in material technology, engineering and others with the purpose of contributing to the practice field of art. On the other hand, the material studies of Johnsrød's project are initiated and conducted by an artist and designer, and involve considerations and assessments that require the qualifications of an artist, which gives this project another basis.

By using the research strategy of biology, it becomes the actionable knowledge of the project. This is also reflected in what he regards to be the ideal for research in the making disciplines: scientifically and methodologically sound research. Hence natural science and positivism are the systems of inquiry of this project. In addition I regard the project to be an example of *transdisciplinarity* (cf.6.3.5. Line 5: Collaboration and participation).

Pavlina Lucas

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The Analysis of the Theses

Pavlina Lucas has developed her own research method called *practicing-research*. The core of this method is the combination of practice and research. She had *Research by Design (Rbd)* as a starting point, a research method for projects that combines hands-on production and critical reflection in architecture and design. However, in her view this is more an orientation for research than a fixed method or an agreed research practice, which is why she found that there was a need for further development. The reason why she chose a neologism – *practicing-research* – for her research method was the multitude of terms in use for research in the field of art and design, often in combination with verbs like -based, -oriented or -led, with *artistic research* or *artistic development work* as parallels to RbD. In order to avoid this multitude of terms she chose a new term. Lucas characterises practicing-research as a continuous interaction of practice and research, an integration of intuitive production and analytical thinking (Lucas, 2013, p. 16 Essay). Hence, she searches in the multitude of methods for research in art and design, finding that there are no fixed method or agreed research practice available, and develops her own path and identifies it by a new name. She regards this as a substantial part of her doctoral project.

Lucas' project includes both architecture and art, the latter in the form of photography. She has a professional background in both. On the question of multi-disciplinarity Lucas says:

> In my forthcoming discussion on practicing-research I consider projects from the area of architecture and design together with projects from the sphere of fine art without distinction. In fact, all research activity operating in this mode of knowledge production is implicitly included in my discussion, because the ontology and epistemology of practicing-research projects is fundamentally the same across the board (Lucas, 2013, pp. 7 Practicing-research).

Even if her research project is practice oriented, Lucas builds a broad theoretical foundation for her research method. She mentions the characteristic of Frayling's (1993) characteristics of research into, for and through art, the theory of tacit knowledge by Polanyi, and of reflective practice by Schön. She relates her project to the 16th century concept of the *mathesis universalis*, the one unifying scientific concept of Rationalism, which she rejects. In the sub-title of her thesis, she uses an opposite concept: *towards a mathesis singularis.* This concept is used by Roland Barthes who asked for one science for each subject instead of a single, universal one.

Lucas relates practicing-research to existentialism, and places it in the domain of humanism, setting forth the proposition that *practicing-research is a humanism*, and lives the principles of existentialism as practiced philosophy (Lucas, 2013, p. 23 Essay). She draws a line of philosophy:

The Analysis of the Theses

> The thread that starts from the philosophy of Bergson, runs through Sartre's existentialism, and is weaved in the thought of Kolb and Schön, has now been traced. These seminal thinkers have either implicitly or explicitly contributed to the advancement of a mode of learning that is inherently linked with practicing-research by upholding and promoting the integration of intuition and intellect, or according to the terms of Kolb the synergy between apprehension and comprehension. At the very core of their work is the belief that every individual has the prerogative, not to say the obligation, to transcend social and ethical predicaments, to challenge the conventions and institutions, and to create freely his own life through actions that despite their singularity have a shared universal constitution (Lucas, 2013, pp. 23 Practicing-research).

Lucas also explains her project by refuting its opposite, the hypothetic-deductive model, which she claims has been the establishment in academia:

> As my research project – like all other practicing-research projects – unfolds questions instead of closing hypotheses, it is incompatible with the hypothetico-deductive model, which has been the standard in academia (Lucas, 2013, p. 5 Closure).

This way Lucas proclaims a distinct opposition to the establishment. However, since the hypothetico-deductive model is not the only establishment of academia, since qualitative methods were accepted long ago, I suggest that Lucas is instead opposing the conventional model of research questions that lead to corresponding and foreseeable research results. As seen in the beginning of the quote above, she postulates that all practicing-research projects produce questions rather than answers. This also counts for the *singularity* of the practicing-research method. Each project is a single event that cannot be replicated. The projects can take innumerable different directions, even by the same researcher, and there are no defined trajectories to follow.

Lucas' project includes numerous artworks in the form of photographs that she has made during the research process. The photographs are the expressions of a thorough and serious process of artistic work. As I understand it, photography is a response to both research questions: how can I disclose my intuitive insights, and how can I bring these into the production of spatial experience? Photography is used as means of disclosing her intuitive insights, and they represent architectural space. I suggest the following line of reasoning: photography is a means of disclosing the intuitive insights of the researcher. She discloses her intuition when making the photographs, which – by their motifs and themes – produce spatial experience; the medium of architecture. As I understand it, intuitive insights and a deep experience and awareness of space can contribute to architectural authenticity.

The Analysis of the Theses

Given this understanding of the project, the photography acts as a research tool, and the photographs are integrated in the research results. The photographs and the process of making them are hardly the object of research, which in this case is the disclosure of intuition and the making of spatial experience. The investigation could not have been conducted and communicated without the works of art, and the works of art cannot stand-alone as research results without the written doctoral report.

At AHO works of art and design are not included in the doctoral programme. However, Lucas was part of a particular cohort of students, attending a fellowship programme explicitly directed towards Research by Design. The announcement for this programme stated that 'relevant development work within architecture and design will most successfully take place through creative project work, in which practice works is combined with critical reflection' (Lucas, 2013, pp. 7, Practicing-research). Projects were recommended to combine research with development work of artistic, architectural or design related character Lucas is the first candidate at AHO who had her artworks assessed by the examination committee.

> From one step further away, I see that the integration of intuitive hands-on production and analytical reflection sets the *eidos* of the present project, but it is the articulation of the personal insights that have emerged through it in a manner comprehensible to others that identifies it as research, and what grounds its claim to *doctorateness* (Lucas, 2013, p. 8 Closure).

One reason why Lucas found that she would have to develop her own research method was that she found Research by Design to be an orientation of research rather than a fixed method or an agreed research practice. Hence she had to develop concrete working procedures, and a research strategy for structuring the project. As I see it, practicing-research is not a totally new method for conducting this kind of research, but rather a way of defining her own path in a complex multitude of emerging research methods that are not fully developed. In her doctoral work Lucas developed a substantial theoretical basis for her research method, and positioned her method in the area of humanism and existentialism. Hence she also defined the systems of inquiry for her research method. In my view the theoretical foundation of the practicing-research is a major contribution to this research strategy.

In sum, and as I understand it, the artworks as such are not the object of research, but are integrated in the research output. The *making* of the works of art is an integrated part of the research methods. This is the core of the concept of practicing-research. The investigation could not have been conducted and communicated without the works of art, and the artworks cannot stand-alone as research results without the research process that has generated them.

The Analysis of the Theses

Janne Reitan
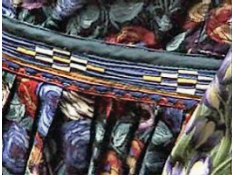
Janne Reitan characterises her project as an in-depth, qualitative case study related to ethnography. She has conducted her project on vernacular design as a participating researcher in the social setting of women of Kaktovik. As a participant of their daily work she has been practicing the making of Iñupiaq clothes. She says that the trajectory she has followed in her investigation was not fixed before she started her fieldwork, and that the research design has been created inductively during the research process, based on reflections on what seemed most appropriate and possible during the process (p 67). She says:

> I have not followed one rigorous qualitative method, but rather borrowed from different methods depending of the purpose and the possibilities in the different situations. Flexibility and improvisation have been crucial to constructions and analysis of empirical material. This implies that the research process has been uncertain and ambiguous from the starting ideas, through the empirical level, to the writing of the thesis. During this insecure path, I have occasionally been tempted to choose more 'safe' and approved methods, such as grounded theory and structured interviews (Reitan, 2007, pp. 65-66).

What is seen in this quote is that Reitan is following her own path, but in close connection to existing research methods, which she borrows from when needed. Of note is that she regards the safe trajectory of following approved methods less appropriate than the trajectory of making her own path. In her terminology she 'admits' that she has been 'inspired by' ethnographic research methods. In addition, she has developed special working methods for this particular project (Reitan, 2007, p. 66).

The working methods of Reitan's fieldwork are close observation, recording and engagement in the daily life of another culture, and then written accounts of this culture, emphasizing descriptive details of how the women of Kaktovik practice and learn to design *annugaat*. During her fieldwork she conducted a design process similar to that of the seamstresses she was studying. She did not copy their work, but improvised within the tradition in the same way as they did. For this purpose she had to learn the techniques and the design principles that they used for their work to a level that enabled her to improvise in this tradition. In order to test whether she had acquired the competence needed she asked them to judge her products.

> I look upon my participation in designing as a vital research method to uncover what is characteristic for the process of designing by improvisation within a tradition. In my opinion *inside knowledge* […] that comes from having competence as a practitioner of designing activity can make a vital contribution to understanding, especially when combined with a researcher's perspective from the outside. This can be conveyed by research into actual production, in this case, the discipline of designing. In this project, as a practice-based PhD […], I used my own creative work as a research tool in order to participate socially in the realm of *tacit knowledge* that the design process conveys (Reitan, 2007, p. 76).

Reitan relates her projects to theory both on the design process and the learning process. She uses the concept of the reflection-in-action and the reflective practitioner by Donald Schön (1983), and the theory of *communities of practice* by Etienne Wenger (1998). She found that the theory of Schön had a major deficit on the issue of learning: he did not include the social setting of learning. In her fieldwork this context had been pivotal. For this reason she introduces the theory of learning communities by Wenger who is stressing just what Schön has not included in his concept. The perspectives of Schön and Wenger complete the picture of her study. For the interpretation of her empirical material she refers to *Reflexive Methodology* (Alvesson & Sköldberg, 2009) and the concept of multiple interpretation (Alvesson, 1996). Reitan takes a position of *rhetorico-pragmatic situationism*. She refers to *rhetoric* for the importance of the concrete, *pragmatic* from the philosophical pragmatism of Dewey and Goodman, and *situationism* from the concept of situated knowledge by Haraway.

Of particular interest to my study is that Reitan relates her project to the positions of Peter Downton, who argues that design *is* research, and Dunin-Woyseth, who argues that design is essentially *different* from research. Reitan says: 'Be that as it may, one of the research methods I used in Kaktovik – the *design practice* process – has a lot in common with the *design research* process' (Reitan, 2007, p. 55). As I understand it she does not make her position clear in this debate. Her laconic comment may suggest that she tends to be closer to Downton, since she finds that the design process is quite close to the research process. On the other hand, in her thesis as a whole she is meticulously building up a trajectory of research methods that suggests another position. Hence I see this as an example of the close intertwining of design methods and research methods in this field of study.

When Reitan studies vernacular clothing and clothing traditions, 'the purpose is not to investigate the culture of the Iñupiat of Alaska as such, or the meaning of clothing – but the vernacular design process carried out by the women of Kaktovik as a *case* of a design process' (Reitan, 2007, p. 66). Hence the object of research is not the artefacts as such, but the process of making them. This also counts for the artefacts that Reitan has made herself. The garments that she has sewn in her fieldwork are not the object of investigation, but the *making* of them is her research tool.

The Analysis of the Theses

Reitan discusses the importance of the visual media in her project. While research in general is communicated in written text, researchers in the making disciplines need visual media as a channel of expression. She underscores that her interpretations would have been impossible and meaningless without using the visual medium to supplement and add meaning to the written text. For this reason she foresees that the growing research in visual design may contribute to a 'visual turn' of research (Reitan, 2007, p. 81).

At the level of working methods, Reitan combines the making of artefacts with working methods from ethnography and others. Her study is structured as a case study. However, she explicitly declares that she has no overarching research strategy, but that she follows her own path, which she develops during the working process. This strategy, or rather lack of strategy, means that she borrows research methods when she needs them. As I understand it, her reason for making her own path is the fact that she is working within the field of design, where there are not a set of defined research methods to hold on to, and for this reason it is necessary to combine elements from different existing research methods.

In sum, Reitan's making of design works is a research tool for understanding the design process that is the object of investigation. It is a necessary tool for this project, as is also her qualification as a textile designer. Her works of design are not the object of research, nor are they included as an integrated part of the research results. Reitan was attending the same doctoral programme as Pavlina Lucas, but 13 years earlier. At the time of Reitan's doctoral project, artworks were not to be submitted as a research result of the doctoral work at Oslo School of Architecture.

Arnaud Hendrickx

Arnaud Hendrickx characterises his research approach as Mode 2 knowledge production, by the use of transdisciplinary cooperation between artists and himself as an architect. He also describes his project as an evidence-based case study.

The Analysis of the Theses

The project includes a development of methods for understanding his architectural practice by means of designing new works of art in collaboration with artists (mediators). In this process Hendrickx and the collaborating artists develop five art projects. In this work he moves from the centre of architecture to the overlapping field of art and architecture. Hendrickx says that the aim of this art project is to confront his architectural practice with that of five exemplary artists. The artists are chosen for their specific approaches towards architectural topics and space in general. Each of the five collaborative projects aims at the production of an autonomous work in the field of art and architecture.

Parallel to the making of the five artworks, Hendrickx develops a research method that he calls *The Method of Good Company*. He regards this as corresponding to the *Creative Research Model* provided at RMIT (Royal Melbourne Institute of Technology) (Hendrickx, 2012, p. 10). The Method of Good Company includes a number of terms and concepts that require a close study in order to get a full understanding. In the following is a brief survey that may give an impression of this research strategy, but I do not have the ambition of a comprehensive reference. The Method of Good Company includes the development of *heuristic devices* that are used in the design process. The heuristic devices are presented in the theses in a glossary that follow the different stages of the project. There is also a method of presenting artefacts – or representations of artefacts – on what Hendrickx calls the *proximity wall* and give them different positions on this wall. By displacing a project in proximity to others, their juxtaposition generates different relationships. This method is implemented as a design tool, or an operational heuristic device. He used the Method of Good Company with his master students at Sint Lucas, who further explored this working method. In their project a parallel to the proximity wall was called 'the patent office'. The concept 'substantial displacement' is one result of this process. Hendrickx chooses to use the concept of substantial displacement as a lens for looking at his own work.

According to Hendrickx the Method of Good Company was gradually shaped through interaction with the research context of the project. However, it was based on a number of other research methods. He was attending the Research Training Sessions (RTS) at Sint-Lucas School of Architecture, where a number of approaches were represented. In one of the sessions Leon van Schaik and Richard Blythe were presenting the *Creative Practice Research* model that was practiced at RMIT. An ideogram of this model shows a runway for projects passing through a row of different frames. The frames represent various settings: *challengers and authorities, reflection on existing work, reflection that takes place in action,* and *reflections on possible future actions*. Hendrickx regards his Method of Good Company as corresponding to this RMIT research model. As a reader I find the ideogram of the RMIT method helpful for a better understanding of the method and terminology of Hendrickx. The Proximity Wall

is Hendrickx' version of the Runway of Projects in the RMIT model. On the Proximity Wall he distinguishes *autonomous actions, heuristic devices, contextualising, and reflective actions*. By these means he constitutes a process of reflection on previous works, which gives potential for new actions. The research method of Hendrickx is particularly constructed for this research project.

I shall make a brief description of one of the five art projects in the 'Art as Vacancy' series that constitutes Hendrickx's artistic work. 'The Perennial' is the last project in this series. The collaborating artists are Michaël Van den Abeele and Richard Venlet. The project was an exhibition accompanied by seven evening events of readings, screenings and performances; one event each week. In this period the exhibition could also be visited in the daytime. The exhibition was built as one box within another larger box, to maximally disconnect it from the surroundings. In the interior were exhibited seven artefacts. One example of the seven events is a lecture by psychiatrist Erik Thys on 'Space and the Soul'. There were fifty visitors at this event. When they entered the exhibition they were met by a music piece, and then the lecture of Erik Thys. According to Hendrickx the content of lecture resonated with the exhibited artefacts in different ways. 'Conceptual Blending' by Giles Fauconnier was used as a heuristic device for this project. This concept is explained in the glossary that is included in the thesis, along with heuristic devices from other art projects. In the epilogue, Conceptual Blending is mentioned as one of three main devices.

Hendrickx gives some phenomenological references (Hendrickx, 2012, p. 45), and also describes his project as Mode 2 knowledge production. This refers to the art projects, where he as an architect collaborates with a number of different artists. He describes Mode 2 as a context-driven, problem-focused and interdisciplinary form of knowledge production, referring to Gibbons. He also describes his project as trans-disciplinary, defined as collaboration where people from different disciplines work towards a common goal 'where all the participants address the full spectrum of activities that echieving this goal implies, even if some of these activities are not traditionally considered to be a part of the discipline someone belongs to' (Hendrickx, 2012, p. 7)

In sum, the major research strategy of this doctoral work is the Method of Good Company that Hendrickx has developed for this particular project. There are brief references to existing research methods, such as case study and Mode 2 knowlege production. However, the main contributor to the research method he developed, is the Creative Research Model from RMIT. Hendrickx presents his art projects as a major part of the result of his research project, which is also demanded by the RMIT doctoral programme. He describes the Art as Vacancy projects as an integral and inseparable part of his PhD project. His previous architectural practice is the object of research. This way, art and design takes the role of research methods, and the major part of the research results, intertwined with the written part.

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The Analysis of the Theses

Thierry Lagrange
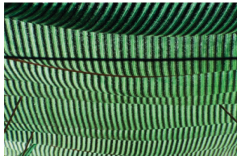
Lagrange starts his projects with an exploratory approach and develops his research process in the course of the project, with the act of looking as the initial concept.

> This discovery-led project compels me to go about my research by seeking a method. What method to use, what chain of actions to embark on in order to tackle this theme? It was only at some point in the course of this project that this particular aspect arose. Given the fact that I started the investigation as a logical next step after the RTS [Research Training Sessions], clearly here was no such thing as a specific research problem or a clear research track to be followed. The trajectory was initiated by the need to go by my intuition, which generated some initial insights and results that provided the material for deeper reflection and discussion, which in their turn led to new steps in the creative trajectory.
>
> [...] During my research I continuously kept comparing my 'method' with existing variants (Lagrange, 2012, p. 53).

Key words in this quote are 'going by my intuition', which suggests his personal approach, and 'the creative trajectory', which indicates the character of his project. Combined with this open and explorative approach he studies existing research methods and compares them to what he – in quotation marks – calls his own 'method'. A central strategy in this research project is exposed in the metaphor of himself as a cartographer, exploring the landscape and drawing the map (Lagrange, 2012, p. 85). In Lagrange's view the map means removal of viewpoints. This allows us to imagine an entire constellation that would be too big for an individual to survey, thus rendering an 'impossible' view, imaginable. In his project the cartographer metaphor also means that the research methods are not prescribed before the start of the project, but are gradually developed as the cartographer explores the research landscape. This is a deliberate choice, and an approach that he regards as radically different from more conventional methods such as action research (Lagrange, 2012, p. 83). Gradually during his project, contours of research questions and concrete research objects arise:

> Allow me to attempt to summarise this idea by starting from a research question. Can I describe and understand certain aspects of this phenomenon that is the event of looking? I will try *hic et nunc* to situate this matter into a design question: Can these matrices help me to describe certain aspects of my creative actions? This

question is answered in a designerly manner by seeking and investigating the relations of these matrices (Lagrange, 2012, p. 139).

What Lagrange describes as his fieldwork is a dynamic process of continuously moving from action to reflection and back in a diachronic line, first an action, then a reflection on the action, a new action, and a reflection on the new action. There are four consecutive sections: the *explorations*, the *video-works*, the *self-reflections*, and the *cases*. In the initial explorations he had no research questions in mind. He started by looking back at his own professional trajectory, and began to select images from his large collection of photographs of architecture. He related these photographs to a number of words that intuitively appeared during this process. In the reflection that followed he developed the concept *analogous spaces.* In the video works and the reflection on the video works he started to develop *the Matrix* concept, which was developed further in the following actions. At one stage he decided to set up a number of *cases*, where he involved students at Sint-Lucas, later extended to external working groups from various fields. During this process his research methods gradually changed from an exploratory approach with no research questions, via an approach of intuitive associations, to the developing and testing of a method for creativity.

In his search for research methods, Lagrange studies the present debate on research in the arts and the numerous terms that are used: artistic research, research in the arts, practice-based research, practice-led research, and practice as research, concluding that there is no such thing as a definition that clarifies practice-based / artistic research. He refers to Borgdorff's statement that artistic research has its own place in the realm of academic research, and that artistic research enhances our awareness of the pre-reflective nearness of things as well as our epistemological distance from them. This makes artistic research an open undertaking, seeking the deliberate articulation of unfinished thinking in and through art. He quotes the same saying of Borgdorff as I use as a starting point for this chapter of my thesis, that in artistic research artistic practice is not only the result of the research but also its methodological vehicle, and the research unfolds in and through the acts of creating and performing. Lagrange does not regard his practice as an architect to be research as such, because his daily practice consists of a complex set of actions that differs significantly from his research activity. 'But if we include my photographic and architectural production on the one hand and my investigation of the methods I use as an architect, a photographer and an observer in the other hand, this kind of research can be designated as practice-based research' (Lagrange, 2012, p. 59). His consideration of artistic research includes the question whether architecture is to be considered an art, thus to be treated as one of the artistic disciplines, or not. The fact that one can study architecture either at a school of arts such as Sint-Lucas or at the university Department of Engineering at KU Leuven, serves to illustrate this complex situation (Lagrange, 2012, p. 49).

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The Analysis of the Theses

Lagrange relates his study to *Theory U* of C. Otto Scharmer (Scharmer, 2009):

> Scharmer's Theory U and his concept of presencing, a blending of sensing and presence, will help us understand how, at a certain moment, the event of looking changes from seeing to sensing to presencing. With the present research project, I am considering this with a practice-based attitude, making use of Theory U and interpreting it. This strategy allows me to approach a theory that is linked to sociology from quite a different side. In parallel with this approach, at a certain point the second part of this research, which deals with the use of this mental tool, will be compared with a series of methods of creative thinking. Benchmarking, comparing and implementing the results of this practice based / artistic research with said techniques will enable us to determine the value of this tool as a creative technique in its own right (Lagrange, 2012, p. 59).

What is seen in this quote is that Lagrange develops the act of looking to a deeper awareness, the 'presencing', as a mental tool that he relates to creative thinking. This tool is an outcome of the second part of his research project. He characterises his work as practice based or artistic research.

In sum, Lagrange's starting point is the fact that there are no fixed research methods in his field of research and no traditions in the new doctoral programme he is following. He starts with an explorative approach, gradually finding his path and developing his own method, which he compares to a number of existing research methods. In this way he identifies the position of his project in the research landscape. Lagrange underscores his practice-based attitude and relates his project to practice based or artistic research. As I understand it, the flexibility and the open-ended approach that can be ascribed to artistic research corresponds to the exploratory approach of this project.

Wendy Morris

Wendy Morris characterises her project as a practice-based doctorate in the arts. The research methods of her project are presented in the Summary chapter, which structures her project in four lines of research. This chapter includes references to the 52 postings, guiding the reader to more information. For a full understanding of the research methods the brief presentation in the Summary chapter must be complemented with the postings. The first research line concerns Morris' identity as

an artist of South African heritage. The three remaining lines concern the making of art: films, drawings, exhibitions and contextual material.

In the following is a brief overview of the research methods that are described in the four lines of investigation. I shall use the second line as an example of how she discusses her research project. For this purpose I shall present some quotes from the summary chapter and from postings.

<u>The first line of investigation</u> is a desire to find an engaged position for herself for her making of films about the past. Working methods for this line are studies of her African background and comparisons between her position and that of other South African artists concerning their relation to apartheid and South African history. She studies objects from her family archive in order to identify her personal background and her South African heritage.

<u>The second line of investigation</u> concerns the character and genre of her artworks; the animated films. The following quote reveals her considerations:

> The second line of research relates to genre and characterizing the nature of my work. Much of the search during this period has been directed towards determining what kind of investigation my films are, and what kind of discourse I enter by making the films. The search has been to locate my work with that of other, similar practitioners, who may or may not be visual artists. I needed to explore what it was that I have been borrowing from particular genres or disciplines. Postings 05-06 & 19 investigate to what extent the films are documentary, history, fiction, visual poem or film essay. Postings 46-48 go further into considering the extent to which my work is a form of history-making and compares my methodologies with those of other kinds of historians. I have come to realize, through this research, that my films are not a mutant form of history making and I do not necessarily have to strive for the ideals of professional historians (Morris, 2013, p. 129).

Of note are the formulations in this quote: '…determining what kind of investigation my films are', and '…what kind of discourse I enter by making the films'. The way I read these formulations, the films *are* the investigation. The question is not *whether* they are an investigation, but *what kind of* investigation they are. For more information on this, I shall have to go to the posters, with Morris as a guide to where to find it. In the following is a quote from postings 05 and 06, which Morris is referring to in the quotation above. The narrative in the quotes below is about a situation where she could not get hold of a historical photograph that she needed for her drawings, and used another photograph as a substitute.

> The drawings are about people who existed. They are based on historical research, the names and dates are correct. The children are revealed in the animation in the order in which they were born. But they aren't at all drawn from archival imagery of

the people they purport to be. As in a fictional work this requires the viewer-reader a certain suspension of disbelief. […] Can history-work, documentary and fiction co-exist in one set of drawings, and if so, then how can this hybrid object be described? (Morris, 2013, p. 24).

These are fundamental questions on the particular category of drawing films that are based on historical events, and the authenticity of coal drawings based on historical photographs. Further in the postings she is close to a conclusion on the questions above:

> If we understand that the chief purpose of a documentary is to communicate and to persuade audiences about a particular subject, then my films are poor documentaries. In certain aspects they do share qualities but viewing them as documentaries seems rather limiting, missing the more personal ambitions in making the films. It is not the communication of facts and attitudes that is at the heart of the project, but a desire to create a rich visual universe within which to think about certain issues (Morris, 2013, p. 31).

What is seen in this quote is how she answers these questions: her films are not fully documentary. Documentation is not the heart of the project. Her personal desire when making the films is in an artistic direction. From the discussion in this quote she concludes that she does not need to use the research methods of professional historians.

The third line of investigation is on methodologies and decision-making in her artistic practice. This is the main issue of the postings. In these notes she reflects on the act of looking, of generating ideas, drawing and redrawing, looking, reflecting and structuring, gradually getting a feeling about how the film is going to be. The work of adding soundtracks is described and discussed. The form of the works is integrally tied to the medium of drawing. Little can be planned beforehand because the ideas evolve through the drawing. Through drawing she searches for a deepening of her ideas and a more nuanced understanding (Morris, 2013, p. 21).

The fourth line of investigation is on writing as an integral part of her artistic practice, focusing the interrelations between form and meaning. For this purpose she experiments with different kinds of writing, closely related to the studio work. In the early phase of her doctoral research process, she started to write notes on issues relevant to the making of the films. These notes are the basis for the postings. As a result of this process, writing became part of the process of the making of films:

> It took seven years to get writing to a point where it was a part of this practice rather than an explanation of finished work. Writing now runs alongside and intertwines with drawing and the other activities that are part of the process of making a film. It has become an essential part of my practice (Morris, 2013, p. 130).

The Analysis of the Theses

The early writings have the form of footnotes, presented on an exhibition wall. The footnotes and other objects on this wall allow the viewer to trace the genealogy of the film. In this way the opacity of the film is countered by exposing the sources of the film for scrutiny. The text contributes to make the film both essayistic and discursive (Morris, 2013, p. 18). Morris realised that the films cannot be discursive on their own. Writing is necessary. From this recognition she includes a number of components in her concept of art: writings, films, drawings, contextual information and documentation of the working process. The early texts explain the films, and also become part of the artworks. As I understand it, these texts become hybrids between reflections on her artworks and literary texts that are integrated in the works of art. The postings are based on the early texts, as well as on the drawings and films.

A search for research methods in Morris' project must include the descriptions in the summary chapter in combination with the Postings that are referred to in the summary. Morris gives an explanation of this structure:

> By writing thought-pieces I hoped to avoid what I most dislike in academic writing – the explaining about what I was aiming to do. As in 'first I'll show this, and then I will get to that etc.'. I don't want this in my Postings. I want to aim for a more literary prose or perspective. I don't want to explain. Like the writer W.G. Sebald who determined to make his point not in an assertive way but with implication and suggestion (Morris, 2013, pp. 93-94).

In this quote Morris explicitly rejects academic writing. She states that she does not want to explain, but to make her points by implications and suggestions, rather than assertions. Hence academic writing in this respect is more than a genre. As I see it, explaining and planning is at the core of the research methods. This means that when searching for research methods in this project, I shall have to consult suggestions and implications rather than assertions – which certainly does not make this an easy assignment. As a helping hand, Morris has given a roadmap in the summary, recommending where to find relevant texts in the postings.

In other postings Morris gives further explanations of her way of writing:

> It took seven years to get writing to a point where it was a part of this practice rather than an explanation of finished work. Writing now runs alongside and intertwines with drawing and the other activities that are part of the process of making a film. It has become an essential part of my practice (Morris, 2013, p. 130).

> The writings were given the form of footnotes, presented on a wall, which was physically larger than the film projection. The footnotes and other objects on this wall allow the viewer to trace the genealogy of the film. This way the opacity of the film was countered by exposing the sources of the film for scrutiny. The text contributed to make the film both essayistic and discursive, as in the film 'Off the Record' (Morris, 2013, p. 18).

The Analysis of the Theses

Hence Morris describes writing as part of her artistic work. She has developed writing from reflections in retrospect to an integrated part of making the films. Writing becomes part of the artistic concept, it contributes to making the films 'both essayistic and discursive'. As I see it, Morris describes her writing as a literary genre, what is also seen in the previous quote: she wants 'literary prose' or a 'literary perspective' instead of academic writing. But she also states that writing makes her films 'discursive', that writing adds meaning to the films.

As I understand it, while writing is an intertwined part of the making of the artworks, the postings are reflections on these artworks, both the films and the integrated texts. Hence writing the postings is a step away from writing as part of making the films. At the same time it is the texts of the postings that she wants to write in literary prose rather than as academic writing. In this way Morris is near to the concept of hybrid texts, as described by Schwab and Borgdorff (2014, p. 16). A similar kind of text is also identified by Mo in her study of doctoral theses in which she refers to the thesis of Evelyne Anderson at AHO, which is written in a poetic language throughout (Mo, 2003, p. 164).

In her project the artworks are included in the result of the research, in combination with the written dissertation. As I understand it from the summary comments, as cited above, Morris suggests that making the films *is* investigation. On the other hand, there is also the written part, the postings, that meticulously and in detail explains and reflects on the making of the films. This is what is demanded in the regulations of the doctoral programme she is attending; the Doctor of Arts at the KU Leuven. In my view, these regulations can serve as a guideline on how to understand the project of Morris, since the regulation for the Doctor of Arts (KU Leuven, 2009) includes an explanation of this particular kind of research. This explanation says that doctorates in the arts differ from other types of doctorates by the object and methods of research, and by the dual requirements of both an artistic or creative component and a reflective, textual component. The object of research is the creative practice of art. The result includes an artistic and creative product and a dissertation as equally weighted components. These must constitute two aspects of one single research project. The dissertation is to be a textual component that is distinct from, but reflecting upon, the product. Hence, the artworks of Morris are to be the object of research, as well as the result of research in combination with the written dissertation.

Since Morris does not use the conventional terminology of methodology, it is hard to make reference to existing strategies for this project. Trying to approach this task, I find research methods in the artistic working methods: drawing with coal and photographing the drawings for the films are working methods of making the artworks. The detailed and meticulous descriptions of this process are working tools for the research project. The study of other artists in this field is a research tool for the context of the artistic work project. The study of historical artefacts and photographs

from her family is a working tool for defining her personal platform as an artist. These are working methods or research. The research strategy may be described as an *exploring* approach, starting without defined research methods, writing thought-pieces throughout one year of the project. It is a *reflective* approach, continuously reflecting on each step of the process of making the works of art. The researcher is an artist-researcher, doing research by means of artistic work. Morris is a *reflective artist*. These features indicate that we are within the frames of *artistic research*, in some meaning or other of this emerging concept.

In sum, the making of films and drawings are the object of investigation. The tacit knowledge of how to make the films is what she wants to make explicit through her research project. The making of the films is a working tool for this purpose. Hence the making of the artworks is integrated into the research process as a research tool. The finished artworks, the films and the drawings, are also objects of investigation; what kind of films they are and what genre they belong to. The artworks are integrated in the research output as one half of the result, with the written dissertation as the other half. Hence the artworks are the object *and* the result of research, as well as included in the working process throughout the project. In addition parts of Morris' texts approximate what Schwab and Borgdorff regard as hybrid texts, which makes text as such a part of the artwork. Hence there is a particularly tight integration of artistic work and research in this project.

Block 2 Summary and Discussions. Meeting the Criteria of Doctorateness

In block 2 I have been searching through the theses for the distinction between using existing research methods and various ways of allowing them to emerge from the material. In this search I have also had the characteristic of artistic research by Borgdorff in mind: it means that artistic practice is not only the result of the research, but also its methodological vehicle, and the research unfolds in and through the acts of creating and performing (Borgdorff, 2011, p. 46).

Initially I found that many of the terms that designate research in art, design and architecture are present in this sample of theses, and that this multiplicity is commented by a number of their authors. Lagrange and Lucas mention a number of different approaches, while at the same time they underscore that none of these are complete and defined research strategies that doctoral candidates can use. Von Busch and Berg both use the concept *artistic research* as their major research strategy. This is also a central concept in the project of Lagrange. Von Busch characterises his project as artistic research, although owing to this being an emerging research strategy he creates his own path within the area of artistic research. Berg refers the concept of

artistic research as it is described by Juha Varto, who in turn describes this as a strategy that is still in the making. Lagrange and von Busch both refer to the flexible and open-ended character of this approach, both rejecting the concept of an initial research question for their projects, while Berg follows the concept of Varto. As a consequence of their research strategies, von Busch and Lagrange do not formulate initial research questions, while Berg, in his artistic research concept, presents a research question in the initial part of his thesis. Hence the term artistic research is used in different ways. Nimkulrat uses the term *practice-led research*, which she characterises as a strategy were practice is an integral part. This term is also used by Berg and Lagrange. Lucas refers to the multiplicity of terms available and decides to make her own: the *practicing-research*. Hence, in spite of their references to numerous terms for research in the arts, these candidates agree that there are no fixed methods. From this starting point they choose their own ways of conducting their research projects.

Some authors regard the lack of defined research methods as an advantage. Lagrange chooses the KU Leuven track in order to be allowed to 'start afresh'. In this way he can develop his own trajectory. In the same way Reitan chooses to make her own path, 'borrowing from' or being 'inspired by' existing methods, even admitting that she has been tempted to choose what she regards as safe and approved methods. Morris does not comment on this directly, but her rejection of academic writing indicates that she would reject existing methods. However, even if these candidates make their own paths, they all use existing working methods and research strategies as references.

In complete contrast, Johnsrød conducts his research project according to strictly defined experimental research methods from the natural sciences. Himself an artist, he assesses the samples of research results from an aesthetic perspective, and in the light of what will be useful for artists in their professional practice. He is also the one who conducts the experiments. Some candidates use well-known research strategies in addition to variants of practice-based and artistic research. As examples, Reitan and Berg structure their work as case studies. Berg uses ethnographic working methods and follows these methods systematically throughout his research project, while Reitan, making her own research strategy, uses them as a reference. Nimkulrat describes ethnography as a relevant approach for projects by practicing researchers, though she does not explicitly use it in her research project.

Some of the candidates' research refers to methods that are developed to resemble projects from their particular field of study. Nimkulrat refers to the 'Retrospective Research' model that Mäkelä developed for her doctoral project. As I see it, Nimkulrat follows a similar strategy in her own project. Hendrickx refers to the 'Creative Research Model' that is developed by Blythe and van Schaik and Blythe for these fields of study at RMIT. He uses a similar method in his own work and refers to the creative research

model in his doctoral work. I regard these two theses as examples of how research methods can be developed progressively by one project referring to another. This kind of dynamic processes may contribute to the cumulative progress of building an epistemological platform.

All the candidates spend a substantial amount of work on describing, explaining and legitimising their choice of research methods. Lucas spends half of her doctoral work on this endeavour. A number of candidates include the development of research methods in the results of their research projects, and they legitimise their research methods through detailed and meticulous descriptions of their working procedures. All the candidates describe various forms of making art and design as part of their working methods. What I have seen in this study, is that the making of art and design is more than a working method; in the terminology of Groat and Wang (Groat & Wang, 2002) it is more than tactics, it is also at the level of research strategies. In some cases artistic research and similar concepts seems to approximate to systems of inquiry, indicating the potential of a new research paradigm.

A number of candidates describe a dynamic interchange between action and reflection as characteristic of their research process. Most of them refer to the concepts 'reflection-in-action' and 'refection-on-action' by Donald Schön. This is discussed in line 2 (Line 2, Reflection, and 2.2.3, The reflective turn).

As I see it, this small sample of theses represents a breadth in the choice of research strategies that may be surprising, given that the theses are from related fields of study over a short span of time. They also represent different understandings of concepts such as artistic research, and they refer to different theories and different systems of inquiry. Berg relates his project to Varto and hermeneutics (Varto, 2009) , Von Busch to Deleuze and Guattari (1987), Lagrange to C. Otto Scharmer (2009) and sociology, though the latter may be in the ontological rather than the epistemological sphere. Since the sample is so small, the results of this study are not transferable as such. It is merely an example of the broad variety that can be found in these fields of study. However, one may assume that in a field where the doctoral candidates tend to make their own path because there are no defined research methods available, they also tend to build their theoretical foundation in their own way, choosing various theories for their purpose; described by some as 'cherry-picking' theories. There are also examples of combination or the crossing of borders at the level of systems of inquiry, such as hermeneutics and phenomenology in the project of Nimkulrat, and of artistic research and social sciences in the projects of Berg, Reitan and Lagrange. As I see it, this reflects what was found by Mo and by Büchler et al., that architectural theses could reside in all the broad academic domains: the natural sciences, the social sciences and the humanities, and in overlapping fields.

The Analysis of the Theses

Concerning the concept of artistic research as described by Borgdorff, all the projects in this sample have the making of art and design as working methods, except for the project of Johnsrød. As seen in block 1, six of the projects have artworks as an integral part of the research results. Von Busch describes his project as artistic research, although he does not present his own works of design as research results in the same way as the candidates from Aalto and Leuven. As I see it, as an emerging strategy, the concept of artistic research is wide and inclusive, and there is no one particular definition agreed for this concept. This sample of theses is an illuminating example.

In sum, three features are characteristic for all the candidates in this sample. *First*: all the candidates agree that there is no common set of research methods defined for these fields of study. Nimkulrat says 'no standard package of methods is available for a novice researcher to follow' (Nimkulrat, 2009, p. 49). *Second:* all the candidates pay great attention to questions of research strategies and methods. For most of them this constitutes a substantial part of their doctoral work. Lucas regards this as constituting half of the result of her research project. *Third:* all the candidates, without exception, describe their working methods meticulously, step by step and in detail, throughout their projects.

Meeting the Criteria of Doctorateness

The Dublin Descriptors require that the students have demonstrated 'mastery of the skills and methods of research associated with that field' (Bologna Working Group, 2005, p. 67). Of note is that since the descriptors are intended to cover both PhD and practice-based doctorates, they are relevant to all the theses in the sample, whether they are in a PhD regime or not.

Since the candidates experience that there are no defined or complete research methods associated with their field of study, they are seemingly obliged to adapt existing methods to their purpose of investigation, or alternatively to adjust their research project so that it corresponds to existing research methods. Another alternative is the development of new research methods, which then have to be explained, documented, and legitimised. For this purpose they may conduct their research project first and then post-rationalise this model. Using the structure of Groat and Wang, this means focusing the working methods throughout the work, and then drawing the strategy in afterwards. In either case, research in the creative fields tends to require that the students spend time and energy on describing and justifying their research methods.

Since the requirement of the Dublin Descriptors refers to existing methods associated with the students' field of study, I will argue that this criterion is contingent on the state of the art at the time of the doctoral works of the students. For a doctoral work

in an emergent academic discipline, the state of the art of that field is what should determine the requirements for the students' achievements regarding research methods. I regard the content of this criterion to be changing over time according to the development of the epistemological platform of the field of study. Hence the candidates in fields that do not have a defined set of research methods should be assessed accordingly. On the other hand, the candidates need to be assessed to be worthy of the doctoral degree by the examination committee. Hence they cannot legitemise incomplete research projects by reference to incomplete research strategies in that field. There is also the challenge for the creative fields of being accepted by the academic community, which lays the burden on each doctoral candidate to demonstrate an acceptable scholarly quality. This also counts for the Dublin Descriptors' demand for scholarly integrity, and on warranting refereed publication. For these reasons the candidates in the creative fields cannot err to a view or a conviction that there are no appropriate research methods available for their fields of study. If this is a lacuna, they have to compensate for it in order to fulfil the criteria of scholarly integrity at a level that matches the threshold of doctorateness. Hence the candidates spend a substantial amount of work on developing, describing, documenting and legitimising their research strategies.

The Dublin Descriptors also demand that there is to be 'a substantial process of research with scholarly integrity' and a contribution to the extension of the border of knowledge by 'developing a substantial body of work' (Bologna Working Group, 2005, pp. 67-68) When candidates in the fields of art and design generate a substantial body of work on developing or discussing their research methods – the epistemological aspect of their doctoral work – this should have as a consequence that there is less time to spend on the ontological part or the object of investigation as such. In some of the theses in this study the development of research strategies are integrated in the research process in a way that makes this an object of research as well as a part of the research result. Hence contributions to building the epistemological platform may be a part of building the knowledge base for these fields of study. An example is that Lucas, in which the epistemological part her of project amounts to about one half of her doctoral project.

As for the institutional regulations of the theses in this study, the University of Gothenburg demands that the students on the PhD in Design must 'contribute to the methodological development of the subject Design' (University of Gothenburg, 2000, May 3). As I understand it, this means to contribute to the epistemological foundations of this field of study. At Aalto University there is a general demand that the students become conversant with the development, basic problems and research methods of their field, and that they 'gain such knowledge of the general theory of science and of other disciplines related to their field of research as enables them to follow

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developments in them' (Aalto University, 2013). The regulations for Doctor in the Arts at KU Leuven demand that the reflective aspect that is presented in the written part shall position the research in the field and include the methods followed, and specify one overarching criterion for all doctorates: 'the critical framing of the research within the research traditions; the innovative, creative nature of the research, the manner in which the research deals with empirical data; the profundity of the research; the methodological reasoning behind the research' (KU Leuven, 2009). As is seen in these examples, there are demands for research methods in all the institutional regulations, though with various foci and formulations.

Given this situation and the development that is required, the substantial body of work that the nine candidates of this sample have allocated to the discussion of methodology is a valuable and requisite contribution to the epistemological platform of these disciplines. Each project is one step, but in sum they constitute a substantial contribution to the field.

6.3. Lines of Inquiry

While making the analyses of blocks 1 and 2 a number of issues emerged that I regard as particularly interesting for my study, for clarifying ambiguous areas of the analysis or for deepening the study in order to answer the research questions. In the following I shall discuss further six of these issues, structured in six lines of inquiry. These lines run through the whole sample of theses, connecting key points that are particularly relevant to the issues in question. For this purpose only some of the theses are critiqued in each line of inquiry. The lines are also drawn beyond the sample of theses, linking them to the epistemological foundations or to the present debate in the creative fields, thus relating them to the research landscape.

The theses could be material for numerous lines of inquiry that cannot be included in the limited scope of a doctoral thesis. The following six are prioritised: Line 1 is on the structure of theses. There is a marked deviation from the conventional structure in some of the theses of the sample, and I need to find out whether and in what way this can be related to strategies of research in the arts. Line 2 is on the insider's position that occurs when the researcher is also the performing artist. In these cases keeping an 'academic distance' from the object of art is an obvious problem. Line 3 is on the concept of reflection. I have met this concept repeatedly throughout my doctoral work, in the study of epistemological foundations, in the institutional regulations for doctorates, and in the analysis of theses. Sometimes this term seems to be used as a component or even as an alternative to research. For this reason I need a specific

search for the concept of reflection. Line 4 is on making tacit knowledge explicit. This tends to be an important issue in doctorates in the creative fields, because there is assumed to be a substantial element of tacit knowledge. I need to discuss the role of this kind of knowledge in the efforts of knowledge building in these fields of study. Line 5 is on participatory working methods. A number of projects in the sample are conducted using various kinds of participatory processes. I find this approach worthy of further study. Line 6 is on the question of the validity of research results. Because of the insider position and the personal character of doctoral works with a creative practice component, I assume that this is a particular challenge for doctoral projects in the creative fields.

Since these lines of inquiry are running through the theses for the third time, there will be some repetition of the texts. I shall need some of the examples that are already critiqued in block 1 and 2. I intend to shorten the comments that are repetitive. However, the choice of research strategy for this study makes a certain amount of repetition inevitable.

6.3.1.   Line 1: The Structure of Theses

Line 1 is a discussion on the construction of theses that deviate markedly from the conventional structure. One concept for a conventional structure is the IMRAD acronym: Introduction, Methods, Results and Discussions. I have chosen three theses for this purpose, one with interchangeable sections, one with a mesh structure, and one with a diachronic structure. There are other theses with deviant structures as well, but I regard the three theses that are discussed below as the most distinct examples.

6.3.1.1.   Interchangeable Sections. Pavlina Lucas

Lucas avoids the conventional term *thesis.* She uses the term *doctoral report,* which I will use in the following. Lucas' doctoral work is presented in an envelope with six separate, non-consecutive sections, which are bound separately. She had to get permission to deviate from the standard PhD book at AHO. The envelope is a thick

leather cover with fixed brackets on the front and the back. The photographs are presented in one of the sections of the thesis, and they were presented in large format at the viva exhibition. As discussed earlier, the colours and the materials used in this report respond to the colour tones of the artworks – the photographs – so that the presentation of the doctoral work has an aesthetic dimension.

Her intention with the interchangeable binding of her doctoral report is that the reader can choose in which order to read the sections. By saying this she excludes the implication of fixed positions. She regards this report a 're-bringing forth' of her doctoral journey. The report gives an experience that she admits will demand a degree of immersion from the reader. One argument for this structure is that the thesis will be perceived differently according to which order the reader chooses for his reading. The fixed sections on each side of the envelope are the introduction and the closing sections o the report. She describes these as brackets that anchor the work in the centre of her report. In the *Logbook,* she documents the development of her creative work. Presentations of her artwork, the photographs, are included in this section. Some of the photographs were exhibited at the public defence, printed on large, square sheets of aluminium. The section *Photography in Practice* is a presentation of students' works on a course at AHO, which she conducted as part of her PhD project. In the section called *Practising-research: towards a mathesis singularis* she discusses the emergence of her research method: practicing-research. A separate section called User's Manual guides the reader through the document. This is a small, un-paginated folder; a format that is seen frequently in other user's manuals or small brochures. The User's Manual is included in the envelope along with the other sections.

Lucas explicitly discards the IMRAD structure, which she claims has been criticised for simplifying or even falsifying the research process. As disussed previously, she endorses the argument of Medawar who has rejected the idea that the conclusions are always at the end of the research process (Medawar & Pyke, 1990).

> Since tried-and-true procedures are entirely out of place when it comes to practicing-research, the exposition of Methods in the project report dictated by the IMRAD structure needs drastic readjustment. The void left by the absence of a method ought to be filled with what is analogously pertinent to practicing-research: the Context within which the project began and was developed. A description of the circumstances that have encircled the evolution of a practicing-research project appropriately places this in its 'site' and acknowledges their role in the development (Lucas, 2013, p. 27).

She refutes the IMRAD structure because it is inappropriate for the practicing-research strategy. She does not want the structure of the thesis to give a false impression of the research process. The interchangeable sections in her report avoid that problem because they do not suggest a particular progress through the research process.

Neither does it reflect the actual progress of her doctoral work. The interchangeable structure avoids the problem of chronology, and, as I understand it, rather reflects a flexibility of progress that is inherent in the practicing-research method.

6.3.1.2.   *A Mesh Structure. Otto von Busch*

Otto von Busch presents his doctoral work in what he calls a non-linear thesis, which he relates to the non-arboreal – the not tree-like – mesh structure that Deleuze and Guattari called *the rhizome* (Deleuze & Guattari, 1987). He refers to the concept of these authors as a structure of overlapping and displaced lines and multiplicities that are connected to other multiplicities. There is a table of content in the thesis, called 'Map of Contents', with lines drawn from a centre to five chapters, each diffracted into a number of sub-lines. The chapters can be read as a series of essays. There is an introduction, and an appendix including a methodology chapter. The headlines of the five chapters are *Hactivism*, *Heresy*, *Fan Fiction*, *Small Change Protocols* and *Pro-Ams*.

In the centre of the map is a drawing of a prism, or a diamond, with a number of allocated facets. In the prism is written the word *FASHION-able,* which gives this word a central position. This is a core concept of his doctoral work, reflected in the project title. In addition, there is a foreword and a methodological appendix. This means that the research methods that permeate the work are summed up in this appendix. The sections of the thesis are not numbered in a consecutive order. In the foreword von Busch recommends the reader to choose which element to read first, and to proceed in any order. He himself takes the role of the way-finder. He points out paths and leads the reader through the document. The thesis is illustrated with photographs and drawings of design products and design workshops following the text throughout. Von Busch actually encourages the reader to browse the thesis as if it were a fashion magazine, skimming through, looking at illustrations, reading articles of interest, crossing back and forth. In the foreword, he describes the structure of his thesis this way:

> … this thesis does not have any introductory chapter outlining the basic theory, aim and method to prepare the reader for the final chapter's conclusions. There is no strict question and no proven answer. Instead, one way of reading this thesis is to imagine it as a series of journeys, pulled together by the 'gravity' of an attractor and condensed into a prism. This is a prism through which we can see the world from many different angles and where each chapter is one side (von Busch, 2008, p. 29).

> The thesis does not present any linear or sequential 'tree-like' theory where every argument follows on 'root' up to a magnificent crown of knowledge. The discussion has no strict beginning or end, question and answer, and it does not follow a classic

progressive or deductive format, validated by consistent data that unequivocally can be turned into a new form of practice. Basically, it relates, cross-examines, articulates and contextualizes a series of experiences and to make use of the understanding gained, the results must be interpreted and re-situated. This thesis can be defined as a refinement of the kind of knowledge production and knowledge distribution that normally guides design practice (von Busch, 2008, p. 28).

Even if the chapters of von Busch's thesis are not structured in a consecutive progression, he emphasises that their positions are not simply random. There are a number of intersecting lines, which he discusses in the methodological appendix. One specific line cuts through all the chapters. This is a 'line of engagement' that he calls 'the abstract machine' (von Busch, 2008, p. 36), using a Deleuze and Guattari term. In a brief description of 'the abstract machine' he says:

As I now look back on these situations, it becomes clear to me that a certain mindset has followed these works. They do not possess any special 'essence', but instead they are a typical way of working – a mixture of curiosity, construction, sharing, playing, and what I would now call designing. It is as if a special mindset affected me all throughout my journey, and I know that many others have shared this same experience after having met to collaborate with other likeminded friends. We shared a common idea, a certain approach to work and life, and I will elaborate further on this 'mindset' or sense of assembly that Deleuze and Guattari might have called the working of an 'abstract machine'. This line of thought I choose to call hacktivism (von Busch, 2008, p. 36).

From the formulations above I understand the structure of von Busch's work as a double set of reflections: the composition of the thesis reflects the working methods of his research project, which again reflects the knowledge production of design practice. Of note is that even if the structure deviates from the conventional structure of a thesis, the components are all there: Introduction, methodology, chapters of projects and findings, and conclusions. I also observe that even if he regards his thesis as a mesh structure, he also describes it as pulled together by the gravity of an attractor. This way, as I see it, he breaks the mesh or rhizome metaphor by adding a core, a centre of gravity, which holds the structure together. I also understand *the abstract machine*, which he explains as one specific intersecting line that runs through the project, not as a structural component, but rather as a mind-set that permeates the whole work, hence the term 'abstract'. This mind-set runs through the structure of chapters and sections, whichever sequence is chosen for reading them.

*6.3.1.3.   A Chronological **Account**. Wendy Morris*

The doctoral work of Wendy Morris is presented in a written thesis that includes photographs of her artistic work throughout the document. The major part of the thesis is 52 *thought pieces,* called *postings.* These are written texts concerning the artistic practice and the research project. The postings have been sent to six addresses, including the authors' own address – hence the name 'postings' – one each week during the course of one year. Morris even describes their appearance: they were wrapped in brown paper with a string tied around them. The postings are presented in chronological order in the dissertation, one posting for each week. Her argument is:

> There has to be a written component. I do not want to do it as a lengthy essay or series of essays, nor as chapters of a dissertation. I have been searching to find a way of writing that approximates the way the films are constructed - drawing by drawing, small idea by small idea. Thought-pieces allow for the same fluidity, for digression, for the accumulative construction of a written work (Morris, 2013, p. 92).

This quote explains the very idea of the postings: Morris has searched for a way of writing that resembles the working methods of her artworks. As discussed previously (6.2.2, Block 2. The process) I find that Morris has experimented with hybrid text, or nearly hybrid text, in her thesis. As I see it, when she develops a structure that approximates to the way films are made, this is a way of hybrid thinking: she creates the same fluidity and allows the same digressions in her written text as in a work of art. This way she structures her written part in the same way as a work of art. She also refers to the accumulative construction of a written work in line with other artistic features of text. Since words are raw material for artistic expression in the same way as a sheet of paper and a piece of coal, I find that Morris is operating in an overlapping field of artistic and academic writing. From this perspective, I also see the posting of thought-pieces, the repetitive action of posting writings wrapped in paper to the same addresses every week, as a ritual that resembles an artistic performance.

> One difference, though, was that the sequence of the thought-pieces would be fixed by the order in which they were written. There would be no pre-determined scheme beyond the decision that there would be fifty-two pieces. There were clusters of subjects that I wanted to approach, but what was written each week was decided during that week. This open structure was to allow for developments within the writing (Morris, 2013, p. 12).

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In this quote she states that the fixed structure she has chosen makes an interception of pre-determined schemes. This way the artistic fluidity and room for digression is at the same time an impediment to clarity, for example by pre-determining how to structure clusters of subjects that she wants to approach.

Morris has deliberately introduced elements throughout the postings in a way that requires a chronological reading of the postings. A topic that is introduced in one posting is continued in later postings. She also deliberately introduces a theme in one posting, decided to write a follow-up in a later postings. This way she encourages her readers to follow the same diachronic path in their reading as she has followed in her writing. To get a full understanding the reader has to read the postings from start to finish. The description of the lines of investigation in the summary is formulated in retrospect. When reading the thesis chronologically, the description of the research lines will be the end of the journey by the readers.

The thesis has an introduction and a summary chapter in addition to the postings. As mentioned earlier, the summary chapter includes the description of the four lines of investigation that run through the project. These lines cross the chronological structure of the postings, following the thematic of each line. Morris gives information on where the lines are running, and which postings are relevant for each of them. The description of the lines in the summary is very brief, leaving the information to be found in the postings themselves.

6.3.1.4. Summary and discussions, Line 1

Common to the three theses is that they do not follow the conventional IMRAD structure. Neither do they have a conventional terminology in headlines, like the 'chapter of methodology' etc. They all have an introduction and a conclusion, even if named otherwise. All the theses have way-finding instruments to aid the reader: an introductory map of the structure, a user's manual, or a summary chapter that draws the broad lines in retrospect.

The theses of von Busch and Lucas are both constructed with the intention of letting the reader choose in which order to read the different parts. Lucas' thesis is the most unambiguous in this respect, owing to the physically separated sections. The reader can pick any section as he wishes, and put the sections back in the envelope in any order. Von Busch's sections are embedded in a continuous document with numbered pages. Still the reader is explicitly asked to choose the order of sections for his reading. The reader is encouraged to make his own path through the thesis, browsing the document by skimming back and forth. The very look of the pages underscores the intention of browsing the thesis, in von Busch's words like a fashion magazine, looking at pictures and posters, reading blocks and texts randomly, catching interest at some

point of the thesis and starting from there. In one way, Morris' thesis has the most unconventional construction, owing to the fixed diachronic presentation of postings. Even if the reader is supposed to read the postings chronologically, this chronology does not follow the progress of the making of the artworks, but the progress of the candidate's reflections on the doctoral project. This is a fixed structure because the reader needs to read the text consecutively in order to get the full meaning. In addition, or subsequently, the reader needs to search back and forth in the document in order to find the content of each line of investigation. Morris and von Busch both present broad informational material, and both draw lines of investigation across their material.

Lucas and von Busch both use their research method as an argument for the structure of their thesis. Lucas argues that the IMRAD structure is inappropriate because tried-and true procedures are entirely out of place when it comes to practicing-research. Von Busch argues that his work does not follow a classic progressive or deductive format, there are no strict questions and answers, and no sequential line of arguments. Morris simply refuses to structure her written part 'as chapters of a dissertation'. Her argument is not her research strategy, but rather the strategy of her artistic works of her projects. She makes the structure of drawing films a model for the structure of her thesis.

Of note is that the IMRAD structure is a result of systematising scientific publishing in the period after World War II. At that time there was a fast growth in the publication of scientific papers. The need to read large amounts of text created the need for a common structure in order to facilitate its assessment for publication (Phillips & Pugh, 2010, p. 65). Hence IMRAD is a structure for the reader, for facilitating the reading of the documents, not for the presentation of the progress of the work of the researcher. On the other hand, it may also be seen in the context of justification as a research question that legitimises the research outputs, and – in Lucas' words – not in the context of discovery.

In sum, the structure of the three theses reflects the research methods and the method of artistic work of the projects. Most importantly, the structure is meant as a recommendation to the reader on how to approach the thesis. The small sample of theses in my study is not generalizable in this respect. It cannot reveal a general trend. However, should there be an excess of markedly different thesis structures within the creative fields, my guess is that since the research field is still in the making, there will be a corresponding propensity to create different constructions for the publishing of documents too. For doctoral works where the making of art and design is included, this is even more likely. There may also be some opposition to a formalised structure, perceived as a restraint by the creative fields in particular. On the other hand these structural deviations may also be a result of the very concept of artistic research, given

that this kind of research tends to have discoveries or deontic projects as their results, branching out in different directions, so that a linear text that leads towards one conclusion is irrelevant or meaningless.

6.3.2.   Line 2: The Insider Position

A characteristic feature of research in the arts is the combination of being a performing artist and a researcher, as an artist-researcher or architect-researcher. Nimkulrat says:

> Researching my own creative practice may yield results that are different from those that an outside observer or another artist-researcher might have achieved, even if the study were conducted with the same research questions. However, this does not mean that the knowledge I have gained through researching my art practice cannot be applicable to others. Quite the opposite: other practitioners can learn about my process when attempting to develop and better understand their own artistic practices. When the artist-researcher is able to seek a suitable means of connecting practice to research, research can not only transform ways of designing or creating art, but also theoretically inform creative practice so that the practice can develop the artist's aesthetic intelligence (Nimkulrat, 2009, p. 234).

As seen in this quote, Nimkulrat underscores the applicability to others of knowledge that is gained by research on the artist's own practice. Of note is that she also focuses on the connection between theory and practice in this kind of research, thereby gaining a theoretically informed creative practice. This position is also seen in the research of Morris. By a thorough investigation of her own artistic work and the decisions to be made, she makes this artistic process accessible to others. Another approach to the insider's position is described by Reitan:

> I look upon my participation in designing as a vital research method to uncover what is characteristic for the process of designing by improvisation within a tradition. In my opinion *inside knowledge* (Kjørup cited in Rebolledo 1994:10) that comes from having competence as a practitioner of designing activity can make a vital contribution to understanding, especially when combined with a researcher's perspective from the outside (Reitan, 2007, p. 76).

What is revealed here is that the object of Reitan's investigation is not the process of making her own artworks. Her creative practice is a means of investigating the design process of the Kaktovik women, the particular process of improvising within a tradition. She regards her competences as a textile designer, her 'inside knowledge' of this field, as a prerequisite for gaining knowledge of their working process. Even when participating in their work as seamstresses, she argues that she combines this with a

researcher's view from the outside (Reitan, 2007, pp. 76-77). Hence, Reitan's project is an example of using an insider's knowledge of a field of study combined with the outsider's perspective on a working process. This makes fieldwork where the particular competences of the researcher are used for a better understanding of the object of investigation.

When the researcher is also the performer of art, as an *artist-researcher* or an *architect-researcher*, the performer's closeness to the object of research raises the need for a more distant position as a researcher. The dynamic of action – reflection, the 'changing hat practice' in the formulation of Biggs and Büchler is a way of constructing an outsider position. I see 'reflection' as a metaphor for this dynamic. Reflection is a mirrored image. For the performing artist, reflection is a way of seeing himself and his creative work from the outside – simultaneously or in retrospect. Reflection allows the insider an outside perspective, or rather the illusion of an outside perspective, when he is at the same time both the insider and the performing agent. By reflecting his work from the outside, the artist takes a step back, creating a distance from his work, while at the same time he maintains his insider's knowledge. Hence this quasi-outsider perspective is different from a conventional academic outsider's perspective by being combined with the insider's knowledge.

Reitan and Nimkulrat both discusses their research projects in relation to ethnography, while neither of them has used ethnography as a research strategy as such. Reitan argues that although her project is not ethnography, her research strategy has a lot in common with an ethnographic approach. She has been studying another culture, where she has conducted fieldwork that is documented, interpreted and disseminated (Reitan, 2007). In a similar way Nimkulrat makes the following reflection:

> Studying one's own art practice might not be as extraneous to academia as it seemed to me when I decided to explore my research problem. In fact, this form of research appears comparable to the in situ ethnographic research in the social sciences. Although my research did not utilise ethnography as an approach, it is worth reflecting upon the relationship between practice-led research in art and ethnographic research (Nimkulrat, 2009, p. 232).

Of note is that the object of Reitan's investigation is the design process of the Kaktovik women, while Nimkulrat's object of research is within her own artistic practice. On the other hand, Nimkulrat, too, has a particular research problem: the expressivity of materials. This is the object of research: that she uses the means of her artistic practice to investigate her topic.

As discussed in the methodology chapter (3.4. Validity) 'self-ethnography' – what I prefer to call 'insider-ethnography' – is a concept from Alvesson for research projects in which the researcher is an ordinary part of the group that he is also studying. His

observation is that while conventional ethnography is basically a matter of the stranger entering a setting and 'breaking in', insider-ethnography is more like a struggle of 'breaking out' from the taken-for-grantedness of a particular framework and a study of the material from a certain distance (Alvesson, 2003, p. 176). As I see it, this particular concept of ethnography relates even more closely to the position of the artist- oar architect-researcher. In Alvessons's words, while the challenge for the conventional ethnographer is to avoid 'going native', the challenge for the insider-ethnographer is to avoid 'staying native'. One advice from Alvesson is to work systematically with 'reflexivity' in which one tries to change the level of interpretation, using the meta-level of one's initial interpretations, inspired from another standpoint. This other standpoint functions in a meta-theoretical way, when used for the study of one's own interpretations (Alvesson, 2003, p. 86). In my view this is also the dynamic of the practicing-researcher when she takes a step away from her artistic process and adopts a position of reflexivity. This leads to the next line of investigation, with the topic of reflection.

6.3.3.   Line 3: Reflection

The topic of Line 3 is the concept *reflection*. From the first reading through the theses I was aware that a number of candidates use this term. I found it described by Johnsrød, Lagrange, Lucas, Nimkulrat, and Reitan related to the concept reflection-in-action of Schön. In the following, I shall search for descriptions of this particular kind of dynamic, and how this is related to the artistic/creative versus the investigative working process.

Lucas describes reflection as part of the artistic working process that she relates to practicing-research:

> The dynamic negotiation between pre-critical creation and post-rationalization that brands practicing-research is intrinsic to artistic practice. Artists at work alternate naturally between intense periods of immersion and subsequent reflective pauses during their creative journeys. If we define 'creativity' as the bringing forth of something new into existence – which 'does not imply that the 'something new' need to be new to everyone, or, indeed to anyone else save the person who creates it [...] – then the artist's performance leads to novel artifacts by moving rhythmically between intuition and reflection. Within artistic circles this organic process is taken as a matter of (f)act and has not been studied systematically; however, personal diaries and letters provide lucid glimpses into the way that artists work …

> Emptying the mind and immersing oneself entirely in the creative project at hand –
> and only afterwards stepping back to take a look at the outcome so as to learn from
> them and processed accordingly – is a process that is still very much at home in the
> artist's atelier, but one which has suffered a heavy blow in *studios* of architecture
> (Lucas, 2013, pp. 8-9, Practicing-research).

As is seen, Lucas relates this creative working process in particular to the artist's work,
while she regrets that this way of working is weakened in architectural practice. This
reflects her initial proposition that architecture needs to start with intuition in order to
be authentic. Lucas also relates this way of working to the concept reflection-in-action
of Donald Schön, as a process of inquiry that is characterised by an alternation
between action and reflection:

> As the practitioner is simultaneously forming and being formed by the situation, his
> individuality and context play a vital role in the process. In research projects for art
> and design, the disclosure of insights, their interpretation, and their eventual
> incorporation in the artifact(s) produced is affected by the unique disposition of the
> operator in the particular time and place. Research projects enacted through
> creative practice, which entail manoeuvring between intuitive production and post-
> rationalization, are similarly contingent on the author's initial intention and the
> specific circumstances of his environment (Lucas, 2013, pp. 14 Practicing-research).

Hence Lucas describes the artist's working process as a sequential process of intense
immersion and pauses of reflection, and the research projects in art and design as a
dynamic of the same kind. There is a resemblance between the artistic working
process and the research process in art and design. However, this does not imply that
the artist's working process *is* a research process. Lucas characterises the creative part
of her own research process to be pre-critical followed by post-rationalization, the
same dynamic that is also intrinsic to artistic practice (Lucas, 2013, pp. 8 Practicing-
research). Lucas also uses the pairing *intuition* and reflection.

Nimkulrat describes the dynamic of her work this way, referring to the fourth phase of
her project, the making of art objects for her second exhibition:

> In this fourth phase, reflection-in-action still played their roles in *making*, i.e. I knew
> what I was doing and reflected on my doing, and determined how I would continue
> the creative process. For example: when choosing the exhibition space for 'Paper
> World', I needed to decide which option – an actual house or a gallery converted
> from an old house – would suit my artworks better. To decide on this matter, I
> compared and contrasted the two alternatives, examining their advantages and
> disadvantages. I also documented the decision-making process in my research
> diary. The comparison assisted me in selecting a suitable exhibition space and in
> explaining how I selected it (Nimkulrat, 2009, p. 71).

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Of note is that in the preparations for this exhibition she has the experience from the first exhibition in mind, as well as the comments from the audience that had made her aware of the importance of the gallery context of the artworks, to which she had not given much consideration. This means that included in the reflection-in-action for the Paper World is also the results of her research activities, the quest-back and interviews with the audience. As for the dynamic of the research process, she says:

> The approaches used in my research can be seen as an interaction between art practice and theoretical discussion. The approaches consisted of three key forms and / or activities: 1) artistic production, which means *making* artefacts and *reflecting* on my own artistic experiences, 2) *reading* literature, and 3) expert interviews and surveys, … (Nimkulrat, 2009, p. 51).

In this quote, Nimkulrat includes both the making of the artefacts and the reflection on this action in the artistic production, as she also explained in the first quote. For the *research* approach, she adds the study of theory, interviews with experts etc. Hence the making of artworks is included in the research approach, but supplemented with theoretical discussions in an interaction between the two. Nimkulrat, too, relates these working processes to the reflection-in-action concept of Schön, and to Stephen Scrivener (2002). She refers to three categories of reflective learning described by Schön: 'knowing-in-action', 'reflecting-in-action', and 'reflection-on-action', where the last is an analytical process in which practitioners reflect on their thinking, actions and feelings, learning from previous actions in order to implement this knowledge into future actions. As I understand it, the categories of Schön reflect different levels of reflection approximating to the differences between the *making* process and *research* process of Nimkulrat.

Lagrange describes a similar working process for his investigation. His fieldwork is a line of successive actions and reflections, the active (exploring) and the reflective (observing) trajectory. The active trajectory is characterised by a practical attitude, requiring action and a willingness to try out possibilities. The reflective trajectory is characterised by reflection, which is generated by studies and interpretations of the results from the active track. He also describes a convergence of the two trajectories:

> In the course of this research project, a convergence of both tracks will manifest itself. In other words: the process of becoming consciously aware of various perspectives such as past and future, research environment, language, the frame and the look, becomes increasingly enmeshed with the first track, where things are being put to trial in practice. To get back to the point where we were looking candidly at the landscape (acting) and observing (reflecting on) a landscape, were reinforcing each other, gradually, this landscape became clearly visible, in more detail (Lagrange, 2012, p. 81).

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Lagrange uses the action and reflection process in his mapping approach as a cartographer that explores the landscape. In the same way as Nimkulrat, he links this to the two concepts 'reflection-in-action' and 'reflection-on-action' of Schön (Schön, 1983):

> During both action and reflection, I am simultaneously trying to move through the minutiae of the landscape and to maintain a steady view on the whole. This twin-track trajectory is going on during all of the active part of the research project. It is only after what I call the active part, at the point where my reflections become more profound, that the second part starts, which I call a 'discussions phase'. These two parts are to be compared with the concepts reflection in action and reflection on action as formulated by Schön, on observing practitioners reflecting on their actions during their work. The significant distinction between 'in' and 'on' also manifests itself in the present research project, featuring a reflective stage that is taking place during the active period and a distinctly different stage following on this active period, a discussion phase (Lagrange, 2012, p. 91).

Hence Lagrange's distinction between two kinds of reflection, one that is taking place in the period of action – the reflection-*in*-action – and one distinctively different that takes place in a following discussion phase – the reflection-*on*-action. As I see it, Schön, when formulating this distinction in the 1980s, was in the same tradition as Frayling and others, who distinguished between research in, through and on the arts. In my view, the use of prepositions in this respect has proved to be ambiguous. However, I still find the distinction between reflection *in* and reflection *on* to be clarifying for the two modes of reflection in these examples.

A vital part of the doctoral project of Lagrange is *self-reflection*. In this respect he refers to a distinction between *reflective practice* and *reflexivity* by Morwenna Griffith (2010), where 'reflective practice' is associated with a set of research practices, including action research, action inquiry, self-study, and, in some cases, auto-ethnography, while 'reflexivity' is linked to the social and political self.

Nimkulrat, Lucas and Lagrange are all emphasising the dynamic of going in and out of the artistic work or the phases of action, and subsequently taking the researcher's position. I associate this to the 'changing hat practice', the going in and out of the artist's and the researcher's roles in research projects, that is described by Biggs and Büchler (Biggs & Büchler, 2011b).

Hence the dynamic of action and reflection is recognisable in a number of the projects in the sample, and also projects that are not critiqued in this line of inquiry. Of note is that this dynamic is only a part or a component of the artistic creative process and the research process that are described by these authors. What I have done in these examples is to extract this component of their descriptions. Hence, the examples on

reflection above are not descriptive or legitimating of reflection as a complete research activity. Anttila underscores that speaking of reflective actions is not sufficient for craft researchers when it comes to legitimating research in this field of study. She asks: 'In what way can sensations, internal feelings, experiences and other elements of expanded knowledge be recorded and externalised so that a valid interpretation is possible?' (Anttila, 2009, p. 21).

The creative aspect of this process is described by Lucas thus: 'Emptying the mind and immersing oneself entirely in the creative project', which I interpret allegorically as a way of leading your analytic mind back. I regard this as a way of dedicating oneself to the intuitive or creative component of the process, which at the same time or subsequently is intertwined with a reflective component. The *un-reflected* is essential to the logic of practice of Bourdieu (Bourdieu, 1990), focusing on the immediate aspect. Borgdorff, when discussing artistic research, regards this as an articulation of the unreflective, non-conceptual content of aesthetic experiences that is enacted in creative practices and embodied in artistic products (Borgdorff, 2011, p. 47). As I read the two, they regard artistic practice *per se* as an un-reflective and non-conceptual enterprise. Artistic research complements this by the articulation of what is enacted in creative practice. Of note is that there are no comments from the candidates in this sample that the artistic or creative process *per se* is solely intuitive or un-reflective. On the contrary, as I read the theses, the dynamic between the intuitive and un-reflected on one hand and the analytic and reflective on the other is emphasised by the candidates.

One candidate uses another way of reflecting on his creative practice: Hendrickx reflects on his practice as an architect by moving from the field of architecture to the overlapping field of architecture and art. To enable this displacement, he cooperates with artists who have the expertise needed for making the art projects. Hence, as I understand it, Hendrickx makes one bold move, from one position to another, and regards his whole professional practice from the new position. He does not move back and forth between action and reflection, but use his new position to reflect on his previous creative practice as a whole. This creates a new perspective for interpretation, as in the concept of reflexivity by Alvesson and Sköldberg (Alvesson & Sköldberg, 2009). In addition he not only changes his position but he uses the new position – the overlapping area of architecture and art – as the basis for a creative practice that is new to him. This way he uses the means of his new artistic practice, obtained with the aid of mediators, as a tool for investigating his own practice as an architect. Hence the new creative practice, in the displaced position, gives him a new perspective; the ability to see his works from another position.

'Reflection' is sometimes used for the written component of projects of artistic research. An example is the PhD regulations of KU Leuven, which demand that the

research result must include an artistic and creative product and a dissertation. The dissertation is to be 'a textual component distinct from, but *reflecting upon*, the product' (my italics) (KU Leuven, 2009). The particular feature of this programme is a demand that the process of artistic achievement is to be the object of research. There is a strong demand for artistic quality, which must meet the criteria of 'whatever international standards apply in the field'. The demands on the reflective part are that it must include the position of the research in the field, the research questions, the methods followed, the results found, and an outline of future work. Of note is that this is a wider understanding of 'reflection' than in the 'reflective practitioner' concept of Schön, and it is also wider than the description of the working processes that were found in the theses in the sample. What is demanded of the reflective part of the doctoral programme at KU Leuven includes the components of a conventional PhD.

6.3.4.   Line 4: Making Tacit Knowledge Explicit

The topic of Line 4 is the particular 'tacit knowledge' and the communication of this knowledge. In my search for comments on the knowledge base of the identity of art and design, the 'tacit knowledge' of the making disciplines was a reoccurring concept. For this reason, I shall search through the sample of theses for this concept. By tacit knowledge I understand knowledge that is learned and used, but not spoken, as described by Polanyi (Polanyi, 2009). If this kind of knowledge is regarded as significant in the knowledge base of these disciplines we are in the problem area of communicating knowledge that is not spoken or written. As discussed earlier, Nimkulrat argues that knowledge that is embedded in artistic processes and in the artist and the creative work is not clearly recollected by the artist in retrospect. Hence this kind of knowledge tends to end with the creative process. This knowledge cannot be regarded as knowledge in a scientific way because it is not valuated or disseminated by others. She emphasises that practice-led research concerns actions that are followed by research and disseminated to others in the form of artefacts and texts, which both communicate the knowledge that is gained (Nimkulrat, 2009, p. 232).

As I see it, Nimkulrat describes a crucial problem. As long as the knowledge is embodied only in the artist, it does not contribute to building the knowledge base. Reitan says that in her fieldwork she learned the tacit knowledge of vernacular design from the Kaktovik women. In the vernacular area the knowledge and skills of design are transferred without written words, for the most part even without spoken words. Traditionally this knowledge is achieved by the next generation by *watching*. On her methods of revealing the tacit knowledge of the seamstresses, she says:

> To observe the design process is difficult because it takes place inside the designer's head […], and perhaps body, as well as outside in the observable outer world. What is possible is to watch what the designer does, and listen to what he says. But this seldom, or rather, never, reveals everything that is 'going on in the designer's head'. To give a more well-rounded picture, I triangulated by adding interviews and also went to a similar design process myself (Reitan, 2007, p. 74).

What Reitan is trying to reveal – the design process that goes on in the designer's head – is linked to the knowledge that is embodied in the designer. One of her working methods is to go into the same design process herself. For this purpose she has to acquire the knowledge that is needed for this process, because the improvisation process is based on a knowledge of tradition and craft techniques.

Morris uses the concept of tacit knowledge in the third line of investigation in her project. The objective of this research line is a better understanding and communication of the methods of making animated films by drawings. Since these working processes are seldom described, Morris regards this as a way of making tacit knowledge explicit (Morris, 2013, p. 21). Hence she extends the area of *explicit* knowledge of her field of study.

Dunin-Woyseth approves the process of making tacit knowledge explicit, in this case related to doctoral education, where she describes a body of design knowledge 'which most often has been tacit, personal and private. Through doctoral education, this knowledge has been systematically sought to become more explicit, general and public' (Dunin-Woyseth, 2004, p. 64). Of note is that she does not regard all tacit knowledge appropriate for being explicit. Borgdorff argues that artistic research is the articulation of what he describes as the unreflective and non-conceptual content of artistic experience and creative practices (Borgdorff, 2011, p. 47). As I see it, the process of making tacit knowledge explicit is opposed to the idea of design knowledge as something that is to reside in the community of designers, as described by Downton. The idea that knowledge produced in design is stored, transmitted and learnt in a complete system of cumulative knowledge production, and for this reason only accessible, or at least controllable, by designers only (Downton, 2003, p. 55).

What I have seen in my study of the sample of theses is that some tacit knowledge cannot be articulated by words. One example is the understanding of *space*, as presented in the project of Berg. In order to show the participant group how the artworks would work in architectural space, small drawings on paper proved not to be sufficient. He had to sketch the art projects on the wall, full size, for the group participants to perceive it. They were participating in a transdisciplinary team, they were familiar with the art projects and the architectural space where the art was to be implemented, but they did not have the qualifications of architects or artists. As an artist Berg knew what the sketches meant, and could foresee how the result would be

at full size at the real site, but the others could not. They were unable to transfer the small sketches on paper into an imagined full scale spatial experience. This understanding of space is a question of training and experience of artistic and architectural space that is acquired by professional practitioners, and that cannot possibly be transferred in words. By partaking in the working process the participants would realise this. Through their experience in the art project this particular component of tacit knowledge was identified so that they could realise what it was, even if they could not share it. As I see it, exposing this kind of tacit knowledge, the understanding of *space*, is a way of making clear that there is some tacit knowledge that is embodied in the artist that cannot be made explicit. This experience made the tacit knowledge *recognised*, even if not explicit.

Tacit knowledge may be unspoken and unspeakable, but – within art and design at least – it is not *invisible*. That is, it is visible in the works of art: in Borgdorff's words also embodied in artistic *products* (Borgdorff, 2011, p. 47). This leads to the suggestion of Schwab and Borgdorff that the need for additional academic texts may vanish, or that we may see an 'academic writing' of hybrid texts, *or even no texts at all* (Schwab & Borgdorff, 2014, p. 16). As I see it, avoiding academic text completely would end up in a separate eco-system of design, accessible to artists and designers only, and – probably – not even to all of them. Once we have a verbal language, we should use it, though taking in consideration that all information cannot be transferred in this language. As is seen, not all tacit knowledge can be made explicit. What is needed, is a combination of interdependent verbal, visual and spatial communication. I see this as a basic argument for permitting artworks as integrated components of the research output of research in the arts at a doctorate level. The text cannot possibly communicate all the tacit knowledge that is embodied in the artists or the artworks. On the other hand, the artworks cannot possibly communicate all the knowledge that can be explained by words.

6.3.5.   Line 5: Collaboration and Participation

In line 5 of inquiry I am searching for a particular kind of working method that appeared during my first reading of the theses. It is about collaboration with experts or working groups for the purpose of the research project. The collaborating parties have various roles in the projects. In the following I shall use examples from the theses of von Busch, Berg, Hendrickx and Johnsrød. The collaborative aspect of these projects includes experts from other academic or artistic fields of study. sometimes it also includes people from outside academia: resource persons from various fields and non-professional participants of workshops. One particular participatory process is

mentioned in some of the projects: the inclusion of students. Lagrange tries out his Matrix Method in student's workshops. Lucas includes the photographic works of the students in her thesis. This underscores the knowledge building effect of participating processes. It also reflects the fact that most of the candidates are both practicing professionals and university teachers. However, the student projects are not the focus of their theses and so I will not use these particular participatory processes as examples in the following.

Some of the collaborative projects in this sample seem to be examples of Mode 2 knowledge production (cf. 2.2.6. New modes of knowledge production). I shall search for this kind of knowledge production in the following. However, a thorough discussion of Mode 2 is beyond the scope of my doctoral project.

The doctoral project of von Busch includes a number of workshops with various combinations of people with the purpose of designing and making clothes. One example is an event of redesign where the participants brought garments for the workshop, and the histories of these garments was a theme of the workshop. Von Busch describes how the participants were inspired and motivated, and how the product of their creativity became a spur for continuing to work with their new ideas after the workshop. Von Busch regards this workshop as a vehicle for self-enhancement and for the reinterpretation of what he describes as the top-down fashion myth. He claims that the participants built a new approach to fashion through this way of working, and by using the narratives of the garments that the participants had brought with them (von Busch, 2008, p. 135). In this workshop most of the participants were non-designers and non-professionals. Other workshops were based on so called Pro-Ams; a combination of professionals and amateurs. Von Busch describes them as

> … attempts to create symbiosis between separated systems, between high and low, skilled and unskilled, rich and poor and central and peripheral. Here we will meet Pro-Ams, the professional amateurs, the serious hobbyists who trespass into the work of the experts, channelling energies between the two communities. We will meet the user-innovators who further the design of commodities, develop their hobbies and achieve a genuine mastership of their crafts even if it is 'only' a hobby (von Busch, 2008, p. 218).

This quote exposes how the Pro-Ams reflect the ideological foundation of the doctoral project of von Busch. His ideas of turning the fashion industry upside down are present throughout his thesis. Hence the participatory workshops with professionals and amateurs together is at the core of the intentions his doctoral project. The workshops were a materialisation of the ideas of the project, and areas for trying out these ideas. Hence the workshops were necessary for the conduct of the research project.

The Analysis of the Theses

The participatory working groups in the project of Berg have a different role than they have in the project of von Busch. Berg is the professional, performing artist who makes artworks that are to be included in public buildings. The working groups are participating in the making of the artworks, both in planning and in material experiments:

> Through a common artistic goal that participants, to a certain extent, had agreed upon in advance, each participant contributed through practical activities to realize and materialize the common task. The contribution of material-based art originated through practical, individual and collective experiments in the workshop. Some of the material qualities that arose could fit into the concept such as light reflections in the material, which created a particular experience, as well as colour and surface qualities that illuminated the concept in other ways (Berg, 2014, p. 216).

> Through dialogues that originated about the artistic expression, the cases have shown how the collective imagination can help to change the physical environment. Through artistic interventions, ideas have been implemented in physical and cultural contexts. The art objects have been installed in such a way that they have appropriated the surroundings in a dialogical interaction. This was done through visual means that connected the art to the colour, surfaces and dimensions in the architecture. The art objects were in an active relationship with the established rituals and social activities that occurred on site (Berg, 2014, p. 217).

Berg underscores the importance of the acceptance of the artworks by the people who were using the buildings. He regards this as a contribution to the artworks as a transformative social force. To some extent the art created a new sensory presence; it was a materialization of the identity of the people on site, since they had taken part in the conceptualization and thus had a real influence on how the art process developed.

> An example of such a collective transformation was the mourning room in the church, which gained an additional feature as a room of silence based on an idea that had grown out of the participants' shared ownership and understanding of the art. In this example, the participants were familiar with the underlying intentions and thoughts, which they had also partly contributed to themselves. This contributed to their closeness to the art so that they realized the new potentials and inherent qualities of the art, so that it, to a larger extent, became a part of multifaceted, new practices (Berg, 2014, p. 218).

The quote shows how the working groups contributed to the artworks, and how this way of working also gave the participants ownership to the artworks by understanding of the underlying meanings and thoughts.

The projects of both von Busch and Berg include non-professionals in collaboration with professional artists and designers, where the latter are what may be called practicing-researchers. Von Busch even arranged workshops with no participating

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professionals at all. As I understand it, the participants are designing and making the artefacts in these workshops, while the designer has a role of a motivator and facilitator. In Berg's projects the artist is the maker of the artworks, while the other participants are contributing to the results. Because the purpose of von Busch is a bottom-up change to the fashion industry, the participation of non-professionals is not only a working method but an objective of the project as such. For the purpose of Berg the participatory process contributes to the quality of the art projects and as a transformative social force.

I find a brief comment relevant on the relation between these participatory processes and so-called Mode 2 knowledge production (2.2.6. New modes of knowledge production). While Mode 1 is related to the ideals of Newtonian science and research in conventional disciplines, characteristics of Mode 2 are *transdisciplinarity*; *heterogeneity;* organisational heterarchy and transcience; social accountability and *reflexivity. Mode 2 is related to the application of knowledge* and quality control focusing on context-and use-dependence (Gibbons et al., 1994, p. 167). Gibbons et al. give a particular definition of transdisciplinarity:

> Knowledge which emerges from a particular *context of application* with its own distinct theoretical structures, research methods and modes of practice but which may not be locatable on the prevailing disciplinary map (Gibbons et al., 1994).

Characteristic of the projects of von Busch and Berg is the use of participatory working groups, which contribute to the making of art and design, while not actually being *research* groups in a traditional setting. In both doctoral projects the artist or the designer is the one that conducts the *research*. At the same time the participatory working groups are established as a part of the research project and for the purpose of the research project, where the making of art and design is a crucial component. In both projects the purpose of the research project arises from the practice field: the need to change the hierarchical structures of the fashion industry, and the need for participation in the making of artworks by the users of the buildings that are going to receive the artworks. Hence the projects of von Busch and Berg are based on problem areas in the practice field, and resource persons from the practice field from within and outside academia contribute to the research projects. In these processes the researchers ensure that academic demands are met. In my view these features make the projects of von Busch and Berg examples of knowledge production that can be described as Mode 2.

In my view, one effect of this kind of knowledge production is of particular interest to the creative fields. As a result of the participation of non-professionals, the process of making art and design is exposed to people outside the professional artists' and designers' sphere. Experiments, considerations, choices to be made and decisions to

be taken, which are all part of the creative practice of artists and designers, are exposed to the participants. in this way, the participatory working mode makes the creative process transparent beyond the professional area. By participating in art projects 'non-artists' grasp what the creative process is, and which qualifications are needed. In my understanding this is a way of making tacit knowledge explicit. It is a way of disseminating knowledge by giving access to a broader range of people. It is a way of mitigating the potential problems of the insider's position in research projects. This is in contrast to Downton's idea of design knowledge being produced and received by professionals, remaining in the community of designers. Von Busch's project is a distinct contrast to this idea, to a degree that makes the design-works of amateurs a means of changing the whole fashion industry.

While Busch and Berg include a number of collaborating participants in their projects, Hendrickx and Johnsrød include only a few people, and their collaborating partners are experts from other fields of study. Hendricks uses what he calls *mediators* in the art projects of his doctoral work. The mediators are artists, and they are working with him on the art projects. As an architect he moves from the centre of his architectural practice to the overlapping field of architecture and art in these collaborative art projects. In a comment on the first of these art projects, the ProMotion, he says:

> The choice of collaborating with Gabriël was clearly because of his interest in filmic mechanisms that resonated strongly with my architectural practice. It seemed to provide a fertile ground to further explore the scenographic elements of my practice in a different context. I had already assisted Gabriël on different occasions with my approach towards architecture. Where usually my task as an architect was designing based on concepts and references that he already developed, the scenography for ProMotion was different. It was developed in a transdisciplinary design process that consisted of an interactive joint venture that was different. It was developed in a transdisciplinary design process that consisted of an interactive joint venture that was developed together from scratch (Hendrickx, 2012, p. 61).

In this quote Hendrickx explains that he was looking for specific qualifications and expertise that he needed to complement his own qualifications in the art projects. He uses the qualifications and expertise of the artists for the purpose of his research project, which is to reflect on his practice as an architect. The mediators complement and affect his way of thinking. On the artist van den Abeele, the mediator of the Isomosos project, Hendrickx says:

> The stories he tells these days no longer present themselves as conceptual frameworks that are understood but as subjective sensorial aggregates that are subjectively experienced. This emancipatory search for liberating the basal from the over-refined straitjacket of rationality, can be considered a sort of regression that returns to a less refined and more subjective state; shifting from a more rational intelligence to a more emotional intelligence. It is this 'emancipation through

> regression' that resonates with my practice and my personal inclination to over-rationalize. In a paper Michaël and I wrote on our collaborations in video work we said: 'Arnaud departs from the facts. Michaël depart from a suspicion. Arnaud's interest is more formal, objective and investigating. Michaël's interest is narrative, anecdotal, hypothetical and more subjective'. It seems interesting to blend facts with suspicions (Hendrickx, 2012, p. 91)

Again, the qualifications of the mediator are crucial. As an expert in his field the mediator has qualifications and abilities that the researcher he needs for his project. Hendrickx regards his project to be Mode 2 knowledge production. The collaboration with artists has been a major concept of Hendrickx's project. Expertise from other fields is used in integrated art and research projects. However, as I understand it, the *art* projects are collaborations between him and the mediators, while Hendrickx is the one that conducts the *research* project. I assume that this is a working mode that approximates to the concept of transdisciplinarity, and that Hendrickx suggestion is reasonable; that his research project is in the area of Mode 2 knowledge production.

Johnsrød's project is a collaboration between him as a designer and artist and experts from the discipline of biology. The artist sees the need for research, takes the initiative and conducts the project, using the research methods of the other discipline throughout. Johnsrød's project is an example of applied research; the purpose of his research is to create biological patination methods for artistic metal corpus work. For this purpose he needs the expertise and the research methods of another discipline, in this case from another academic domain; the natural sciences. Since there are qualified scholars on both sides of this project, one may characterise this as an interdisciplinary enterprise. However, there is a bias in the concept. There are not two collaborating disciplines, but one discipline that leans to the research methods of the other. From this perspective, interdisciplinarity may not be an accurate characteristic. Turning to the initial definition of transdisciplinarity of Gibbons et al., Johnsrød's project does not fit into the prevailing disciplinary map. It emerges from a particular context of application, which is a characteristic of transdisciplinary projects. As I see it, the way of collaborating with the discipline of biology also corresponds to the strategy of informed dialogue with academic disciplines that Dunin-Woyseth recommends (Dunin-Woyseth, 2009, p. 9).

Even if transdisciplinarity is an increasingly common approach for research projects as such, it raises particular questions for doctoral projects. In collaborative projects, who is the researcher? And does he meet the criterion of doctorateness at AHO. In the cases of von Busch, Berg and Hendrickx there is no doubt that the doctoral candidate is the researcher. Hendrickx needs expertise from the field of art, but he is building his qualifications as a researcher through research methods in his own field. This is not the case in the project of Johnsrød. He is the researcher in the project, but he is using the

research methods of the other discipline. Hence the project of Johnsrød is fundamentally different from the other studies in my sample. However, in the study of doctoral theses by Mo (2003), there is a similar example: the work of Anne Gunnershaug Lien (1995). Her topic is insulated glass, which she evaluates according to thermal, energy conservational and visual qualities. The results are technical applications as well as an evaluation of their aesthetic quality. Drawings and photographs are used for documentation. In her study, Mo found that within the natural science model, some of the theses that concerned architecture were written by architects and some by engineers. In some cases architects had submitted their thesis to the discipline of engineering (Mo, 2003, pp. 45-46). As I see it the combination of, or a crossing of borders between, the creative fields and the natural sciences is more likely to occur in architecture than for example in visual arts. In my view architecture resides in a field of tension between a number of disciplines when it comes to components of knowledge that are needed for the practice field. In some institutions the education of architects resides in the faculty of technology.

In sum, the purpose and the character of collaboration is different in the projects of Berg, von Busch, Hendrickx and Johnsrød. Berg and von Busch arrange working groups that include professionals and non-professionals, academic and non-academic participants. Hendrickx and Johnsrød include another discipline collaborating with professionals of these disciplines. However, in all the projects, the isolation of the single artist's work is broken. Ideas, experiments, and considerations are shared. Documentation and dissemination allow others to share information on the work. Transparency is introduced to the working process. There is a dynamic in these projects: the opinions and considerations of the members of the working group are contributions to Berg's artistic work. Hence the participants in the group get an insight into artistic processes, while they also contribute to the results of this process: the artworks that are going to be a part of their daily working life.

6.3.6.   Line 6: Validity of the Research Results

In this last line of inquiry the topic is the question of validity. I shall use the concepts of Kvale as a starting point for my search through the theses on this issue (Kvale, 1996), as discussed in the chapter of methodology (cf. 3.2. Validity). In his terminology the three concepts of validity, reliability and generalisability are components of the overarching concept of verification. The potential of *replicability* is vital to validity. When a research project is repeated and the repeated project gives the same research outputs, it has gained a strong presumption of validity. Of particular relevance to the doctoral works in the sample of my study is the concept of *coherence*, the inner

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consistency of arguments. This is a quality criterion for qualitative research, and particularly for projects with a hermeneutic approach.

As seen in block 2 most of the candidates describe their study as part of the emerging strategy of research in the arts – in various terminology – where working methods and research strategies are not fully developed. This also counts for the verification or validation of their research results. Some candidates discuss questions of validity explicitly, while others hardly mention this aspect. However, this does not mean that they have not considered the question of validity and securing the quality of their research results. Validation should be an integrated part of a research project, concerning every stage of the process, and may be so even if the researcher does not discuss it separately or explicitly. In my search through the theses, I shall look for explicit discussions of validity, while recognising that considerations of validity can be integrated in the works throughout even if not discussed explicitly.

Johnsrød is the only candidate in the sample who uses research methods from the natural sciences. In his transdisciplinary project of experimental research he is in the position of leaning on the validation systems of the natural sciences. In this respect he argues that scientifically sound research projects in the making disciplines require research methods that produce measurable, replicable, and credible results. In his view these are undisputed demands in scientific communities. He recommends methods of verifiable hypotheses, experiments, exact observations and documentation (Johnsrød, 2009, p. 7). This reflects the research methods of microbiology that he has used in his research project.

Berg has thorough discussions on validation in his research project. He refers to validation methods for case studies by Yin (1994):

> … according to case-study methodology, the theory in the introduction and method chapter was systematically related to the selection of the data, as recommended in case-study research (Yin, 1994, p. 136). This theory was reflected in the research questions and the theoretical propositions, in addition to the methodical choices that guided the selection of the relevant data. Thus, a chain of evidence (Yin, 1994, p. 122) has been maintained, which is a way of creating validity to the research. The empirical findings are thus relevant not only to my research questions, but also to the theory that has been the background for the research questions and the theoretical propositions (Berg, 2014, pp. 57-58).

Berg uses triangulation for validation of his empirical data, based on theoretical propositions, problem-based methodology, and a variation of strategies. He relates his project to criteria that are suited to problem-based methodology as described by Robinson (1993): explanatory accuracy, effectiveness, coherence and improvability.

The Analysis of the Theses

Berg describes an iterative process between the initial theoretical propositions and the findings, which led to revisions of the propositions in the course of the project.

Nimkulrat relates the quality of her research project to reflexivity, openness and transparency. She regards reflection-in-action as a potential way of looking at one's own creative process with a critical eye, thus contributing to openness and transparency (Nimkulrat, 2009, p. 64). She says:

> It was my intention to construct a set of approaches suitable for solving the research questions. I attempted to utilise them openly and consistently, in order to bring transparency and reflection to the process, which combined art practice as part of research enquiry (Nimkulrat, 2009, p. 77).

Von Busch argues that general quality criteria are of little help in his kind of research projects. In the emerging field of artistic research he regards it necessary to continuously relate to different ways of thinking, and each thesis must find its own way to solve the problem of quality assurance. However, he anticipates that in the long run a kind of best practice will be revealed. Von Busch refers to similar problems of validity in the method of action research in the social sciences (von Busch, 2008, p. 28).

Lucas' discussion on validation of the practicing-research method draws in another direction. Her perspective is that since projects within this kind of research are singular, how can the knowledge that they generate be of use to other researchers or to the milieu at large? Her answer is that this knowledge is *inspirational*. Instead of asking 'is the way that the researcher arrived at this outcome logical and verifiable, and therefore convincing?' she wants to ask: 'does the evolution of this research project feel convincing to you? Does it possess a sense of genuineness and honesty? Does it move you?' (Lucas, 2013, pp. 31 Practicing-research). She regards this to be a shift away from criticism and towards appreciation. Lucas says:

> Although personal belief, intuition, and imagination are equally present at the outset of all research ventures, there is a profound divergence between scientific and practicing-research when it comes to how the researcher proceeds to explore the ground of the initial proposition(s). While the scientist resorts to systematic methods to test his hypotheses, arriving at outcomes that can be objectively verified, the practicing researcher proceeds in a singular manner along a path that is not replicable, not even by the same person in different place or time. Practicing-research yields knowledge that is contingent on the particularities of the context within which it takes places, affected but the operator's disposition, and touched by the chance and circumstance (Lucas, 2013, pp. 27, Practicing-research).

The Analysis of the Theses

Hendrickx has a brief comment on validity in his thesis. He states that he is conducting *evidence-based* case studies. He relates this to the concept of *substantiating displacement*, which is a core concept of his doctoral work.

> The fifth of five concepts I will use for summarizing this research is substantiating. Here I will simply rely on the dictionary definition: 1: to give substance or form to. 2: to establish proof evidence of. The only adjustment I want to make to the second definition is that, in my use of the word 'substantiation' in the sense of 'to establish evidence of', I will interpret evidence in the phenomenological sense (Hendrickx, 2012, p. 94).

There is a footnote to this phrase, referring to the following Wikipedia definition: 'Evidence is the successful presentation of an intelligible object, the successful presentation of something whose truth becomes manifest in the evidencing itself'.

As I understand it, when Hendrickx use the term *substantiation,* he relates this to the dictionary definition above, both in the meaning of giving substance to something and establishing proof evidence of it. This is why he also presents a dictionary definition of the concept 'evidence'. Then he explains that he will understand 'evidence' in a phenomenological sense. As I understand it, this understanding of evidence relates to the first person perspective voice of phenomenology and the concept of phenomenological descriptions of personal experiences. A further discussion of this issue would be worthwhile, since Hendrickx follows the RMIT track and the Creative Research Method that is developed there, which is not yet widely known in Europe. Since Hendrickx does not discuss this further in his thesis, I will not go into a deeper discussion of this issue in my study.

Hence there are a variety of approaches to the question of validity in this sample of doctoral works, from the use of defined quality criteria by Johnsrød and Berg, to the rejection of validity demands by Lucas, and variations in between. However, there is one common feature in all the doctoral works: all of the candidates – with no exceptions – give detailed and meticulous accounts of their working methods. Hence their research processes are traceable. In this way they all provide consistent transparency. By these descriptions it should be possible to repeat their research projects. However, repetitions of this kind of project would hardly give identical or even comparable results. As Lucas says, in her project there are myriads of possible solutions. Another artist would come to a quite different result. She might even have come to different results herself, if conducting the process twice. The quality of artworks is that they are, in the terms of Lucas, *singular*. As I see it, she exposes a fundamental conflict between the ideal of replicability and the irrevocable demand for originality of works of art. The very idea of art is that it should not be replicated. The demand for originality in research projects and in art projects is not the same. While original research can be verified by replication that gives the same results, original

works of art cannot and should not be replicated. When research projects conducted in the same way are supposed to give the same findings, art projects are supposed to give quite different results in these kinds of artworks where the prerequisite of a work of art is the personal and individual creation by the artist.

In doctoral programmes where works of art are integrated in the research results, there are demands for high quality artistic achievements, sometimes related to international standards, as f. ex. in KU Leuven. However, these are criteria of *artistic* quality, not of the validity of research results. Hence quality assessment for the artistic and the scientific components of the doctoral works are not the same. As I see it, this is an essential problem: criteria of validity cannot be used for quality assurance of artworks that are assessed by their artistic quality. When works of art or design are integrated in the research result, conventional criteria of validity are inappropriate for this part of the study, while relevant to the written part. Since these components tend to be intertwined even in the research results the object of validation is blurred. Given the view of Borgdorff, that the experience and insight delivered by artistic research are embodied in the resulting art products, these products might also be relevant for validation. As I understand Borgdorff, what he regards to be the pre-reflective artistic actions and knowledge are embodied in the art products in a form that is not directly accessible for justification (Borgdorff, 2011, p. 47). On the other hand, there are also scholars that argue differently: Candy and Edmonds claim that two features are decisive for the knowledge obtained. First, that it is shared, and second, that it can be verified or challenged (Candy & Edmonds, 2011, p. 121). Anttila admits that craft researchers have a great challenge to develop new valid methods for the transmission of what in her terms is their 'extended knowledge'. She asks: 'In what way can sensations, internal feelings, experiences and other elements of expanded knowledge be recorded and externalised so that a valid interpretation is possible?' (Anttila, 2009, p. 21). For this question I will endorse the comment from von Busch: in the emerging field of artistic research each thesis must find its own way to solve the problem of quality assurance, while in the long run some kind of best practice will be revealed (von Busch, 2008, p. 28).

In sum, all the theses have two features in common: they are all *transparent*, and they all have the objective of being disseminated and accessible to others. As I see it, the concept of *coherence*, the inner consistency of arguments, a quality criterion for qualitative research, is of particular relevance to projects of research in the arts. As is seen in block 2, some of the projects in my sample include research methods from natural and social sciences, where *correspondence* is relevant. Good research craftsmanship is an overarching criterion of research quality for the concept of coherence. As I see it, the detailed and accurate descriptions of the working methods in the theses of this sample make it possible to trace how the criterion of coherence,

the inner consistency of arguments, is met. Given that artistic research is an emerging field of research, standards of good craftsmanship are still in the making.

There is no explicit criterion of validity in the Dublin Descriptors, but quality assurance is implicit in the demand for 'mastery of the research methods'. The descriptors also have a criterion of *scholarly integrity*, which I relate to the question of reliability. Aalto University demands that the students apply scientific research methods 'critically' and KU Leuven demands a 'critical framing of the research within research traditions'. KU Leuven also has a criterion on verification: 'presentation of the research in texts that are open to verification and discussion by peers' (KU Leuven, 2009).

6.4.   Chapter 6: Summary and Discussion

Through the analysis I have observed that the integration of artistic or creative practice in doctoral research projects is a core problem. Of note is that there are two aspects to the creative practice: the act of making works of art and design, and the results of this activity, the artworks. A doctoral work can include one or the other, or both. The making of art can be a research tool or an object of research. The artwork can be a research output, complemented with a written part. Artworks may even be purely illustrative, but that is not an issue in this study. In block 2 I used a description of artistic research by Borgdorff as a starting point: 'We can justifiably speak of artistic research (research in the arts) when that artistic practice is not only the result of the research, but also its methodological vehicle, when the research unfolds in and through the acts of creating and performing' (Borgdorff, 2011, p. 46). I regard this as a good expression of the intertwined relations between the act of making art and design and the research activities and results. As discussed previously I have also found that both the artistic practice and the finished artworks can be the *object* of research.

As seen in previous discussions (4.2.2.2. The substantive content) the Dublin Descriptors do not have a practice component, even if they are intended to cover both PhD and practice-based or professional doctorates. The practice component of the Scottish model framework was not reflected in the Dublin Descriptors. The theoretically oriented formulations of the descriptors and the wide definition of research in the footnote gives the Dublin Descriptors an inherent ambiguity. Hence the Dublin Descriptors do not answer the questions of creative practice in doctoral works.

At the national level there are different solutions to this problem, even in the four countries represented in the small sample of my study. While Sweden and Finland have separate trajectories for the Doctor of Art, Norway and Belgium do not. While Belgian PhD programmes may include the creative practice component, Norwegian PhDs may not. At the institutional level Aalto University and KU Leuven have

mandatory demands for integrated artworks in their Doctor of Art programmes, while at the University of Gothenburg and at AHO it is optional. If this situation appears to be complex, the situation in the field of methodology is even worse. This is exposed by the numerous designations of research in the arts, artistic research, practice-led research and so forth, which, in spite of the numerous efforts, do not constitute any finished or accepted research method that doctoral candidates can use. Hence the candidates spend a substantial amount of work, not only on the *objects* of research, but on the *methods* of research. For this reason some of the candidates in my sample conclude that developing the research strategy is part of the research process, and that their strategy is included in the research results. As a consequence in this emerging field of research, building the epistemological platform is, in my view, an aspect of building the knowledge base.

As a conclusion I will argue that the creative practice component may be the pivotal point, but the core of the problem are the research methods, the very integration of artistic practice and the research process. This is what the authors of the thesis in my sample have tried out in different ways. They have focused on this very core of the problem area. There is a plea from the milieux of art, design and architecture that research is needed from the inside of these fields of study, that is, built on the competences that are embodied in these fields, and directed towards practitioners in these fields. What has been seen previously, is that researchers from these fields lean to other disciplines for research methods and theoretical foundations. This may still be tempting – what I would call evasive strategies – fleeing from the complicated research problems of the making disciplines to complementary disciplines like sociology, philosophy, neurobiology and others. What I have found in the analysis of the theses is a strong will to stick to the core of the problem: integrating the making of art and design to research processes in doctoral work.

7. Challenging the Formal Frameworks. The Practice Field Strikes Back

The topic of chapter 7 is related to the efforts of meeting the criteria of doctorateness, but from another perspective. It raises the question whether this is a one way process, or whether it can also be turned the other way around: whether the creative fields – when they are about to enter the academy – could also have an effect on these criteria, and if so, in what way. The object of this discussion is the Dublin Descriptors as the overarching framework, and the institutional doctoral regulations, which are closest to the practice field of doctoral work. This is a question of if and how the operational level can have influence on the formal level. This issue is formulated in research question 2:

> Does the development of doctorateness in art and design challenge formal frameworks of qualifications, and if so, in what way?

This question is a counterpoint to research question 1, on how doctorates in art and design can meet the formal frameworks. Hence chapter 7 constitutes a complementary perspective on the analysis in chapter 6.

In the first part of this chapter I shall point out some deviant features that tend to break the conventions of doctoral works, which I observed in the analysis of the theses. Then I will discuss some alternative strategies that the creative fields have used or might choose to use in their efforts of getting a position in academia, and which consequences these could have for the formal frameworks.

7.1.   Challenging the Conventions

In the following are some examples of theses that deviate from what may be called 'conventions' of doctoral works. These conventions are customs and practices that have been developed in the academy over time and discussed and approved by the academic community. Of note is that this is not about deficiencies in meeting the demands of doctorateness – the theses are all approved for the doctoral degree by well renowned institutions – but on breaking conventions and traditions. A number of candidates express a need to break some of these conventions in order to find new ways of conducting their doctoral research and present the results of their work. In the following I have chosen examples where the candidates themselves express that they need to or want to break the conventions.

Challenging the Formal Frameworks. The Practice Field Strikes Back

On example of breaking conventions is the thesis of Morris. She explicitly underscores that she wants to avoid academic writing. Her preference is for a more literary prose. She does not want to explain, but rather to use implication and suggestion (Morris, 2013, pp. 93-94). By this statement, Morris describes a totally different way of writing, which is also what she has developed in her doctoral work. The continuously flowing text of the postings gives the reader access to the thoughts and the considerations of the author in quite a different way than in a conventional academic text. We are on the verge of what I would regard as *hybrid texts* (Schwab & Borgdorff, 2014, p. 16). in the overlapping field of art and academia. The artist researcher takes the consequence of this twin role in the project, and combines expressions of both. The strategy of drawing lines through this text in retrospect, meandering through thought-pieces that deal with objects of investigation, is a major departure from the ordinary way of navigating through a doctoral work where research questions and research results are presented in a conventional structure. In sum, this way of discharging the concept of academic writing challenges the conventions of doctoral work, and, as I see it, it also has the potential to challenge the borders of doctorateness.

Another example of breaking conventions is the thesis of von Busch. He explicitly rejects the formulation of research questions because his project is in the field of artistic research. He claims that this kind of research is not framed and focused on specific research questions (von Busch, 2008, p. 27). It is related to a new kind of art project, a matter of presenting unknown possibilities that he promotes as a characteristic of artistic research. As a consequence he also dispenses with the convention of searching for explicit research results that respond to research questions. This lack of linear progress is reflected in the structure of his thesis, where lines of investigation run through interchangeable sections that can be read in any order. The three Sint-Lucas candidates, Lagrange, Hendrickx and Morris, also depart from the convention of research questions in different ways. Lagrange, who follows the KU Leuven track of doctoral education, encircles his objects of research in the first chapters of his thesis, from the starting point of exploring the act of looking (Lagrange, 2012). He chose the KU Leuven because that gave him the opportunity to start afresh, to take an explorative approach that was not bound by traditions or fixed approaches. Hendrickx, following the RMIT track that does not formulate explicit research questions, but points out three areas of investigation where he ultimately draws conclusions. Morris, following the KU Leuven track, also has no research questions from the start, but structures her work in lines of investigation in retrospect, in the résumé chapter (Morris, 2013).

As seen in these examples the choice of not posing research questions, and as a consequence not aiming at specific research results, is closely related the research

strategy of the projects. Even if only examples, these doctoral works suggest a rejection or a challenge to the doctoral conventions in projects of research in the arts.

Other candidates in the sample pose research questions in the conventional way, aiming at getting to corresponding research results. Of note is that these projects may also reside in the area of research in the arts, as the projects of Berg (2014) and Nimkulrat (2009) from Aalto University. Berg has artistic research as his strategy, Nimkulrat uses the term practice-led research, both variants of research in the arts including the making of art and the finished artworks integrated in their research projects. As I see it, the conventional way of presenting initial research questions, starting with defined research questions and ending up with findings and research results, does not reflect the diachronic progress of the work. It is merely a way of structuring the thesis on behalf of the reader, and legitimising the research outputs by making them correspond to the initial intentions of the project. More importantly, however, it tends to structure the direction of the project during the conduct of the research, concentrating it towards concrete research results. As I understand it, this is a major reason for omitting explicit research questions. What should be asked is which choice is the most fortunate, which serves the research in these fields in the best way, what is gained by leaving out the research questions, and what is gained by keeping them? Leaving out the concept of research questions allows an open-ended research process with numerous potential directions, so a particular kind of research result cannot be expected, as in for example the project of Lagrange (2012). This reflects the deontic character of the creative fields, the search for possibilities rather than solutions, the results of artistic creativity and the making of artworks that can take innumerable directions. On the other hand, following the rigour of explicit research questions and corresponding research results, as in the projects of Berg and Nimkulrat, has the benefit of a structured research process and a focused search for answers that is needed for the purpose of the project. Both strategies are present in this small sample of theses.

Another departure from the conventions is the rejection of validity. Lucas promotes the *singularity* of practicing-research, each project being a single case, which means that she rejects the idea of replicability for the quality assurance of research results (Lucas, 2013). She claims that for each project in practicing-research a multitude of different results are possible. The results may be completely different if a different researcher conducts the project, and even if repeated by the same researcher. As I understand it, plurality of results are also at the very core of this kind of research: there *are* no singular answers in this kind of research. For this reason Lucas also explicitly rejects conventional validation. It is not appropriate, it does not give meaning. Instead she presents an alternative quality criterion for this kind of project, an assessment on whether the knowledge that they generate is *inspirational*, a

concept that is also used by Medawar, who recommends that the hypotheses that emerge during the course of the projects should be revealed as part of the process of scientific work. This will show that research is imaginative and inspirational; 'adventures for the mind' (Medawar & Pyke, 1990). This is a significant departure from the conventions of doctoral work, and, as I see it, it challenges the very core of research as such, the validity of research results. Hence the dispensing of validity as the potential to challenge the borders of doctorateness. Von Busch meets this issue in another way. Within artistic research he recommends a careful consideration for each research project, and in the course of time some kind of best practice for quality assurance of research in these fields will emerge. What I have observed in this sample of theses is that research results that have potential for verification, like a developed method for creativity or a way of using intuition as a starting point for architectural practice, are not replicated or tried out in a systematic way. As I see it, this tends to be in line with the core of artistic research: an open-ended approach and focus on the process and the multiple possibilities of results.

Lucas explicitly rejects *criticism* and the Mertonian norm of *scepticism*, because replicable and verifiable findings are not an objective in her kind of research. In her view the vital difference between scientific research and practicing-research is that in science, systematic methods are used to test hypotheses, arriving at conclusions that can be verified, using experiments that can be replicated. This is not the case for practicing-research. As I understand it, practicing research – with its character of singularity – is closely related to the personal achievements of the researcher. Hence, in her view, the Mertonian norm of *disinterestedness* is not appropriate. For this reason practicing-research is also in opposition to the norm of *universalism*, which Merton characterised as 'rooted in the impersonal character of science' (Merton, 1973, p. 270). If this is characteristic of research in the arts, I regard it to be closely related to the particular issue of artworks as research results. As discussed previously (6.3.6 Validity of the research results), criteria of quality for research results are not compatible with criteria of quality for artworks. Hence, when the two are intertwined in the research results, existing regimes of verification do not fit. The criteria of quality are blurred, the established procedures of verification will not work. For this reason the concept of validity, that is a core value of scientific work may be challenged by emerging fields of research that do not share these values, or cannot meet their demands.

Most of the candidates comment that they do not find established research methods are appropriate to their research projects. Some of them choose to make their own path. Most of these candidates relate their own path to existing research methods throughout, both as a theoretical foundation for their own choices, and as working methods that they can use. Von Busch chooses his path within the emerging field of

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artistic work. Lagrange develops his path while exploring the landscape like a cartographer in an unknown terrain. Reitan chooses to make her own path, but borrows from existing methods and sometimes feels tempted to follow these methods rather than making her own path, as an easier way of working. Reitan's comment reflects an important issue: making one's own path is laborious, it takes energy, and it takes time. For this reason, some of the candidates in the sample devote a substantial part of their research project to this part of the study. Lucas regards the epistemological part as one half of her doctoral project.

When planning her research project, Nimkulrat searches recent examples of predecessors in the research field, as for example the retroactive approach of Mäkelä (2006). Hendrickx follows the Creative Research Method that is developed by Leon van Schaik and Richard Blythe at RMIT. Berg follows the advice of Varto, who in turn regards artistic research as a strategy in the making. I see these approaches as examples of building research strategies for artistic research in a way that reflects one of the core values of academia: cumulative knowledge building, in this case in the epistemological sphere.

Making one's own path in an academic enterprise takes energy and time, but it also takes courage. The result of the enterprise is to be assessed by peers and published, and discussed, as in my PhD study, where the projects of candidates in this emerging field of research are discussed. Lucas says:

> With my decision to pursue a doctoral research project that deviates significantly from the establishment, I forfeited the assurance of precedents and I signed on to the hazards enclosed in undertaking such an endeavour. Despite the risks implicit in my decision, I was enticed by the self-directed and self-sustaining nature of this sort of explanation, and so I embarked on the journey with a sense of trepid excitement (Lucas, 2013, p. 5 Closure).

What Lucas indicates here, is that she deviates so significantly from the establishment that it is a risky project. Other candidates may have had the same experience. Taking this to the extreme would mean taking an outsider's position, building an epistemological platform outside academia, or at least outside the area of doctorateness. If the conventions do not fit, they may be trespassed. If the borders are to narrow, one may choose to go outside. The alternative is staying inside and adapt to the conventions. At the same time one may also choose to take a discussion, that is, joining the academic discourse. The arguments that I have referred to above are all examples of contributions to that academic discourse.

In sum, what I have found in this study is that any departure from doctoral conventions tends to be explicitly stated by the authors, and they tend to legitimise it by the particular character of their research strategy. Von Busch refers to artistic

research, Lucas to practicing-research, Lagrange to the fresh start of a new doctoral programme, Morris to her ambitions of an artistic approach in her writing and a convergence of art and research. Of note is that other candidates in this sample regard artistic research (Berg) or art-based research (Nimkulrat) as their main research strategy without claiming the need to depart from the conventions of doctoral work. Hence, in this small sample of theses there are examples of both: the need to challenge the conventions, and the need to adapt to the conventions, additionally or alternatively. What is also revealed is that the terminology, what term is used for the research strategy, is not decisive for whether the candidate chooses to deviate from the conventions or adapt to them. The concept 'artistic research' is used in both cases.

Given that artistic research is an emerging strategy that is not fully developed, this concept may prove to constitute major differences from present research strategies, and – in retrospect – may even appear to be a new paradigm. Lucas foresees massive consequences when this kind of research enters the academy. She claims that this will require a fundamental reconsideration of academic research. In her view it will cause a radical evolution of the established concept of research (Lucas, 2013, p. 16). As I see it, some projects in the sample are approximating to Mode 2 knowledge production. Berg's and von Busch's projects are examples of a participatory working process that I regard to approximate to Mode 2. Hendrickx' and Johnsrød's projects are examples of a transdisciplinary Mode 2 approach. Whether artistic research as such has the potential of creating a new paradigm is yet to be seen. If so, artistic knowledge production would challenge the conventions of doctoral work as well as the borders of doctorates. On the other hand I assume that another development, the absorption of artistic research into existing methods and vice versa in the course of time, may also have an impact on what are now the conventions of doctoral work.

7.2.   Strategies of the Problematic Newcomer

The topic of this section is strategies for a field of study entering the academy; as Biggs and Karlsson say 'the problematic newcomer' (Biggs & Karlsson, 2011, p. xv).

7.2.1.   The Isolationist Position

One strategy for newcomers in academia is to build their epistemological platform systematically, brick by brick, in an informed dialogue with existing disciplines in order to being accepted their by the academic community. Another strategy is taking a separate course, developing parallel epistemological strategies outside the

conventional academic realm. Some authors regard this as 'special pleading' or an isolationist position (Biggs & Karlsson, 2011; Candy & Edmonds, 2011). In the present debate, both views have their advocates.
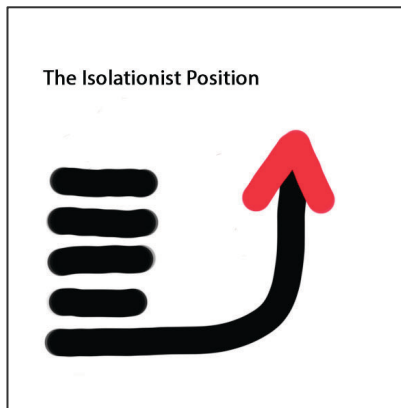
An example of the strategy of 'brick by brick' building inside academia is Heynen's recommendation that architecture should approach research from a most rigorous point of view, in order to be accepted by the academic community (Heynen, 1996). The strategy of Downton is an example of the opposite, arguing that design research accumulates and disseminates knowledge within the community of designers, and that this is hard to assess by others (Downton, 2003). These examples represent different positions in the present debate on research in the arts. The isolationist position, the trajectory outside the academic area, tends towards a radical extreme. The trajectory of brick by brick building within academic area represents various hybrid positions within this continuum (2.2.5. Present academic positions). Hence the isolationist position is an issue in the present debate of research in the arts.

One variant of an isolationist position is what are often called research *equivalents*. These are enterprises that are not regarded as research, but as equivalents to research when it comes to research funding or results-based financing. At the doctorate level equivalents to doctorates may be a solution to the problem of being inside or outside. One example is the Norwegian Artistic Research Programme, a three-year postgraduate programme that is not a PhD. Regarding the three-cycle Bologna structure, this is an equivalent to the third cycle. It is equivalent to a doctorate when it comes to financing, while at the same time it retains the freedom of not being constrained by scholarly rigour. On the other hand this is an isolationist position, being outside the doctoral area, is regarded a drawback by the board of the programme and the institutions involved.

There is also a distinction within the doctoral area regarding whether a doctorate is a PhD or not. Professional doctorates give doctoral degrees, but not PhDs. As is seen,

some doctorates in the creative fields are not within the PhD area. One example is the Doctor of Art at the University of Aalto. The doctoral degrees of Berg and Nimkulrat are in this category. One may regard these 'outside the PhD' doctorates to be in an isolationist position in relation to the PhD area, hence in the position to develop a separate epistemological platform that is more suitable for the creative fields. On the other hand, these doctorates may apply criteria of doctorateness that are similar to the PhD, or even identical with the PhD. In this case the major difference is that in these doctorates artworks are allowed or required to be submitted as research outputs. In the example of University of Aalto there are field specific criteria for the fields of art and architecture, demanding high quality artworks in addition to the general doctoral criteria: in sum, a wider set of criteria than for conventional PhD doctorates. The demands on students' learning outcomes in this programme makes it relevant to discuss whether it should leave its position and join the PhD area.

From the start of my study I decided only to include theses from the PhD area. However, through the search for relevant theses I found that there was no precise distinction between PhD and other doctorates. Theses that to me seemed to be PhDs, were actually from the Doctor of Art and outside the PhD, while conversely theses of Doctor of Art that I assumed not to be PhDs, were from PhD programmes of Art. In order to get the variety of approaches that I needed for my study, I widened the area for my search to include works form the Doctor of Arts programme at Aalto University. Thus I could include doctoral works of high artistic quality that were at the same time aiming at combining artistic research methods and existing research methods.

As discussed earlier (2.2.6. New modes of knowledge production), scholars from both positions are engaged in new research strategies, such as the concepts of Artistic Research and the Mode 2 knowledge production. This may indicate a convergence between the two extremes, a shortening of the continuum, so to speak, by joint efforts to develop new research strategies or adapting to new strategies in a wider academic setting. Another understanding of this common interest is that Artistic Research and Mode 2 Knowledge Production both are still in the making. In my opinion, this is what happens: different academic positions see the need to define or develop research strategies for the creative fields. They use the terms Artistic Research and the Mode 2 Knowledge Production because these are future oriented concepts that imply new strategies. The future orientation and the potential of new research strategies are what unite the opposite positions when using these terms. The fact that these concepts do not yet constitute fixed and accepted research methods means that they are still wide and inclusive, so that different positions see their potential. This does not mean that the different academic positions have come to agreement on the future research strategies for the creative fields.

7.2.2. Battle of the Grey Zone

The formal frameworks set the borders of doctorateness. What is outside these borders does not qualify for a doctoral degree. As seen in this study, there are disagreements on where these borders are drawn. The ambiguity in the Dublin Descriptors, where descriptors tend to communicate a conventional, theoretical concept of research, while the footnote definition of research communicates a wide and inclusive concept, creates a blurred area. I regard this blurred area to be *the grey zone* of *doctorateness*.
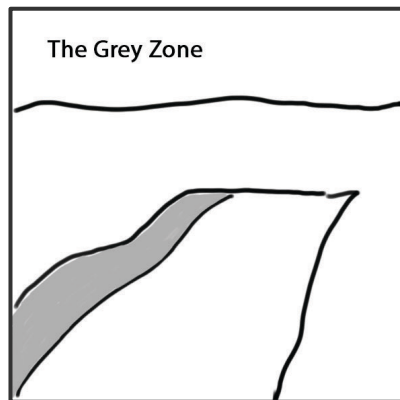

Figure 3. The grey zone of doctorateness

Whenever a doctoral thesis within the grey zone is awarded a doctoral degree, it has the potential to contribute to a clarification of this area. What is required is that others follow, so that there is a marked movement in this direction. Also there is the need for acceptance by the academic community. I regard this as part of the continuous academic discourse. In this discourse there are the radical promoters of new concepts of research, who widening out the doctoral area, and there are defenders of the doctorate who tend to withstand the pressure and keep up the borders of doctorateness. There are even powers of contraction, wanting to reinforce or purify the concept of doctorateness, tightening the borders rather than extending them. Hence, the grey zone is a battlefield for powers of extension and powers of contraction. There may even be minefields at the borders.

Some doctoral works depart significantly from the conventions in a way that challenge the outer borders of doctorateness. When these kind of doctorates are assessed as worthy of a doctoral degree, they contribute to widening the area of doctorateness, metaphorically speaking by making a bulge on the border. In order to make a pronounced effect, others must also follow these doctoral works. There is also the perspective of being accepted by the academic community. For these kinds of bulges to be permanent, the new area must also withstand the potential intervention of accreditation agencies that have the authority to control institutional PhD

programmes. If these prerequisites are not met, the bulge will not be permanent, and the deviant doctoral theses become anomalies in the history of doctorateness.
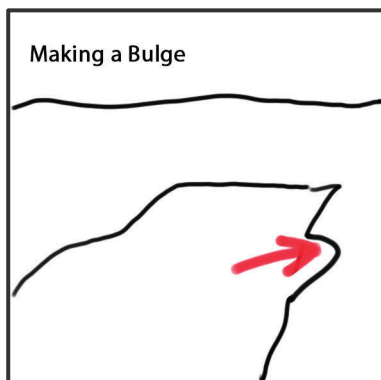

Figure 4. Making a bulge on the border of doctorateness

The cumulative effect of a number of theses challenging the borders has the potential to change the area of doctorateness. Hence the assessment of doctoral works by the examination committees contributes heavily to the interpretation of the formal frameworks. This is the pivotal role of the expertise, the meticulous assessment of doctoral projects, the painstaking academic considerations. These are core values of the academic community, which makes them a decisive power in the definition of the borders of doctorateness. This is a dynamic of the practice field of doctorates: new doctoral works are testing out the borders and academic expertise assessing these efforts. This dynamic has the potential to clarify the grey zone as well as going further by challenging the outer borders of doctorateness. Hence the formal frameworks draw the borders but the practice field strikes back.

Doctorates where artworks are integrated in research results were once 'unthinkable' doctorates. The emergence of this kind of doctorate was once a pressure on the border of doctorateness. At present the bulge that was constituted by these doctorates has become what must be regarded as a permanent extension of the area of doctorateness.

A particular dynamic may occur when isolationists are building equivalents outside the borders of doctorateness. If programmes that are developed on the outside, thereby avoiding the rigour of conventional doctorates, but then cross the border in order to be included in the doctoral area they may bring their research strategies and their knowledge base with them, thereby adding their previous isolated territory to the area of doctorateness. Metaphorically I would call this the isolationist intruder.

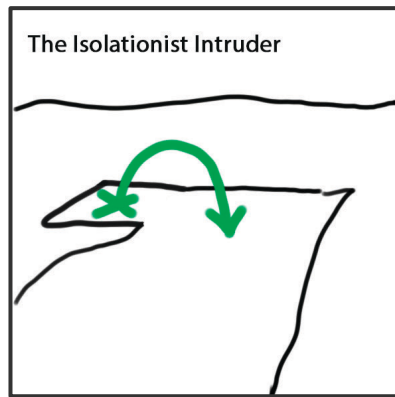**Challenging** the Formal Frameworks. The Practice Field Strikes Back

Figure 5: The isolationist intruder is widening out the area of doctorateness

One example is the Norwegian Artistic Research Programme, which is established as a programme outside the area of doctorates. From this outsider position they have been working for being recognised as a PhD. Since the Ministry of Education and Research recently decided that this is going to be a doctorate that is parallel to the PhD, this programme will contribute to a widening of the area of doctorateness in Norway, even though the PhD area will not be affected in the first place. This is parallel to the situation in Finland and Sweden, where he Doctor of Art is already established. In one way this solution may contribute to keeping the borders of the PhD intact, while the area of doctorateness, including some kind of doctorate in the arts, will be broader. On the other hand there may be a convergence or the borders may be blurred, creating a grey zone between PhD and the Doctor of Arts.

Another example is the emergence of practice based or professional doctorates, as described in the Frayling report (Frayling et al., 1997). When this category of doctorates emerged it caused confusion about what should be the structure and criteria for qualifications for the award of a doctoral degree. As I see it, since these doctorates are intended to be included in the Dublin Descriptors, the area of doctorateness is now widened. The area of doctorateness within the EHEA includes these doctorates.

Of note is that challenging the borders may go either way. One example that leans in an opposite direction is the Oslo School of Architecture and Design. The student cohort of Lucas attended a fellowship programme where Research by Design was prioritised as the epistemological basis for their doctoral works. At present the strategy of this institution has moved in a direction where works of design as research results are exceptions that depart from the institutional strategy. When Lucas was defending her doctoral work, as the first candidate that had artworks integrated in the result of the doctoral work and assessed by the examination committee, this was accepted as an exception to the current doctoral regulations at AHO. In this way AHO is holding back

and even restricting their institutional area of doctorateness, keeping clear of potential minefields at the outer border. One scenario of doctorates in the creative fields is that these doctorates will be associated with a category of practice-based doctorates that gains less respect or gives less prestige. Also architecture is a multi-faceted profession that sometimes resides in art faculties and sometimes in engineering faculties. A number of doctorates in this field of study were established earlier than doctorates in art and design. Hence the scholarly debate on doctorateness in architecture is broader and has prevailed for a longer time than in the fields of art and design. Should the result of the inclusion of creative fields into the academy be a dilution of the concept of research, the field of architecture may shift towards the core of the area of doctorateness rather than to the periphery. Given the wide definition of research in the footnote, and the inclusion of practice-based doctorates in the descriptors, the academic community may act restrictively, defending the borders of doctorateness.

7.2.3.   A Strategic Choice. My Position

As I see it, the isolationist position is a strategy for defending the artistic identity of the creative fields. Building an epistemological platform outside academia means avoiding the restrictions that the academic community will want to impose on these fields of study. It means avoiding the position of the problematic newcomer, and take the position of the independent isolationist.

Building an academic position inside academia brick by brick consists not only of the laborious effort of brick building. It is not only the meticulous and systematic efforts of developing sustainable research methods and building the knowledge base, conquering of funding and fighting for every doctoral scholarship. What is characteristic of this strategic choice is the continuous effort of academic discourse. This may be harsh at times. On the other hand, the discourse requires a refinement of the strategies and a sharpening of the arguments. There is also the option of informed dialogue with other academic disciplines and learning from their achievements and their acquired traditions. I regard this to be a part of cumulative knowledge building in academia.

The making disciplines – art, design, architecture and affiliated fields - are dealing with our man-made world. The efforts of the professionals in these fields are crucial to future society. They need support from strong research milieux. This includes research from the professionals in these fields. Their qualifications are needed. It can be questioned whether they find it possible to combine their professional career with research. Transdisciplinary projects may benefit of the qualification of esteemed

professionals, who may rest on the qualifications and capacities of collaborating partners.

Looking some years into the future, the present situation and the present debate will look different. In the same way, when looking back at the development the last decades, I find that a marked development has been going on. The constructed term for the creative fields, the 'artistic development work', with the purpose to communicate that these fields of study are *not* doing research, is no longer viable. On the contrary, the present situation is that different concepts are used for communicating that what is going on *is* research. For some, the concept 'artistic research' indicates that this is a parallel to scientific research. From a future perspective I assume that the isolationist position will no longer be viable. The strategy of going outside academia may be necessary as a step on the way, and it certainly has impact on the development of these fields of study, but I doubt its viability in the long run. My argument is that the academic discourse, however strenuous, is a way of refining the strategies of building the epistemological platform. Being inside also makes possible a contribution from the creative fields to the academy.

7.3.   Consequences for the Formal Frameworks

The topic of this section is whether the entering of art and design into academia can affect the national formal frameworks and the institutional regulations of doctoral education, and how this can happen. These are the formal curricula in the structure of curriculum investigation. Hence the topic concerns how the operational level, the practice field, may affect the formal level.

As mentioned before, higher education institutions have had to modify their doctoral regulations so that artefacts and artistic productions can be submitted in doctoral works (Biggs & Karlsson, 2011, p. 2). Examples in this study are KU Leuven and Aalto University, which both have adopted special regulations for doctorates of art and of architecture, Aalto as an alternative to a PhD, and KU Leuven as a PhD programme for the fields of art and architecture. In these programmes the submission of works of art and design are mandatory as part of the doctoral works. At the University of Gothenburg this is optional, and at AHO it is exceptional, that is, these kinds of doctorate are exceptions from the main strategy of the institution. At KU Leuven the PhD programmes in art and in architecture are subject to the same regulations and the same criteria as the general PhD, with an additional set of criteria for art and architecture that is introduced by an explanation of this particular kind of doctorate. The works of art and design are called 'the artistic and creative product' (KU Leuven,

2009). At Aalto University there is a similar structure: one set of general criteria that covers the Doctor of Philosophy, the Doctor of Arts (which includes art and design) and the Doctor of Sciences (which includes architecture) and field specific criteria for the Doctor of Arts and for the field of architecture.

At the University of Gothenburg, at the time of von Busch, the new programme of PhD in Design was described as a new doctorate in a field that had previously been close to vocational education. Doctoral theses in design were to have a combination of artistic and scientific elements. There are different options for this combination: there may be artistic and scientific components, artistic and scientific research questions, or artistic and scientific innovations. The thesis can include artworks that are relevant from a scientific point of view. In later versions of the PhD in Design programme in Gothenburg, the formulation is that the artwork must be *in dialogue* with the written presentation.

In sum, and in my metaphoric terminology, this indicates that the incorporation of doctoral programmes in art and design has constituted a bulge on the borders of doctorateness at the institutional level at these institutions. From a wier perspective, it is likely that institutional solutions like the ones in these particular examples may spread to other institutions, thus contributing to a general trend.

At the national level, there are different solutions to the structure of the doctoral level. Since the EHEA framework is non-binding and has the character of overarching guidelines, the EHEA Member States have the option of choosing different solutions to the question of doctorates in the creative fields. As was shown, Finland and Sweden both have two doctoral trajectories, one of PhD and one of Dr. Art. In Norway and Belgium all doctorates are included in a PhD regime. In Norway the Ministry of Education and Research has established a new doctorate in the arts in 2016, while it is not yet decided how this doctorate will be structured and organised. In Belgium PhD includes doctoral programmes where artworks are allowed and even mandatory as part of the research results.

The Swedish model of doctoral education was changed in 2010 when the Doctor of Arts was established. As discussed earlier, the reason for this national change of model was a fear that adapting the conventional scientific norms to the needs of the artistic fields might dilute the concept of research. At the same time they feared that the adaption of artistic research to traditional scientific norms would constitute a potential risk for artistic education which would lose its particular character (Prop. 2008/09:134, p. 16). In this way one may argue that Sweden has chosen an isolationist position for doctoral education in art and design. What is gained is that artistic doctoral education does not lose its character and the fear of that artistic research will weaken the research concept is diminished. What is lost is the academic discourse and the

sharpening of arguments that is needed for this discourse. One major feature of Doctor of Art programmes is that works of art and design are accepted or required as research results, and that there are demands for high quality art products. For this reason, the separation of PhD and Doctor of Art may contribute to artworks of high quality. What may happen in the years to come is that PhD and Doctor of Art take different directions, creating an increasing distance between them. On the other hand, given that the development of research in the arts progresses in the years to come, they may also approximate to each other.

At the same time there are PhD programmes with a conventional construction, like the KU Leuven example, which is inside the PhD regime. Hence, the distinction between what is a PhD and what is not a PhD seems to be random. There is not an international norm that decides what is a PhD and what are other kinds of doctorates. The Doctor of Art programmes may be within the PhD regime, or they may have a distinct trajectory, separate from the conventional PhD, and maybe closer to the professional doctorates. Since the third cycle of the Dublin Descriptors is intended to include both (Joint Quality Initiative, 2004, March 23), they are all within the area of doctorateness. The division between PhD and variants of Dr. Art is a question of national strategies. As is seen in the Swedish and Norwegian examples, new national strategies may emerge on this issue.

Given that there is a grey zone of doctorateness caused by the ambiguity of the Dublin Descriptors, this gives the potential to widen the borders of doctorateness, by taking the wide and inclusive footnote definition into account. As is discussed above, every new thesis has the potential of contributing to a clarification of the grey zone. Through their assessment of doctoral works that are in the grey zone, academic experts contribute heavily to clarify this area, defining the outer borders of doctorateness. This is a continuous process of interpretation of the formal frameworks, and of academic discourse on what should be the threshold of doctorateness. Due to the dynamic character of academic enterprise, definite borders will not be set once and for all.

Doctoral candidates that break the conventions will contribute to instability of the borders. Their strategies may be followed by others and make new trends. For examples, if a large number of candidates who do not want research questions are accepted for the doctoral degree, they will have contributed to what may even be a new convention. This will raise two questions: what is won by rejecting the research question? And on the other hand, what is the benefit of keeping it? Hence breaking the conventions contributes to a discussion of the conventions as such. In the same way, challenging the borders contributes to a discussion on the border as such. In this way, these doctorates will contribute to academic discourse.

Challenging the Formal Frameworks. The Practice Field Strikes Back

What complicates this process, is that the international frameworks are of a guiding character, while implemented and transformed by national frameworks that may be obligatory and binding, thus steering the academic activity in a more rigid way than the international frameworks do. Because of the non-binding and guiding character of the overarching frameworks, they do not need to be changed even if the practice field is developing and the interpretation of the criteria is changing. Hence academic expertise is more likely to challenge the institutional and national regulations than the international overarching frameworks. This is also accounted for by the complicated procedure of coming to international agreements and adopting international regulations. The lack of an international authority, the number of national participants involved, the diversity of cultures and academic traditions to be taken into account and makes frequent changes in the international guidelines unlikely.

By the analysis of the theses, the institutional regulations they are subject to, and the formal frameworks, I have found that the development of doctorateness in art and design may challenge formal frameworks of qualifications in different ways: *First,* they may cause revisions of institutional regulations by being allowed to submit works of art as part of doctoral work. *Second,* they may widen existing research methods by bringing in the creative practice component as a research tool. *Third*, they are working on developing a new research strategy, artistic or art-based research or similar concepts, by some even regarded the beginning of a new paradigm. In sum this may cause a certain fear of a diluting of the concept of research, as was the concern of the Swedish government in their *promemoria* of the Doctor of Art (Prop. 2008/09:134).

8. Concluding Remarks

The topic of this chapter is a concentration on what I regard to be the essence of this study, and a comment on the major findings of the investigation. At the conclusion of the chapter are reflections on the study, and suggestions of further and future research.

8.1.   Essence of the study

From the very start of the project the core of this study has been the interaction between the fields of art and design striving for doctorateness, the formal frameworks setting the borders of doctorateness, and the fields of art and design challenging these borders in their endeavours of defining their position in academia.

What I have found in this study is that the intertwined process of making art and design and the research process is the pivotal point. The intersection between research and artistic activity raises a number of questions, and – I may add – a vivid international debate. The process of creating artworks, as a research tool or as an object of research, and the intertwined process of making and researching conducted by a practicing-researcher, is a subject of discussion. An artwork that comes into being by this intertwined making and research process becomes an integral part of the research result. The creative practice component needs – and generates – new research strategies. This is a major issue in the international debate. The resulting artworks may or may not be allowed to be submitted as results of doctoral research. This is an issue of debate too.

All the theses in this study include a creative practice component, given various roles in the doctoral work. A number of the candidates comment that there is not yet a 'package' of defined research strategies that they can use for their projects. Hence they spend substantial efforts on describing and legitimising their research strategies, and to various degrees on the justification of their research results. Most candidates relate their creative practice to existing research methods, either by constructing a combination of methods where the creative practice is one of them, or by developing their own path with references to existing research methods. Through meticulous descriptions of the working process they make their research projects transparent, thereby opening public access to their considerations. While a number of candidates call for defined research strategies, some also regard this deviance as an advantage. Hence the candidates reveal the present debate of doctorateness. In the present situation, it must be asked whether it is possible to develop one set of appreciated research methods in the creative fields, and whether this is desirable. In some artistic

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research projects the singular character and the demand for artistic uniqueness do not correspond to fixed research regimes.

All the projects in this study are presented in a written thesis. A majority of the projects have artworks integrated into the research output. In these projects it is not the making process only, but also the results of this activity, that are included. What I found is that in these projects the creative practice is also an object of investigation, more or less explicitly. Hence, in these projects the act of making art and design and the results of this endeavour, tend to have the roles of research tools, objects of investigation and research results. In most of the projects the combination of artworks and written text is interdependent. The written part cannot verbally describe the artistic results, and the artworks cannot communicate the discourse of the written part. Hence the integration of the artworks in the research results is also an issue of communication.

Allowing artworks in the submission of doctoral works as a mandatory or an optional component is an issue for institutional doctoral regulations. This is also an issue for national regulations. There are different solutions to this issue at the institutional as well as the national level. At the institutional level, regulations have had to be changed in order to allow artworks in doctoral submissions. There are concerns about the effect of this at the national level, even in governmental proceedings. There is a fear that being subjected to the formal frameworks may harm the characteristics of the creative fields, and at the same time a fear that giving these fields of study the flexibility that is needed in the doctoral regulations may dilute the concept of research. Hence, the introduction of works of art and design as research outputs, additionally or alternatively to a written thesis, has the potential to challenge institutional regulations as well as national qualifications frameworks.

What I found in this study is that there is no distinct border between PhD and Doctor of Art and other variants outside the area of the PhD. From the sample of theses it is hard to identify which of the theses that are within the PhD area and which are not. The double trajectory of Finland and Sweden, with Doctor of Art and PhD as separate trajectories, the overall PhD in Norway and Belgium, and the parallel Artistic Research Programme of Norway, that is now to be a doctoral degree, show a variety of national solutions in spite of the overarching international framework of the Bologna Process.

What is achieved by the Bologna Process is a thorough restructuring of higher education. This has been a major reform with wide consequences, compared by some to what may be called the Humboldt Revolution, and it has aroused interest beyond Europe. What is not achieved in this process is a clarification of the criteria for doctorateness in the creative fields. While the Dublin Descriptors tend to be perceived as theoretically oriented and appropriate for doctorates in conventional university

disciplines, the footnote, the attached definition of research, is emphatically wide and inclusive. This creates an ambiguity in the overarching framework, and what I have chosen to call 'a grey zone of doctorateness', a battlefield for the present debate on this issue. In this debate there are forces to extend and forces to contract the area of doctorateness. By the inherent ambiguity, the international, overarching framework is invoked by both sides. In the present debate there are also the deliberate outsiders, the promoters of an isolationist position. Based on this study it is my view that an ultimate isolationist position is not a proper strategy. What is needed is to go for the position inside academia, building an epistemological platform inside the academy, and learning from existing academic disciplines when that proves to be fortunate.

The footnote, the definition of research that is adhered to the Dublin Descriptors, welcomes the creative practice component into the academy, mentioning the traditional, performing, and other creative arts. The footnote definition is also emphatically broad when it comes to research strategies, explicitly stating that research is not to be understood in a 'scientific way'. Hence, the wide and inclusive understanding of the Dublin Descriptors directed by this definition should pave the way for artistic research. A consequence of the footnote should be that the hybrids enter the scene, doctorates with components of creative practice, and the emerging strategy of artistic research. These refer to the hybrid positions on the continuum of the research in the arts. However, what I have found in the course of this project is that the footnote seems to be excluded or suppressed, it seems not to be generally published as an attachment to the descriptors. Also there is no similar footnote in the European Qualifications Framework for Lifelong Learning. Hence the descriptors tend to be interpreted without the footnote definition of research.

Since the assessment of doctoral qualifications is a task for academic experts, academic milieux are filling the descriptors with academic content using their field specific expertise and according to the values of the academic community. This way the academic experts – and the doctoral candidates – are testing and defining the borders of doctorateness over the course of time. The theses that are discussed in this study are the results of candidates making their way in the emerging field of research in the arts and design. They are bold contributions to building the knowledge base and to develop the epistemological foundations of this research field. Through this enterprise the candidates illustrate problems that are yet to be solved. Hence, the present debate on doctoral qualifications in the creative fields needs to continue.

The incorporation of the creative fields in academia is but one of a series of new fields of study being included in academic institutions. A number of professions have entered the University in addition to the three medieval professions of theology, medicine and law. The dynamic created by the ebb and flow of disciplines and specialisms is at the heart of the university enterprise and one of the uncontrollable

factors. This is why institutional autonomy and academic freedom are prerequisites in the development of academic disciplines. In an age of liberalism and New Public Management the ideals of the *Magna Charta* and the Bologna Declaration are under pressure and need to be defended. This also accounts for the deep, invisible keel that allows the academy to keep a steady course in shifting winds: the academic ethos. In my view, the ambitions of doctorateness are more than a result of university reforms. It is also an inherent urge of academic milieux to develop their fields of study and to elevate their achievements to the academic top level. What came into my mind at the start of this process, and has been there since, is that

We hold these truths to be self-evident: That academia is endowed with certain inalienable rights. Among these are life, liberty and the pursuit of doctorateness. [12]

8.2. Looking Back: Reflections on the Study

I started this doctoral project with curiosity on why the making of art and design could be included in theses at master level, but not at doctorate level in Norway. The pivotal point seemed to be *doctorateness*. This introduced the field of research in the arts, the emerging research strategy of artistic research and the controversial concept of artworks as the result of a doctoral research project.

The study covers a broad area from international agreements to individual doctoral works. A comprehensive survey would have been unachievable in a doctoral project. I have chosen to use *examples* for this inquiry. Nine theses from four institutions in four countries are used to illuminate the problem area, which is related to the EHEA – the European Higher Education Area. Hence, the sample of this study is too small to be representative of this vast area.

I had an initial need for a survey of this complex object of investigation, and started the study as a project of mapping the research landscape and the relations between the items in the sample of doctoral theses. The formal frameworks proved to delineate an area of doctorateness, a scope of opportunities for doctoral endeavours. Within this area the doctoral candidates of the study unfold their research activity. I found key points in the theses that could be combined with similar points in other theses, and certain elements in the theses emerged as worthy of deeper investigation. This working method has not allowed a thorough analysis of each of the doctoral theses as

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[12] Hommage to the American Declaration of Independence

such, which they certainly deserve. Hence parts of the theses may have been taken out of their context in ways that do not give full attention to the complete theses. Using parts of complete doctoral works in a mapping process may seem to be a brutal way of dealing with these works. It is my hope that the authors will accept this as a result of the research strategy I have chosen.

From the initial mapping project, I made an intersection from the international sphere to the individual doctoral works, from the ideological curricula through three levels of formal curricula, to the perceived and operational levels of doctoral education, all based on publicly available texts. This has required different approaches of interpretation, while at the same time these levels constitute a hermeneutic structure for a deeper understanding of each level. Hence I regard the structure of curriculum investigation as a hermeneutic model. In this structure I have given the national level little attention. I realise that an analysis of the national frameworks of the four countries in question would deepen the understanding of the institutional regulations and study programmes. However, having to prioritise, I found the analysis of theses and their relation to the institutional programmes the most important in order to understand the operational level. What I have not been able to prioritise in this study is the further process of harmonisation at the international level after the adoption of the Dublin Descriptors. Subsequent development will contribute to the interpretation of the descriptors, because it shows how they are understood and handled in various settings and over time. However, this was beyond the scope of this doctoral work.

As a hermeneutic project the context is crucial for a thorough interpretation. In the present study focus has been on the formal frameworks that steer doctoral education. However, there are components in the context that are of major importance: the quality assurance regimes at international and national level, the accreditation agencies that are emerging throughout Europe, and the role of research funding agencies and public and private users and contractors of research projects. In general the focus on the operational level in this study, the analysis of doctoral theses, has prohibited a broader study of the context as well as the national level of formal frameworks.

As I see it, the wide perspective of international frameworks combined with an analysis of individual doctoral works has the potential to reveal the dynamic between the formal criteria of doctorateness and doctoral endeavours at the operational level, as well as the dynamic between governmental steering and academic experts. This has been the intention of the project.

8.3.　Looking Forward: Needs of Future Research

The deviances in this study are a potential for further investigation for me, or suggestions of research that is needed in a broader setting. A thorough comparative case study of national qualifications frameworks and institutional doctoral programmes within the creative fields would have been useful. The Bologna reformes have proved to be a major force of change in higher education. Comparisons between Europe and other parts of the world can reveal the effect and the dissemination of these reforms on the development of doctorateness in the creative fields.

What is exposed in this study, that the doctoral candidates use much energy in the process of defining and legitimising their research strategies, means that efforts should be made to develop research strategies for the creative fields. The particular intertwined process of research and artistic performance, the role of artworks integrated in the research results, and the questions of insider's perspective versus acaemic distance, are issues for further research and academic debate.

The emerging field of artistic research offers the opportunity to study the development of a research strategy in the making. The further development of artistic research should be an object of close and continuous investigation, both for the benefit of these fields of study, and as an example of the dynamic of academia; the ebb and flow of disciplines and specialisms. A better understanding of developing doctorateness in art, design and architecture may also be achieved by a closer study of the creative fields as such and differences within these fields of study, for example doctorates in music versus visual arts. The question on whether research in the arts and artistic research will represent the emergence of a new paradigm or not, is yet to be answered.

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