

Reflections and Connections

On the relationship between creative production
and academic research

EDITED BY
NITHIKUL NIMKULRAT
AND TIM O'RILEY



Reflections and Connections

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Introduction

In creative fields such as art, design, architecture, music and performance, the relationship between creative production and academic research has been much discussed, in particular how such a relationship can contribute and develop knowledge. These discussions have often been rooted in the development and definition of academic research conducted through, by or *for* creative practice (Frayling 1993; Durling et al. 2002, Rust et al. 2007). This form of research generates knowledge partly from and by means of the creative practice of the researcher who is also an artist or a designer. The practitioner-researcher's creative practice thus demonstrates a way or form of knowing that can be integrated with the traditional realm of knowledge in academic research. Research through or for art and design has been labelled with various terms: practice-based, practice-led, art-led, artistic research, *etc.* With no clear boundaries drawn between them, these terms have been used rather interchangeably to describe the individual research projects undertaken by artists or designers.

This anthology broadly follows the discussions at *The Art of Research*, an international seminar held at the University of Art and Design Helsinki from 1 to 3 October 2007. The aim of this seminar was to provide an arena for discussing and contributing to growth in both the methodology and con-

tent of the practice-based research approach. This seminar attempted to seek ways in which artistic or design practices and research practices can converge, a convergence where the professional creative practices of art and design play an instrumental role in the conduct and dissemination of research. The intention of this anthology is to discuss further the issue of the relationship between creative production and academic research in order to contribute to the methodological and content development of this approach. The authors of the seven articles featured in this volume were all participants in *The Art of Research*.

The anthology opens with Ilpo Koskinen's article which expresses a concern regarding how artistic production is assimilated into academic research. From his perspective as a sociologist, when art is seen or expressed as research, its apparent subjectivity – defying or resisting verbal description – can be problematic. Koskinen suggests that practitioner-researchers should take their creative practices seriously and be willing to convey *how* they work, using their creative processes as a foundation for enquiry. In his paper, Mika Elo stresses that the structure of thinking of artists differs from that of researchers, maintaining that while the latter emphasize the verbal articulation of their thinking, artists often concentrate on the visual commu-

nication of their ideas. Elo sheds light on this tension by saying that for a dialogue between art and research practices to be established, artist-researchers are required to be both eloquent in verbal expression while discussing their research theoretically and sensitive to nonverbal communication while presenting ideas through their media. According to Elo, artist-researchers let art “touch” research through their self-reflections where one form or language (*e.g.* the visual) is translated into another form or language (*e.g.* the verbal or textual) – and vice versa.

The volume continues with Maarit Mäkelä’s article which exemplifies and examines recently completed doctoral research projects from Finnish universities. Conducting their research by means of creative practice in various fields such as performance, fine arts, music and ceramic design, these researchers contextualized and interpreted the creative processes and the products of their own practice. Mäkelä focuses the examination of these studies on how the place and the products of making were involved in the research. Where Mäkelä reviews the completed doctoral studies from the third person’s perspective, Tuula Isohanni looks at her own doctoral research from the point of view of an architect and an art coordinator. Isohanni discusses the place and the products of her study, which concerns the development project of a new residential area in Helsinki, Finland. This article depicts how she works as an art coordinator with the professional background as an architect who attempts to integrate art into the new housing development.

Future Reflections, a research group of three artist-researchers – Catherine Maffioletti, Katrine Hjelde and Marsha Bradfield – explore the conception and role of what they call “the third space” in relation to the practice of art and research. The article reflects upon their presentation *Future Response: Is the Question the Answer?* which took place as a performative event at *The Art of Research* semi-

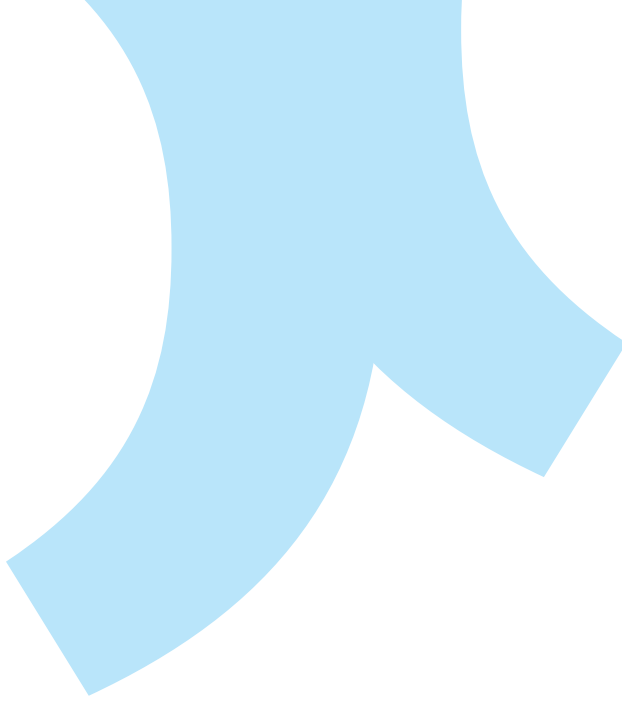
nar and considered how notions of institutionalized research in an art context are socially constructed and discussed. The article poses a dialogue between the voices of three different parties – the Future Reflections Research Group, the institution and the academic. These parties give their voices from various positions, which regulate the production of knowledge in terms of practice-based research. The production of knowledge is also examined in relation to the production of artefacts in Kristina Niedderer’s article which looks at the relationship between the two kinds of production in research in connection with tacit knowledge. The article suggests some possibilities in utilizing artefacts and the production of them for generating and communicating tacit knowledge in research. The volume closes with Stephen Scrivener’s article which investigates how creative production can satisfy the following conditions of research: intention, subject, method, justification, communication and goal. Scrivener explores the discussions surrounding practice-based research and addresses the ways in which creative production can function within – or as – academic research.

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NITHIKUL NIMKULRAT AND TIM O’RILEY

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Throwing the Baby Out or Taking Practice Seriously

ILPO KOSKINEN

LIVING WITH PRACTICE BUT HAVING AN AFFAIR WITH INTUITION

Recent exploration into art and research has produced not just dozens of works that develop research on art, but also several attempts to create frameworks to assist understanding of how art and research could contribute to each other. Perhaps the best-known category is “practice-based” or more recently “practice-led” research with origins in British academic reforms, particularly in the former polytechnics and colleges which became universities with a research agenda. When the British government decided to make research funding available to upgraded colleges (polytechnics), they had to find a way to frame their work in a way that would show what is new and thus worth supporting in artistic research.

The term “practice-based” did this well, and art schools were quick to adopt it. It shows artists as practitioners with their hands dirty in contrast to people whom I take to be researchers or scientists and who apparently are not practitioners. I do not take issue with the concept as such, but would like to point out a danger in it. The idea that doing research through practice is something new is naïve in terms of the sociology of science, which has shown for the last 40 years that even the most for-

mal sciences are based on practice (calculus was invented for studying movement and probability theory for gambling). It is also naïve in terms of the history of science. What would be economics if not a practical exercise in optimizing human systems that are measurable in terms of money?

However, when it comes to research in art schools, these are minor academic problems. The real danger lies in the way in which the notion of practice has been understood. In the case I know best – doctoral work at the University of Art and Design Helsinki – artistic research builds on what is ultimately a very narrow understanding of what artistic work is. In the 1980s, the methodologist David Silverman used to tease sociologists for their romanticism, which he saw in many aspects of popular cultural studies. Rather than studying what people do, sociologists tended to see meanings, which, as the logic went, were invisible, located in people’s heads. Thus, the true meaning of sexuality was not in sexual activity, but in how people thought about it. The meaning of society was in how people saw it, even though, of course, society is everywhere around us, unfolding from day to day. Ten years later, Silverman began to talk about the “interview society” in which the locus of action is routinely located in the inner, invisible layers of people. All of a sudden, we find nothing odd in

sports journalists asking the Olympic gold medalist Daley Thompson after he had won the decathlon with a world record: “How do you feel now?” His response was typically something like “I have never felt worse.” To many viewers, this response seemed odd, at least slightly boyish. However, Thompson’s jocular answer rightly points out that the issue is one of order. After all, what was more important: what he did on the track, or how he felt while doing it (Atkinson and Silverman 1997)?

When I think about recent work at my university, I tend to see the same kind of romanticism at work, even though it is concealed beneath a superstructure of complex theoretical thinking, typically philosophy of some sort, but always understood in “subjective” terms. Invariably, the “truth” about the artist’s work is hidden in the deep layers of the mind of the artist rather than in what is observable and explainable. I have encountered one of the most efficient conversation stoppers several times in seminars, namely, the claim that artistic intuition is something subjective that science cannot describe, or has no right to explore. To make things even worse, in more than a few cases, this ideology has a Nietzschean overtone, as in the case of an older, now retired colleague who invariably claimed that only artists have access to higher truths science can never grasp. For him, this simple philosophy justified thorough contempt of research (and everything else except art). In the hands of someone with considerable power, it was a destructive way of thinking.

However, this is precisely what begs the question. It is plainly banal to say that inspiration cannot be captured by science. After Popper, most philosophers of science believe that there is no logic of invention. This is also commonsense for any journalist and researcher. The reason for this essay was simple: I was asked to give a talk about practice. In terms of the topic, I decided to talk about how I understand practice, and what implications this understanding might have. However, these

things were easy. The true difficulty – and the possible skill – of my talk does not lie in “inspiration”, but in the argument I am making, which has theoretical roots in the sociological tradition called ethnomethodology. Similarly, few of us admire artists because they get ideas in the bus, or while sipping coffee. We admire them for their skill in realizing their artworks. I may think that my former colleague’s philosophy was silly and often bordered on being dangerous. However, I do appreciate the objects he designed. This paper thus makes a plea for reframing artistic research to make it useful as a form of research and interesting enough for those in the scholarly community.

I do not think I miss the mark too much in saying that there is lots of romanticism at work in “practice-based research”. Artists live with practice, but their true love is in another town. With few exceptions, the frameworks into which artists fit their work firmly situate artistic research in something subjective. I am using Maarit Mäkelä’s thesis (2003) as an example simply because I think it is an excellent and interesting thesis in many ways. Now, she describes her method as a “retrospective gaze”, by which she means that she first did a series of exhibitions and theorized about them afterwards, tracing the history of their development through her memories and traces of her work. Another concept in her work was autoethnography, by which she meant that she was doing ethnographic-style research for her artworks and autofiction, so that she also created her own stories in her research, basing her work on a creative process of ethnographic storytelling. “Retrospective gaze” and “autofiction” effectively say that no outsider can evaluate her thesis. It works within her inner reality; the artworks do stand alone, and can be juried, but the framework cannot be verified through research. The validity of the thesis depends on internal validity – that is, consistency – alone. Essentially, we have to decide whether we believe her or not, and evaluate her work accordingly. As she can

report, reviews she receives are not typically balanced: they usually either love or hate her work, and if they do not positively hate it, they are spiteful.

Michael Biggs's criticism (2006) of this line of thinking through Wittgenstein's well-known argument against the possibility of private languages is well taken. As Wittgenstein pointed out, since language is the property of a community of speakers, or life form, one cannot create a private language that is outside this community. Even a baby's attempts to communicate are perfectly understandable to its parents. Similarly, an artist cannot create a world of his own that is understandable to him only. Biggs' advice for artists who want to become researchers is also well taken: they should treat the outcomes of their work just like they would treat the outcomes of someone else's work. He claims that whenever an artist produces a piece of work, his accounts of it are not privileged in any degree, and should not be treated that way. These accounts are no better or worse than other accounts unless they make more sense. If other accounts are more encompassing and clear, they are better.

In addition to the theoretical problem pointed out by Biggs, many practical problems ensue from such a romantic stance. How can one validate a thesis if the artist says that the only criterion is in his head, and impossible to put into words? More importantly, how can one learn from a work like this and apply this learning in one's work? What scientists call replication is a word that may sound threatening, but essentially, it simply says that other people should be able to learn from a thesis so well that they can use its process in their own work. For scientists, this is not just self-evident, but also the cornerstone of anything that claims to be a science – even though there are few agreed-upon criteria for what replication exactly means. This kind of thesis also tends to build on esoteric frameworks that are impossibly difficult for non-experts.

How can a goldsmith learn pragmatist philosophy in three years? There are also adverse long-term effects. What if we have 20 PhD theses, each celebrating the subjective world of the writer at some point? Researcher number 21 then has to create his framework, without the possibility of learning from previous work. I do not know whether there has to be progress in art, but there surely must be in research, or else the scientific world cannot find good reasons for supporting artistic research beyond a few trials. Risk-taking is accepted and encouraged in science, but for a good reason. However, too much risk-taking seldom leads to useful results.

WILLIE'S STORY, OR WHAT IF WE TAKE PRACTICE SERIOUSLY?

One alternative – and I mean only that – is to take artistic practice seriously and use it as a basis for research. This is not a radical idea. It simply says that if we take a skilled practice – which good art always is even if we cannot put it into words that go beyond platitudes – there must be things worth learning from in it. Modern art in practically any form also tends to be conceptually radical, exploring ideas and issues that are not necessarily of much interest to established fields of research. Is there a science of “boredom”? Could there be? Sure, and there probably is, but it has remained small, and for a reason. It would be far easier to explore boredom through artistic means than to justify a study of the theology (psychology, physics...) of boredom.

I promise to support any artist who takes his or her practice seriously and tells the story of that practice. After all, if an artists' work is practice-based – or the more recent jargon practice-led – then it cannot be that much different from any skilled practice. The sociologist Douglas Harper (1987) once wrote a beautiful book called *Working Knowledge*, which dealt with Willie the blacksmith

living in upstate New York. Willie was an old school mechanic from simpler times, specializing in fixing tractors, heaters, ovens and Saab cars. His backyard had dozens of car wrecks that he got from people living nearby. For him, they were an essential source of spare parts. Harper became acquainted with Willie when he bought a Saab. His book describes various Willie's "fixes", showing in detail how Willie worked through his problems, talking, thinking, trying, welding, cutting and finishing his metal works.

Why not study art as Harper studied Willie, by watching closely, describing, learning and seeing how "fixes" are made and how ideas evolve?

This would not be a major step – all that is required that an artist open his practice to analytic scrutiny. If even the most sophisticated forms of science have been analyzed just like any other work, perfectly well researchable by sensitive, trained researchers, why not art?

Ultimately, then, the question is not whether one can study art, but how to study it. Sociologists of science have done one thing few artists so far have been willing to do: they took a humble approach, went to laboratories and other places of discovery, started to take photographs, gathered documents, wrote down what they saw, and posed questions for scientists. One may try to counter this argument by saying that science takes place in observable settings like laboratories (see, among others, Latour and Woolgar 1979), while the creative process of the artist is ubiquitous. Sure, discoveries are made in laboratories, though not exclusively – but then again, most artistic discoveries also have a place, the studio. Moreover, to say that scientists only come up with new ideas in the lab would be just as silly as to say that artists only come up with ideas in the studio.

The key methodological trick in sociology of science – just as in Harper's study – was description. Whenever one is putting complex practice into words, this is possible only through hard work,

worthy of a try in itself. Nevertheless, the problem of practice escaping language is in no way unique to art. Try to explain how people walk, talk or orient their gaze during a seminar to learn that the problem is in fact ubiquitous.

WAYS OF THE HAND

If someone thinks that it is a sacrilege to draw an analogy between artists and a journeyman in the countryside in upstate New York, I want to point out another study in which practice was made into a topic of research, not something that is only interesting because of some deeper, underlying meaning. In *Ways of the Hand*, the late sociologist David Sudnow tells the story of how he learned to play piano and to improvise jazz solos with it over the course of five years (Sudnow 1993). Sudnow had learned some piano in his childhood, but had given up playing after getting bored with classical music. In his mid-career, he decided to relearn. However, he did not go back to classical music, but wanted to learn to improvise jazz instead – and not just any jazz, but bebop, which is one of the hardest area of jazz to learn, requiring technical brilliance because of its (typically) quick tempo.¹

To cut a long story short, Sudnow's book describes those (roughly) five years during which he first just tried to remember keys and scales, then learned to learn melodies through chords suitable for brief improvisations, and finally learned to foresee melodies in the making. It is important to realize that although you can learn jazz through theory, ultimately the only important thing is what the fingers and hands are doing on the keyboard.

1 Of course, Sudnow never got to be as good as McCoy Tyner or Chick Corea, but he gave up his academic career for two decades and lived as a musician and piano teacher, before turning back to sociology in the last years of his life. This was not a bad move personally either. Actually, his friends in the Bay Area have told me that he was a happy man until his death at an old age a few years ago.

Knowing theory does not help if one's fingers do not find their way to places that sound good. Transcribing Bud Powell's or Jimmy Rowles's solos will not help either, unless one's fingers hit the right keys. As Sudnow says, music is in ways of the hand, not in notes. The important thing to remember is that the ways in which the hand moves over the keyboard are meaningful to the smallest detail: every move counts. Waving one's hands over the piano or touching keys is not music.

Now, the problem of David Sudnow's book is that it can only be described as esoteric. It is well written in eloquent and simple English, but still a book that is practically impossible to read because the only way to make sense of his argument is to sit by the piano and try out his examples. I used to play guitar and other string instruments when I was younger, and was pretty good at reading musical notation, but doing Sudnow's exercises with a guitar was not enough. When I worked my way through his book – which is something I have never done in detail, his examples are too difficult for me – I had to sit by a piano myself and try to understand his fingering and the logic of movement of my hands. No hope, of course, but this exercise showed me just how difficult it is to be a skilled practitioner. Think about the fluent utterance by a native five-year old French girl, and contrast this to a foreigner's desperate attempt to understand and produce a correct subjunctive form in French.

Why not *Ways of the Hand* in fashion design, exhibition design or CAD modelling? The practice may have its artistic aspects. However, if something as difficult as music can be studied in detail by a sensitive researcher like Sudnow, it should be far easier to study something that is just as skilled in terms of technique (from sewing to patterning, *etc.*). It should also be much simpler to study a team exercise in which everything crucial is made visible and understandable to other members of the team through sketches, mock-ups, models and so forth. The practice is there, just like sounds

coming from a jazz band, but sounds are probably more difficult to understand than the types of cloth, texture, patterns or folds.

What if we follow Sudnow, and start to study art by close observation and careful descriptions of practice in its full complexity? Wonderful tools for such description exist in many ethnographic research traditions, as well as in various ways of analyzing interaction. All we have to do is to keep in mind not only that art can be studied – not through current, mystifying frameworks, but by cleverly selecting the target – but also that one can shed light on many problems of interest to sociologists, to the public (as Sudnow's teaching practice proves), and to other artists as well.

I would love to read close, well-documented and visualized accounts of how a goldsmith uses his sense of touch to understand almost microscopic shapes and patterns, zooms into them with a loop, applies heat to the material to be able to work on it and so forth. Or how a fashion designer draws and sketches systematically to discover interesting ideas, develop them further, make decisions (how one drops something that does not work, or chooses to keep something), and finally build a complete line of clothing from these early sketches.

I am confident that such work would be useful as teaching material. It would also be useful in promoting the art fields more widely. It would delight many artists. It would also provoke debate, since a well written, coherent study is typically one that is also easy to understand and by implication, easy to criticize. As the sociologist Howard S. Becker (1986) notes, clarity of expression obeys the good old rule in research by identifying negative evidence. In fact, this is one of the counter-intuitive things about science for non-scientists: the best research is so clear that it is easy to disagree with it. Bad research, on the other hand, is often impossible to falsify. Just think about parapsychology. Research is also all about debate. No piece of research

is complete in itself; any piece of research is treated as an argument in some debate. The measure of success for any piece of research can only be how much it adds to our understanding despite its problems.

I also firmly believe that artistic research would definitely benefit from seriously rethinking of some of the clearly troublesome conceptual practices that have been built into the field. Good artistic research should not be designed to please anyone. In fact, good pieces of research typically do not please people in power.

THROW OUT THE BATHWATER

My observations above take me to my last point. The main danger I see in making art into something esoteric, something beyond logic, language and research, is perhaps finally ethical. If we pick up only one aspect of art (and by implication design), its artistic aspect, we paint a severely partial picture of art through research. Clearly, we de-contextualize – I am sorry for this awkward term – art from practice. Furthermore, if we do not stop here, but accept conceptual subjectivist frameworks of artists as the only legitimate account of art, we get into a situation in which we not only analytically break art into parts while simultaneously criticizing such analytic breakdowns, but also add another bias to our research practice. We misrepresent art in two ways. The result is the problem with which I started this article: artistic research in the worst case cannot have legitimacy for long in the eyes of academia.

I have tried to argue in this essay that there is an alternative way. It is difficult, but negotiable. What makes art an interesting area for research is that in art, one can pose questions much more freely than in the older scientific disciplines in which one of the main indications of competence is one's ability to pose questions that identify problems in existing body of research. Artists, on the other hand, are

able to pose new types of question. Simply, art could offer to explore social (and other) problems in ways established fields of research cannot. It is in this sense only that I can accept my ex-colleague's insistent point that art can achieve something science cannot. My plea is simply to throw out the bathwater and keep the baby.

No doubt, this would require taking practice seriously. Practice needs to be broken down and understood as experimental work, which typically has a conceptual basis, yet is ultimately observable and reportable. If practice is understood only as a reflection of one's inner world, which is ultimately inaccessible to other people (except perhaps other artists), then one falls into the trap my title tries to capture: the baby is thrown out with the bathwater. If a romantic stance is given Nietzschean overtones, it rightfully raises opposition and disdain from people well versed in research. Artists are certainly not immune to chauvinism, to seeing the audience as "squares", as people who only have to be withstood because one must pay the bills.²

I opened this essay by saying that my talk would be a conservative plea for making art in research into something useful to other researchers, artists, teachers and society's institutions alike. My understanding of the current state of artistic research – and I prefer this term to "practice-based", which I find misleading and rhetorically dangerous – needs serious rethinking in order not to become just another useless and fairly expensive experiment prompting cynicism about artistic research among its key audiences, artists and researchers alike. I feel that the romantic model for doing artistic research is deadlocked, and unless it changes its direction, very little will remain in ten years'

2 My terminology is from another study by Howard Becker, whose Master's Thesis at the University of Chicago (1951) dealt with jazz musicians who indeed despised their audience, because it was not able to appreciate the music they wanted to play. Incidentally, Becker later became Douglas Harper's teacher.

time. It is not enough to have a few artists on the job market with the coveted PhD – or with less well-known Doctor of Arts that is still a doctoral degree – on their calling cards trying in vain to convince the scientific world about the value of their research, or the artworld about the value of their art work.

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Passages of Articulation: Art and Research Touching

MIKA ELO

INTRODUCTION

Over the last fifteen years, a lively discussion has developed in several European countries about the relationship between art and research practices.¹ With certain differences in emphasis, there have been talks ranging from “artistic research”, “art as research” or “practice as research” to “practice-led research”, “practice-based research” and “imaginary research” (e.g. Brady 1998; Kiljunen and Hannula 2002; Siukonen 2002; Balkema and Slager 2004; Mäkelä and Routarinne 2006; Borgdorff 2006, 7–21). The field where these discussions take place is in many ways both fascinating and challenging.

The transformation of art academies into universities has created new kinds of connections between art and research resulting in the emergence of an “academic artworld” (Scrivener 2006, 160). A new type of Janus-faced researchers has come into being, that is, artist-researchers who are able to

assume many positions in both spheres. However, there is a firmly established division in the structures of thinking and those of institutions. Seldom challenged, the assumption is that whereas a good researcher focuses on the verbal, an experienced artist focuses on the nonverbal articulation of ideas.

Currently, the criteria to legitimize the substitution of text for images (or other forms of nonverbal articulation) in order to present arguments and research results are ambiguous. This ambiguity raises a question whether the dialogue between art and research practices should be based on textual models adopted from the academic tradition. The problem seems double-edged. On the one hand, the problem originates in theoretical elaboration truly suffering from the passage to nonverbal forms of articulation. On the other hand, it is derived from the shortcoming of the sensitivity to nonverbal elaborations. This article aims at showing that we need well-articulated passages between different media and high sensitivity to their mediality².

1 This article is partly based on my earlier article “Ajatteleva tutkimus / Thinking research” (2007). It was published in a research publication of the Photographic Art and Theory Research Project (2005–2008) in cooperation between the University of Art and Design Helsinki and the Finnish Academy of Fine Arts, and funded by the Finnish Academy of Fine Arts and the Arts Council of Finland.

2 On the notion of “mediality”, see Elo 2005, 22–39.

INSTITUTING RESEARCH

In order to shed light on the underlying tenets of the debates concerning the relationship between art and research practices, it might be useful to briefly examine the context in which these debates take place.

The opposition between the verbal and the non-verbal has become a tough nut to crack for the research activities of the art universities. In Finland, art universities have attempted to deal with this issue by applying diverse strategies. For example, the degree policy at the University of Art and Design Helsinki emphasizes the dialogical nature of the relation between art (or design) and research. However, only the written research part is mandatory in every doctoral dissertation, and is evaluated by conventional academic criteria. In the Finnish Academy of Fine Arts, the situation differs. The artist-researcher seems to occupy a core position in the tradition of fine arts that focuses on art practice. The postgraduate programme in the Academy does not primarily aim to train researchers who make art, but rather artists who also engage in reflection. A doctoral demonstration of scholarship and skill consists of both an art production and a theoretical component. Nevertheless, the latter is not necessarily in written form, nor is it evaluated by scientific criteria (Kaila 2006, 8–10).

Combining art practice with research at the university level has sparked off a debate about the criteria for “artistic research” or “practice-led research”. With slight variations and differences in emphasis, the suggested minimum criteria have included the following merits: a clearly articulated epistemic interest, a systematic and sustained approach, explicit and articulated communication and evaluation of the results, and institutionalized practices for publishing the results (*e.g.* Borgdorff 2006, 11–25; Dombois 2006, 21–29; Hannula 2002, 73–88). One particular feature of artistic research

often referred to is the dual role of the artist-researcher as both the practitioner and the one who reflects upon the practice (Borgdorff 2006, 21–22). The importance of artefacts in practice-led research has also been stressed (*e.g.* Mäkelä and Routarinne 2006, 21).

A reflexive relationship to tradition has been part of the practice of art at least since the age of Romanticism, just as in the natural sciences the production of “epistemic things” has been intimately connected to experimental praxis throughout the modern era (*e.g.* Rheinberger 2005, 19–26). In this regard, the idea of “practice-led research” is not new. What is new is the connection between the art practice and the academic institution. From another angle, this shift in the institutional frame of professional discourse on art can be conceived of as a “broadening of professionalism”, which means that the artist’s discourse is legitimized as a research discourse (Baetens 2007, 66).

Tuomas Nevanlinna (2002, 67–68) has suggested that, since the institutional connection between art and research has already been established, artistic research should be regarded as a form of “experimental humanistic science”, in which the work of art would occupy a position similar to what experiments occupy in science. Artistic research would thus be experimental in some experiential sense. In this context, artistic research has even been regarded as a pioneer of “experiential democracy”, or as a basis for a critical dialogical contact between art and science (Hannula, Suoranta and Vadén 2003, 15).

Turkka Keinonen (2006, 43–54) has presented an enlightening conceptual analysis to serve as a starting point for the examination of the relationship between art and research. In the examination of “research actions”, “art actions”, and their position in the fields of research and art, Keinonen presents the following eight possible articulations of the research/art relationship: 1) Research can interpret art and 2) art can interpret research. 3)

Art can be transplanted into a research context, just as 4) research can be transplanted into an art context. 5) Art can contribute to research and 6) research can contribute to art. 7) Research and art practice can remain parallel activities, even if they share a common denominator. 8) It is also possible for the art and research actions to overlap.³

Although Keinonen's analysis is illuminating, it remains schematic and fails to reveal how the identity of both parties is at stake in the dialogical relationship between art and research. I will focus on the last two of these articulations: art and research as either parallel or overlapping fields of action. In both cases, the criteria for distinguishing art practice from disciplined research become problematic. In the first case, art and research practices run parallel without any disciplined explication of their relation. The connections between them remain implicit and take place as a form of self-reflection in both fields' relation to each other. I tend to call this mode of relation *inter-disciplinary*, because the object of study first becomes conceivable in-between the disciplines. In the second case, where art and research overlap, or even fully merge, also the criteria for their demarcation disappear. This articulation of art/research relation can be called *trans-disciplinary* in so far as it does not lean on any established disciplines.

THINKING RESEARCH

Keinonen's way of placing design at the hub of the dialogue between research and the practice of art challenges us to ask: firstly, to what extent "artistic research" or "practice-led research" follow some pattern of product development; and secondly, whether the integration of art and research in the

university context is aimed at producing more functional art? The situation appears quite different if, instead of design, we place philosophy – or more accurately *thinking* – in the centre of the dialogic relationship between art and research.

Martin Heidegger, a thinker who seems to be markedly esteemed among Finnish art researchers and researching artists, challenged the scientific aspirations of philosophy in his thinking. Although academic philosophy may justifiably consider itself a meta-science of sorts, Heidegger pointed out that philosophical reflection informed by a genuinely questioning attitude is not science, nor should it be. This kind of philosophy is thinking about thinking, whereas "science does not think" (Heidegger 2002, 9).⁴ While science cannot question its own assumptions, or the sensibility of its aspirations, without fundamentally changing itself, philosophical questioning, or "thinking", must constantly reflect upon every grounding gesture, its own sensibility and sense, and the very boundaries of sense itself.

With reference to Heidegger, we might say that research nourished by a questioning attitude – whether it adopts the form of visual or verbal thinking – does not primarily aspire to be "scientific". Instead, this kind of research approximates philosophy as the practice of thinking about thinking.⁵ This idea challenges us to take a closer look at the interrelations between the arts, sciences and their modes of research. Regarding these interrelations, Sven-Olov Wallenstein (2002, 34–35) persuades us to ask the following question: "Is the division, inherited from the 18th century, into fine arts, criticism, history and aesthetics a natural one, or only a temporary structuring in the sphere we call 'art'?" In other words, how does one sepa-

3 Keinonen sees design as a key discipline that brings art and research together. He argues that research conducted at the University of Art and Design Helsinki has as its distinguishing feature the dialogical relationship between art and research under the label of design.

4 On the view of science implied by Heidegger's famous dictum, see Salanskis 1995. <http://tekhnama.free.fr/2Salanskis.htm> (accessed March 22, 2007).

5 Sven-Olov Wallenstein (2002, 44) makes a similar observation with reference to Jean-François Lyotard.

rate the practice of art from theory?⁶ In the light of the new institutional connections between the contemporary practices of research and art, the idea of integrating art and research has awakened a great deal of thought. Perhaps it would be more fruitful to focus on the critical confrontation between the two, and ask what is happening when art and research are “touching”.

I adopt the term “touching”, because the relation between art and research practices according to the last two cases of Keinonen’s breakdown is both non-instrumental and non-hierarchical, thus indicating that art and research are truly exposed to each other. Just as in every form of touching, this contact between art and research has a tendency towards fusion, implying a high risk of confusing the questions of otherness and responsibility. This, in my view, constitutes an urgent methodological challenge for “artistic research”.

The merging of art and research has been an essential element in the tradition of the visual arts since the Renaissance, as seen in numerous examples of investigative art and practice-based theories (e.g. Siukonen 2002, 18–50). The intertwining of making and reflecting has been especially strong in the fields of film and photography. The history of photography is full of artist-researchers: Henry Fox Talbot, Etienne-Jules Marey and Eadweard Muybridge, Lazlo Moholy-Nagy, Giselle Freund, Allan Sekula, Victor Burgin – to name only a few. Today, the question raised by the emergence of the academic artworld is what kinds of actors are legitimized as professionals in the theoretical discourse on art. This question concerns not only

the knowledge produced by visual arts, but also the status and role of art in society (*ibid.* 18; Scrivener 2006, 158–79). In other words, it is also a question of what it means to be a professional artist. When the goal is not to define something, but to chart the background, it is enough to say, insofar as artistic work is a form of thinking, that it can just as well be a form of systematic investigation even if it does not happen to satisfy the currently valid criteria for *scientific* research.

The relationship between artistic practice and research cannot be reduced to a mere institutional topic, although this issue is a relevant aspect of it if we regard institutions as manifestations of the structures of thinking (*Ibid.* 161).

MEDIATING RESEARCH

The assumed opposition between verbal and visual articulation should also be considered as an issue that involves the medium⁷ of imparting. The traditional medium of theory – the verbal language – has a long tradition in human sciences. A broad spectrum of models for self-reflective styles and genres of writing is available. An artist-researcher can hardly hope to offer anything new in this area. However, the situation changes when the artist-researcher begins to move between the visual and the verbal. It is precisely at the point when he questions the boundaries of his “own” medium that the Janus-faced researcher enters the most interesting areas of research,

The first step in this process is to dissociate oneself from the idea of the medium as an instrument, which leads one to considerations about mediality beyond instrumentality, such as, in

6 Here, it is worth noting that even thinking can be a “deed”, or an “action”, if it “towers above action and production, not through the grandeur of its achievement and not as a consequence of its effect, but through the humbleness of its inconsequential accomplishment”, as Heidegger (1996, 361) put it. In other words, a deed that appears the “same” in its external effects can be performed with many attitudes.

7 The term “medium” is not used here to refer to any technical or material substratum, but to the “milieu” or interstices of the intermingling of the material, sensory, technical, social and linguistic-metaphysical dimensions of signification, which is always historical. On notion of “medium”, see Elo 2005, 22–39.

which sense the “medium is the message” (McLuhan 1997, 7–21), how to think about a language which “communicates itself” (Benjamin 1996, 62–74), or what is the “ground” of the image (Nancy 2005, 2–26). From my perspective as an artist on the one hand, this is a natural step, an almost self-evident starting point of practice, albeit one that often remains unarticulated in a verbal sense. From the research perspective on the other hand, the step is problematic in several ways. Above all, one must argue why and how the content and the medium of the message are mutually dependent, or even inseparable. This also implies that the research must, in one way or another, articulate or at least indicate its own mediality.

The second step is even more difficult. The Janus-faced researcher must consider the status of research relative to the practice of art in terms of mediality. I think Walter Benjamin’s Romantic idea of the work of art and philosophy – or “critique” in his Kantian vocabulary – as *siblings* offers a fertile starting point⁸. Similar to siblings, these two modes of thinking relate to each other in a singular and non-hierarchical way.

In his essay on *Goethe’s Elective Affinities*, Benjamin (1996, 333–4) presents the idea of “siblings” as follows: Philosophy is about truth. Philosophical questioning aims at truth. A philosophical system is a presentation of truth. Yet, no philosophical question is able to arrive at the whole truth. In his view, if such a question existed, it would be the ideal embodiment of the philosophical problem. However, other kinds of structures standing in the closest possible relationship to the ideal of the philosophical problem do exist. They are neither questions nor systematic presentations, but works of art.

8 Another relevant starting point is offered by Maurice Blanchot’s notion of “unworking” (*désœuvrement*), which Harri Laakso (2006, 140–54) has raised in discussions on “artistic research”.

Works of art do not compete with philosophy. Still, they are closely related to philosophy, because their diversity reflects the very ideal of the philosophical problem. Every work of art makes sense of reality in its own singular way. The fact that works of art are sharing this aspiration makes them intimate strangers to each other. In this sense, the work of art would be an inverse embodiment of the idea of the science of the unique being, *mathesis singularis*, the possibility of which is discussed by Roland Barthes in *Camera Lucida* (1993, 8). Seen from such a perspective, the work of art is not a unique pattern being investigated, but a unique, singular pattern of research. Here, of course, the urgent question is how this can be communicated. In face of this question Benjamin urges us to consider the relation between art and philosophy in terms of translation, which is concerned with the articulation of the singular points of contact between the different languages, rather than aiming at conveying meanings⁹.

According to Benjamin (1996, 333–4), the purpose of a philosophy, or “critique”, of art is to bring out the “virtual formulability” of the “truth-content” articulated in the work, yet to refrain from its actual formulation out of respect for truth and the work. In terms of translation, the translator thinks about the work based on the work itself, and seeks to formulate the same thing in a different way. With respect to the communication of meaning, the task is doomed to failure. For Benjamin, the sense in the task of the translator lies elsewhere: in the will to what he calls “pure language”. In shorthand, this could be characterized as a self-reflection of a language (or medium) through another language (or medium), a kind of auto-hetero-reflection.

In Benjamin’s view, truth cannot be reached in a work of art by questioning or explicating. It can only be elicited by challenging. Controlled re-

9 For a closer study on this topic, see Elo 2007, 135–87.

search of the constituent elements of a work of art and their combinations – commentary as a form of “chemistry” – cannot achieve this. What we need is “alchemy”, the sustained processing of uncontrollability, or even of impossibility (*Ibid.* 297–8, 334).

Benjamin (1991, 834) also reminds his readers that there is always more than one form of art. He writes that one of his main goals in his essay on *Elective Affinities* is “to open up the way to the work of art by destroying the regionality of art.” On the other hand, the programmatic aim of his essay is to “promote the integration of sciences [...] by analysing the work of art” (*Ibid.* 811). In other words, his goal is to let art and research touch, to let them disturb each other’s integrity in a tactful way. He thus takes a step towards thinking research, a research that constantly reflects upon its own sensibility and sense.

We might say that Benjamin is both arguing for a ceaselessly question-raising philosophical attitude in research, and challenging philosophy and the unity of art. As a result, the work of art rises above art as well as philosophy, and in its singular form articulates research that has no regard for fixed boundaries. It is here that I think we find the main challenge of the Janus-faced researcher, that is, to tune the medium of theory to match the level of the work of art, thereby transforming it also into a medium of practice – or vice versa. One essential aspect of this tuning is to refrain from instrumentalizing the medium (Elo 2007, 149–53).

Focusing on these passages of articulation is at the same time to distance oneself from the dialogical model based on a product-development scheme. Benjamin’s claim that an ideal translation always remains a virtual one seems to open transformative possibilities for conceptualizing the relation between visual arts and research practices. In the light of Benjamin’s theory of translation, rather than appearing as a dialogue leading to an actual synthesis, the research/art relation appears as “touching” that invites art and research to

critical encounters, confrontations and even to a mutual deposition.

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The Place and The Product(s) of Making in Practice-Led Research

MAARIT MÄKELÄ

INTRODUCTION

Over the last two decades, research in art and design has begun to explore new dimensions as artists and designers have taken an active role in contextualizing and interpreting the creative process of their own practice, as well as the products of this process. From this point of view, the knowledge and the skills of a practising artist or designer form a central part of the research process, and this has produced a new way of doing research in the creative field. In this new approach, a part of the research is carried out as art or design practice (Mäkelä 2007, 157). In recent discussion, such attempts have been labelled more or less interchangeably with the terms “practice-based”, “art-led”, “practice-led” and “artistic research”¹.

In Finland, the discussion about the substance and mode of research carried out in the art universi-

ties has been going on vividly since the 1980s. All the four art universities in the country have contributed to the field by creating their own doctoral programmes during the period 1982 to 1997 (Table 1). Each of these universities has produced slightly different requirements for their doctoral studies, and thus the form and content of the doctoral projects have received different emphases depending upon the university (Mäkelä and Routarinne 2006, 17–18).

Currently, there are a variety of completed practice-led doctoral studies produced by artists and designers from the different institutions. In these studies, the art or design practice and research have found their own way of interaction. This article will analyze one practice-led study from each Finnish art university – as well one from the University of Lapland.² All these five research works have been published, thus ensuring the dissemination of the knowledge produced. In focusing on these studies, I am especially interested in what kind of *places* artists and designers have built for the *process of making* and the *products* of this in their studies. The central question is, in what ways

1 The term “artistic research” is connected to the idea of an artist that produces an artwork and reflects on the creative process: “The whole issue is... about the self-reflective and self-critical processes of a person taking part in the production of meaning within contemporary art, and in such a fashion that it communicates where it is coming from, where it stands at this precise moment, and where it wants to go” (Hannula et al. 2005, 10). In Finland, this approach is followed and developed particularly in the Finnish Academy of Fine Arts. See also Mäkelä and Routarinne (2007, 3).

2 In addition to Art Universities, the Faculty of Art and Design of the University of Lapland has also contributed to this discussion. The Faculty, established in 1990, is the only art-orientated faculty operating under the aegis of a traditional university in Finland (Elo 2007, 23).

can the creative process and the concrete products of making be interwoven with research?

As a result, I will sketch out a variety of connections of both the creative process and its products with research as follows: Firstly, making can form a place where the theme of the research is explored in a different mode than writing, as shown in the case of Annette Arlander and Juha Saitajoki, but also a place in which to advance virtuosity, as in the case of Mikko Raasakka. Secondly, the making process and its products can be perceived as answers to particular research questions and design-erly argumentation, as evident in the case of Helena Leppänen. Thirdly, as an object made by an artist-researcher, the artefact³ can also be seen as a method for collecting and preserving information and understanding, as in the case of Teemu Mäki.

PERFORMANCE AS A SPACE

Theatre and drama director Annette Arlander graduated as the first Doctor of Arts from the Theatre Academy⁵ in 1999. Her doctoral study *Perform-*

- 3 In this context, artefact refers to all objects created by human being. An artefact can thus be a concrete object, such as a painting or a design object, or an immaterial work such as a composition or a theatre performance (e.g. Mäkelä 2006, 64).
- 4 Table 1 follows the information collected by the Research Coordinator Pia Sivenius from the University of Art and Design Helsinki (December 31, 2006). As explicated in Footnote 19, all dissertations carried out in the University of Art and Design Helsinki are based on the same requirements. As shown in Table 1, there have been ten dissertations that have clearly separated production part. However, the study of Helena Leppänen, which will be closely examined in this article, is not included in this category because the design project is an integral part of the whole study. The distribution is unofficial, but indicates in any case the emphasis of the doctoral studies completed at the University. See also Mäkelä and Routarinne (2006, 20).
- 5 In the Theatre Academy, a doctoral degree has been available since 1988, and the artistic orientated option since 1993 (Rynänen 1999, 14). The aim in the artistic doctoral study is to advance the area of art in question, primarily by and via the author's own art practice. The written part

<p>SIBELIUS ACADEMY</p> <ul style="list-style-type: none"> · First doctoral degree in 1990 · Number of earned degrees: 76 (arts study programme 43)
<p>UNIVERSITY OF ART AND DESIGN</p> <ul style="list-style-type: none"> · First doctoral degree in 1991 · Number of earned degrees: 55 (10 with an independent production part)
<p>THEATRE ACADEMY</p> <ul style="list-style-type: none"> · First doctoral degree in 1999 · Number of earned degrees: 14 (4 with artistic orientation)
<p>ACADEMY OF FINE ARTS</p> <ul style="list-style-type: none"> · First doctoral degree in 2001 · Number of earned degrees: 5

Table 1. Doctoral studies in Finnish Art Universities. 4

ance as Space (Arlander 1999) consists of a series of three performances and a written thesis. Arlander argues in her thesis that the live performance takes place *as a space*. The study aims to show that the space can be an interesting source in creating a performance both with regard to spatial relationships and as a place creating meaning.

The written part of the study is divided into two parts. The first part deals with the space of a performance on a general level in the light of previous research. In this section, Arlander approaches the space of performance via two dimensions: as a place where meanings are created on the level of

of the work should mirror in some way the unity of the artistic productions. It is not expected to meet academic requirements: the recommended form for the text is essay. The full instructions concerning doctoral studies in the Theatre Academy are available (although only in Finnish) at <http://www.teak.fi/Tutkimus/Jatkotutkinnot> (accessed September 17, 2007).

not only physical space but also a space described through text, and as spatial relationships between the performers and the spectators. Arlander applies and discusses two main models: firstly, Arnold Arosen's scale regarding environmental and frontal arrangements of space, and, secondly, Peter Eversman's model for analyzing theatrical space based on structural and functional dimensions.

The second part of the written study describes the practical work and the performances prepared during the research process. In this part, Arlander discusses the use of space via three productions. When preparing these productions, Arlander took different roles. In the first production, she appeared as the director of the performance. For this performance, the playwright Juha Siltanen wrote a dramatization of Italo Calvino's novel "If on a Winter's Night a Traveller...". The text includes ten concise novels transformed into small plays and a narration framing these stories. These provide a basis for the scenography, which consisted of ten spaces: a labyrinth with paper walls, through which the audience moved from one miniature performance to another in the one-hundred-metre-long hall (Figure 2b).

In the second performance, a monologue with the title "The Love Letters of Sister Mariaana"⁶, Arlander worked as an actor. In the third production, Arlander appeared as the writer and director of a radio play "Via Marco Polo". When taking part in these productions, the author used the space and experienced it from different perspectives. In this study, the space of performance is thus constructed from the various viewpoints of an actor, a writer and a director.

In Arlander's case, the study introduced three art productions in the form of different performances. Making formed a *place* to explore the theme

of the research in a spatial mode. It also established an important base of experience to be reviewed and discussed in the written part, which was prepared when the actual making has already finished, in the later stages of the research process.

According to Arlander, the division between artistic- and research-orientated doctoral degrees is deceptive, because both of them pose questions about exploration, though in different senses. What she finds more interesting is the relation between theory and practice, as well as thinking and making, and how these can be combined (Arlander 1999, 8).

REPRESENTATIONS OF THE HOLY EXPERIENCE

The artist Juha Saitajoki graduated as a Doctor of Arts from the Faculty of Art and Design of the University of Lapland⁷ in 2003. Saitajoki's study *The Ecstasy of Saint Teresa. Saint Teresa of Jesus, Gian Lorenzo Bernini and Me* (Saitajoki 2003) consists of a written thesis and a series of three exhibitions.

The starting point of the study was the description of the holy experience written by Saint Teresa, a Catholic female mystic living in Spain in the 16th century.⁸ This description raised Saitajoki's inter-

6 The text by Annika Hansson consists of love letters which Sister Mariaana, a Portuguese nun, wrote to a French general officer in the 17th century.

7 The requirements for the doctoral studies in the University of Lapland are comparable with the University of Art and Design Helsinki; *i.e.* the written part of the study is demanded, and it is expected to meet academic requirements as explicated in Footnote 19.

8 "In his hands I saw a long golden spear and at the end of the iron tip I seemed to see a point of fire. With this he seemed to pierce my heart several times so that it penetrated to my entrails. When he drew it out, I thought he was drawing them out with it and he left me completely afire with a great love for God. The pain was so sharp that it made me utter several moans; and so excessive was the sweetness caused me by this intense pain that one can never wish to lose it, nor will one's soul be content with anything less than God." <http://www.catholicfirst.com/thefaith/catholicclassics/stteresa/life/teresaofavila7.cfm> (accessed February 14, 2008).

est regarding visual representations that are based on written descriptions of holy experiences. The subject of his doctoral study is a holy experience which is expressed on the one hand in Saint Teresa's written description of the piercing of her heart, and on the other hand in the statue with the title "Ecstasy of Saint Teresa" made by sculptor Gian Lorenzo Bernini in the 17th century. The central question of the study is what the piercing of the heart means for the Spanish Catholic female mystic and for the Italian sculptor.

The primary sources of the study were Saint Teresa's writings, in which she writes about impalement of her heart as a part of the "mystic path", and Gian Lorenzo Bernini's sculpture "Ecstasy of Saint Teresa". The research approach was micro-historical, meaning that the brief sources were examined profoundly. The structure of the research could be described as a path and by following this path, Saitajoki discovered the central thoughts of his study. He introduced a series of three exhibitions as part of this path, so that the process of writing and the production of artworks appeared in his case simultaneously. The exhibitions subsequently constructed the main chapters of his thesis.

The first main chapter of the dissertation is a survey, where notions of Teresa are set in a historical frame of reference. Saint Teresa is portrayed as intrinsic to the monastic religiosity and mystical theology of the Middle Ages. According to Saitajoki (2003, 29), the writings of Teresa can be understood as her own attempt to understand herself and to express something that is unutterable. Teresa also wrote her texts in the format that people expected to read. Rather typical in this context, especially for females, she seems to value such ecstatic states which involved her body. (*Ibid.* 24.) In his first exhibition "Ecstasy", Saitajoki explores the theme via pictures taken from his own body (Figure 2a). The topic of the works comes from the tradition of religious representations with open mouths and upward looks.

In the second main chapter, Saitajoki reviews the Gian Lorenzo Bernini's sculpture "Ecstasy of Saint Teresa" as a part of Baroque and Italian religious art. In this context, the theme of the sculpture – the piercing of the heart – is rather familiar. The sculpture is a visual representation of a religious experience and at the same time of a sculpture's interpretation of the theme. As such, it raises a new conception about mysticism and religious experience. The focus of experience is directed from inner experience to external symbols (Saitajoki 2003, 99). The second exhibition "Dark night" seems to deal with this dilemma.⁹

In the third main chapter, the representations of Teresa and Bernini are set in a dialogue discussing how the nun could express her experiences in her texts, and how the sculpture could express the nun's experiences in visual form. The third exhibition presents Saitajoki's new works of art as well as works from the previous exhibitions. As such, it is a kind of conclusion to the whole project. Saitajoki's newer works include elements typical to Italian religious art, such as photographs of Santa Teresa's relics, including her skull and heart.

In Saitajoki's case, making accompanied the whole research project. It formed a place in which to explore the theme of the research also in a visual mode. Thus, making can be understood as a vehicle for gaining better understanding of the research topic, and the products of making – works of art presented in three exhibitions – can complement research knowledge, even though it is expressed in another mode than writing.

9 As I did not see the exhibition, my interpretation is based on the documentation of the exhibition works displayed in the thesis (Saitajoki 2003, 65–72).

10 Hurmio [Ecstasy] (1999) photograph, oil, alkyd, metal pigment, 55 × 45 cm.

11 Performance at the Cable Factory in Helsinki (1996), scenography by Reija Hirvikoski.

12 The photograph is taken by Satu Typpö.

ESSAYS ABOUT ART, PHILOSOPHY AND POLITICS

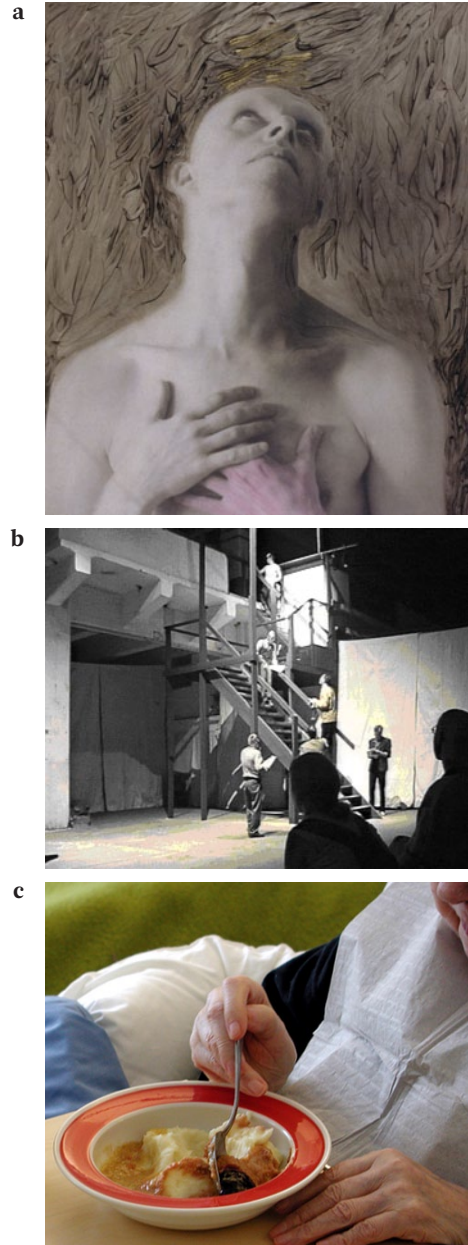
The artist Teemu Mäki graduated as a Doctor of Arts from the Academy of Fine Arts¹³ in 2005. His study *Visible Darkness: Essays about Art, Philosophy and Politics* (Mäki 2005) consists of the collection of five essays and all the artworks he completed during the period from 1997 to 2001.¹⁴

The main subject of the writings discusses the definition and role of art. Mäki repeats this theme in every essay, so that the main subject is discussed from different perspectives. The essays explore the subject based on his works of art and their themes, his experiences from the artworld and his political views. Within the essay collection, which is considered the theoretical part of this study, the following two essays seem to have an important role.

The first essay with the title “Art as the Most Completed Form of Philosophy and Politics” introduces the main lines of Mäki’s study. The introduction of this essay raises the question of whether art can *be* philosophy and politics, instead of merely a vehicle to express them. This becomes the key question of the whole study because it is related to the main themes of Mäki’s artworks, revealing that his art-shaped philosophy is centred upon the themes of pain and death. According to him, these

13 In the Academy of Fine Arts, a doctoral degree has been available since 1997 (Kaila 2006, 8). The degree is comparable with the artistic orientated option offered by the Theatre Academy. The base of the study is in artwork. The theoretical part of the work must stand in a dialogical relationship with the production part. In this part, the author analyzes his/her own artistic work and/or produces new information about the subject in some other form. The theoretical part of the study is not expected to meet academic requirements: it can be done in a more experimental and free way (Kaila and Kantonen 2006, 91).

14 An explanation for this time frame is that in 1997 he obtained the right pursue doctoral studies at the Academy of Fine Arts, and in 2002 he had a large exhibition in Kunsthalle Helsinki, where most of these works were on display (Figures 3b and 3c).



Figures 2a, 2b and 2c. Documentation of the products related to the doctoral studies done by Juha Saitajoki (a)¹⁰, Annette Arlander (b)¹¹ and Helena Leppänen (c)¹².

themes give sense to the opposite – a good life. For his art practice, a meaningful experience of being (or a good life) is an absolute value. In Mäki's words, "Art can have an instrumental role when making a good life, but it can also be the place where a good life happens. Art-shaped philosophy and politics takes part when solving a problem, but after all it tries to form our experience of being meaningful as such." (Mäki 2005, 154, translation mine.) To conclude the essay, Mäki expresses an idea of "art-shaped philosophy", in which reasoning, feeling, and being can be simultaneously and equally performed.

The second essay "Tool Box" discusses Mäki's intentions as an artist and his main techniques concerning his artworks. In this way, he offers the reader some tools to understand his art as an art-shaped philosophy. Mäki has created his artworks before writing the essays. His creation was a kind of driving force for the written part of the study.¹⁵ In this sense, making formed an important basis of experience from where to write. In his case, *the products of making* – the artworks made during the research period – can thus be seen as an artistic method for collecting and preserving information and understanding; they personify the author's understanding about art as the most complete form of philosophy and politics.

AN INTRODUCTION TO THE POSSIBILITIES OF THE CLARINET

Clarinetist Mikko Raasakka graduated as a Doctor of Music from the Department for Music Performance and Research of Sibelius Academy¹⁶ in 2005.

15 In his own words: "I first made art and after that, separately, stuffed my research-orientated self-reflection onto the covers of the book." (Mäki 2005, 11, translation mine.)

16 At the Sibelius Academy, the Finnish Academy of Music, a doctoral degree has been available since 1982 (Ryynänen 1999, 10). It can be taken either in the Arts, Research or Applied Study programme. The Arts programme is com-

parable with the artistically-orientated options offered by the Theatre Academy and the Academy of Fine Arts. In the Arts programme, the emphasis is on independent artistic work. To be able to take the degree, the applicant must pass an artistic proficiency test. At the Sibelius Academy, the doctoral project can include, for example, public concerts. In this case, there should be five such concerts. Together, the concerts must form a coherent artistic unit. The written part of the study should, with the artistic part, form a congruent unit that supports the student's artistic development. The full instructions concerning doctoral studies in the Sibelius Academy are available at <http://dept.siba.fi/docmus/eng> (Retrieved September 13, 2007).

His research *An Introduction to the Possibilities of the Clarinet* (Raasakka 2005), aiming to study the modern clarinet, consists of a series of five concerts and a manual of the modern clarinet as the written part.

The core of the project was a concert series in which Raasakka performed a selection of Finnish solo and chamber music for clarinet. The series of concerts, based on his collaboration with Finnish composers, formed a cross section of Finnish clarinet music. Raasakka played 20 compositions with three different instruments: clarinet, bass clarinet and Liru (Figure 3a), an archaic Finnish folk clarinet, in the concert series.

Initially, Raasakka had intended that the written part would introduce new playing techniques that he encountered when playing Finnish clarinet music. However, he realized that he was unable to speak about these techniques because there were neither established concepts nor Finnish words to use. Therefore, the written work became a manual of the modern clarinet: an introduction to the history, construction, properties, and musical possibilities of the clarinet. All the music examples presented in the manual are from Finnish clarinet music and many of them from the compositions Raasakka played in his concerts.

17 The photograph is taken by Anne Raasakka.

18 A work in progress (A Child And An Ape & Housing Project, Harbor, Rainbow) (2000–), photo-diptychs demonstrating that everything is relative, 90 × 135 cm.

In Raasakka's case, making formed the backbone for the whole study. Playing took place mostly before writing and was the driving force for the written part of the study. Thus, making established the *place* where the theme of the research (modern clarinet) could be explored in practice. The study produced a series of five concerts as the products of making. His collaboration with composers also produced new compositions for the clarinet. In return, the new compositions gave the author the possibility to advance his virtuosity and interpretation as a clarinetist.

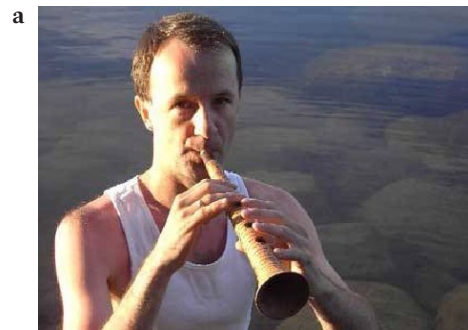
TABLEWARE DESIGN IN THE CONTEXT OF OLD AGE

The ceramist Helena Leppänen graduated as a Doctor of Arts from the School of Design of the University of Art and Design Helsinki¹⁹ with her thesis *The Designer and the Other: Tableware Design in the Context of old age* (Leppänen 2006). Her study consists of a user-centred design project, the result of which includes a collection of ceramic tableware for aging people.

The central questions of the study comprise how the idea of social commitment has been manifested in tableware design, and how a tableware designer can approach the experience of the elderly population. The study set out to understand what kind of demand the elderly population has

concerning their tableware, and to design a ceramic service for their use. In the study, the design process is reviewed from phenomenological perspective.

Leppänen applied ethnographic methods to the first component of her research, in which information was collected through interviews and documentation of eating situations. She carried out these methods in eight elderly persons' homes and in fifteen care institutions, focusing on the func-



Figures 3a, 3b and 3c. Documentation of the products related to the doctoral studies done by Mikko Raasakka (a)¹⁷ and Teemu Mäki (b and c)¹⁸.

19 At the University of Art and Design Helsinki, a scientific doctoral degree has been available since 1983. The opportunity to use artistic creation or create products as part of the dissertation began in 1992 (Ryynänen 1999, 13). This means that part of the dissertation can take the form of art or design production. The written part of the study is expected to meet academic requirements: all the studies undergo a scientific evaluation process. The full instructions concerning doctoral studies in the University of Art and Design Helsinki are available at <http://www.taik.fi/images/stories/Tutkimusinstituutti/Oppaat/Instruction%20for%20examination%20of%20dissertation.pdf> (Retrieved September 21, 2008).

tionality and pleasing aspects of tableware. In this fieldwork, the everyday life of people with dementia revealed the most demanding task to solve. Leppänen made prototypes of a bowl, drinking vessel and two kinds of plates in the Arabia factory.

Leppänen tested the usability of her collection in three private homes, two nursing homes and two larger institutional units. According to this survey, the plates of the collection were regarded as successful as they promoted the personal initiative of users. The deep plates with red bands (Figure 2c) were considered to have the most successful design. Their broad red bands facilitated the user in recognising the shape of the vessels, and the concave shape of their inner walls helped the user get food into the spoon (Leppänen 2006, 113). The Arabia factory also made a survey concerning the possibility of industrial production of the collection. The potential group of the buyers was considered to be too small and thus plans for the production failed.

In Leppänen's case, the concrete design process took place in the middle of the research project. The design process was preceded by the collection of information, and followed by a usability test. When making prototypes in gypsum as part of the design project, Leppänen also used her professional capability as a practicing ceramist. In this study, *the products of making* – the collection of ceramic tableware for aging people – personify the author's understanding about ethical design. Thus, the making and its products in this study could be conceived as answers to a particular research question as well as designerly argumentation on the topic concerned.

CONCLUSIONS

The field of art and design has a strong tradition in producing artefacts. Likewise, the field of basic research has produced theoretical knowledge. However, these fields are not as alien to each other

as one might imagine (Mäkelä and Routarinne 2006, 18). As Mika Elo points out, a reflective relationship with tradition has been part of the practice of art at least from the age of Romanticism, just as in the natural sciences the production of 'epistemic things' has been intimately connected to experimental praxis throughout the modern era. In this regard, the notion of practice-led research is not new – the new thing is rather the connection between the art practice and the university institution (Elo 2007, 14).

As a result of this connection, we have a new actor: an artist-researcher with a double position: *i.e.* a practitioner who also reflects upon her/his own practice. In this article, I have reviewed the kind of outcomes that might result when an artist or a designer introduces her/his practice in an academic context. The cases portrayed above show that art making and art products can have a variety of roles in a practice-led research project. To sum up, they can play the following roles: Firstly, as shown in the case of Mäki, art making can be understood as a vehicle for collecting and preserving information and understanding. Secondly, as in the case of Arlander, Saitajoki and Raasakka, art making can also form a *place* to explore the theme of the research in another form than writing. Thirdly, in addition to the above-mentioned roles, art and design process and its products can be conceived as answer(s) to particular research questions as well as an argumentation on the topic concerned, as apparent in the case of Leppänen.

Thus, creative making, art and design practice can stimulate and support the accumulation of knowledge and understanding in several ways. On the basis of the introduced cases and the other completed doctoral studies and publications related to this approach (*e.g.* Schön 1995, Siukonen 2002), it is possible to conclude that reflective practitioners can support the accumulation of knowledge by following multiple paths connected to their personal artistic expression.

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Three Steps for Integrating Artworks into a New Residential Area: Arabianranta in Helsinki

TUULA ISOHANNI

When the building of the Arabianranta area commenced, the City of Helsinki demanded that construction companies reserve 1–2 % of the total building costs for art. In practice, this demand for art has meant that planning competitions have been used to select architects and construction companies for sites owned by the city, and once the winners have been chosen, negotiations on artists and art projects have begun. To carry out the artistic portion of the work, the City of Helsinki has hired an art coordinator to propose art concepts and artists and to supervise the realisation of the art project. The author has been the Arabianranta art coordinator since the beginning of the project (2000).

The Arabianranta housing project is built on a seashore landfill site in Helsinki, and is flanked by the oldest parts of the city. The area was built so as to both complement existing housing areas and traffic connections, and integrate into the urban history of the area. For instance, nearby buildings such as the mill, the hydroelectric plant, and various factories and workshops illustrate the development of the city in its entirety. There are also a number of art and media schools in the area, including the University of Art and Design Helsinki.

Our everyday urban environments such as offices, shopping centres, schools and kindergartens

have grown physically similar during the past few decades. Similarly, there are not that many differences in building typology and urban design in new housing areas. The Arabianranta project is meant to question the following trends: Can art projects bring to the fore local differences and uniqueness? Can local stories be brought alive to enrich new local communities?

I DRAW A HORIZONTAL LINE...

I began my work as an art coordinator by studying the research done on the area, and the various plans and scenarios that had come before. At the same time, I formed a relationship with the area by taking regular walks there. As I was gathering this information, the empty, spoiled shore waited for me like an unexplored country.

I used an architect's tools on my walks; I photographed and sketched, and wrote down ideas inspired by the site. I observed animals and plants on the shoreline, changes in light, and changes brought about by the time of the day or the season. I studied how spaces opened to different directions, how the transparent birch grove by the water veils the landscape, and how fields of rushes turn to gold against the darkening autumn sky. The space itself seemed to reward my regular walks

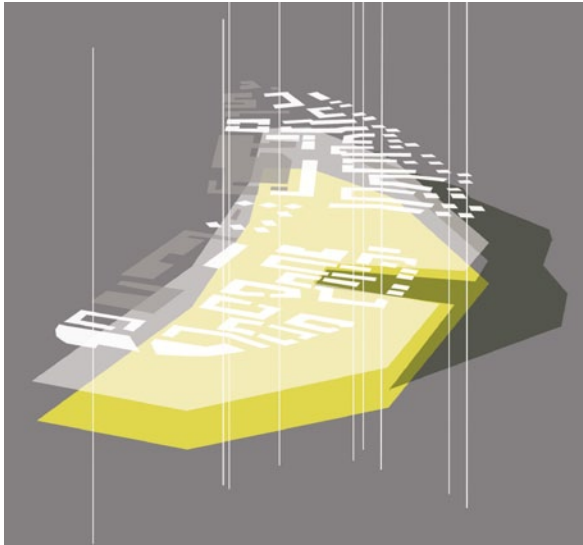


Figure 1. The information was organized similar to the levels of the area. Collage by author.

with its charms. In the seeming monotony, changes unfolded only with time. I began to recognize qualitative elements such as horizontality, high skies, long views, and quickly changing atmospheres. The endless space that opened towards the horizon seemed to not only envelope the observer, but also reveal fine details with its light.

The rhythm of walking, and the act of walking itself, form an active local space surrounding the walker where sensual perceptions are vividly present. After a while, my walks became a dialogue with the place – analogous to the discussion a painter has with her work when painting. Eventually, after frequent walks, the place seemed to wait for me like an old friend, presenting ideas and stimuli for thought. While walking, I was drawing a horizontal line between the earth and the sky – I was exploring the place, I encountered it.

In the beginning, the area was a spoiled landfill. On such a wasteland, only plants adapted to barren and disturbed soil grow. Plants, which seem to defy the signs of cultivation, form a front line where nature appears vital, and reclaims what

used to belong to it. As the opposite of the built environment, they give to the observer images of something new and different. On the other hand, wastelands have an atmosphere and aesthetics similar to marshes: quiet, humble and melancholy. In such barren landscape, an observer can recognize values such as modesty, honesty and tolerance that lead him or her to rediscover what has perhaps been overlooked.

I saw the area, and equally my job as the coordinator, not as a static object, but as an opportunity. I strived to remain open to thoughts and encounters within the place. I saw myself as a part of the process of local change, of local events and people working there. My task was to motivate and enable them through my own investment and enthusiasm, and to recognize the opportunities offered by the place. I was also actively furthering more concrete issues, such as getting another tram line (line 8) to continue to Arabianranta, keeping the old wooden Bokvillan villa inhabited and developed as a community centre, and developing sustainable lighting systems which take into account the nearby bird nesting site. Art coordination is not only about generating results, but also about becoming part of the building process and local artistic activities.

In the early stages, much of the planning and construction work was about the soil. The landfill had been built up in a systematic fashion since the 1980s, but for over a century before this, it had been accumulating without any plan, for example, through the discarding of the ceramic waste of the Arabia factory. Due to this, oil and heavy metals had accumulated in the ground. The City of Helsinki analyzed the soil and the contaminated topsoil was sorted, composted, or moved from the site. Clean topsoil was brought in and the ground was stabilized using the newest technologies. In the first meetings with the authorities of the City of Helsinki on soil transformation and stabilisation, I integrated my activities into the different stages

of the building process. I brought photographs and collages – illustrating the atmosphere of the streets and spaces to be built – to the planning meetings and discussions, so that we would be up-to-date on the character of the area. From a personal point of view, my pigment paintings and prose poems helped me to focus and reflect on my own ideas about the place.

The past of the site is embedded in the earth. It can tell the tale of how it has been treated. The efforts the city made to clean up the site gave me a feeling that the art for the project could not be just an embellishment, but should grow to be a living part of the housing area.

WALKING BRINGS PEOPLE TO THE SCENE

The horizontality of a site turns into verticality when people arrive. However, when an art project begins there is no concrete information on the future inhabitants, and therefore it is impossible to collaborate directly with them. While walking, I used to imagine what future inhabitants would see from their window, and what they would expect from their new environment: views that open into the changing landscape, and various kinds of movement that the human eye likes to follow. Simultaneously, I considered my own homes and experiences at different phases of my life.

For instance, the light in the window reminds us about the importance and meaning of a home. Coming home everyday is mundane and repetitious, but also full of significance – home is like a friend or a relative, patiently waiting for the wanderer. During the dark and cold season in the North, that moment grows even more poignant.

I also came to appreciate staircases as another important building element. Staircases are not only routes into individual apartments, but also technical maintenance facilities and shared storage spaces. Materials and fixtures used for steps,

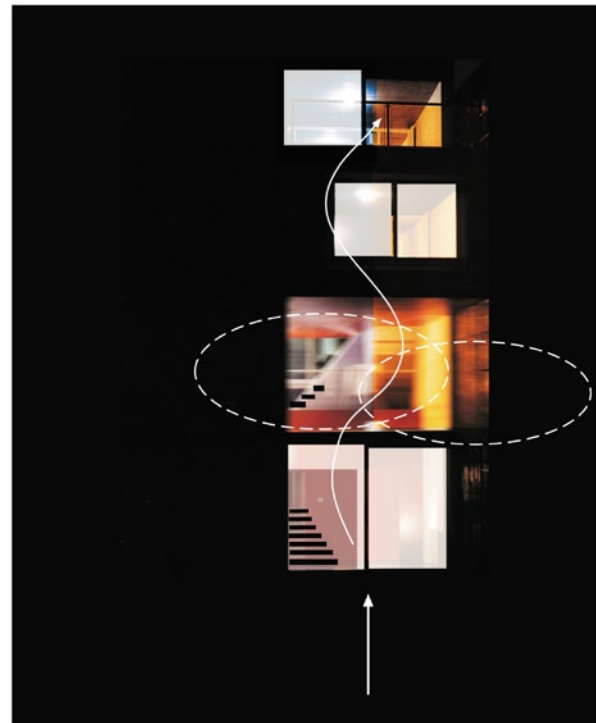


Figure 2. The schematic of the vertical movement of the inhabitants in the stairways. Collage by author.

rails and doors emphasize practicality. There are strict criteria for their safety and durability, specifying both materials and details. They are also often prefabricated, mass-produced elements used in many different apartment buildings. As a result, staircases tend to be similar to one another and entrances uninspired, simply marking the everyday movement between home and work.

The French philosopher Gaston Bachelard claims in his book *The Poetics of Space* (1994) that city dwellers feel adrift because living in an apartment building is horizontal, devoid of direct contact with the vertical space of attics and cellars. Thus, the physical verticality of human beings is not mirrored by the building design. According to Bachelard, human beings living in such apart-



Figure 3. A wall relief at the entrance of a residential building by Anne Siirtola. It is composed of broken ceramic pieces the artist collected from the area. Photograph by Nithikul Nimkulrat.

ments are thus missing the cosmic touch, which would convince the inhabitants that the building is fulfilling its primary purpose, acting as a shelter for the dweller. These ideas led me to my own focus on using the art projects to enliven places and create moments of homecoming.

In my opinion, stairwells enable the vertical movement discussed by Bachelard to emphasise and strengthen the mental and emotional image of a house. As shared space, they also carry the signs of individual lives and situations. In Arabianranta, every stairwell is given a different character by various art projects. Art helps to illuminate and emphasize the role of the stairwell through the vertical movement at the core of the building, with its different atmospheres. Art projects can open doors to our memorized spaces, dreams, hopes and promises. Moving up and down the stairs thus opens new views to seeing, to spatially stacked experiences.

ABOUT STOPPING AND THE MOOD OF A PLACE

In Scandinavia, the horizontal light creates places

with quickly changing atmospheres, emphasising the importance of individual places. For instance, we prefer to walk on the sunny side of the street in cool days, to find a sheltered wall for hanging around, and to seek the sea for fellowship and celebration. Experience of a place is multi-sensory and can be remembered and shared with others.

While walking through Arabianranta, I pondered this concept of spatial atmosphere and the mood of a place as discussed in the works of German philosopher Gernot Böhme (1995, 21–22). The varied moods of a place help us address different characteristics of the place, such as different tenses: the past, the present and the future of a housing area. According to Böhme, architects, film directors and interior designers all use this concept as a tool for creating different atmospheres for spaces they have designed.

The state of motion of a walker, where the social interaction with routes, benches and playground equipment takes place, can be specifically taken into account in planning urban external spaces. Moreover, views and landscapes open into this human-sized mid-space, and directions of movement and connections to surrounding areas are experienced. In addition to scale, issues related to function, such as lighting, wear and noise have to be solved for this space. Classical elements of garden design contribute ideas and incentives for designing on this level: sight follows a particular line, delights in an unexpected view, and seeks for harmony and balance in composition. The foundations underfoot tie the walker to the ground, to its surface materials and forms. The third level is the air above our heads where our eyes prefer to stray, and arching over everything is the sky with its stars and natural phenomena.

The art concepts of the Arabianranta project can be seen as a continuation of the special characteristics designed into the plan of the area, such as courtyards opening to the sea, and shared saunas and terraces with their views from the top of the

buildings. Moreover, the location of art projects near entrances increases the sense of community and supports co-operation between the inhabitants. These effects can already be seen today in Arabianranta. Although the area is only half-built, its inhabitants have already been active in community issues, for example in speeding-up the opening of the planned kindergarten (2006). Events such as the inauguration of new art projects, organized art walks, the publication of the usage and maintenance plans of Tapio Wirkkala's Park and activities centring around the nearby Annala Gardens have all brought inhabitants together. In these projects, art provides the inhabitants with different spaces and opportunities for community participation and the development of shared activities.

The southernmost part of Arabianranta, Toukoranta, is the last part of the project to be built (2008-2011). Toukoranta has its own aesthetic concept, both built upon the experiences drawn from Arabianranta and completing the area. Buildings are usually the focus of the construction process, and spaces between them get less attention. The Toukoranta art concept focuses on spaces between the buildings, thus approaching the traditional place of art in the public space. The atmospheres of these spaces vary, from the public urban space along Hämeentie and Toukolankatu to the semi-public courtyards used in everyday life, and to the numinous experience of nature in the seaside park. Furthermore, the idea is to create spaces taking into account the future inhabitants, and even the special needs of some future users, such as partially sighted children. All of these concepts are included in the comprehensive analysis of the site.

Courtyards are very often equipped only for children, and their use varies according to a family's situation. Art can, however, by offering varied stimuli, help to provide for different activities. In external spaces, art can more often be based on different senses, or even be a community activity,

and thus does not need to be solely visually-based. However, there are special requirements on the use and safety of art located near apartment buildings in our everyday environment, and such practical considerations must be taken into account. For instance, foundations may have to be built, and the works have to survive different weather conditions.

When a building project's art percentage is invested in courtyards, it provides an opportunity to hire an architect or a landscape architect to help the artist and the courtyard designer. These professionals help artists create a high-quality environment. In Toukoranta, public courtyards link into a series of spaces along the walking route, through the building blocks and all the way up to the northern part of the area.

Art projects in public courtyards offer stimuli to and extend the territory of inhabitants of different ages outside the apartments. They are links in the chain with the wider environment and bring to mind the landscape and specific places in it. Toukoranta and its environment provide many spots for observing the landscape – it is on the shore, and has both natural grasslands and a nearby bird reserve, thus providing favourite spots and routes. In this multi-faceted space, it is possible to develop not only one's own viewing habits, but also a consciousness of the environment and landscape near one's own home. Individual art projects offer points of contact, topics for discussion, and a sense of community, as well as augmenting the collective memory of this specific living environment.

So far, the completed art projects in Arabianranta have included sculptures, ceramic art, graphic concrete, photographs, paintings, enamel bas-reliefs, mosaics, light art, and community art projects. Their sizes vary from façade-high to postcard-sized. As the artists have received their inspiration from the local natural environment, the Arabia factory, or innovations created at the University

of Art and Design Helsinki, the spectator also becomes conscious of know-how connected to this specific place. The originally cautious attitude of clients towards incorporating art into a housing project has changed with time and accumulated positive experiences. In particular, the high level of satisfaction among Arabianranta's inhabitants has made art a popular element of the project, and something that construction companies now seek out to include in new projects.

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Future Reflections: Rhetorical Response

FUTURE REFLECTIONS RESEARCH GROUP
(Catherine Maffioletti, Katrine Hjelde and Marsha Bradfield)

ITINERARY: DEPARTURE

Rigour, benefit, context, originality, dissemination and legibility are seen as primary conditions¹ that art must address to qualify as Research². To explore these conditions, Future Reflections Research Group considers practice-based art R/research as an object, entity and purpose of study. Through performative presentations, critical and creative writing³ and relational artworks, we investigate the potential of art and/as Research to promote new and/or multivalent understanding(s) – some of which interrogate the emergent institution(s) of art Research.

The coupling of art and Research as distinct modes of inquiry in the theory and practice of art

- 1 Dissemination, originality and community, as discussed by Biggs (2006), are the three core criteria of art research.
- 2 As described later in this paper, we delineate between research with a capital “R” *e.g.* institutionalized research and research with a small “r” as “finding things out,” to use Tim O’Riley’s turn of phrase (2007); or “searching” to use Christopher Frayling’s diction (1993).
- 3 In keeping with Future Reflections’ critical and creative practice, the key voices in this paper are presented in different fonts to accent the distinct sensibilities at play in the process of collaborative writing. See Legends below for further exploration/explanation of the issues at stake in articulating a polyphonic reflexive dialogue.

Research complicates the widespread assumption that Research outcomes should be unequivocal. If, following Stephen Scrivener’s sense that art is marked by hypotheses and possible interpretations (2002) while Research is characterized by conclusions and certainties, art Research emerges as a contradiction in terms. Embracing this incongruity, our R/research methods explore ambiguous and heterogeneous significance (Law 2007). One of these methods includes occupying what we term the third space, a kind of socio-psychic-poetic realm that, despite resisting easy explanation, may be described as a container for the group’s activity. Concomitantly, the third space provides a metaphor for art R/research where distinctions between theory and practice, process and product, content and form, and artist and audience are blurred in an attempt to challenge some of the institutional assumptions (Biggs 2006a) about art and/as Research.

This self-reflective/reflexive paper maps our emergent sense of the third space in relation to, Future Response: Is the Question the Answer?, our contribution to *The Art of Research* seminar, Helsinki – October 2007. At stake in this discussion is an understanding of Future Response⁴ as both a

- 4 From this point forward, Future Response: Is the question the answer will be referred to as Future Response.



site-specific event and a process of generative R/research. Similarly, reading between, around and through the text below involves listening to a chorus of voices that echo and/or interrupt one another in a cacophony of utterances. These voices sound through our practice-based R/research, expressing different sensibilities borne of the group members' respective epistemic cultures, including art theory, practice, and history alongside pedagogy, sociolinguistics and performance studies. To this end, this text enacts our thematic interests in interdisciplinary R/research practices and experimental R/research processes.

LEGEND⁵: APPROACH

Here we consider the third space as a site for generating the practice-based art Research Thesis. The composition of this text comprises of a mapping through different temporally dispersed voices as a reflexive dialogue. There are three main voices that discourse in this paper – each situated as either representing the character of Future Reflections Research Group (the R/research student collaboration), the institution (the certifier of Research) and the academic (the certified researcher). These different voices embody some of the diverse positions that regulate practice-based Research's Knowledge production. Hence, the form and content of this paper performatively questions approaches to K/knowledge productions in multiple sites of art R/research, and offers up the third space as another entry point into this debate. For example, the inconsistent capitalization of some key terms, including “Research”, “Thesis” and “Knowledge”, highlights their contextual significance in art Research. While “thesis” can refer to a main idea (the

5 Alongside the other implications of the meaning of the word “legend” we are using it specifically with regards to one of its meanings, which can be found in the Shorter Oxford English Dictionary (2007): “A written explanation accompanying an illustration, map, *etc.*”

thesis of a presentation, for instance), it takes on particular significance when the Thesis is understood as the seat of the Researcher's original claim to Knowledge. This selective capitalization of terms thus signals their contextual specificity. At the same time it aims to acknowledge other meanings these terms may convey. Similarly, repetition is used structurally, metaphorically and mimetically – as a manner of angling through the same questions from different positions. It also serves to subtly enquire into how repetition might be a way of marking sameness and difference, as a form of establishing a system of knowing – how our tacit/legible approach to K/knowledge productions can be instrumental in practice-based art Research methods. Bearing in mind hygienic, orderly Research is not necessarily the only way to effectively research (Law 2007), we argue for a messy approach, one that acknowledges that which it denies, the aspects that are subsumed, cleaned up, left in a notebook, and so on.

I. Content

A particular type of question propels PhD Research – the Thesis question. The “question” resides in the linguistic, whereas “response” can speak in and through the linguistic and beyond: the verbal, the body and the object. The ongoing dialogue between the practices of art and/as Research raises many concerns, some of which transcend the Thesis question. What, for example, are the languages of the art Thesis? When is art R/research? And where is the Knowledge in the art PhD?

A question among questions in art Research, the Thesis question is a pointer, the arrow with which the researcher seeks new Knowledge. It casts the inquiry in many directions, all the while wondering, “Is Research really about asking the ‘right’ questions?” For The Art of Research Seminar, we explored “the question” not only as a



rhetorical structure but also as a theme, a theory and a thesis. It served to organize both the content and form of our performative paper. We asked and (re)asked the questions above through a combination of written surveys, straw polls and a thought experiment aimed at facilitating a site-specific discussion about the growing discourse of art Research. We sought to highlight The Art of Research Seminar as a context for our speculative R/research – to activate the academic conference as a performative event where notions of art Research are socially constructed. At the same time, we aimed to talk around, about and through art Research using language(s) better suited for enacting art as Research. In addition to written and read argumentation, we deployed cryptic gestures and curious equations, addressing, in effect, Umberto Eco's observations about artistic intention:

The moment an artist realizes that the system of communication at his disposal is extraneous to the historical situation he wants to depict, he must also understand that the only way he will be able to solve this problem is through the invention of new formal structures that will embody that situation and become its model. (1989, 143)

Future Response aspired to be such a model – an alternative to conventional Research process and product. Yet, for reasons discussed below, this model did not register as either art or Research at the Seminar. Future Response was instead received as a non-communicative text where metaphors were mixed, voices became louder and softer, and positions slipped and fixed⁶.

6 It is this slipping and fixing between territories that we are interested in confusing, blurring and merging in order to perform a notion, the third space, to define how divergent possibilities might appear in reaching an expanded understanding of how art R/research works. We will define the third space as a multiple space of meaning and ambigui-

As a collaborative project – a shared investigation among the members of Future Reflections Research Group – Future Response considered response in the context of reflexive dialogue, by which we mean dialogue as a kind of collaboration in keeping with the curator and critic Maria Lind's notion of "triple collaboration" (2007, 27). She defines triple collaboration as instances where the subject of the work, the theme itself, is collaboration. Discussion around this theme raised two questions in particular. "What does response mean in the context of art," we wondered "and in what ways can response be understood as art Research in its own right?" As the form/process/method/outcome, response enabled the project's collaborative and interdisciplinary making and set up our enquiry into investigating the third space.

Sir Christopher Frayling (1993) made a distinction between Research and research in his paper "Research in Art and Design" – based on the definition found in the Oxford English Dictionary. He defines research with a lowercase "r" as an investigation, the act of searching, whereas Research with an uppercase "R" indicates some kind of development. Future Reflections Research Group explores if other distinctions between big and small letters in a word can equally illustrate conventions in terms of our understanding of these terms. For instance, can Knowledge with a capital "K" refer to the original Knowledge claim built into the PhD? The PhD has to produce new knowledge. This is argued in and through the Thesis, (capital T), itself a dissertation based on an original claim to Knowledge, which may contain more than one thesis, *i.e.* propositions advanced as an argument. Frayling furthermore defines art as Re-

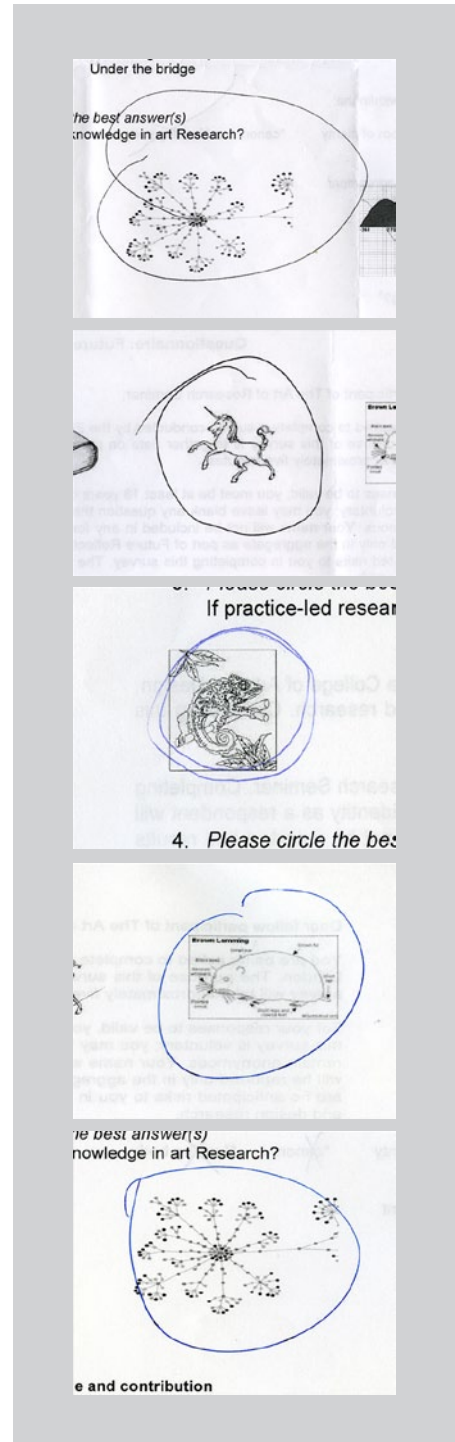
ity, an ambiguity from which another form of knowledge production may emerge – and it is in this nuanced lack of clarity, the third space, that we will approach the practical implications of doing practice-based art R/research.

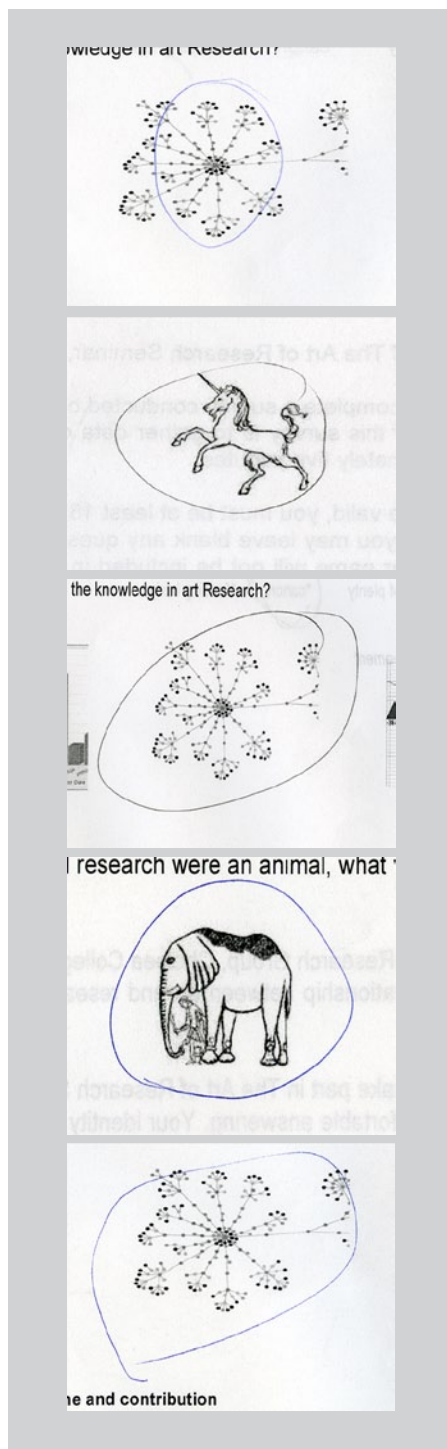
search where the methods and conventions and debates of Research can be seen to be embodied in the artwork itself.⁷ Within the academic art and design community, Frayling undertook an important step towards understanding how the relationship between Research and art can be conceived. Future Reflections Research Group seem to be attempting to expand through their work what embodiment actually means in relation to art. As all of Frayling's definitions seem to presuppose the production of a discrete art object of some kind, a discursively located practice may represent a challenge to these categories.

II. Participation

Participation in the context of Future Response was understood as both an individual and collective engagement, on the one hand originating with the utterances of individual group members, and on the other, with the discourse of Future Reflections Research Group as a whole. Additionally, response resided with the other participants of The Art of Research Seminar, who contributed by completing written surveys, raising their hands in answer to straw polls, and participating in a thought experiment. If, however, we aimed to explore both the attendees' responses in the post-presentation discussion, the opaque structure of our presentation resisted easy access. Only later in informal aspects of the Seminar – in the coffee breaks and at the dinner – did the other attendees offer their feedback, feedback that has had a reflexive impact on our investigation. Addressing

7 Frayling refers to this kind of research as research for art. It is his third category following on from what he defines as: 1) research into art *i.e.* art historical research, and 2) research through art, where a problem is researched through the practices and mediums of art. According to Frayling the problems of art research are manifested in this third category, as the goal here may not primarily be communicable knowledge (1993, 5).





our commitment to developing languages better suited for expressing art as suppositional, they suggested other aesthetic strategies for proposing, performing and producing art R/research as a discursive event.

Future Reflections Research Group's performative presentation at the *Art of Research* seminar tracked and staged several emblematic problems with participation. These include confusing the audience about participatory expectations and leaving them to question the significance of the collaboration's contribution, with respect to how and what we were asking of them and the dissemination of their contributions. We attempted to engage attendees in our presentation through asking them to take part in straw polls, surveys and instructions using different kinds of language (written equations, spoken commands and physical gestures). These methods proved problematic, however, because they were coercively deployed. As we failed to build a relationship with the attendees before making demands of them, their participation was commanded rather than exchanged.

The resultant split between US (Future Reflections Research Group) and THEM (the audience) was further entrenched by our methods of data solicitation and collection. We asked the audience to give on several levels. We asked for both participation and information, and for the retention of the information for further analysis. However, the mode of giving, *e.g.* answers in the questionnaires, afforded only limited response, effectively frustrating more generative modes of two-way interaction. Instead of dialoguing with other Seminar participants, we inadvertently identified ourselves as our own audience. We spoke to one another about our shared interests and our discussion became increasingly insulated, esoteric and closed. We aimed to share our emerging language(s) – our experimental form and figurations – with our peers.

But we failed to also share literacy for interpreting these systems. Consequently, some of our propositions were lost in translation. The result: Future Response made (non)sense.

As a primarily discursive art practice, Future Reflections Research Group's process is, in effect, its product. This process is achieved through dialogue between the participants, and hence elaborates new understanding that is both shared and individual. Holding fast to dialogism as an ethic, a method and a practice, the core question becomes: How can we maintain this engagement in broader contexts, in sites like conferences that bring together interlocutors both within and without the group's immediate constituency? Our presentation at the Art of Research Seminar emphasized some of the challenges involved in inviting, exchanging, recording and interpreting audience participation. One of the many challenges we face involves producing a symbiotic relationship with the audience, a relationship that builds a diversified, interactive and communicative space – a symbiosis that encourages three forms of interaction simultaneously: 1) between members of the research group; 2) between the research group and members of the audience; and 3) between the audience members themselves. We believe that the third space provides a site for this triple interaction. As such, it offers a useful way of approaching what the third space constitutes – principally it is a site of diversified interactions.

While the theory and practice of participation remain under addressed in the discourse of art Research, questions around audience engagement can be located in concerns around "context," a topic that has received recent attention in various conferences and publications. For example, two questions explored at *Research into Practice* 2006 include: "Are certain types of context more research-friendly than others? Does research demand new types of context?" Michael Biggs



(2006b) addresses these concerns in an editorial for *Working Papers in Art and Design* by raising an even more critical question: “Is the medium a context?” We know the medium affects the message (McLuhan and Fiore 1971) but is the medium constitutive of the research message?” While Biggs is immediately concerned with how writing about Research serves to historically and critically contextualize its outputs, his questions, considered alongside those identified above, gesture towards some of the challenges facing Research into discursive art practice. That this type of practice assumes an artwork’s significance can reside in an event, a site-specific engagement through which new understanding is socially constructed, means discursive art challenges orthodox notions of art Research as something intrinsic and self-contained in the output as an object. Miwon Kwon (2004) has theorized this kind of radical reconsideration in relation to some contemporary art practices by articulating the concept of discursive site-specific practice, where site is understood as a mobile discursive narrative.⁸ A site within this discursive understanding can be an artistic genre, a social cause, *etc.*; it can be literal like a street corner, or virtual like a theoretical concept. Understanding Art R/research as a site specific practice may be helpful.

III. Knowledge

Assuming that both Knowledge and knowledge(s) resist insinuating themselves exclusively in one place, like in the practice, in the written Thesis or in the artwork, where and how are they dispersed throughout the PhD? Dialogue offers a productive

metaphor for describing the interplay between systems of knowing. Dialogue between the R/research and the artwork provides a construction site for K/knowledge(s) (Kvale 1996), a place where new understanding is built. Defining the relationship between R/research and the artwork as dialogic, however, is not without problems, among them locating, articulating, and disseminating the discrete Knowledge claim. Nevertheless, overcoming these problems has performative potential. By resisting the urge to pin Knowledge down in one place, a dialogic understanding of K/knowledge(s) can open up a richer conversation, a conversation between the outcomes, the process and the product, that would be suppressed if these constituents were not given voice. Ultimately, for the art PhD, the claim to original Knowledge must take the form of an articulated utterance: the Thesis.

As discussed above, the Thesis question directs the investigation. The Thesis proposition, however, must respond to the Thesis question by silencing the incoherent babblings of its research (with a lowercase “r”). It must articulate a cogent, concise and above all clearly legible statement of Research (with an uppercase “R”). This is because to be heard the Knowledge claim must be read. That is, it must be readable; meaning, accessible. “The judgement and classification of a work as [R]esearch is a judgement that is made by the audience and is an issue of its reception, rather than being determined by the intention of the “author”” (Biggs 2006a). This emphasis on audience raises critical concerns about “reading” art as R/research, underscoring the need for alternative literacies to facilitate more complex and subtly nuanced interpretation (Laakso 2006). Ideally, these new literacies will allow greater scope for the art to expand within the art PhD. They will also override the historical preoccupation with reducing Research to a single Knowledge claim characterized by clarity,

8 This is Kwon’s third category of site-specific practice. She proposes a genealogy of site-specific practice which moves from architectural/phenomenological, to institutional - *i.e.* forms of institutional critique to discursive, which as a category builds on James Meyer’s idea of a functional site (1995).

specificity and un-equivocality. They will structure outcomes in ways that more accurately embody art as speculative investigation. Finally, they will validate creative practice – rather than product – as both a point of departure and return for understanding and application.

As Future Reflections Research Group's contribution to this ongoing discussion, we assert the possibility of an in-between – a third space – an overlap of these areas. Similar to that which Turkka Keinonen defines as “the third field” (FX), this common ground is comprised of practices, methods and values shared by art and R/research (Keinonen 2006, 53).

Foregrounding these themes, this text splices across and through questions as a linguistic structure to wrestle with response as a way of addressing issues related to art R/research. This reflective/reflexive inquiry serves to locate sources of dialogue occurring in/around/through the PhD, sources from which fluctuating meaning(s) and/or K/knowledge(s) speak. Another distinction explored here concerns art and Research as separate fields. The questions, “Can Research be art and can art be Research?” asked before the Seminar through several email surveys were also performatively enacted at our presentation of Future Response. These exchanges thus incised a line of inquiry across this project, which, upon reflection, traces the emergent epistemology of our collaborative process. In Future Response, we also attempted to conjure up the third space as a discursive site for conversation about mis/understanding and reflection as methods for generating discussion. By asking and re-asking the same questions in the paper/presentation/surveys, we intuited the third space, a space between the individual and the collective, between understanding and misunderstanding, between the articulated and the unarticulated. In this liminal zone, afforded by our collaborative practice, the relationship between indi-

vidual and collective moves in the gap that opens up in the discourse between our individual R/research interests and our common pursuits. This is a dialogic space of possibilities, working in the push and pull between the singular and the shared, through a polyphony of voices; ours and our fellow researchers in this emergent field, collectively undertaking this journey into art R/research. By locating the third space between positions, comprehensibility and utterances, we site the construction of these in the overlap, in the crossover as an “inter” space. Dialogues emerging from this space encourage miss/understanding as a profoundly disconcerting, albeit potentially productive outcome, of art Research.

Knowledge(s) occupy multiple socio-cultural and/or historical contexts (Scrivener 2002); however, the privileging of a singular Knowledge is a significant aspect of the PhD project, as a model of mastery towards Research (as understood with a capital “R”). Whilst recognizing the institutional expectation of a new Knowledge claim in the PhD, there may be some potential to posit other possibilities for valid R/research. Future Reflections Research Group has proposed an alternative space – the third space, towards an exploration across K/knowledge(s) and their contexts. Is it possible to trace the third space in other theories/writings? This space is not, as it seems, the same thing as the “Thirdspace” outlined by Edward W. Soja (1996). Soja's “Thirdspace” is an attempt to understand the spatial turn in critical studies, and the book constitutes a re-evaluation of what Soja sees as the dual approach of seeing spatiality as concrete material forms on the one hand and as mental constructs on the other. Thus, the third space and “Thirdspace” seem to share a common interest in creating alternative approaches to conceptualizing relationships between that which exists materially and the language, concepts and methods we use to discuss this. The third space as proposed by

Future Reflections Research Group is seemingly inclined towards exploring productive messes and confusions. As such it is consistently concerned with being a space that is tertiary – third. This may be a notable classification, and furthermore one that shares similarities with a humanities Research model, which also concerns itself with the issue of the third, namely – the Third Way (Navarro 2002). The “Third Way” as a method is structured through having two discourses that are put together; this pairing creates another way, a third way to enter into a discourse. Thus the third space may cautiously resonate with other work that puts forward alternative models of understanding and knowledge, but seems specific to the discussion of art R/research, as a method and/or as a metaphor.

EXIT/EXODUS

George Bataille (2001) discusses arriving at knowledge as a service to the sovereign operation, in which knowledge is privileged and masks the unknown. He describes the instance where the known departs from the unknown, and the dangers of remaining in the moment where the split of mis/understanding occurs.

Some consequences of such usage of thoughts proceed in another way from the possibility of misunderstanding: knowledge relating objects to the sovereign moment in the end risks being confounded with the moment itself.

This knowledge that one could call free (but that I [Bataille] prefer to call neutral) is the use of a function detached (free) from the servitude that is its principal: the function related the unknown to the known (to the solid), whereas dating it from the moment when it detaches itself, it relates the known to the unknown. (2001, 93)

In many ways, the third space comprises this moment of movement between the known and the unknown, seeking to privilege this relationship as constituting un/Knowing (k/Knowing and not knowing) as processes that cannot be pulled apart from each other. The third space avoids privileging either state, be this knowing or not. Working against the hierarchy of Knowledge as an absolute, it offers up other possibilities for residencies of knowledge(s). The third space acknowledges the absent – the unknown – as a valid and essential process of knowing and vice versa. The un/known necessitates an equal positioning – not shoulder to shoulder, but as simultaneously merged, collapsed and interspersed throughout each other. We conceptualize the third space as a mobile space of the un/Known(s), where the un/Known[s] vie and collaborate together and develop each other. The third space is mechanized as a productive site to enable indistinguishable forms of un/knowledge or ways of un/knowing to emerge,

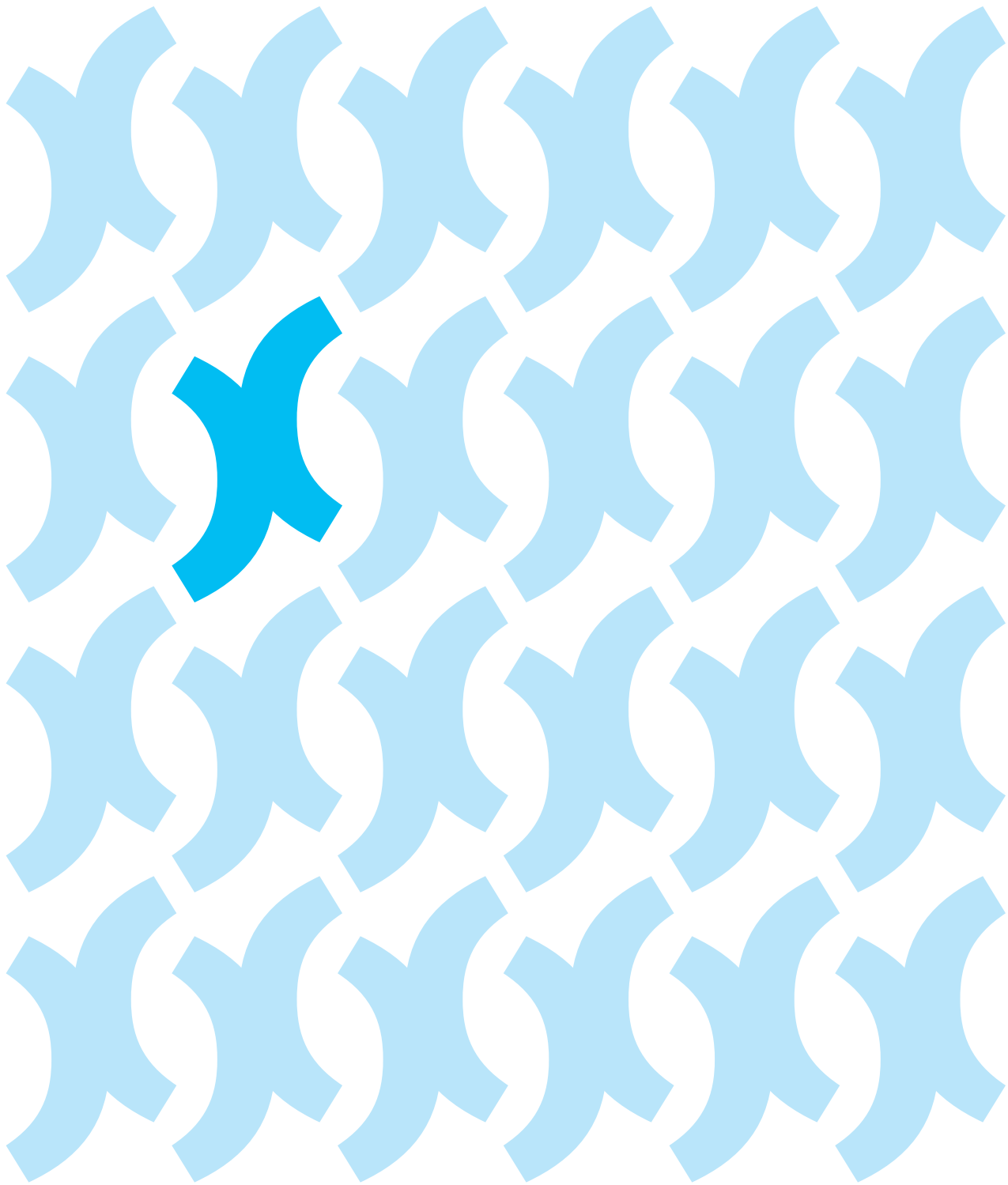
Linguistically conjuring up the third space in/through this text as an inter-space is a rhetorical endeavour aimed at articulating this poetic realm as an elliptical or non-Euclidian space. Rhetorical practice and artistic practice both work with forms (Nyrnes 2000). Future Reflections Research Group takes into its service the forms of language as an aesthetic possibility, a proposition to develop a rhetoric of the third space. This rhetoric may function as both an itinerary of the journey ahead and a trace of the ground covered.

As the third space does not appear to have clear boundaries or definitive qualities that can easily be described, perhaps we can link the articulation of this space to the need for new literacy as expressed by Laakso (2006). Artists articulate this need in, through and around their practices. For instance, Art & Language talk about a “competent regard” for an artwork in much the same way that an “adequate reading” of a text enables one to “recover meaning” from it (O’Riley 2007). K/knowledge(s)

in the Art PhD need reflexive literacy and competent regard in order for art R/research to contribute, on its own terms, to a broader discussion around R/research and K/knowledge production.

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Relating the Production of Artefacts and the Production of Knowledge in Research

KRISTINA NIEDDERER

INTRODUCTION

In this paper, I consider the relationship between the production of artefacts and the production of knowledge in art and design research. Formally these two have been brought into relation, in the UK as well as many other countries, through the integration of the traditionally vocational training of the creative disciplines into the academy. This has led to an advent of research in art and design.

One of the central requirements of academic research is the *production of new knowledge*, which is documented variously through research regulations of Universities, Research Councils and other research agencies (*e.g.* RAE 2005; AHRC 2008). The production of knowledge in research is understood to require systematic study including the specification of research problem, question, context, methods and outcomes (new knowledge), whereby the latter are to be generalizable and/or transferable as well as communicable in verbal and/or written form.

In comparison, the key characteristic of creative practice in art and design is the *production of new artefacts*, as is demonstrated plentiful through the display of artefacts in museums, galleries, shops, public and private spaces. The production of artefacts is based on practices of ideation, de-

signing and making. The knowledge gained in the process is largely experiential and situated, and passed on through vocational training rather than through scholarly texts.

When conducting research in art and design, the characteristics and requirements of both research and practice have to be negotiated within the framework of research. The key question of this negotiation is how the production of artefacts can contribute to the production of knowledge, because this connection is essential if the work undertaken is to be regarded as research.

This question is not new. Biggs (2002, 2003, 2004), Scrivener (2002), Scrivener and Chapman (2004), Mäkelä (2006) and others have approached this question. For example, Biggs (2002) has made a contribution to the debate with his discussion of “the rôle of the artefact in art and design research”, in which he unpacks why research at present is best communicated by textual language. He argues that it best suits the logic of argument that is required for research, but he does not exclude that it might be possible to find ways to develop visual language communication to this end. Scrivener (2002) explores a practice-led model that aims to preserve the importance of aesthetic perceptions of artworks in the context of research.

Complementary to these approaches, I exam-

ine the relationship between the production of artefacts and the production of knowledge in research with regard to the inclusion of tacit knowledge. This approach is based on previous research into models of knowledge in research (Niedderer 2007b), which has shown that tacit knowledge is an essential component of research but that it remains evasive of textual communication that is standard in research.

In the following, I consider the nature of knowledge within research. This analysis emphasizes the importance of tacit knowledge for research, and poses the problematic of how it can be integrated and communicated within research. This leads me to consider how tacit knowledge is related to the production and presentation of artefacts. As a result, the discussion presents a number of possible ways of employing artefacts and the production of artefacts for the generation and communication of (tacit) knowledge in research.

KNOWLEDGE IN RESEARCH AND PRACTICE

Research can be characterized as a formal, systematic and rigorous process of inquiry (Fawcett 1999, 1–25; OED 1996), the purpose of which is to gain new knowledge or understanding (AHRC 2008). This knowledge or understanding is usually expected to be generalizable or transferable such that others may benefit from it. It is therefore usually linked to the generation of principles or theory building whereby theory can be defined as a set of concepts and propositions, which is generated and/or tested through research (Fawcett, *ibid.*).

In the attempt to define research, research regulations and requirements in the UK emphasize practical indicators of research, but remain silent about the meaning of the contribution to knowledge in the context of their specifications while implicitly prioritizing propositional knowledge (Niedderer 2007a). In order to understand this

conjecture, we need to consider the nature of propositional knowledge.

Propositional knowledge is most commonly defined as “justified true belief”, and Grayling (2003, 37) explains that

“this definition looks plausible because, at the very least, it seems that to know something one must believe it, that the belief must be true, and that one’s reason for believing it must be satisfactory in the light of some criteria – for one could not be said to know something if one’s reasons for believing it were arbitrary or haphazard. So each of the three parts of the definition appears to express a necessary condition for knowledge, and the claim is that, taken together, they are sufficient.”

Despite continued criticism, this definition of knowledge has remained the prevailing definition. Niedderer (2007a) has shown that this understanding is implicit in the definition of research because of requirements such as the presentation of an intellectual position (proposition, thesis – “true belief”), the logic of verification and defense of this intellectual position through argument and evidence (justification), and the explicit and unambiguous communication through textual/written presentation.

The unacknowledged acceptance of this definition has led to a number of problems concerning the nature and format of knowledge in research in the UK. For example, because of the language-based mode of propositional knowledge and its implicit prioritisation, certain kinds of knowledge associated with research in art and design practice, which are known as practical, experiential, personal or tacit knowledge, and which evade verbal articulation, seem to be regularly excluded from research.

To understand why tacit knowledge is both important and problematic for research, we need to look more closely at the characteristics of tacit

knowledge. I have chosen two examples, one of which is related to procedural knowledge and expertise using the example of technical development, the other is related to experiential knowledge and connoisseurship, using the example of aesthetic evaluation and judgment.

Example 1:

A set of two small cups (Figures 1 and 2) were made as part of a research project investigating the use of laser welding with the new silver alloy Argentium® Silver (Niedderer, Harrison and Johns 2006). The cups were developed as a demonstration of the creative opportunities arising for silver design from the combined use of laser welding and AS.

What is interesting here is that, although one can communicate the advance (contribution to knowledge) within the terms required of conventional research (explicit knowledge), the development and application of such a contribution draws strongly on tacit knowledge (*e.g.* skill-based development, creative synthesis).

These findings are supported by a case study of the replication attempts of a TEA¹ laser by Collins (1985) which showed that an extended period of contact was required between the expert and the learner to transfer the tacit knowledge, and that the learner could not tell whether they had acquired the relevant knowledge or skill until they tried it.

Both examples suggest that tacit knowledge is used and developed as part of research, although it evades the conventional textual communication and argumentation, and thus wider dissemination (Herbig et al. 2001). Nevertheless, the inclusion of tacit knowledge seems essential for success, both in terms of tacit knowledge being brought into the research process and in terms of its communica-

1 Transversely Excited Atmospheric Pressure CO₂ Laser. TEA CO₂ lasers are for example used for product marking.



Figures 1 and 2. Niedderer, K. 2005. “Two small cups”. Argentium Silver and laserwelding.

tion for application. The inclusion of tacit knowledge is therefore associated with expertise, which can be defined as “an intuitive grasp of the situation and a non-analytic and non-deliberative sense of the appropriate response to be made” (Berliner 1994, 110; Dreyfus and Dreyfus 1988).

Example 2:

The research into finding and developing creative opportunities, for which the cups are an example, is not only based on expertise as described above, but also on the ability for fine discrimination and judgment that guides the creative synthesis and the evaluation of its outcomes. For example, there is the choice of material thickness and hardness, or the choice of the formal solution of the joints in

relation to existing solutions, where the judgment relies on (perceptual) experience and personal judgment, also known as connoisseurship. Connoisseurship in the context of this investigation is referring to the ability for very fine (qualitative) discrimination that is (usually) beyond scientific measurement and that is acquired through extensive training (Polanyi 1958, 54; Beeston and Higgs 2001, 110).

In these two examples, we have seen that tacit knowledge plays an important role, both within the research process and in evaluating and communicating research outcomes. In other words, tacit knowledge seems important for the generation and application as well as the experience and judgment of research and its results, and for creating new experiences, abilities and knowledge. The question, which remains, is what is the problem with tacit knowledge in research and how can it be overcome?

UNDERSTANDING THE ROLE OF TACIT KNOWLEDGE IN RESEARCH

This section analyzes the problem of tacit knowledge in research, which seems to be twofold. The first part concerns the prioritization of propositional knowledge. The second concerns the communication of tacit knowledge.

For this analysis, we need to clarify the terminology, because the terms tacit knowledge and propositional knowledge are not usually paired. Rather, “tacit knowledge” is paired with “explicit knowledge” (Neuweg 2002). “Propositional knowledge” is variously paired with “non-propositional knowledge” (practice knowledge) such as experiential or perceptual knowledge (knowledge by acquaintance) and/or “procedural knowledge” (skill) (Williams 2001, 98; Grayling 2003). Thereby the distinction between propositional and non-propositional/practice knowledge concerns the nature of knowledge, while the explicit-tacit knowledge-

pair refers to the respective characteristic of communication. In the following, I will use the terms in this sense.

In this context, it is further important to understand that propositional knowledge does not equate with explicit knowledge and practice knowledge with tacit knowledge. Instead, part of propositional knowledge is explicit (*e.g.* the verbal form of a proposition statement) and part of it is tacit (*e.g.* the intrinsic meaning of that proposition statement). The same is true for practice knowledge. Part of it may be described in words, but its ultimate meaning or understanding may not (Niedderer 2007b). This is important to keep in mind for the use of these terms in the following discussion.

Turning to the first problem, the prioritization of propositional knowledge is linked to a generic epistemological problem, the logic of justification. Propositional knowledge is the expression of this fundamental logic and therefore provides the standard. Because practical knowledge is usually equated with tacit knowledge, it is assumed to evade explicit communication and therefore also justification. If part of practice knowledge can be made explicit as discussed above, then this equation seems erroneous and needs qualification. Because then it is not practice knowledge as such that is the problem, but only that component of knowledge, which is truly tacit (ineffable).

However, even this does not hold true in terms of the matter of justification if we follow Williams (2001, 175) who argues that we can speak of beliefs as knowledge if they can be verified. That tacit knowledge can be verified can be argued through the example of procedural knowledge (as knowledge in action) where every action constitutes a judgment over what is right (to do) in every given moment and thus the knowledge is tacitly verified within and through action and its result.

This argument suggests that it is not so much a problem of the prioritization of propositional

knowledge but the failure to acknowledge this prioritization, and that there are other ways of providing verification/justification than linguistic means. Nevertheless, within the framework of research, it is essential that any practical/tacit knowledge has to be framed appropriately to make its proposition and justification explicit. This is important to maintain its credibility. Explicit acknowledgement of this situation in research regulations would help overcome misunderstandings, rejection or ignorance that have been the consequence of this lack of clarity.

The second problem concerns the integration and communication of tacit knowledge. As discussed, some part of practice knowledge can be made explicit through verbal/textual means. This part allows us to adhere, at least formally, to the current model of research with its requirement for the explicit and unambiguous communication of its contribution to knowledge. However, we have also discussed that there is another part of knowledge, which cannot be made explicit by verbal/textual means. This is the experiential part of knowledge, which is always personal and situated. The problem with this part concerns its communication at a level which allows it to be available for application in practice. In the following, I therefore look at how we can practically deal with the use and communication of tacit knowledge in research.

UTILIZING PRACTICE KNOWLEDGE IN RESEARCH

Knowledge occurs at different stages within research. Most importantly, these are the stages of knowledge generation, which is the process where knowledge is sought, and of knowledge communication, which is the process through which it is made available to others, both researchers and practitioners. In this section, I discuss how we can practically deal with tacit knowledge within these

two stages, followed by a discussion of the role of artefacts with regard to both stages.

Tacit Knowledge in the Process of Research

The process of research is by definition a process of knowledge generation. This process is usually structured into problem/questions, context, methods and outcomes. Thereby the problem defines what knowledge is sought. The context provides the frame within which the inquiry is to be assigned credibility. The methods provide the vehicle for the inquiry with the methodology determining what will be accepted as a justification of the proposed. And the outcome or findings provide the “new beliefs” which are validated through the research process as described and thus provide new knowledge.

It is further important to recognize that new knowledge does not appear from nowhere. Any new knowledge is firmly rooted in existing knowledge, for example, a basic knowledge of the context of work undertaken to identify the “gap” in existing knowledge, thus is the direction of any new inquiry; or knowledge about relevant methods, about how to use and apply them; or knowledge about how to evaluate the findings and turn them into new knowledge.

Some of this knowledge brought into, and used within, the research process will be propositional and explicit, such as knowing the context of who else works in one’s particular area. Other knowledge that is brought in from practice is experientially based and tacit, for example, knowledge about how to perform a certain method, or how to evaluate certain data or findings. Especially the aspect of evaluation is interesting, because it strongly splits the research community. Take for example the evaluation of the flexibility of two different sterling silver alloys. One could follow scientific methods to obtain numerical data, which are easy

to compare, and which will tell us whether and how much difference there is between the two alloys. However, if researching opportunities for the application of these alloys in relation to their flexibility, this comparison may be helpful as an indicator, but will not suffice to make a judgment of which alloy to use. This is because at the stage of application, we are dealing with complex data, and the perception of the flexibility of the material might be influenced by the hardness, ductility, *etc.* In order to determine new possibilities for application, the material might therefore only really be assessed by the experiential evaluation of actual samples based on expertise and connoisseurship of the experienced researcher.

In summary, we can say that tacit knowledge plays a vital role within the process of research and of generating new knowledge. It is therefore important that tacit knowledge is properly acknowledged and integrated in the process of research, wherever it is used and whatever that tacit knowledge may be: experience, methods from practice, *etc.* It is further important that it is made clear how tacit knowledge is used and why, and that it is described as far as possible in order to not only demonstrate its credibility and allow others to follow any conclusions drawn, but also allow researchers to use the results. In the following, I discuss some generic examples of research problems with regard to knowledge generation, and which I use also to reflect on knowledge communication.

Generic Examples of Tacit Knowledge within Knowledge Generation and Communication

New knowledge generated within research can take on different forms according to the research problem from which it arises. Its form of communication will therefore vary accordingly. On a generic level, we can distinguish a number of different kinds of problems, in relation to both the

knowledge generated and different means of communication. For example:

Problems of a theoretical nature. For example, any variety of philosophical problems in art and design might fall under this category. Although these problems may draw on other kinds of knowledge during the process of inquiry, they are likely to generate propositional knowledge because of their theoretical nature. This means that the methods used are likely to be of theoretical, dialectic or dialogic nature, using language as a medium. As a means of communication, verbal and/or textual language should be appropriate. For example, Descartes could express his conclusions about whether or not living beings exist stating “I think, therefore I am.” (Descartes 1960)

Process-related problems. For example, any problem that seeks to establish how to do something might fall under this category. Although these problems may draw on other kinds of knowledge during the process of inquiry, they are likely to generate procedural (skill-related) knowledge about how to do something. Therefore, the main method of inquiry is likely to be empirical and of a qualitative nature. While it will be possible to communicate some part of this knowledge verbally through detailed description, the essence of the experience of procedural knowledge cannot be passed on through language. Indeed, it seems as if this essence cannot be passed on at all, at least not directly. However, there are a number of approaches that allow passing experience on indirectly through empathy, for example, demonstration of the expert to the learner (person to person or via video), or through coaching, where the learner executes the process under guidance by the expert (*e.g.* Wood 2004; Stover 2005; Polanyi 1958, 53).

Object-related problems. For example, any problem related to the artificial world, *i.e.* that concerns per-

son-made objects or situations. These problems can vary in nature and can be concerned with aspects of aesthetics; of function, use or handling; *etc.* Because of this spread, various models of research may be brought to bear on any particular problem and a mixture of different kinds of knowledge may be the outcome, although experiential knowledge is likely to have a key role because of our physical-experiential relationship with the world. While some part of the knowledge gained from the experience can be communicated verbally, both through detailed description and as a proposition that adheres to the current understanding of knowledge in research, the essence of experiential knowledge cannot be passed on through language. Therefore, to evoke the relevant experience through use of the actual object can be an important part of the communication of object-related problems.

In order to establish how practice or artefacts exactly can contribute, I now look at their role within knowledge generation and knowledge communication in more detail.

Using the Production of Artefacts to integrate Tacit Knowledge within Knowledge Generation and Knowledge Communication

In this last section, I want to relate the production of artefacts to the production of knowledge. Above, we have discussed that there are different kinds of research problems, that these require different kinds of knowledge, and that the production of knowledge falls into the two phases of knowledge generation and knowledge communication. Further, we have examined the role of tacit knowledge as well as an indication of methods for the process-related integration and communication of tacit knowledge within research. We now need to look at the role of artefacts within this process.

Artefacts in the process of knowledge generation. Within the process of knowledge generation there is some input of knowledge (process/methods and data/artefacts) and some output (new data or insights). The outputs from the knowledge generation process overlaps with the aspect of knowledge communication and will be presented as such below. Some of the possibilities related to both input and output have also been discussed in more detail in Durling and Niedderer (2007).

In terms of input into the actual research process and process of knowledge generation, artefacts may, for example:

- provide the starting point for an inquiry by generating the research questions,
- provide data as a basis for analysis, using existing artefacts as examples, or
- new artefacts may be produced in the process where no suitable examples exist.

I take the stance that artefacts do not contain knowledge within themselves, but provide data from which to build knowledge. This position acknowledges knowledge as a normative construct (Williams 2001, 10–12) that is created and held by people, not by objects, although artefacts may convey data that are indicative of someone else's tacit knowledge (*e.g.* about how to construct or use a certain artefact).

The production of artefacts may be used in the process of knowledge generation in a number of forms, for example:

- Artefact production to test or improve the use of a specific method or technology;
- Artefact production to test the use of a new material and its opportunities;
- Artefacts may be produced as part of a creative exploration to develop a new understanding of an object or concept, etc;
- Artefact production as a means to analyse and understand complex concepts.

Using artefact production in this way is useful where it is necessary to gain insight into the com-

plexity of a concept, situation, phenomenon or process, and where scientific reduction is unable to provide a sufficiently rich or coherent picture of the subject under investigation. It is helpful, because it allows the expert practitioner to draw on their tacit knowledge in the process of research regarding process-related methods and creative analysis or synthesis, as well as evaluation and judgment, due to their expertise and connoisseurship.

Artefacts in the process of knowledge communication.

Finally, as an output and aid for knowledge communication, artefacts may be used as both indicators of procedural knowledge gained with the research process and to demonstrate any results of the research, in particular in relation to aesthetic or user experience. For example, artefacts may be:

- indicative of process knowledge that can be read from the object that is the result of the research through marks, joints, etc;
- used to illustrate a problem, *e.g.* to explain the nature of a problem;
- used for demonstration purposes, *e.g.* that something is possible (testing);
- presented as the evidence of an exploration to find new avenues (creative exploration).
- To convey a certain experience (aesthetic, use, etc).

Once again, this list may not be comprehensive but rather indicative of the possibilities available to researchers in art and design for using artefacts to include experiential data that aid or facilitate the inclusion and communication of tacit knowledge, and for understanding complementary to any explicit communication which may be required within research.

CONCLUSION

In this paper, I have traced the role of artefacts with regard to knowledge generation and commu-

nication in an attempt to relate the production of knowledge and of artefacts within research. I have begun by analysing the use of different kinds of knowledge in research. I have then established the epistemological justification of using tacit knowledge within research as a pretext before tracing how tacit knowledge can be integrated into the process of knowledge generation and communication, and what role artefacts can take within this process. As a result, this inquiry has shown that tacit knowledge can take various important functions concerning input, process, output and communication, and how artefacts can be used as part of this.

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The Roles of Art and Design Process and Object In Research

STEPHEN A.R. SCRIVENER

INTRODUCTION

“Practice-based research” and “practice-led research” are terms used to characterize research that involves the work of art and design, *i.e.*, the productive processes, or works of art and design, *i.e.*, the products, in some way or another in the work and works of research. For the purposes of this chapter, we shall use the term “creative production” to mean the work and works of art and design and the term “research” to mean the work and works of research. When referring only to process or product, the term will be appropriately qualified.¹

In this chapter, we explore some of the different ways in which creative production can be understood as contributing to the fulfilment of the conditions of research, which are here defined as intention, subject, method, justification, communication and goal. Although primarily a mapping of theoretical possibilities, the analysis that follows is informed by understanding of the theory and practice of practice-based research and the recognition that many of the theoretical possibilities can be found in current practice.

1 The use of separate terms is not meant to imply non-equivalence.

The analysis reveals the manifold ways in which creative production can figure in relation to the conditions of research. However, not all of these cases embody a substantive role for creative production in research, and even fewer appear to justify the research being qualified as practice-based or practice-led. Consequently, it is argued that these terms should only be applied to research where it is claimed that creative production is a mode of knowledge acquisition.

DEFINING OF RESEARCH

The Oxford English Dictionary (OED) defines research as both a noun and a verb. Research as a noun is described as the systematic investigation into the study of materials, sources, *etc.*, in order to establish facts and to reach new conclusions, and as an endeavour to discover new or collate old facts *etc.*, by the scientific study of a subject or by a course of critical investigation. As a verb, it is described as meaning to do research into or for, and to make researches.

According to this definition then, an activity is research if and only if it is 1) a systematic investigation, 2) conducted intentionally, 3) to acquire new knowledge, understanding, insights, *etc.*, 4) about a subject.

This might be called the common definition of research and it is a useful starting point for thinking about what academic or professional research means. Clause 1) above might be described as the method condition; clause 2) as the intention condition; clause 3) as the goal condition; and, finally, clause 4) as the subject² condition.

However, the definition does not make clear the nature of newness, as something can be new to the individual or new to the world, *i.e.*, beyond the bounds of what is currently known to humankind. Interrupted by a colleague whilst using the Internet, we might inform her that we have been researching flights to Venice. This use of the term research is appropriate but that which is acquired, including the conclusion reached, is not new to the body of human knowledge as it already in the knowledge base. This kind of research is often described as “little r” and Frayling (1993, 1) observes that the term research in the little r sense, as “the act of searching, closely or carefully, for or after a specified thing or person” was first used in regard to royal genealogy in 1577. In contrast, “big R” research is often used to characterize a special kind of research, typically conducted in academic or professional realms, which must meet the condition that the acquired knowledge is *new to the world*.

The common definition accommodates this understanding of research, but is too inclusive, because it allows for research processes and outcomes that would not be accepted by the academic

and professional research domains. As we have already seen it permits the acquisition of knowledge that is new to the individual but not new to the world. It also permits the acquisition of knowledge that is new to the world but is not understood as such or passed on to the world by its finder. None of these cases would be accepted as research in the academic and professional research domains, because in these domains research is intrinsically social, even when conducted by the individual researcher. The body of knowledge, all that is known by humankind, belongs to the humankind, not the individual, and it is preserved, modified, *etc.*, by humankind, not the individual. Hence, it is not the individual who decides whether or not something is new knowledge, it is humankind, or rather the knowledge discipline responsible for the relevant domain of knowledge. It follows then that an activity is only research if its outcome is communicated.

However, it is not sufficient to merely communicate the fact of knowledge. Let us assume that we have discovered something we believe to be new knowledge, and in the spirit of the shared endeavour of research, we share this with you, our peer. Will the fact that we believe in this new knowledge be sufficient in itself for you to accept it as such, even when on face value it seems probable that it is new knowledge? This is highly unlikely. You would ask us to justify our belief, partly because we know from experience not to trust every spoken and written claim to new knowledge and understanding, and partly because we need to be able to explain to ourselves and to the others who share with us the body of knowledge to which it contributes why we know something. Similarly, an activity would not be understood as research unless the researcher can justify a belief in the new knowledge acquired to the satisfaction of his or her research peers. Hence, in the academic and professional research domains, claims to new knowledge must be justified. Since the social, collective, collaborative activ-

2 Most research domains are concerned with phenomena, with things, whether natural or artificial. Hence, we often talk about the object of inquiry, meaning the thing that is studied. However, in this context the term object is not used as it can be confused with the goal of the inquiry, *e.g.*, with the object of research being knowledge and understanding. However, it can be argued that subject is actually the more appropriate descriptor for the focus of an inquiry as research is inevitably not simply the study of a given phenomenon but also all that is already known about that phenomenon.

ity of research requires communal acceptance, self-justification is always evaluated with communal justification in mind.

Hence, to characterize research as understood by the academic and professional research domains, we need to include justification and communication conditions:

An activity is research if and only if it is 1) a systematic investigation, 2) conducted intentionally, 3) to acquire new knowledge, understanding, insights, *etc.*, that is 4) justified and 5) communicated 6) about a subject.

This definition accords closely with Cross' (2000, 98) observation that examples of best practice in design research are those where the research is purposive, inquisitive (seeking to acquire new knowledge), informed, methodical and communicable. The definition excludes some activities that might commonly be understood or referred to as research, such as that defined above as little *r*, but is inclusive enough as a background against which to consider how creative production might figure in research.

DESCRIPTIONS OF PRACTICE-BASED RESEARCH

The notion of practice-based research in art and design is relatively new. Gray (1998) locates its emergence in the UK to the late 1970s and early 1980s, preferring the term practice-led (1998, 83):

I mean firstly, research which is initiated in practice, where questions, problems, challenges are identified and formed by the needs of practice and practitioners; and secondly, that the research strategy is carried out through practice, predominantly methodologies and specific methods familiar to us as practitioners in the visual arts.

However, Frayling (1993) was perhaps the first to examine the role of art and design in relation to re-

search practices. He (*Ibid.* 5) identifies three modes of research: research into art and design, research through art and design, and research for art and design. By “into” he implies that art and design is something to be looked into, *i.e.*, it is the subject of inquiry, a phenomenon to be studied from the outside. By “through” he appears to posit creative production as research method.

Frayling (*Ibid.*) describes research for art³ as the difficult one for art and design, “research with a small “r” in the dictionary – what Picasso considered was the gathering of reference materials rather than research proper.” Research for art and design is defined as, “Research where the end product is an artefact – where the thinking is, so to speak, *embodied in the artefact*, [his italics] where the goal is not primarily communicable knowledge in the sense of verbal communication, but in the sense of iconic or imagistic communication.”

He distinguishes two artistic traditions: expressive and cognitive, the latter meaning artists researching subjects which existed outside of themselves and their own personalities. As examples, he cites Stubbs's studies in animal anatomy and Constable's researches into cloud formation, in both cases partly at least communicated through visual means, *i.e.* drawings and paintings. This is characterized as research for art and sometimes research through art.

Frayling is enthusiastic about the cognitive tradition as a basis out of which much future research could grow, “a tradition which stands outside of the artefact at the same time as standing within it.” However, with respect to the expressive tradition he questions why people would want to claim research with a big “r” at all. He observes that at the

3 In his foreword to *Thinking Through Art: Reflections on Art as Research*, Frayling (2006) uses the terms art as research in the place of what he had previously called research for art. This is actually a significant change as his 1993 discussion of research for art seems to exclude the possibility of art as research.

Royal College of Art they do not offer a research degree entirely for work where the art is said to speak for itself, as the goal here is viewed as art not knowledge and understanding.

Having first considered definitions of research appearing in Australian government documents⁴, Strand (1998, 33–34) reports definitions published by The National Council of Heads of Tertiary Music Schools, the Committee of Heads of Australian University Theatre Studies Institutions, and the National Council of Heads of Art and Design Schools:

Research involves reflective and reflexive activity which probes both the process and product, and is directed towards the advancement of scholarship and creativity. Thus research requires:

- scholarly location within the discipline(s)
- critical reflection to identify the research niche
- cogent reflexive analysis of process and practice
- retrospective reflection to determine future research directions

Performance as research (as compared to other kinds of university theatre-based theatre performance) *e.g.*, in the form of professional practice, teaching etc. occurs: when a production becomes an intervention in an established scholarly debate, dialogue or discourse, *or* when it initiates or seeks to initiate a debate. Any performance-as-research must make explicit its relation with that debate, and communicate the ways in which the terms of the debate have been changed by the research project.

The research function of developing and extending knowledge is to be judged on the products of research. In the same way that a learned paper is evi-

dence and coherent argument for all the processes that preceded it, laboratory or speculative, the finished work of art and design is the culmination of the theory and practice of the discipline. Based essentially on investigatory, exploratory, speculative or analytical processes, the outcome is a result of synthesising the problematics of the discipline. Like the best research in any field, it is expected that the creative work will comply with these defining characteristics. The aim of the program is to develop new knowledge, or to preserve or critically assess it. It is also the case that works of visual art and design are available for critical assessment by peers, and are available to the wider intellectual community, as expected of well-defined research.

Notable in the first statement is the idea of advancement of scholarship and creativity rather than new knowledge and understanding. In addition, research in this context is defined as an activity that yields both new scholarship and new creativity. Similarly, in the second statement the goal of new knowledge and understanding is substituted by the notion of intervening and changing a scholarly debate, which locates creative production as an agent within a scholarly debate. In both cases, it is not the acquisition of new knowledge and understanding that distinguish creative production as research from everyday creative production, but the intention to advance scholarship and creativity in the first case and to intervene and change the discourse in the other. Another distinguishing feature, explicit in one and implicit in the other, is the researcher's responsibility to justify and communicate advancement or intervention. The third statement defines art and design research by comparison to the methods and outcomes of other learned disciplines, and seems to take it as given that creative production yields new knowledge and understanding.

The UK Council for Graduate Education's report (1997) on practice-based doctorates in the

4 Strand cites the OECD definition of Research and Experimental Development which includes reference to creative work and also the Australian Research Councils definition, which admits creative work as long as the investigation is not solely directed to this end.

creative and performing art and design describes this mode of doctorate as advancing knowledge partly by means of practice. The report continues (*Ibid.* 18) by noting that, “An original/creative piece of work is included in the submission for examination. It is distinct in 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.”

Gray (1998, 82) defines “practice-led” research as, “research initiated in practice and carried out through practice.” This definition can be viewed as consistent with Frayling’s research through and for art and design, if we take the term practice to mean creative production.

Scrivener (1999) describes research for design, as an investigation directed to enhancing the efficiency and effectiveness of our capacity for envisioning possible future realities. He invokes a combination of Frayling’s research through practice and into practice, since design is the subject of inquiry and an element of the method, which is defined as comprising investigation, design and implementation, and evaluation phases. In contrast, research within design (Scrivener 2000) is described as being concerned with gaining knowledge and understanding that directly contributes to the design practice of the designer/researcher: with research that occurs as an integral component of the practice of design. Here design is seen as a way of creating new knowledge and understanding, although the goal is to produce original design. In essence, this is a claim that the generation of an original work of design necessarily involves the generation of new knowledge and understanding. However, this claim does not imply that design works embody and/or communicate this knowledge. Indeed, Scrivener (2002, 33) avoids making such a claim, when he defines creative production as an “original creation undertaken in order to generate novel apprehension.”

In *Artistic Research: Theories, methods and prac-*

tices, Hannula, Souranta and Vadén (2005) devote a section to practice-based research within a chapter concerned with the methodological faces of artistic research. They argue that it is possible to differentiate between practice-based research and design-based research. In practice-based research, they continue, practice is seen as interesting in itself: the research subjects are, “the theory-infused analyses, routines, methods and habits of the field, different ways of seeing, cultural forms and structures.” (*Ibid.* 104). To illustrate this mode of research they compare it to studies in the sociology of science, arguing that the artist can approach his or her practice in the same way. Here they seem to be describing research into art and design, where the subject is the practice of art and design, in this case, the researcher’s own art practice. Later they write that a design component can be integrated into the research, to show the new kind of practice that is possible because of the research, thus introducing the possibility of research through design as substantial component within a programme of research into design.

In contrast, in design-based research method, the artist-researcher uses design as a research tool to attain a primary relation with the researched phenomenon. They explain that design as method can be justified from a sociological viewpoint of knowledge, in which scientific research is seen as being constructed of conceptual and material elements, and the varied interactions between them. In design-based research, knowledge and knowing are formed from the dialogic relationships between conceptual and material elements. Here, Hannula et al. seem to be describing a mode of research through art and design.

Finally, Rust, Mottram and Till (2007, 11), define practice-led research as, “Research in which the professional and/or creative practices of art, design or architecture play an instrumental part in an inquiry. This is not to say that practice is a method of research or, as some assert, a methodology.

Practice is an activity which can be employed in research, the method or methodology must always include an explicit understanding of how the practice contributes to the inquiry and research is distinguished from other forms of practice by that explicit understanding.”

The above statements point to different understandings of practice-based research. Indeed, most, if not all, of these roles are implied in Frayling’s (1993) discussion of research into, through and for art and design. Each attempts to describe how creative production figures in research. If not explicitly stated, each also attempts a description of practice-based research that distinguishes it from advanced practice. Frayling (*Ibid.* 5) makes this latter issue explicit towards the end of his paper, as a kind of justification for elaborating his categories, when he observes, “And we [at the RCA] feel that we don’t want to be in a position where the entire history of art is eligible for a post graduate degree. There must be some differentiation.” However, there is a fundamental problem with Frayling’s categories as means of differentiation. For example, Scrivener (1999) describes a number of projects where the focus is on enhancing the efficiency and effectiveness of design practices, partly achieved by research into and partly research through design. How should this mode of research be classified? This problem arises because Frayling’s categories describe the different roles of art and design in relation to research, *i.e.*, art and design as the subject, method and goal of the research, rather than types of research, which typically might be of subject, *e.g.*, psychology or sociology, *etc.*, or of method, *e.g.*, qualitative or quantitative, *etc.* That is to say, where type differentiates within one or more of the conditions of research,

Indeed, the whole debate surrounding practice-based art and design research can be viewed as not being about a type of research, but about how creative production functions in research:

does it have functions, what are they, and what claims do these functions imply? This is reflected in the statements above, which articulate different roles for art and design in research, *i.e.*, as the subject of inquiry, as method of inquiry, as goal of inquiry, as the means of communicating the knowledge and understanding acquired through the inquiry, *etc.* In the following sections, we will consider the potential roles of creative production in relation to each of the conditions of research, eliciting in each case the claim that follows from the posited role and the grounds for characterising it as practice-based research. Whilst it is not claimed that this analysis is exhaustive, we will see that many of these cases do not merit qualification as practice-based research.

ART AND DESIGN MAKING AND THE CONDITIONS OF RESEARCH

The “working” definition of research given above comprises six conditions: intention, subject, method, justification, communication and goal. In essence, the notion of practice-based art and design research rests on the claim that art and design makes a distinctive contribution to research in these domains: the knowledge and understanding acquired could not be acquired without this contribution. Every discipline is distinctive in terms of the subject of research, *e.g.*, psychology, physics, sociology, *etc.*, but clearly practice-based research is not simply a question of different subject matter. If it were, the labels Art Research or Design Research would be sufficient for purpose. But of course, research is not only distinguished by subject matter. Typically, subject matter calls for different research methods and forms of justification and communication, *etc.*, and it is these differences that are at the heart of the debate and the claims made for practice-based research. In the following sections, we will seek to make these claims explicit by examining the ways in which creative produc-

tion might feature in relation to the conditions⁵ of research.

Art and design as the subject of research

There appears to be universal agreement in the literature that research where creative production is the subject of inquiry equates to Frayling's (1993) research into art and design category. There are many instances of practice-based research where creative production is the object of inquiry. This kind of research requires no special justification except where the creative production disciplines choose to qualify research with the terms art or design. For such qualifications to be meaningful, some criteria or symptoms (*cf.*, Biggs 2002a) need to be identified that distinguish artistic or design research from the other kinds of research where art and design are the objects of inquiry, *e.g.*, by virtue of the kind of knowledge acquired, the point of view taken on the objects of inquiry, *etc.* The literature does not talk about this kind of research as practice based.

Therefore, the notion of practice-based research would not seem to rest on art and design being the subject of inquiry. Indeed, creative production is a valid domain of inquiry for a host of disciplines, which do not feel compelled to use the practice-based label. Similarly, if many disciplines can find good reasons for studying creative production, we should expect the creative production disciplines to find good reasons for studying subjects other than creative production, such as the mind, society, *etc.*, but unless the principles and practices of creative production are involved in the research in some substantive way, there is little reason for characterizing this as practice-based research.

5 Excluding the intention condition, which requires no elaboration.

Art and design as method of inquiry

As we have already seen, Rust et al. (2007, 11) refute the claim that creative production is a "method of research or, as some assert, a methodology." However, if not explicitly stated, many of the other definitions can be interpreted as treating art and design as method and/or methodology. "Research method" is perhaps best understood as a tool or technique employed within a conceptual framework. Under qualitative methods, Banister, Burman, Parker, Taylor and Tindall (1994) consider observation, ethnography, interviewing, discourse analysis, *etc.* Methodology can be understood as a body of methods used in a particular branch of activity, encompassed by a coherent set of theories underpinning those research practices. Typically, methodology reflects a school of thought about the objects of inquiry and how they can be known. In psychology, for example, Banister et al. identify positivist, realist and social constructionism schools of thought, the first promoting quantitative approaches to knowledge acquisition, whilst qualitative approaches are favoured under the other schools of thought.

Each of the above is often loosely referred to as method, but what is meant by the term when claiming creative production as method makes a difference. At its weakest, it is a claim for art and design as procedure employed in research, for example, to generate objects for analysis and evaluation. This is very common in art and design research (some of the "pioneers" identified by Gray (1998) fall into this category⁶), but it does not amount to research method or methodology in the

6 Scrivener's PhD concerned the development of interactive computer graphics systems for artists and designers. His contribution was a language for manipulating bit-mapped images. At the time bit mapped systems were still only available in the laboratories, so he and his colleagues designed and developed a bit mapped system to enable the language to be tested.

sense described above. A stronger claim is for creative production as method, in the sense of tool or technique, within an established research methodology, *e.g.*, Action Research. At its strongest, it is a claim to creative production as research methodology, *i.e.*, as a body of methods. In all cases, this can be described as research through art and design. When art and design is both subject and method of inquiry, then the research is both research into and through art and design.

The justification required for art and design as method varies depending on how method is understood. The weakest claim for method (*i.e.*, that implied in Rust et al., 2007) as a process encompassed within a given research methodology requires little justification. Here art and design process merely generates evidence or data on process or product for examination (Scrivener 1999; Niederrerr 2004). The claim that creative production is a tool or technique operating within a given methodological framework, *e.g.*, Action Research, requires a justification of appropriateness. The strongest claim of methodology requires a justification of art and design as a means of knowledge acquisition. In all cases, art and design processes and products function in a substantive manner: the research could not be conducted without them. However, there is an argument for suggesting that it is only the strongest interpretation of art and design as research methodology that merits qualification as practice-based research. Under the other interpretations, creative production is subservient to the research practice within which it sits, *e.g.*, sociological, psychological, engineering research, *etc.*

However, it is important to note that none of these claims for method implies a claim for works of art and design as a component of research. It is consistent to believe in creative production as research method whilst not committing to the idea of works of art and design as the goal of the research, the embodiment of the knowledge and un-

derstanding acquired or its justification.⁷

Art and design as communication and justification of research outcomes

New knowledge and understanding has been identified as the goal of research. A further condition is that the new knowledge and understanding acquired is stated in a communicable form. Here, from the creative production perspective, we are concerned with how knowledge is made explicit, *i.e.*, definitive, clear, unambiguous and objective, or external to the mind of the researcher, using artistic and designerly forms.

The simplest claim is for the use of the visual, a defining characteristic of visual art and a general predisposition or preference amongst artists and designers. Claims to the visual as a means of explicit communication can be made that include or exclude the “non-visual”, typically verbal statements. In both cases, in the absence of a claim to art and design as research methodology, there would seem to be no good reason for calling the research practice-based, since the lesser claims to method subsume creative production under non art and design knowledge acquisition practices, many of which also employ visual communication.

Alternatively, it can be claimed that the art and design objects are communicative forms of knowledge and understanding, meaning that works of creative production communicate knowledge and understanding. This does not imply a concomitant belief in the creative production as a method or methodology. For example, one might hold that such works are representations. However, as for the cases described above, the use of the term the practice-based research only seems justified when

7 For example, we might hold that knowledge and understanding is acquired in the creation of novel works of art and design that is not normally articulated publicly by the artist or designer.

communication is claimed concomitant with methodology.

Similar claims as those for communication can be constructed for works of art and design as justification of knowledge and understanding, *i.e.*, visual and non-visual, visual only, works of art and design. As for communication, the label of practice-based research is not justified in absence of a concomitant claim to methodology.

Art and design as a/the goal of inquiry

Above, the goal of research was defined as being to acquire knowledge and understanding. In this section, we consider how the goal of creative production might be understood in relation to the goal of research.

As noted above, Frayling's initial definition of research for art and design, as exemplified by Picasso's working practice, qualifies as research with a little "r". As noted above, toward the end of his 1993 paper, Frayling redefines research for art and design as that where the resulting product is an artefact that embodies the thinking, communicating the new knowledge acquired iconically or imagistically. This construction of *research for* posits roles for creative production as method, justification, communication and goal. The gauntlet, as it were, is thrown down for the art and design community to pick up, since this is essentially a claim for creative production as a mode of research in its own right, *i.e.*, art and design *as* research (*cf.*, Frayling 2006; Macleod and Holdridge 2006). Similarly, Gray's (1998) and Scrivener's (1999) definition of practice-based research as that initiated in practice and carried out through practice and Scrivener's use of the term research within art or design can be interpreted as claims for "works of" creative production as the goal of the research.

However, it is possible to make the claim for "works of" creative production as a goal of one's research, without claiming that the "the work of"

and "works of" contribute substantively to the research. One way of viewing this "goal only" claim is that it is merely an aspiration, the hope that some works of creative production will be produced, thereby maintaining the practice of creative production. There are good practical reasons for constructing a programme of research in this way, but few or no obvious conceptual reasons for doing so. Those experienced in research shy away from such unnecessary complication. The best we might hope for is a programme that achieves a useful dialogue between the two processes. Although this discussion might seem a little abstract, even absurd, such instances can be identified.

The claim for creative production as goal can take several stronger forms, depending on whether the goals of research and creative production are seen as different or not. If seen as different, then the claim is not for creative production as a mode of knowledge and understanding acquisition, but a claim that knowledge and understanding can be acquired in the context of creative production. Newgren (1998, 96) can be interpreted as saying as much when he asserts that design research "...simply serves as a guide to unravelling the mysteries of the unknown within the design process." Under this view of creative production as context (and goal), no claim needs to be made for creative production as a mode of knowledge acquisition. Instead it merely serves as an enveloping activity within which research takes place.

Alternatively, it can be argued that novel creative production that is new to the world of creative production extends the knowledge and understanding of that world. Hence, although the creation of novel creative production is the primary motivation or goal of the overall activity, new knowledge and understanding emerges as a necessary consequence of creative production (see Scrivener 2002). Viewed in this way, creative production, in pursuit of its particular goals and purposes, is a way of acquiring new knowledge and

CONDITIONS OF RESEARCH	ART AND DESIGN ROLES
Subject of inquiry	Art and design (no claim required) Non art and design
Method of inquiry	No role It is a source of evidence and data It is a research method (tool or technique) It is a methodology
Communication	No role It communicates (coupled with non visual) It communicates Works of creative production communicate
Justification	No role It justifies (coupled with non visual) It justifies Works of creative production justify
Goal of inquiry (creative production is a goal of the research)	No role It aspires to works of creative production It is a context for knowledge acquisition It yields tacit knowledge It is research

Table 1. Condition of research and claims for creative production in knowledge acquisition.

understanding. Like the practices of scientific research, the practices of creative production yield new knowledge and understanding, *i.e.*, creative production as research.

The claim to creative production as a mode of knowledge acquisition can be made in two ways. First, it can be claimed that whilst this is the case, under normal circumstances the new knowledge acquired remains tacit. The job of research, we might argue, is to make this knowledge explicit. Under this view, a claim is made for creative production as methodology⁸, but, in order to qualify

as research, it is one which must be coupled with a methodology for making explicit what is otherwise tacit. Second, in addition to the claim to knowledge acquisition, we might also wish to claim that the works of creative production stand as both justification and communication of the knowledge acquired. Under this view, the goal of creative production and research are indistinguishable: creative production is research.

CONDITIONS, CLAIMS AND PRACTICE BASED RESEARCH

Table 1 shows the roles of creative production in relation to the five conditions of research consid-

8 Unless we wanted to make cognitive explicitness a crite-

tion of research methodology.

ered. Given that each condition has a number of possibilities associated with it rather than one form of research we have six hundred and forty combinations⁹ (*i.e.*, $2 \times 4 \times 4 \times 4 \times 5 = 640$ disjunctive combinations) in which creative production figures in one or more conditions. At one end of the range, art and design research is simply the choice of art and design as the subject of study, with active creative production playing no role at all in the research process. At the other end, creative production is involved in satisfying all research conditions.

At this extreme, the claim is that creative production practices are research practices. In between these extremes, there are some combinations which hardly involve art and design, such as that in which parallel creative production is a mere aspiration. Many other complexions of research between the extremes involve creative production substantially. Whilst a substantial role for art and design production needs justification in every case, many do not merit qualification as practice-based research because the “work of” and “works of” creative production are not in themselves seen as knowledge producing. Only those cases where creative production is claimed as research methodology merit the qualifier “practice-based”.

CONCLUSION

We have examined the conditions of research, the different ways in which creative production might function in relation to them and the claims that follow from them. This analysis reveals that there are many different combinations of conditions and roles of creative production. It is reasonable to suggest that instances of many of these combina-

tions already exist in the research annals. We might find some combinations more interesting than others, but there is no reason in principle for saying that one combination has greater value than another.

Although the inclusion of creative production in research needs justification in every case, it had been argued that not all of these combinations merit the qualification practice-based. Indeed, the number of combinations that do is relatively small. Whilst there is a growing literature around the theory and practice of practice-based research, it is not always clear what claims are actually being made about the role of creative production in research and much of what is discussed does not merit the term practice-based research.

The idea of practice-based research would appear to hinge on the claim for creative production as a means of knowledge acquisition whether transferred using familiar “works of” creative production, or augmented by that which might be viewed as a residual of the exchange between the non public “work of” and the public “works of” creative production.

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⁹ Not all of these are likely to be independent. For example, the claim to creative production as research is also a claim for it as methodology, thus reducing the number of combinations.

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