

Artistic Research:
Is There Some
Method?

The publication of this book was supported by the Czech Science Foundation grant No. 16-00994Y "Performativity in Philosophy: Contexts, Methods, Implications" solved at the Institute of Philosophy, Czech Academy of Sciences, and by the Institutional Plan 2016–2018: Relevance and Methodology of Artistic Research at the Academy of Performing Arts in Prague

Peer-reviewed by Radka Kunderová

This work is licensed under a Creative Commons BY-SA (Attribution–ShareAlike) license. The license terms can be found at <https://creativecommons.org/licenses/by-sa/4.0/>

© Daniela Jobertová, Alice Koubová, Teemu Mäki, Kent Sjöström, Joa Hug, Tanja Gesell, Julian Klein, Bruce Brown, Janhavi Dhamankar, Michele Feder-Nadoff, Jina Lee, Michal Rataj, Günter Lösel, Emilie Gallier, 2026

Academy of Performing Arts in Prague, 2026

Cover & Typo:

© Jan Horčík (Heavyweight), 2026

Artistic Research: Is There Some Method?

Foreword: Artistic Research at the Crossroads of Two Academies DANIELA JOBERTOVÁ	7
Artistic Research: Quest for Method ALICE KOUBOVÁ	8
A Few Remarks on Artistic Research: Not only for knowledge TEEMU MÄKI	14
Perspective-taking in Artistic Research KENT SJÖSTRÖM	42
No solutions: The Research Score as a Medium of Artistic Research JOA HUG	54
Present Absent: Biomolecular & Artistic Structure Research: Is There a Method? TANJA GESELL	68
The Mode Is the Method Or How Research Can Become Artistic JULIAN KLEIN	80
The Ecology of Artistic Research BRUCE BROWN	86
Empathy-in-practice: A Method for Artistic Research? JANHAVI DHAMANKAR	102
Writing Sound: The Wacom Tablet – a Multifaceted Musical Instrument MICHAL RATAJ	112
Research Video: Annotated Videos as a Tool for the Publication of Artistic Research GUNTER LÖSEL	122
Read. Move. Implicated. EMILIE GALLIER	132

Drawing “New Maps” of New Malden Ethnographical Enquiry into the Joseonjok People by Means of drawing practice JINA LEE	144
Performing Knowledge: Between Praxis and Theory in Santa Clara del Cobre, Michoacán MICHELE FEDER-NADOFF	164
Name Index	190

Artistic Research at the Crossroads of Two Academies

The present book sets out for itself an ambitious goal: through the concept of *artistic research*, it endeavours to reconcile two very different approaches to the acquisition of knowledge: that of scientific academia on the one hand and artistic academia on the other. Both academies are fascinated with the same questions about the world and the humans living in it – about values. Yet the two approaches cannot reveal the same kinds of knowledge. Whereas science is inevitably more concerned with laws and principles, art claims uniqueness, originality, and personal experience; whereas in science the method for discovering knowledge must be replicable and available to others, repetition in the arts is regarded as a failure. Nevertheless, knowledge revealed through artistic exploration is transferable, shareable, and undoubtedly *useful* to others – even if not directly and pragmatically *usable* by them.

The Academy of Performing Arts in Prague and the Institute of Philosophy of the Czech Academy of Sciences have joined forces to bring together artists-thinkers from various fields and with various backgrounds, inviting them to share their concrete creative practices, to formulate the cognitive dimensions of these practices, and eventually – as academia obliges – to address the puzzling question of the method of their artistic work. While traditional research always positions itself within some kind of method, artistic (re)search can view the concept and obligation of a method as something that both hinders the emergence of

differences and is rather detrimental to the emergence of a work of art, even though the history of art (and the discourse of its historiography) abounds with methods. Answers to the question “Is there some method?” set out in the preamble of the publication – and at the international conference held at the Academy of Performing Arts in Prague in April 2016 – bear witness to a prolific tension, as the very search for a method has revealed the difficulty with methods. The authors of this book thus lay bare their thinking and actions, their hesitations and doubts, showing that artistic research is not about solutions, but about attempts; it is not about delivering results, but about sharing paths.

Daniela Jobertová
Vice-Rector
Academy of Performing
Arts in Prague

ALICE KOUBOVÁ

Artistic Research:

Artistic research can currently appear as a trendy business, with its advantages and disadvantages. It is dynamic and not restricted by any rigid definition. It exploits new possibilities by deconstructing the traditional dualities of European thinking, like the duality between science and art, perception and thinking, subjectivity and objectivity, body and mind. Artistic research develops its potential in different overlaps, tensions and boundary fields across disciplines. It is characterised by heteronomy, heterotopy, in-between space or polyphony of sources, procedures and results. As such, many can conceive of it as a progressive domain with a vast potential that has been suppressed until now in most artistic practice as well as in academic standards. Others can, however, for the same reasons, discard artistic research as a domain that is essentially blurry, works in a relativist and pragmatic way, lacking boundaries, shareability and control mechanisms. Therefore, the only novelty that artistic research proposes is to give a new name to a very old but not systematically developed activity.

Still, even if artistic research primarily were an activity with a fragmented history, many anteced-

Quest for Method.¹

ents and an unclearly formulated but existing tradition, the name-giving would not be a mere gesture. To give a name means to focus attention and create a field for support, investigation and scrutiny. Thanks to this name-giving to a map of thinking and doing, in other words thanks to this newly viewed *plane of consistency* (Deleuze, Guattari, 1987, 380), artistic research can become a new field of development and a significant political matter in the academic sphere. As such, it can show itself to be as blurry and innovative as other research disciplines.

The question of “what” artistic research is has been tackled in many publications. This self-referring and self-instituting question is of course pertinent – e.g. in philosophy, the fact that philosophers have addressed the question of “What is philosophy?” for thousands of years does not mean that philosophy would succumb to itself; quite contrary, philosophy has remained self-critical and rejuvenating. Yet rather than asking what it is, this publication investigates how artistic research is made, following Foucauldian perspective on processuality. Therefore, our book is dedicated to the authors who focus on the question of methods in artistic research, thereby revealing its unexplored potential.

1. This text was written with the support of the Czech Science Foundation grant No. 16-00994Y “Performativity in Philosophy: Contexts, Methods, Implications” solved at the Institute of Philosophy, Czech Academy of Sciences.

What context, points of departure and challenges can best delineate the framework of methods in artistic research? Here we must mention at least three features of this context: failure of the emancipation process of humanity, destruction of classical dualities and inconsistency as a part of the method.

First, with the understanding that the rational knowledge is for principal reasons unable to grasp the truth of the world, the modern project to emancipate humanity failed (Lyotard, 1984). Human subject showed itself decentralised with respect to the world and its conceptualisation. Instead of controlling and interpreting the world by using one tool or universal method, a human being is regarded as *always already* embedded in the world, being both the interpreter and interpretee of the reality. After this turn, the research needed to be shifted from “big narratives”, universal references and independent methods towards acceptance of the factual incompleteness, uncontrollability, radical alterity and situatedness as a part of human reality. What needs to be taken into account is the changeability, regionalism of knowledge and partial opacity of the researcher during the research process, so that the used methods become a research subject itself and thus substantially change the situation of the research as such.

However, how to deal with a field that is so changeable in time and space and that involves us – as artists, scientists and humans – without a clear separation from our research subject? This brings us to an even more challenging question: if this is our new condition, how to formulate the rules of this new game that can

still be called research and provide shareable knowledge without falling into mysticism, incomprehensibility or fetish of the personal experience? In other words, how to maintain the project of enlightenment in a more modest and decentralised way? What kind of coherence, communicability and convincingness can we achieve with (not only artistic) research if we want to comply with the postmodern and post-postmodern condition?

To answer these questions means to completely withdraw from the seemingly natural, traditionally proclaimed separated dualities between ideas and expression, deeds and words, hard science and pure subjectivism, stasis and dynamics. This is the second characteristic of the methods in artistic research. The mentioned dualities separate the investigating subject from the investigated object, discursive understanding from the act of experiencing, and research from arts, thereby enabling us to define the clearly formulated method. On the other hand, they completely deny the existence of anything that has been recently called, for instance, embodied mind, situated knowledge, thinking through doing, tacit knowledge, intertwining, acting utterance, much less give space for defining possible methods in this field.

Third, the method that can stand this specific condition must also incorporate different kinds of disharmony, inconsistency and disagreement. By refusing the strict separation of the body and mind, or that of research and arts, we are not entering a space of pure unification and harmony, be it in the form of “the truth of the body”, or “the mysticism

of the unity", hypnotic state of mind, entanglement and indiscrimination; instead we hope to learn that the dissimilarity and heterogeneity are present in another form. The denial of traditional dualities generates different kinds of iteration and shadows, blind spots and traces of alterity, irreducible otherness of what is being close, irremovable finality and temporality, regionalism and erring.

All these presuppositions make us reapproach artistically and scientifically the immemorial questions as to the meaning of human life, its values, ethics, and human well-being, as well as possibilities of artistic expression under these conditions. This book offers not only a range of proposals on how to creatively orient ourselves in this situation, but also on how to use the situation for future artistic creation and understanding of our world. While some of these approaches emphasise unification, others stress the need to keep heteronomy as a source of creativity. Yet they all seek to pass anew through the Scylla and Charybdis of subjectivism and objectivism, body and mind, arts and research, I and non-I.

The book is divided into three parts, which contain chapters referring to three different standpoints in methodology. In the first part of the book we introduce approaches that understand the coherence in artistic research differently than in a form of a harmonious umbrella of some unified conception of truth, value or beauty. Teemu Mäki's chapter develops the idea of a method as a polyphony, juxtaposition of two (or many) procedures, expressions and results that are not translatable into one another. The artistic work, experience and non-discursive understanding of

the world are juxtaposed to textual expression, discursive understanding and utterance. Mäki represents at the same time the pragmatic universalism. Pragmatism uses all methods that simply bring something "good" to the author and to the addressed without being necessarily usable at all times, everywhere and by everybody.

The second chapter by Kent Sjöström brings a detailed exemplification of self-distance. The chapter shows how the field of artistic research allows for and requires the creation of an appropriate and complex, non-unified topology of relationships, e.g. by offering creative gaps and tensions that enable one to take a distance from the very private agenda, or by approximating one to the otherness with a respectful and curious gaze. The coherence of this kind of structure has the form of a bricolage and collage, a building with different rooms that are not roofed by a unified ethos.

Yet another posthumanistic and performative model called *research score* is proposed in Joa Hug's study. Drawing on his artistic practice, "Manipulations", Joa Hug discovers the possibility of reflecting with artistic practice, where reflection and research is always transformation and distortion of experience. This aspect of betrayal or alteration is however presented as an appropriate and even creative gesture. Resigning from any "literal translation into discourse" allows for shifting our attention and "being in touch", i.e. we can handle the disagreement between language and practice, and accept embedded diffraction instead of separated reflection.

In a similar vein, Tanja Gesell develops a method that not only keeps

the appropriate tension between scientific and artistic approach (that can mutually inspire and provoke one another thanks to a well-chosen topology and dynamics), but that also encompasses absence, i.e. the impossibility to make visible all that the method involves. Tanja works in two domains: molecular biology and painting. She shows that to introduce structure that includes incompleteness and dynamics is vital for making important aspects of reality perform, or be at work.

The second part of the book presents another methodological attempt in the field of artistic research that defines the appropriate mode and domain of existence of this approach. Its ethos can be summarised as a “searching for a new home”. Julian Klein develops a model of the so-called artistic mode, which he distinguishes from other modes of perception, e.g. the transparent, aesthetic and semiotic mode. The artistic mode is characterised by its position at the threshold, mental decoupling that unifies “two or more layers of reality”. The artistic mode implies a playful stance in which we “take something for something”. To be in the artistic mode means to make a methodological gesture. It defines a practice and enables us to combine “constructive nature of perception and emergence of context”.

Bruce Brown's chapter reminds us that what should not be overlooked is the political dimension of artistic research. Since artistic research is a player in the social and academic-political field, we cannot disregard this aspect. In order to establish oneself in the frame of academic and artistic institutions, artistic research must present it-

self as a relatively unified domain that shares a common language and communicates its principles to the exterior in a comprehensible way. Artistic research needs to delimit a “well-rounded research environment”, its ecology. It needs to formulate what nourishes it and makes it flourish, how it can overcome obstacles and what increases its capacity to coexist with other ecosystems. It needs thus to speak about its specificities affirmatively and cohesively, despite the ephemeral, heteronomous and enigmatic aspects.

This demand is met in the chapters written by Janhavi Dhamankar, Michal Rataj, Günter Lösel and Emilie Gallier, who investigate in detail new formats of communicability, shareability and stocking of the results of artistic research. Janhavi Dhamankar investigates the conditions of possibility for using empathy-in-practice as a method for artistic research. Michal Rataj proposes new ways of “writing sound in real time” with the aid of the graphical/gestural interface of the Wacom tablet. This approach enables an interdisciplinary discourse in current music and technology development, performance theory and intermedia applications. Günter Lösel develops a web-based interactive video software designed to meet the demands of academic conventions and still transport the experience of non-discursive and dynamic artistic process. Emilie Gallier experiments with academic formats of sharing the knowledge. She studies the silent collective reading movement as a way of conducting research into the moment of presentation, i.e. as an artistic practice and transgression of academic normative codes. The last strategy proposed in the

third part of this book is the straight field research, (auto-)ethnographic approach, which uses artistic means, themes and case studies as a way of understanding the typical patterns and structures of human interaction, as well as cross-cultural understanding and misunderstanding. This approach is explored by Jina Lee and Michele Feder-Nadoff. Jina Lee presents a collaborative map-drawing project that aims at examining how movements of Joseonjok (Chinese Korean) immigrants living in London deconstruct and re-evaluate the notion of territorial borders. Jina uses drawing as a tool of in-depth communication that gathers knowledge and enables to speak about personal journeys and stories without the pressure of power and language hegemony. The long-term auto-ethnographical study by Michele Feder-Nadoff has a form of artistic research with/in the traditional mestizo coppersmithing community of Santa Clara del Cobre, in Michoacán, Mexico. Her study elucidates how knowledge and cognitive processes are generated through artisans' crafting and the development of skilled bodies.

This need to focus on particular case studies, events and practices characterises to some extent all the chapters in this book. Artistic research is always connected to particularity and practical knowledge, or *phronesis*, which embraces both the way of doing things and the values that such practice generates and includes. In this sense, we may conceive of artistic research as a domain where practical knowledge can be developed. *Phronesis* enables us to understand ourselves and the world without having clear, universal and pure, complete and exact explana-

tions. It also allows for understanding the world by changing it. The ethos of artistic research very often includes the needs of the artist to expand, to discover the political, social, cultural, ethnographic and ethical dimensions of her work, and to avoid the risk of falling into narcissistic self-expression. We hope that this subtext of artistic research will be clearly graspable and understandable within the entire book.

References:

G. Deleuze, F. Guattari, *A Thousand Plateaus*, trans. B. Massumi, London & New York: Continuum, 1987.

F. Lyotard, *The Post-modern Condition: The Report on Knowledge*, trans. G. Bennington and B. Massumi, Minnesota: Manchester University Press, 1984.

TEEMU MÄKI

A Few Remarks on Artistic Research

Artistic research is like a pair of production lines: one line feeds us with research texts and the other one feeds us with artworks and experiences of art.

Artistic research is practice-based or practice-led, but practice is not just a starting point, raw material or a research tool that artistic research uses to produce knowledge and theory. Practice, the artworks, are often also a goal and an outcome of artistic research, a goal and an outcome that can be as important or even more important than the research texts created.

The metaphor of “two production lines” can be misleading. It seems to imply that knowledge resides only in written articles, dissertations and theories, and not at all in artworks. It can give the impression that artworks deal only with emotions, sensations, aesthetic experiences, fantasies and maybe with less subjective reality too, but always in such a way that there can be no knowledge *in* artworks, only knowledge *of* them. It is indeed often thought that if artworks have any kind of role in knowledge production only the roles of raw material, object of study and illustration are possible. Artworks are then seen as mere launching pads that we must leave behind, that we

Not Only for Knowledge

must jump away from, in order to develop our knowledge in the clear air of pure reason until we are ready to land in the realm of well-reasoned research writings. This is a very common misunderstanding, even among artists and researchers.

In reality, knowledge and even theory reside also in artworks, not just in the research texts related to artworks. There is knowledge in the artworks and in the artistic experiences that we get from our interaction with the artworks. And only some of this knowledge can be extracted, verbalised and translated into research texts.

In spite of this, I find the mental image of two production lines useful, because it makes it clear that we produce two separate and yet connected things: artworks and research texts. I would add that knowledge is included in both of them.

*How to Be a Woman or a Man*¹ is a series of photo portraits I have made to investigate how people try to be women, men or some other gender. It is about how people channel, build and express their so-called femininity and masculinity. It is also about how they react to the male and female expectations that their environment puts on them. Some conform and try to fulfil the expectations.

1. A few samples and basic info about the photo series *How to Be a Woman or a Man* can be found at <http://www.teemumaki.com/teemumakiphotography.html#htbwom>, accessed 30 December 2016.

Some others modify the prevailing role models or rebel against them. And some are in total war against the binary roles and declare that they are neither women nor men, but something else instead. I have worked on the photo series for thirteen years now. I have also written an article on these themes, entitled: "How to Be a Woman or a Man and How to Die Well?" (2012–2016). For me this whole endeavour is artistic research, whose main focus is in the photos, not in the text that I wrote inspired by the photos. I worked on the text for a few weeks, but I've spent much more time during the years on the photos. The written article can help the viewer to get more from the photos, or the text can be a shortcut to some of the things in the photos, but most of whatever knowledge I have gathered in this project is embedded in the photos, not in the text. However, the written article is not just a shortcut for impatient audience or audience that is not very familiar with art. The other function of the text is that it has helped me as an artist on the way. Writing the article and updating it from time to time as I was working on the photos was a form of verbalised self-reflection that enabled me to update and improve my photographic method. Writing the text also gave me new ideas and inspiration about who to portray next and how. Thus, the written paper has been helpful to some spectators, hopefully, and to me as an artist certainly. It is still important to note that this project would be artistic research for me even if I had

not written the article — the photos are a form of research on their own. Not always and not automatically, but in this case yes.

Some people agree with this view of mine about artistic research, but not everybody. There are wildly conflicting views about the definition and purpose of artistic research. What often happens in artistic research is that artworks are sidelined or reduced to illustrations or lab tests that are used only to test and confirm the already created verbalised theory. For example, in selecting candidates for doctoral programmes, I have often had heated arguments with my fellow selectors about what criteria to use. I have often heard the claim that: "The artistic quality of the doctoral applicant's work does not matter, only the quality of the research plan that the applicant is proposing matters. Artistic quality is a side issue in artistic research, and is too subjective anyway. Artistic research really is about [written] research, and while artworks can have a role in that, their role is not artistic."² I obviously disagree with that argument. First, my view is that knowledge is important, but there is also knowledge embedded in artworks, and that knowledge cannot be clearly separated from the artistic quality of the artworks. And second, it does not make sense to narrow down the scope of artistic research by claiming that knowledge is its only goal when it is clear that often the main goal for artists who do artistic research is something else: better artworks and more rewarding experiences of art.

2. I do not have this in writing and I do not have a recording of it either, but it is an argument that I've heard more or less in this exact form again and again from different people in different academic and non-academic discussions.

*What is knowledge
(in artistic research)?*

There are many ways of how to define knowledge. Knowledge is often linked with truth, with what can be verified beyond doubt and claimed to be a hard fact. That can be a good definition in some context, but not in all. What would be a good definition of knowledge in the context of art and artistic research? There's no final answer to that. I myself use a very wide definition, which goes like this: "Knowledge is the mental or physical understanding or skill that makes us better able to do something, use something or predict something."³

As you can see, my definition of knowledge is very pragmatic and avoids the concepts of truth and fact. I am not dismissing the truth and facts. It is just that in situations where assumptions can be tested in practice right away, it is reasonable to trust *whatever works*, even when theoretical justification has not been verbalised and formulated. This attitude of course has risks. One might jump into a hasty and wrong conclusion, but in artistic practice, in art-making, it is often practical to keep on working in spite of doubts — the risks are easier to accept when we are making art, not performing heart surgery on a hunch. In art it is usually not a fatal problem to use uncertain knowledge and knowledge that is not universal, but tied to a certain viewpoint, because often art is more about proposing than proving. After the definition of knowledge,

I'll speak about the nature of artistic knowledge. What are the typical characteristics of the knowledge that art and artistic research use and produce?

ARTISTIC KNOWLEDGE
IS OFTEN:

1) Verbalisable only to some extent or not at all. We have knowledge that we are aware of, but cannot verbalise. In addition to that we also have knowledge that we are not aware of but that we can still fluently use. In art and in artistic research it makes sense to define knowledge in a way, which acknowledges the existence of silent and even unconscious knowledge. Experiential or physical holistic knowledge. By "physical" I mean the kind of understanding and skill that is a holistic experience, not just a verbalised, conscious line of reasoning in the head.

2) Based on bringing together various strands of knowledge or perspectives. Art does not usually aim at merging various types of knowledge and various perspectives into a single voice, but tries to compose something polyphonic out of them, something that does not flatten the diversity of being and knowing, but heightens it instead. In normal scientific approach, the research question is narrowed down until it and the method can be completely controlled. The narrowing down is seen as a fair price that we have to pay in order to get reliable and firm knowledge at

3. I started to use this definition when I wrote an article on artistic research called "Art and Research Colliding", *Journal for Artistic Research (JAR)*, 5 (2014), accessed 30 December 2016, <http://www.researchcatalogue.net/view/49919/49920>, <http://www.jar-online.net/index.php/issues/view/487>.

least about something. However, in artistic research and in art, that kind of focusing and narrowing down is not always a good idea, because art and artistic research are often less about solving a clear-cut, unequivocal problems. Instead, the challenge is to tackle a bunch of questions and problems that we have to face as a whole. "How to live?" and "What is good life?" are archetypical examples of questions that cannot be neatly sliced into separate, small questions, which could then be dealt with one by one. To some extent we can chop them up into smaller sub-questions, but if we go too far on that road, we lose touch with the main question. And after the chopping up we are anyway faced with the dilemma of how to compose a meaningful whole out of the little answers, how to create a functional combination of values and methods that would help us live better and happier lives. The research questions we try to tackle are often so multifaceted that this kind of multiplicity of simultaneous perspectives and a multipronged approach is absolutely necessary.

3) Qualitative knowledge about the meaning, and for example moral or aesthetic value of things. Art and artistic research can also make use of or be a form of quantitative research, in other words, research that is based on objective measurements and calculations and produces numerical knowledge, statistical facts and knowledge about the mechanical cause and effect of things, but usually the main focus is on qualitative research.

4) Dealing with impossible questions. With the word "impossible" I merely mean that there are questions that

are not problems that you can solve for good like you can solve a riddle, crossword puzzle or mathematical problem. Previously mentioned "How should we live?", "Why should we live?", "What is a good life?" are good examples of this kind of questioning. No permanent and complete answer can be found to them. And yet our well-being to a large extent depends on the way we *try* to answer them, again and again, what kind of incomplete and failing answers we create in response to impossible questions.

Knowledge of what?

I divide artistic knowledge into five categories:

1) Knowledge about how to make art

This is important mainly for artists, even though occasionally also the audience or researchers of art are curious about it and may feel or think that their understanding of art increases if they know more about how art is made.

2) Knowledge about how to enjoy art

This knowledge is important to the audience and we are all part of the audience. It is knowledge about the methods we use to milk some pleasure, understanding, knowledge, visions, meaningfulness or other rewarding things from art.

(3) (Knowledge about artists' intentions)

This might be interesting to researchers of art. It can also benefit the art-

ists; for them it can be enlightening to know what the colleagues have aimed at with their artworks and methods. There is always an intended meaning that the artist wants to convey and an intended impact, that the artist wants to create. And these tend to differ from the meaning, experience and impact that are born when the consumers of art interact with the artworks in their own ways. To understand the gap between these two can help the artist to improve the artistic method. However, for other people, this knowledge can be quite misleading and even harmful, as it is often used as a way of avoiding the artwork itself. It can be tempting to bypass the artwork and concentrate on the artist's intentions or biography instead, to create simplistic explanations and interpretations of the artwork without actually going through the trouble of analysing the artwork itself. It is a common mistake amongst consumers, but it is also very common in pedagogical texts, art historical writings and art criticism written by professionals.

(4) (Knowledge about art's impact on the individual and on society)

This can be interesting to all, but it is not clear to what extent this is *artistic knowledge*. Perhaps there is a clumsy analogy to gardening here. It is one thing to understand how to make plants flourish and what kind of meaningfulness and pleasure you can derive from gardening or from lounging about in gardens. That is the realm of "gardening knowledge". All that is quite separate from the

knowledge we can have about the business effects of gardening, what gardening does to the gross national product or the statistically significant impact of gardening on the eating or consumption habits of the population. It is clear that the latter does not properly belong to the category of "gardening knowledge". What about art? I think we have to admit that at least a part of the knowledge about art's impact on people has to be included in "artistic knowledge", because clearly, we can have no proper knowledge about how to make art and how to enjoy art if we do not have also knowledge about art's impact on people. However, we do not have to create a separate category for the knowledge about art's impact: we can also think that it is included in the two previous categories, in the knowledge about how to make art and how to enjoy art. No matter into what category we put the knowledge about art's impact, it is important to note that there is also the kind of art where the impact on the audience, on media and on society is not seen as something external to the artwork, but actually, as the main body of the artwork, where the public reactions to the artwork are the main source of artistic experience and interest for the audience. Let's consider for example the art of Santiago Sierra,⁴ who makes public, conceptual performances, installations and interventions that are meant to provoke reactions from the audience, the media and the authorities. In that type of art, the viewer's art experience comes only partly from the artwork itself, the second, equally important source are the reactions of others, the

4. The homepage of Santiago Sierra: http://www.santiago-sierra.com/index_1024.php.

impact that the artwork in question has on other people. Thus, an individual who tries to fully enjoy that kind of art needs to know both the artwork and the artwork's impact on society and the reactions of other people.

5) Art's knowledge about the world and us

This is the most important category of artistic knowledge. At least it should be. Art tells about the world around it and comments on what's going on in the world and in us. Art tests and criticizes the existing values and ways of living and proposes new ones if necessary. The other four categories of artistic knowledge are mostly introspective, they concentrate on what we can know about art. The fifth category of artistic knowledge turns our gaze outwards, towards the world and reality out there. It is all about facing and changing the world and us.

I have put the categories 3 and 4 into brackets, because I think they are not as important as the other three — at least not for the artist or the art lover.

And I really wish we — in art and in artistic research — would in future concentrate mostly on the fifth type of knowledge, that we would spend less time on navel gazing and more on dealing with the world out there, by artistic means. Otherwise we are like wannabe-warriors who never dare to leave the training camp to actually fight.

I understand well that not everybody thinks and feels like me about this. Some artists and researchers are into art, because for them, it is an escape from or alternative to the other spheres of life, to the econ-

omy, to politics, to philosophy, to social life, human relations and to the mundane grind of the everyday. And some others are like me, who see art as the most holistic and vigorous way of investigating and changing the world and us.

What is research and what is artistic research?

The most common definition of research says: "Research is an organised pursuit of knowledge." Thus, research is just the method, the strategy and tactic with which knowledge is reached or created. This is true about artistic research as well, but it is not the whole truth.

Research *may* become artistic research when art-making and artworks become a part of the research process.

Research *certainly* becomes artistic research when 1) artworks are an important part of the research outcome, the research results, and 2) the artistic quality — not just the epistemic quality — of the resulting artworks is thought to be important. When this happens, the link between research and knowledge loosens a bit: knowledge still is a goal of research, but not the only goal any more. Knowledge is a part of the content and quality of artworks, but artworks have other things too, and the research starts to appreciate this richness. *Artistic research is done not only for knowledge, but also for things that are beyond knowledge.* This is the truly a special feature of artistic research. In other respects, artistic research is not that different from what research is in other disciplines. In art and artistic research, we can steal from other disciplines, we can

take any method we find useful, and we can develop new methods of our own, but that is true of all fields of inquiry.

How to define “the organised pursuit of knowledge” in the arts? It can be difficult. Sometimes the method of the pursuit of knowledge and its organisation is hard to detect in art, hard to verify and hard to translate into pragmatic text. As far as the research texts go, verbalised reasoning can of course be made clear and arguments can be logically tested and justified, but when the research process includes art-making, and research outcomes are artworks or include artworks, things get more complicated and more open to several interpretations.

The pragmatic solution is simply to scrutinise, test and evaluate written knowledge in artistic research separately, using one method, and then to evaluate the artworks using another method, and reason that if the artistic results are great and if there has been long-term progress there must have been some kind of organising method involved too, even though the artist perhaps did not write down or verbalise any method. “The proof of the pudding is in its eating”, as the old saying goes. This may seem unsound as a research attitude, but it is just how the two production lines work: written knowledge and artworks are produced side by side, in parallel lines, referring to each other but they never quite touch each other, and certainly never merge into one.

The five (or six) traditions of how to combine art and research

The traditions of how art and research have been combined are:

1. RESEARCH FOR ART

Artistic work usually includes some kind of research. It is research of both form and of content. You try to improve your technique or create a new style or adopt or invent methods you didn't use before. And in the preliminary research phase you research the theme and the topics that your artwork will be about also by non-artistic means.

As an example of this I'd like to present a collective painting⁵ project I did with Senegalese art students and artists a few years ago. I led a group that made a painting called *Dakar Triptyque 2012*⁶, for the Dakar Biennale. For the painting we first researched what the most important socio-political problems and conflicts in Senegal are today. Overfishing was one of the main themes we found and selected for our painting. What we found out we condensed into the following info text, which we wrote onto the surface of the actual painting: “Earth's fish stocks are disappearing, because of overfishing. 30% of sea fisheries have already collapsed. Along the coast of Senegal, the fish catches are now only 20% of what they were 10 years ago. This is catastrophic, because the Senegalese get 70% of their protein from fish, and fishing and fishing related functions give jobs to 20% of the working people of Senegal. Overfishing is not done by the Senegalese, it is the international super-trawlers and

5. More info about the collective painting practice that I've kept up since 2004: <http://www.teemumaki.com/teemumakipaintingdrawingcollectives.html>

6. Images and more info about the *Dakar Triptyque 2012*: <http://www.teemumaki.com/coll-dakar-triptych-2012.html>

floating fish factories that are plundering the waters close to Senegal. There are no international fishing agreements that would effectively limit overfishing. But there are effective barriers around Europe that prevent illegal immigrants — like jobless Senegalese fishermen — from entering EU.” This was typical, non-artistic research that artists do for their artworks or as a part of their art-making process. As a part of the collective painting process we also of course had to research how the various artistic methods and painting styles of the Senegalese could be combined and mixed with mine, whose background in Nordic culture and academia is very different from the Senegalese. But this aspect of the research is of course already more artistic — more about art — than the non-artistic research of overfishing. The important point here is to acknowledge that it is common to do some kind of non-artistic research as a part of a fully artistic project.

Another thing to point out is that in *Dakar Triptyque* some of the content is completely clear and unambiguous, but that does not prevent the painting from having other aspects, other spheres of content that may be ambiguous or escape verbalisable interpretation and translation. There is nothing ambiguous in the facts about overfishing and its effects and I believe we also communicated that directly and clearly, but for us, the group who made the painting, this direct aspect is only one of the aspects of the painting. And the other aspects, other themes and modes of investigation and communication are at least as important as the direct and clear one. It is a generalizable fact: an artwork can have simultane-

ously both univocal and ambiguous content, without them neutralizing or spoiling each other. It is NOT a zero-sum game, where precise argumentation and undeniable facts would compete with the poetic stuff (open to several interpretations) and one would win or they would possibly cancel each other out. An artwork is like a polyhedron, which can have as many facets as the artist wants to or knows how to make. Some of the facets may be pure info and facts, some may be political claims supported by clear argumentation, and some may be “pure poetry”: open to multiple interpretations and only partly verbalisable — if at all. Understanding this makes an artist or artist/researcher free, because once you realize that it is not a zero-sum game, you know that no matter how much ordinary research and its univocal results you use and add to your artwork it will not automatically destroy the poetic potential of that artwork.

2. RESEARCH OF ART

This is what art historians traditionally do. Critics and theorists do it as well, but the difference is that art historians tend to remain fairly descriptive, whereas for example art theorists are more openly prescriptive; they not only explain what happened, but also make claims of what should happen (in art).

3. ART FOR RESEARCH

This is the kind of research that uses art-making as a part of its research method, but aims to produce just verbalisable knowledge and not artworks. If you research new techniques of etching, to develop the old

printmaking technique further, you can do it by making new artworks, etchings, and by reporting the technical experiments and findings you have made in that process. However, in your research report you can completely skip the artistic content and value of your new artworks. In this kind of project, the new artworks are not part of your research outcome, at least not as artworks. For the research project the artworks are only technical test proofs or evidence of successful lab tests.

Another example would be a project where you organize a participatory theatre or photo workshop for teenagers in which the goal is to empower them, to make them more aware of their inner life and position in society. And the other, more research-oriented goal is to gather knowledge about how they are, how they think and then, later, how the workshop has influenced them. In practice you maybe get at least three kinds of data during the project:

(a) You maybe interview the participants at the beginning of the workshop and at the end of it and thus get a lot of before and after info about who the participants are and what happened to them during the project.

(b) You maybe keep some kind of diary and document what happens during the participatory project.

(c) In the end you get the finalized theatre performance or the photos as the third raw material that you can study.

Art-making and its end results are here an integral and essential part of the research process, but the artistic value of the artworks is irrelevant as far as the research is concerned. However, it is not quite

as clear-cut as this, because artistic quality is defined often differently in participatory art than in other arts. If the workshop was rewarding to the participants then, according to the criteria of participatory art, it was good art. In participatory art you do not necessarily care whether the artworks are rewarding to outsiders at all — sometimes you do not even share the artworks with outsiders. On the other hand, it is likely that this kind of workshop is hardly very successful from the research point if the participants didn't find it rewarding. In spite of that, this is a form of research, in which at least in principle it is possible to do research without caring at all whether the art used in it is any good or not.

4. ART + WRITTEN THEORY = ARTISTIC RESEARCH

This is the most straightforward academic model for artistic research. You make artworks and you write a dissertation that is related to your artworks. Both the artworks and the dissertation are part of the research results, the research outcome, and the artistic quality of the artworks is their most important aspect. In some cases, the idea is that the artworks are autonomous, they can be enjoyed without the written dissertation, but the dissertation only makes sense with the artworks. In that case the artworks are usually somehow included in the written part, not just by descriptive texts, but also as images or video or audio recordings or for example sheet music that are incorporated into the dissertation. Sometimes the link between the artworks and the written part is not so tight. The art part of my doctoral

work was an exhibition (in Helsinki Art Hall / Kunsthalle Helsinki⁷, 2002) of paintings, photos, installations and videos I had made during my doctoral studies. A catalogue was published about the exhibition, but that was not the dissertation. The dissertation was a book of essays, *Darkness Visible – Essays on Art, Philosophy and Politics*⁸, published much later, without any images, and which was meant to be completely independent and understandable also to people who have never seen, heard or read any of my artworks — and perhaps never will.

5) ART AS RESEARCH (= ANOTHER TYPE OF ARTISTIC RESEARCH)

‘Art as research’ is a fairly radical idea. It claims that art itself can also be research, that art can be a holistic form of research, in which the knowledge does not have to be verbalised and written down. What is the difference between this tradition and the first one, “research for art”? If some kind of research — like in the case of *Dakar Triptyque 2012* — is usually a part of all art-making, when does that “research for art” evolve into “art as research”? The difference is vague and debatable, but I think it makes sense to talk about “art as research” only in cases where we can see that the artistic method and its end results have an exceptionally searching, critical and innovative quality. The critical tendency should always include critical self-reflection, in which the artist is willing to doubt and test also

the artist’s own core values, habits, premises and artistic methods.

Later in this article I will talk a bit about the music of Miles Davis as an example of high quality ‘art as research’ type of artistic research. In that chapter the focus will be on how effectively artistic knowledge about how to make art was created and passed around in the bands of Miles, without anything written down and very little spoken. Before that chapter I want to point out that the music of Miles can also be heard as research of human condition and new, meaningful modes of existence. Of course, all music is telling in this sense, all music is an expression or embodiment of some outlook on human existence, of some political and philosophical values, but there are crucial differences. There is music that is conformist and looks for nothing new. It has no critical doubt about the value system it grows from. That kind of music makes no research, it merely expresses and embodies what is already there and supports and solidifies the status quo. But then there is music like Miles made during certain periods of his career, music that researches new values, new practices, is critical of old ones and poses an artistic, aesthetic, political and philosophical challenge both to the players and to the listeners. I’m now mainly thinking of the so-called first electric period of Miles (about 1969–1975), which came as a shock for many and which many hated and dismissed as something that is “too simple and predictable”, because Miles brought in rock, funk

7. Helsingin Taidehalli. <http://www.taidehalli.fi>

8. Teemu Mäki: *Darkness Visible – Essays on Art, Philosophy and Politics* (Helsinki: Academy of Fine Arts 2005/2007), accessed 30 December 2016, <http://www.teemumaki.com/teemumakitext.html>.

and African rhythms and minimalist bass ostinati and made music that often stayed in one chord for a long time without harmonic development. However, at the same time some others complained that the music was “too complex and chaotic”. Why? Because it had atonal free jazz bursts breaking and interrupting the repetitive funk or played on top of the funk. And it had an extremely dense and non-hierarchical group sound, i.e., a lot of things happening simultaneously and in no specific order of importance. And the focus was often on complex collisions of colour, texture, noise and rhythm instead of clear ordering of pitch and harmony. I claim that this music as such can be heard as serious research, both in form and in content. Its form asks: “What kind of new musical structures and ideals of beauty and enjoyment can we create?” Its content asks: “What kind of new values, moral or whatever, can we find and create to propose a new, richer and more flexible definition of good life?” The artistic research aspect in this endeavour is that 1.) these research questions can be approached without writing anything down or even speaking, and 2.) the form and content are largely inseparable.

Perhaps a more immediately understandable example of art as research are the theatre pieces that Susanna Kuparinen has created in Finland in recent years. She has directed so far six documentary

theatre plays, in which almost the entire dialogue is derived from the Helsinki City Council meetings and plenary sessions of the Finnish Parliament⁹. The director Kuparinen is also a journalist, and her team has gone through thousands of pages of the official transcriptions of what has been said in City Council and in Parliament. They searched for passages that would embody and reveal the key developments and conflicts in current Finnish politics. This preliminary, non-artistic work took at least as much time as the more obviously artistic work of building a theatre script out of this material and then rehearsing and putting it on stage. The research questions of the background and preliminary research were very simple, like this: “What’s going on (in Finnish politics)? Who exploits who and how? Who benefits from the current mental image that the majority of Finns have about Finland, of the image that says that the poor are lazy and we cannot afford the welfare society anymore?” All this research could have been channelled into journalism or into academic research texts, but Kuparinen wanted to use it in theatre instead. However, the theatre plays that were created from this research material are not just ways of communicating the results of investigative journalism. It is better to see the theatre plays as a continuation of a research process, whose first part was the journalistic investigation of the tran-

9. The documentary plays directed by Susanna Kuparinen are: *Valtuusto* (City Council, 2007), *Valtuusto: Välikysymys* (City Council: Interpellation, 2008) and *Valtuusto: Uusi etulinja* (City Council: The New Frontline, 2010), all three made at Ylioppilasteatteri (Helsinki Student Theatre). Accessed 30 December 2016: <http://www.ylioppilasteatteri.fi/pub/historia/valtuusto.html>, <http://www.ylioppilasteatteri.fi/pub/historia/valtuusto2.html>, <http://www.ylioppilasteatteri.fi/pub/historia/valtuusto3.html>.

Eduskunta: Poliittinen satiiri vaurauden uusiajoista ((Parliament: A Political Satire of the Redistribution of Wealth, 2011), *Eduskunta 2: Satiiri veljeskuntien Suomesta* ((Parliament 2: A Political Satire of the Finnish Cronyism, 2012) ja *Eduskunta 3: Satiiri yhden totuuden maasta* ((Parliament 3: A Political Satire of the Country of One Truth, 2015), all three made at Ryhmäteatteri, Helsinki, 2011–2015. http://www.ryhmateatteri.fi/ohjelmisto/eduskunta_ii, http://www.ryhmateatteri.fi/ohjelmisto/eduskunta_iii

scriptions of sessions of the City Council and Parliament. The theatre works, their content, cannot be reduced or translated to journalism or written research articles, because the performances widen and deepen the research process so significantly.

One of my most recent theatre works is another example of art as research: *Transformations - Rewriting Masculinity / Otteita Maskuliinisuuden sanakirjasta*¹⁰. This is a documentary theatre piece that I made with transgender people. Its main themes are gender, sexuality and the fear of the other. Its ingredients are:

1) Filmed interviews with seven transgender persons, 60–90 minutes each.

2) Five transgender persons performing dance and spoken word scenes, from their own lives, live on stage.

3) A dictionary/essay on the relevant terms. Presented live as spoken monologues.

4) Photos of these transgender persons at various ages and stages of their life.

5) Documentary film clips of the “enemy”, showing how the enemy thinks not just about transgender people, but also of all the other things that the enemy sees as a threat to the heteronormative world order and binary gender system.

6) Five transgender persons speaking the “enemy’s” lines live.

7) A selection of music.

I interviewed the performers in a very strict documentary manner, one by one, asking each of them the same 54 questions about gender and pol-

itics. In addition, I wrote an essay/dictionary about gender, transgender, sexuality and the fears that so-called normal people tend to have about the so-called gender and sexual minorities and other kind of otherness as well. And I asked to see the family albums of the performers and took also new portrait photos of them to show the transformations that they’ve gone through and used both photo materials in the theatre work. Everything in this process was just about documenting and about gathering and producing ordinary knowledge by ordinary, ‘academic’ ways. Even the dance scenes were developed in a documentary way. I asked the performers to look for gestures, positions and short movements that they considered to be emphatically feminine or masculine. I also asked whether they could find any kind of gender-neutral body movements or phrases. The performers fulfilled the task and found physical material, from which I (with the help of the assistant choreographer PIA LINDY) composed the dance scenes of the piece. Artistically, a special feature in this process was that almost all the materials — except for the music I chose to use — were completely or mainly non-artistic. Most of this process was non-artistic research. The mode switched to a more artistic one only in the final stage, during which my task was to direct, compose and arrange the materials into a two-and-a-half-hour-long theatre work. In spite of this, I consider the piece to be as artistic as my poetry, paintings or some other, more obviously artistic

10. *Transformations - Rewriting Masculinity Otteita maskuliinisuuden sanakirjasta*. Mad House Helsinki, 2016, directed by Teemu Mäki, <http://www.teemumaki.com/theater-transformations.html>.

works in my oeuvre. This way of making art is of course nothing really new, but it seems to me that this kind of method, where much of the work is non-artistic research, is much more common than it used to be nowadays. More and more often, art is made by arranging and composing from facts and from bits of reality, without any need to invent metaphorical fairy tales and fictitious characters and situations.

(6) (RESEARCH AS ART)

When we talk about the relationship between art and research we tend to look at it from the viewpoint of art, asking: "In what sense and way can art become research or incorporate research into itself?" However, the topic can be approached also from the opposite perspective, asking: "Can research be art? What happens, when research turns artistic, i.e., adopts practices and goals of art?"

Research does indeed sometimes become artistic, but I'm a bit reluctant to add it to the list above. One reason for that is the fact that "research as art" is if possible even more unclear as a concept than other concepts that describe the various ways that art and research can intertwine. It is a concept that is used to define at least four different things:

- 1) When regular research produces something that is not just informative but also nice to look at, it is occasionally presented as art or "research-cum-art". When, for example, mathematicians research fractal geometry, they use and produce images that some people think are so pretty that they can be seen as art too. Also, images produced by microscopes and telescopes in scientific

research are occasionally presented as art — in addition to their scientific function. It is of course okay to do this if you find it entertaining, but I think it is misleading to use the label "research as art" for that. If some people think that a thing is pretty, it does not automatically mean that it would make sense to think of it as art. The prettiness of this kind of images is also unimportant to the research that produces the images. Beauty is thus merely an accidental by-product of a process, where research and art or beauty are not really collaborating with each other.

- 2) Communicating the results of scientific or humanities research is nowadays often seen as art or it is done by artistic means. When I worked as a professor in Aalto University, the Department of Art was often asked: "Could you create ways of visualising climate change in such a way that it would force people to stop, pay attention and understand?" As different branches of science and humanities are struggling for attention and funding and worried about their impact on society, marketing or communicating the results of their work is now more important than before. Again, it is okay to do this, and to use art for it, but it is misleading to use the label "research as art" for it. It is not a form of reciprocal collaboration of art and research, but just a branch of marketing and communication.

- 3) Sometimes a research method or style of expressing its results seems so idiosyncratic or 'arty' that the research is seen simultaneously as research and as art. The philosophers FRIEDRICH NIETZSCHE and GEORGES BATAILLE are obvious examples of this. Almost all their phil-

osophical output is written in such a free and poetic style that it still probably would not be accepted in any department of philosophy even today as the writing style of a serious academic. The paradox is that, in spite of this rejection, the university world has often eagerly accepted and appreciated the end results of this “forbidden style” afterwards. Nietzsche and Bataille are intensely studied and respected as important philosophers. The academy in effect says to them and their kind: “Yes, please make philosophy in your own way. We also want to enjoy the fruits of your labor. Just do not do it here.” Nietzsche and Bataille were quite versatile and wrote in many styles or voices, ranging from a very dry to wildly poetic, but it does not make sense to divide their outputs into separate baskets of “philosophical texts”, “fiction or prose” and ‘poetry’. Instead, it is better to see for example Nietzsche’s whole written output as a multifaceted philosophical pile of insights, value judgements, lines of thought and lines of research, where all texts are equally philosophical, no matter what the style is. These philosophers proved that science or research really can become art or have a double life both as science and as art. However, I think it is good that no separate category has been created for this kind of philosopher, and it is for the greater good that arty philosophers are not segregated from their more straightforward and unequivocal colleagues, because as long as they are in the same basket with all the other philosophers, the artistic ones have a better chance of being taken seriously. No special label or category needed — it is quite enough to simply admit that some

philosophers are also artists, or that some philosophers need to use quite a poetic language and style.

4) There is a theory that claims that there has recently been a so-called “theoretical turn” in the evolution of art. This theory came about in the contemporary fine arts, and its proponents claim that nowadays texts about art are often more important than the artworks themselves. Artworks can be meaningless without the accompanying theoretical texts and the texts can be more complicated, richer and overall more rewarding than the artworks, both intellectually and emotionally. The function of the text is not anymore to help us to milk more nourishment from the artwork or to be a shortcut to the artwork’s potential rewards. Instead the text has taken over and the artwork is just a starting point or stepping stone, from which the theoretical text starts its magnificent flight. As a line of thought this is logical, but in practice few would be in favour of using it for example in music, film, theatre or dance. Few people would say about a dance piece or a piece of music: “Yes, of course as such a piece of art is nothing much, but if you know the theory it is related to you’d find it really mesmerizing — actually the theoretical texts are the real thing and this dance and music performance can only give just an inkling of it.” In the contemporary fine arts scene this attitude does however have its fans and theorists. ‘Theory as art’ is their chosen religion. It is also a self-fulfilling prophecy: contemporary art museums and biennales show a lot of art that is not understandable or enjoyable on its own, it desperately needs the accompanying texts to make any sense

or yield any pleasure. Paradoxically, often the theoretical texts of art do not necessarily need the artworks any more. To enjoy the theoretical text, you do not necessarily need to see or hear the actual artwork, it is often enough to read the description of it, since the meat of the matter is meant to be in the written theory, not in the artwork that gave the inspiration or spark to its creation. As you can hear from my boring blasting, I do not like the so-called “theoretical turn”. I do not think it is good for art or for us. And I certainly do not think it is in any way inevitable phase in the evolution of art. I can happily admit that some theoretical writing based on art is really great and autonomous: it is rewarding to read even when one hasn’t seen, heard or experienced the artworks it is based on. However, I do not see that kind of theoretical writing as “research as art” or even as “theory as art”. Instead, it is just a theory of art that has turned into self-sufficient form of philosophical or political writing. It should not conquer the space of art, it should not enslave art or claim that artworks as such are now useful only as firewood or springboard. What is then the difference between the artistic or poetic way of writing philosophy, which I praised in the previous point, and the ‘theory as art’ method that I’m dissing now? The difference is sometimes vague, but usually very clear. Nietzsche and Bataille widened the scope of philosophical practice by incorporating artistic means into their way of writing philosophy. The people who praise the theoretical turn do the opposite. They see art as a mostly barren, exhausted field and they want to escape from there into the realm of written, totally verbalis-

able philosophy. I think it is a game of diminishing returns, a defeat of both art and philosophy. If the theoretical text really achieves such conceptual excellence and poetic quality that it becomes both intellectually and emotionally a more rewarding source of experience than the artwork, then the theory which wanted to become art does fulfil its promise. But it rarely happens. The texts created by the proponents of the theoretical turn do the opposite: they tend to create texts that flatten art into illustrations of what has already been written in ordinary philosophy and fail to make use of the holistic potential of art. Unfortunately, many people in the field of artistic research do not detect this problem. They still occasionally make art, but their real interest is in written theory. This is of course perfectly okay, but it is not okay if your artworks are feeble and your theoretical writings do not really need artworks any more — at least not your own, unmotivated creations. At that point it would be better to stop artmaking and also stop pretending that your research and theory is still somehow artistic.

The definition of artistic research is still so flexible and contested that in practice all the five or six ways of combining art and research I listed can, depending upon the context, be called artistic research. However, I myself prefer a more narrow definition. I think it is meaningful to label something as artistic research only when artmaking is a necessary research method in it and artworks are an equally necessary part of the research results. Sometimes artmaking may even be the only research method and artworks the only research

result, but usually artistic research is made with a twofold method, where both research texts and artworks are created.

It is also crucially important to realize that artistic research creates knowledge, but also tries to go beyond knowledge. What is there? Art experience, pleasure, a more meaningful, richer and intensive experience of existence and an endless struggle with the ultimate question: "What is good life?"

*How shareable and verifiable
is artistic knowledge?*

Knowledge should be shareable. If I know something that is terribly important to me, but cannot share this knowledge, its societal impact will probably be small. Shareability is an important goal also in artistic research. We want to produce knowledge that everybody, or at least many people, can use. Knowledge should also be reliable. Also, artistic knowledge must be something more certain and useful than mere guesses and opinions.

How shareable and reliable is artistic knowledge? If artistic knowledge is often only partially verbalisable, how to share it? If artistic knowledge can even be unconscious knowledge, how on earth can it be tested and verified — if the person who knows does not even know that he knows? Because of these doubts many think that art and artistic research cannot be taken seriously as forms of knowledge production. This scepticism is especially common in academia. Artistic research is a fairly young discipline, which faces a lot of belittling and resistance and therefore has to put in an extra effort

to prove its soundness and right to existence.

In spite of these common concerns, my view is that shareability and verifiability are NOT insurmountable challenges in artistic research. The knowledge that artistic research produces is in its own way verifiable enough and quite efficient-ly shareable. Here is why:

1) ARTISTIC KNOWLEDGE IS
OFTEN AS CLEAR AND CER-
TAIN AS ANY ORDINARY
SCIENTIFIC KNOWLEDGE.

Some artistic knowledge is hard to verbalise and verify, but not all. It is an often-overlooked fact that art and artistic research often use quite ordinary methods of producing knowledge and the results are then easy to verify.

If you develop a method of how to learn to play the piano in such a way that you can play even the fastest passages faultlessly and with complete control of touch, there probably is nothing mysterious or imprecise about your method. Sharing the method is also probably quite straightforward too: "Do these exercises daily in this manner and check your progress monthly like this..." You are probably also able to explain how you, through trial and error, managed to develop your training method.

In an artwork or in an artistic research project that includes both artworks and non-artistic research writings, you might also try to develop effective measures for minimizing climate change and its harmful effects. It means finding or creating various measures and testing their efficiency. The conclusions of that kind of study may be as verifiable

and clear-cut as anything produced by non-artistic research. Often the difference is just in the manner of presentation: art allows a more free and versatile way of presenting the research outcomes than other disciplines. This freedom and diversity does not mean that the results presented would be imprecise or unreliable. The freedom and diversity does not mean that this way of communication would necessarily be ambiguous, too open to wildly different interpretations.

CHARLI CLARK's *Eat Like a Bee – Translating Histories*¹¹ is a good example of this kind of artistic research. This is both an art project and an artwork, but there is nothing hazy or unclear about its research questions, methods and conclusions. I know it pretty well, because Charli was my student at the time. In the project she researched what bees eat or rather what bee farmers feed bees with and how that influences a) bees' health and b) the taste and nutritional value of the honey that bees produce. Not surprisingly, her findings were that when bees are fed only with white sugar — normal practice in apiculture — the health of the bee population decreases, as so does the quality of the honey. Charli also researched alternatives, what the buzzers could be fed with instead of white sugar, to help the bees and to improve the honey. The whole study was "academically sound" in the most

ordinary sense of the word and yet it was an art project, because the research findings were presented in participatory events and art installations and the content of those artworks cannot be reduced to just the facts conveyed. The artworks communicate the results of a non-artistic research project, but they also offer fully fledged art experiences with all the emotional, aesthetic, holistic and ambiguously poetic qualities that we tend to expect from art. Charli's project is as an example of how art today can fluently adopt non-artistic research practices without losing its artistic identity. Furthermore, projects like the one Charli made are nowadays normal and common in art, not weird exceptions.

RON LEFT's doctoral work is another example of artistic research that produces ordinary, certain knowledge — but of a quite different type from the knowledge that Charli Clark's MA diploma work produced. Left's doctoral thesis is called *Painting and time: the dynamic of the actual and the virtual* (Auckland University of Technology, 2016). I was one of the three examiners of it. It is a normal artistic research thesis that consists of two parts: pieces of art and a written dissertation. There were two research questions¹². Left had formulated them in an academically convoluted manner, but I can translate them into plain speak like this: A) "How to use GILLES DELEUZE's phil-

11. Charli Clark: *Eat Like a Bee – Translating Histories* [website], accessed 30 December 2016, <http://charli-clark.co.uk/filter/Pollen/Eat-Like-a-Bee-Translating-Histories>.

12. "A) A consideration as to whether Deleuze's interpretation of the nature of the actual and the virtual, and his idea of 'reciprocal determination' between the two, might provide a new analytical tool in the study of creative practice. B) Secondly the project explores the possibilities for these ontological notions to be used as a catalyst for the generation of new creative work." Ron Left: *Painting and time: the dynamic of the actual and the virtual* (Auckland University of Technology, 2016), page 64, <http://aut.researchgateway.ac.nz/handle/10292/9606>.

osophical concepts of the ‘virtual’ and ‘actual’ to research and analyze artistic practice?” B) “How to use these Deleuze’s concepts to generate artworks?” Even though Left’s project was an audacious and very personal attempt to use Deleuze’s messy philosophy to study artworks and artistic process, his research was not vague at all, its questions, methods and outcomes were quite clear and certain.

What was he actually researching? What did he need to prove, so that we, the examiners, could approve his doctoral thesis? What were the research outcomes? Firstly, he had to prove by his writing that he really knew and understood Deleuze’s philosophy, especially what Deleuze meant with the concepts of the ‘virtual’ and ‘actual’. There is nothing vague about that: either the candidate knows the philosophy in question or does not. After that he had to show by writing and by images how he had applied Deleuze’s philosophy in his artistic process and in the analysis of the artworks the process resulted in. He had to open and share his own thinking and artistic process and demonstrate that his line of thought and artistic choices had been coherent and based on the understanding of the aforementioned concepts. He did not have to prove that his way of applying Deleuze’s philosophy on painting is the only or the best one — not even for himself. What about the second research question? He had to tackle that by painting works that were inspired or nourished by Deleuze’s philosophy. And in his dissertation, he had to tell how that inspiration or nourishment actually manifested itself in his case, in his artistic thinking and painting. For us,

the examiners, it was relatively easy to inspect and verify these things by digging into Left’s dissertation and artworks. His project was very personal and concentrated almost solely on his own case, but it still produced hard facts: “Deleuze’s concepts can be used in a logical way to analyze and make art, for example like this.” The hard facts were one research outcome, the artworks the other. The artistic quality of the latter of course cannot be as objectively assessed as the quality and reliability of the written knowledge the research produced, but that is another matter anyway — the only totally undeniable fact about artworks in general is the fact that they exist.

In biology or in physics this kind of research approach would hardly make sense, but in qualitative research it can make sense and be ambitious to go deep into a single case study, without aiming at any kind of universalizing generalizations. Left does not claim that everybody should use Deleuze in his manner. Instead he created knowledge that was valid at least in his case and increased his understanding and artistic competence. Is this kind of knowledge too narrow, too self-centred, does it nourish anybody else than the researcher himself? It does nourish others too, because it is not just about personal progress: Left was able to share his case study in a lucid manner and thus also other artists and researches can use the knowledge Left created, can apply it to other cases and situations as they see fit. It is also good to remember that no matter how introspective artistic research can sometimes be, at least the artworks created in it are shareable “public nourishment”.

2) RESEARCH CAN BE CONTROVERSIAL AND RESEARCH RESULTS DISPUTED IN MOST FIELDS, NOT JUST IN ARTISTIC RESEARCH — AND THAT IS OKAY.

Actual objectivity and full certainty are really rare. In some fields, for example in mathematics, the research results tend to be hard, undisputed facts. However, it is not true and typical of all science, and in humanities it is even more rare. Art and artistic research are not alone in the realm of uncertainty and controversiality. For example, philosophy is a field of wildly different schools of thought that have permanent disagreements about the proper methods and about the value of all kind of things from various moral ideals to various character traits and about the good use and distribution of wealth — and about the meaning of life and the definition of good life and whether it makes sense to ponder upon those. There is no consensus whether for example Nietzsche, Martin Heidegger and Gilles Deleuze are important and good philosophers or useless charlatans. Also, even their supporters tend to disagree about how the writings of these philosophers should be interpreted and used, about “what they really meant”. This kind of ambiguity and uncertainty is common not just in art and philosophy but also, for example, in economics. Milton Friedman received the Nobel Prize in economics (1976) and is revered by many as the greatest economist of recent times, but there are also economists — some of them also Nobel prize winners — who think that Friedman went terribly wrong with his theories. Some think that Friedman

and his so-called Chicago school of economics did so much harm with their ideology of hard capitalism that he should be charged with crimes against humanity if he was still alive. However, controversiality and uncertainty does not automatically make a theory or practice bad. Many fields of thought and research deal with theories and methods that cannot be universally and totally proven right. It is okay to disagree.

3) VERIFIABILITY IS NOT ALWAYS INDISPENSABLE.

In artistic research, verifiability is often slightly beside the point, because the main focus of research is less on finding universal facts and more on creating values and new perspectives. Opening new possibilities and perspectives is then more important than providing undeniable proof.

Perhaps when most people hear the word “research” they think of the kind of investigation that is all about unearthing hard, objective facts or about solving clearly defined problems for good. In that kind of research it is often important that you can trust the research method completely *before* the research outcome can be used. If the aim is build a bridge or launch a shuttle into space or vaccinate the population with a new drug you have to be able to trust the calculations and tests, the research method that was used in preparation, before you put it in use, before you start building over water or press the launch button or inject everybody. In some other types of research, verifiability is essential, because it can be hard to know whether the research results are true even after you have put them into use. In that situation,

the only thing you can rely on is the organisation of the method, the calculations or the lab test results.

However, there is more to research than just hunting for facts. There's also the kind of research that is more about exploration and creation. It is about creating new ways of living, playing, listening, looking and finding meaning and sensing values. When the term "explorative research" is used in other fields, it has a partly similar meaning. The difference is that in most fields explorative research is used when entering unknown territories, as the first research phase. The idea is that when one has gained enough knowledge about the research territory one should adopt on to a more exact and certain mode of research in which the research questions, methods and conclusions are clearly defined. However, in art and artistic research "explorative mode" is not necessarily just a grounding or temporary phase, because when one researches for example new ways of being or the ponders upon what's good life and how to live it, it is not reasonable to assume that one would, year by year, get ever closer to some final answer.

Sometimes the explorative research mode is also used in quite practical and concrete situations. Then one asks: "I wonder what happens if we work like this? Let's just do it and find out." This kind of research does not answer to any particular, pre-existing question or solve any problems, and yet it does produce knowledge, but it is knowledge that does not need any other verification than just a report of what was done. In that kind of research, it is quite enough to just open the artistic process in an understandable way and

share the resulting artworks — and perhaps also analyze them or interpret them in some other way.

4) ART AND ARTISTIC RESEARCH OFTEN DEALS WITH QUESTIONS THAT HAVE ONLY OPEN-ENDED ANSWERS.

In the exact sciences, there is no need and no space for silent knowledge and for knowledge that can be understood and interpreted in several different ways. In humanities there is. In art and artistic research there is even more. Artistic knowledge is often open to several readings and leaves it partly to the audience or to the 'user' what to make of it and what to make with it.

Why cannot artistic knowledge always be firm and unequivocal? Because it is partly silent or perhaps even unconscious knowledge, not completely harnessed by verbalised reasoning.

The second reason is that artistic knowledge is often more perspectival than universal or neutral. When an artwork presents a definition or vision of what good life is, it usually does it by investigating a particular case — a story of somebody's life for example. It then tentatively proposes that maybe a good life for somebody else, in some other time and place, could be something similar. It does not claim that it knows for sure what is good for you, but instead leaves it up to you to use the artwork's "case study" for your own good, to adapt and transform its research results for your own case, for your own practice of life.

An engineer who designs a bridge and a construction company who builds it can do all the work for you. You just have to pay them and

when the bridge is done, you can use it without any effort. An artwork and artistic research project usually cannot do the same, because for example figuring out what is good life and how should you live your life are challenges that you cannot completely delegate to others. Why? Because there is no universal knowledge of what good life is and because whatever ideals you choose as your principles you still have to interpret and adapt them into your own particular case — and no one else can do it for you. Art and artistic research can only do half of the work; you yourself have to put in the other half. That is why the answers and conclusions that art and artistic research provide can often seem so unfinished, imprecise and even ‘half-baked’. That is how it ought to be. It is you who needs to finish it, to apply its findings to your own case; it is you who needs to continue the baking!

Some will say that I’m now mixing things, blurring the borderline between hard facts and subjective opinions. My defence is that art and artistic research often tackle very complicated and slippery bundles of philosophical questions. In that art’s great strength is precisely in how it makes a composition out of “hard, universal knowledge”, perspectival knowledge and moral value judgements. This kind of combination technique is essential, because you cannot derive values out of pure facts, and on the other hand values are not just matters of taste either.

5) ARTISTIC KNOWLEDGE
ABOUT US AND THE WORLD
CAN OFTEN BE SHARED
WITHOUT WORDS.

Sometimes *the knowledge about how art is made* is unshareable. An artist can have a ‘private method’ that the artist cannot share or perhaps is not well aware of. However, that is okay, if the artworks it leads into are shareable, i.e., understandable and rewarding for other people too, not just to the artist. We can enjoy artworks and also acquire knowledge about the world and us through the artworks even when we do not know how the artworks were made. We do not have to know how Iannis Xenakis composed, Otto Dix painted, Bertolt Brecht wrote or Louise Bourgeois made her pictures and installations, what their artistic method was, in order to enjoy their works and to understand what they say about us and the world. In this sense art and artistic research are often a form of *production* more than a form of *research and development*. If art and artistic research were only about building theories, tools for thinking, then a private method that cannot be communicated orally or in writing would be unacceptable. But since art and artistic research are also about actually making, actually realising the goal, not just about providing a blueprint for it, a private method is sometimes acceptable.

In a certain sense artmaking thus does resemble bridge-building, even though in the previous chapter I claimed that in another sense it does not. A piece of art, like a bridge, can indeed be used even when one does not know how it was made. The difference is that using an artwork is usually much more challenging than crossing a bridge: reading a good poem can be as demanding as writing a good poem.

The idea that an artist or artistic researcher is more like a builder than a theorist sounds nice, but it

should not be taken too far. An artist is not a shoemaker. If a shoemaker can make great pairs of shoes, but is unable to teach his craft to others, the shoemaker's input into society will be fairly small, because he can only make relatively small number of shoes in his workshop in his lifetime. Artworks are not private goods like shoes. Artworks are public goods like lamp posts or common-pool resources like the mushrooms in the forest. A single art piece, for example a theatre performance, can be shared by many people. Often an artwork can even be shared by all people. For example, a musical composition, a poem or a painting can be endlessly shared without it diminishing, i.e. without losing its power to feed us and those who come after us.

6) ARTISTIC KNOWLEDGE ABOUT HOW TO MAKE ART CAN OFTEN BE SHARED WITHOUT WORDS.

A good example of this is how Miles Davis developed his music through the years without writing, without talking, but still together with his musicians. Miles is a good, extreme example, because there is such a consensus about the great quality of his music — his artistic achievements are truly great. He is a good example also because his music changed so

much during the years. Again and again, he pursued a musical approach as far as it could be taken and then shed his artistic skin, rejected the old approach and started a new one, a new 'field of study'. In other words, he was an artist with a very prominent *research tendency*. He concentrated on finding, creating and exploring new ways, new forms and new content all through his career. However, outside of playing music Miles was practically mute: he did not write theory or anything else either (he didn't write his own autobiography and the book was not artistically informative), he discussed music very rarely and he very seldom even gave any verbal advice to the musicians in his band. Instead, the musical knowledge was created and shared in his band purely by playing improvised music in the studio or on the bandstand¹³.

Many musicians who played with him for many years have described their time with Miles as the best school or the best learning experience they ever had. It is also good to note that the knowledge was not shared just between the musicians who played with Miles, but also with the numerous musicians who have been influenced by his music, who maybe have just listened his records and then continued in their own way the research Miles and his bands started¹⁴. Miles and his practice are

13. An example of how musicians describe their time with Miles: "There were conflicts in the band," comments drummer Jack DeJohnette, "but the music always outweighed the personal. The great thing about playing with Miles was that you had to be on your toes. You always had to be alert. The most important thing was to be in the moment and drop any projections or expectations that you had. You always had to be prepared for the unexpected. He kept you thinking all the time, and that was fun. You never knew what was going to happen and that made it exciting and challenging." Bassist Michael Henderson adds: "Musicians tend to go back to where they have been," add and Miles didn't want them in those pockets. Whenever they got in a pocket like that, he'd do anything, he'd stop the music,

or looked at you differently, just to get you out of the comfort zone or out of playing free. Anything not to go back there, not to do what you did before. So you had to adjust and make a thing that you didn't understand make sense. You opened up your mind and your soul to it and you make it believable. Go with the flow and make it happen. Keep it exciting." Paul Tingén, *The Cellar Door Recordings*, 2005. Originally published in *JazzTimes* (US), accessed 21 January 2017, <http://www.miles-beyond.com/cellardoor.htm>

14. Paul Tingén's (1968-) *Miles Beyond: The Electric Explorations of Miles Davis, 1967-1991* (New York: Billboard, 2001) is a book that is very informative about how Miles worked with his musicians and producers.

examples of how artistic knowledge in some cases can actually be extremely shareable, how it can be communicated and developed in groups with extreme fluency without writing anything down, even without talking.

It is important to accept 'the Miles model' as a valid form of producing and disseminating knowledge. Written down knowledge is just one category of knowledge. It is not the king of knowledge or the primary form of knowledge. About the case of Miles some people perhaps say that: "Ok, he was just playing music with his friends and relied on gut feeling, created no theory and came up with no written research results. And it just so happened that he managed to make some good music, but I do not think it has much to do with knowledge and certainly very little with actual research." I disagree with that view. What Miles did was real research, not just something that is a bit similar to actual research. It was not an accident that he managed to create great music and pass on his artistic knowledge to his peers and followers without writing it down. It is also important to hear that his research was not a formalist or mainly aesthetic endeavour. It was not so much about the notes, but more about what kind of outlook to life and to human existence Miles developed through his music.

What to do with artistic research?

What to do with artistic research?
My recommendations are:

- 1) ENCOURAGE THE KIND OF ARTISTIC RESEARCH WHERE THE RESEARCH OUTCOME HAS TWO PARTS:

ARTWORKS AND A WRITTEN DISSERTATION...

- 2) ...BUT ACCEPT 'ART AS RESEARCH' AS A VALID FORM OF ARTISTIC RESEARCH TOO.

It would be harmful to reject Miles Davis and his kind from the realm and status of artistic research. I understand the counter argument, which goes: "What's the point of having 'art as research' option in doctoral studies and postdoctoral research? The people who do that can do it perfectly well just under the rubric 'art' outside the university. There is no need to mess around with the word research here." My response to that accusation is as follows. First, we would be lying if we did not admit that some artists make valuable research purely through their art. There is a lot of art that, as such, increases our understanding of the world and creates new ways of sensing the world and living in it. Second, if artists who do not write theory cannot get doctoral degrees they will more and more often be excluded from professorships and other similar positions of power. And that is harmful to both art and research. This discriminatory bias can already be seen in numerous art universities, where lesser artists have been selected for positions, just because they happened to have doctoral degrees or longer list of postdoc paper publications than the next guy. I have worked as a professor and have been choosing and appointing other professors and lecturers and been in boards that decide about grants. In these roles I've seen how academic degrees may override artistic quality as a criterion.

3) USE ARTISTIC RESEARCH TO MAKE THE UNIVERSITY THE BEST PLACE FOR *MAKING* ART...

...just as it is often the best place for research. Ideally, university is the best place for research. The traditional idea of, and justification for, the university system is that it is the best place for education and learning, the best place for research and the best place for scientific work (research), including in the humanities. The arts were excluded from this ideal and practice for a long time. Only research *of* art was included. Artmaking was taught elsewhere, in so-called academies, and art was made elsewhere. It is still common to think that the university should be the best place to learn how to make art and how to research art, but not to make art. However, the arts have been crawling back for some time now; most of the academies have now been reinserted, not just into colleges but also into research universities. When a discipline is in a research university, it must be possible to do research *in and with* that discipline, not just *of and around* that discipline; otherwise the situation is unfair and illogical. And yet many people still claim that the university should be the best place to learn how to make art and how to research art and also the best place to research art — but not to make art. This means that the return of art into academia is still in process. It is indeed a return, since in ancient Greece, where our university system has its roots, the arts and sciences were not separated. Now they are almost in the same home again. Artistic research is an important bridge and negotiator in

this, in the full return of art into academia. A kind of emancipation of art must happen. It is not freedom from something, but the freedom to do something. When a discipline, for example art, is in a research university, it must be possible to do research *in and with* that discipline, not just *of and around* that discipline, otherwise the situation is unfair and illogical. Thus, it must be possible to *make research with and through art, not just research of art and of its relationship with the society.*

4) MAKE ARTISTIC RESEARCH IN GROUPS, WHERE THERE IS ROOM FOR “PURE ARTISTS” AND “PURE RESEARCHERS” AND ALSO FOR ALL THE IMPURE ONES IN BETWEEN.

Perhaps the most common practical problem in artistic research is that the challenge is too big for one person. It can be too difficult to create marvellous artworks and write ingenious theory with just one head and body. It becomes even more difficult when you take into account all the background info and gathering of data that many artistic research projects need from various disciplines and sources. The solution is to have a team of artists working with theorists, journalists, scientists, humanists and whoever needed. That kind of bunch may be able to make artistic research more efficiently than a multi-talented loner. That is how research is usually done in other fields as well and few of them are as interdisciplinary as artistic research. Of course, the interdisciplinary collaborations with artists and researchers have their own risks. It may happen that the members of the group do

not challenge or feed each other and instead just try not step on each other's toes: "You do those statistical analyses of how the biodiversity shrinks and I'll just concentrate on these water-colours of mine, let's just put these on display side by side and hope that they'll somehow be more than the sum of their parts..." The collaboration should not be used to dodge the challenge, but to face it: how to make multidisciplinary research and art, how to deal with both facts and values.

5) ACCEPT AND PRAISE THE FACT THAT WE DISAGREE ON WHAT'S GOOD ART AND GOOD ARTISTIC RESEARCH. IT IS A CONFLICT THAT IS A RICHNESS.

It is okay to have bad artists and bad artistic research around. They are relatively harmless. Bad artists pose little danger compared to, say, lousy surgeons or amateur electricians and plumbers. Bad artists and bad artistic research abound, because we disagree about what is good in these fields. There are lots of respected artists, practitioners of artistic research and professors of art whose work is really not good in my opinion. Whose work is so bad that if someone applied for BA studies with their art and research and I'd be the gatekeeper there I'd reject them already in the first round. Some, but not all, might have the same evaluation about my work too. In art and artistic research this is normal, whereas in, let us say, physics it would be impossible. And yet this does not mean that art would be a random, arbitrary, anarchistic field and just a matter of taste. It is just that in art there are distinct

schools of thought and different traditions, constantly on the move, merging, separating and evolving, and because of this there is not such a consensus and certainty as there is in some other fields. The university system should accept this irritating feature, the controversial and pluralistic nature of art and artistic research, and think of it as a richness.

6) WHEN YOU ARE EVALUATING ARTISTIC RESEARCH PROJECTS AND PEOPLE, DO NOT USE MECHANICAL AND NUMERAL SYSTEMS OF EVALUATION.

Instead, use external examiners and evaluators and also trust your own expertise if you have it. At the university where I worked as a professor, the Department of Art was forced to name the "five most important recurring art exhibitions, museums or events in the world". The idea was that artistic achievements of the university staff could be objectively and mechanically measured if there just was a reliable hierarchical list of what museums or festivals or whatever were the best. To present one's project in them would be an unambiguous and measurable achievement. The artist working at the university would then get top points for presenting work in the best places, and less points for presenting in the five second-most important places, and so on. It is a stupid idea, but many or perhaps even most Departments of Art have caved in and created a mock-objective list of indicators of artistic quality and started to use it to mechanically evaluate artistic activity and artistic research. It is an understandable development, be-

cause in some other fields this kind of numeral evaluation has traditionally been fairly reasonable and reliable — who gets to publish in the most prestigious academic journals gets the most citations in scientific publications is the most important. But it does not work like that in art, because art is such a non-hierarchical and open field that there can be no universally accepted measuring stick for achievements in it. That is why instead of mechanical evaluation that is based on publication statistics the university should trust well-chosen individual evaluators and examiners. Of course that already happens: external evaluators and examiners evaluate doctoral candidates, doctoral works and applications for postdoc positions or professorships — and their views often weigh more than the applicants' CVs. However, most of the quality assessment of art and artistic research happens in other situations and in them the mechanical indicators are becoming more and more popular: the value of artistic research too is evaluated on the basis of how much you publish (or exhibit or give concert, etc.) and in which respected publications (or institutions). As I said, this system may work in some branches of science, where there really is a consensus on what the top three peer-reviewed publications are and what the pecking order below them is. But it certainly does not work in the arts and in artistic research, which are so open and pluralistic fields with numerous schools of thought, various traditions. Using mechanical indicators and measurements to evaluate quality of artworks and artistic research projects is mostly harmful. If I have a major solo show

in the most prestigious art museum in the world, it is still no *guarantee* of artistic quality; you do not have see my work as artistically valuable at all merely on the basis of institutional acclaim. The same is true of artistic research publications, no matter how peer-reviewed they are. Because of this, a university should mainly trust its own expertise and say that "These are the artistic research areas and traditions that we, in this university, in this department, focus on, we are at our best in them and thus we have the courage to evaluate our results ourselves or pick the external evaluators ourselves." Of course, in this approach, there is the risk of hubris and nepotism and whatever, but it is still a better option than meekly pretending that mechanical evaluating systems or art institutions or art market would tell the final truth about what's good and what's not.

7) A WARNING: ARTISTIC RESEARCH MAY BECOME A SAFE HAVEN FOR BAD ARTISTS AND LAZY RESEARCHERS.

Some people escape to the field of artistic research, because they failed or would fail in art or in research or in both. There are a lot of doctoral students of artistic research and postdoc pros of artistic research who make really bad art, but try to glorify it with the "research element" of their practice, i.e. with the theories they attach to their artworks, and with the interpretations that they write about their own artworks. There are a lot of researchers who write lousy research texts and try to elevate them with artistic add-ons. When these artists or researchers face negative criticism about the quality of their art

or research they often defend it by saying: "But this is different from just art or mere theory, this is artistic research. It has its own rules and goals." That is no good as a defence. It is just an attempt to escape responsibility and with that kind of attitude artistic research is danger of alienating itself both from the arts and from the sciences and humanities. What is the cure? I'm not sure, but at least we should not concentrate on creating an isolated, separate discipline called artistic research. Instead, we should concentrate on developing artistic research into something that is seen as a challenging hybrid: an extended and valid form of both art and research. Referring back to Nietzsche and Bataille: isn't it great that they are included in the canon of academic philosophy and not banished into some separate wasteland called "poetic philosophy"?

References / Bibliography:

Clark, Charli,
Eat Like a Bee – Translating Histories [website], accessed 30 December 2016, <http://charliclark.co.uk/filter/Pollen/Eat-Like-a-Bee-Translating-Histories>.

Kuparinen, Susanna,
Valtuusto (City Council, 2007), Valtuusto II: Väkisymys (City Council II: Interpellation, 2008) and Valtuusto III: Uusi etulinja (City Council III: The New Frontline, 2010), all three made at Ylioppilasteatteri (Helsinki Student Theatre).
<http://www.ylioppilasteatteri.fi/pub/historia/valtuusto.html>,
<http://www.ylioppilasteatteri.fi/pub/historia/valikysymys.html>,
<http://www.ylioppilasteatteri.fi/pub/historia/valtuusto3.html>.
Eduskunta: Poliittinen satiiri vaurauden uusjaosta ((Parliament: A Political Satire of the Redistribution of Wealth, 2011), Eduskunta 2: Satiiri veljeskuntien Suomesta ((Parliament 2: A Political Satire of the Finnish Cronyism, 2012) ja Eduskunta 3: Satiiri yhden totuuden maasta ((Parliament 3: A Political Satire of the Country of One Truth, 2015), all three made at Ryhmäteatteri, Helsinki, 2011–2015.
<http://www.ryhmateatteri.fi/ohjelmisto/eduskunta>,
http://www.ryhmateatteri.fi/ohjelmisto/eduskunta_ii,
http://www.ryhmateatteri.fi/ohjelmisto/eduskunta_iii

Left, Ron, *Painting and time: the dynamic of the actual and the virtual* (Auckland University of Technology, 2016), page 64.
<http://aut.researchgateway.ac.nz/handle/10292/9606>.

Mäki, Teemu, "Art and Research Colliding", *Journal for Artistic Research (JAR)*, 5 (2014), accessed 30 December 2016, <http://www.researchcatalogue.net/view/49919/49920>, <http://www.jar-online.net/index.php/issues/view/487>.

Mäki, Teemu, *Collective Painting*, <http://www.teemumaki.com/teemumakipainting-drawingcollectives.html>.

Mäki, Teemu, *Dakar Triptych 2012*, <http://www.teemumaki.com/coll-dakar-triptych-2012.html>.

Mäki, Teemu, *Darkness Visible – Essays on Art, Philosophy and Politics* (Helsinki: Academy of Fine Arts 2005/2007), <http://www.teemumaki.com/teemumakitext.html>.

Mäki, Teemu, *How to Be a Woman or a Man?*, <http://www.teemumaki.com/teemumakiphotography.html#htbwom>.

Mäki, Teemu, *Transformations – Rewriting Masculinity Otteita maskuliinisuuden sanakirjasta*. Mad House Helsinki, 2016, directed by Teemu Mäki, <http://www.teemumaki.com/theater-transformations.html>.

Sierra, Santiago, http://www.santiago-sierra.com/index_1024.php.
 Tingen, Paul, "The Cellar Door Recordings", 2005. Originally published in *JazzTimes* (US), accessed 21 January 2017,

<http://www.miles-beyond.com/cellardoor.htm>.

Tingen, Paul, *Miles Beyond: The Electric Explorations of Miles Davis, 1967–1991* (New York: Billboard, 2001) is a book that is very informative about how Miles worked with his musicians and producers.

KENT SJÖSTRÖM¹

Perspective-taking in Artistic Research

①

In any discussion about artistic research methods, the relation between *distance*, *proximity* and *subjectivity* in connection to the research object – be it the artist herself or the artwork – is crucial. In the following, I will first present some examples from practice-based artistic research, and discuss how the research process is signified by the artist being involved in an oscillating movement, thus establishing different perspectives on the art project at hand.

In moving between different positions, the artistic researcher creates a personal composition of perspectives. In the unique overview involved in this process, the artistic researcher finds a methodological approach, avoiding the Scylla and Charybdis of claiming objectivity – or transparent subjectivity – on one side, and the insider's intuitivism and general relativism on the other. As my examples will show, these changing stances could be described as adaptive, creative and analytical. I will also examine how some of Bertolt Brecht's ideas could be connected to the artistic research presented, especially Brecht's approach towards making artistic work open to scruti-

ny. Finally, the unique composition of perspectives will be exemplified through the concept of the House of Lore. The overall approach is about perspective-taking on the artistic work, including the artist herself.²

②

How could one's personal experience, knowledge and ideology be challenged through fictionalising it? A Swedish director and PhD student, John Hanse, has a background connected to left-wing political activism, including physical confrontation with both fascists and police forces, mostly in the streets of Sweden, but also elsewhere in Europe. When confronted with a learning play written by Brecht 1930, *The Decision* (*Die Massnahme*), Hanse came to see parallels to his own activism, and especially to the use of violence and to the emotional factor in political movement.³ Brecht's *Lehrstücke* (learning play) describes how a group of Soviet revolutionaries infiltrate Chinese society in the 1920s. One member of the group, The Young Comrade, is overwhelmed by his own revolutionary excitement and emotionalism to such an extent that the strategies fail. Finally, he himself agrees that

1. Associate Professor, Malmö Theatre Academy, Lund University, Sweden.

2. For an overview of research on perspective-taking, see: Louis McHugh and Ian Stewart (eds.), *The Self and Perspective Taking: Contributions and Applications from Modern and Behavioral science* (Oakland: New Harbinger, 2012).

3. Bertolt Brecht, *Collected Plays: Three*, trans. by John Willett (London: Bloomsbury, 1998), 61–89.

his comrades must execute him, in order to avoid a further setback for the revolutionary movement.

This fiction, this play, showed itself to be useful in an ongoing Swedish debate about how to confront fascists, who, to an increasing degree, are active in contemporary political life, and this is a debate where Hanse takes part. Thus, Brecht's original play has been used as a base for a new contemporary learning play, *Violence & Learning* (*Våld & pedagogik*), which is performed, or rather acted.⁴ The spectators are, as Brecht suggested, active and follow instructions that are given to them by the actors during the performance.



Many plays by Brecht involve a trial, for example *The Decision*. The play is framed by the Party Committee, which judges the revolutionaries' strategies. This judging aspect is taken into account in Hanse's variant of

the play: what is the judgement of the contemporary left-wing movement vis-à-vis those radicals who use violence? But on another level the judgement process is also used by Hanse towards himself, in something that might be called a "methodological approach" to artistic research. As Hanse presents this participatory project to his own comrades in the left-wing movement, he is also questioned in the evaluation discussion that follows the performance: is Hanse suspicious when scrutinising the leftish project? Does he give voices and space to those fascists that are the opponents? Here Hanse, through his approach, puts his artistic presentation as well as himself in a position where they could be scrutinised. This is a strategy that is congenial with that found in the work of Brecht, as I will show later.

In this project, Hanse takes another perspective on what is well known and maybe taken for granted in his own political experience. He is moving apart from himself, through partly fictionalising his own knowledge or perspective, and particularly on the question of the use of violence as a political tool, or in self-defence. The movement is that of an insider taking the position of an outsider. He is creating a new kind of gaze in taking another perspective on his own position, but in this new position he also criticises those artists that state that they are creating "political theatre", a label Hanse himself avoids: "The performances we have seen that commented on political violence have had an outside perspective on the political movements that playwrights seem to have little

4. *Violence Learning* [website], accessed 20 May 2016, <http://valdochpedagogik.se/en/>.

or no understanding of. We work the other way around.”⁵ Here Hanse is requesting and putting at stake a specific awareness of the perspective taken. This movement of John Hanse is the opposite of the next example, that of Cecilia Parsberg.

③

Swedish visual artist Cecilia Parsberg has named her PhD project *How do you become a successful beggar in Sweden?* She opens her description of her project as follows:

I experience a distance, almost a gulf between me and those who are begging. Overall, it feels like the atmosphere on the street has changed; something has happened in the social climate that feels substantial and yet not defined. Is it solidarity, the ability to be touched? How does it feel for you? Would you like to participate?⁶

Parsberg is surely not a beggar, she has no personal experience of begging, but as an artist she is attracted by this unfamiliar phenomenon. I will exemplify her research method in describing how Parsberg uses and translates an everyday but unfamiliar phenomenon and makes it into art; it is an act of *translation* and *aestheticisation*, perhaps also of *appropriation*. She uses aspects that she finds in the situation of begging, and moves them into her domain of art creation. (I would here like to stress that I, as a spectator and reader of any research, am free to define what

I consider to be the artist’s methods. It is even more interesting to do so if the artist claims that there is nothing like a method.)

Parsberg chooses to take different perspectives on the phenomenon of bodies in the street: she sorted out one phenomenon found in begging, that of bodies in different positions on the street, and made it into a separate artwork. As a part of the process, Parsberg asked her friends to create any pose on the street with their bodies and then she made photos of them. She gave these photos titles that simply were the name, occupation and title of the person, even the affiliation. It came to appear as a striking irony that these peoples’ bodies on the street had titles, often academic ones, in comparison to the beggars: bodies without names or titles.



Parsberg writes: “I have investigated the choreographies of European giving and begging.”⁷ The phenomenon of *giving and taking* was elaborated into an idea about transactions, balancing and money exchange, even exchange of values. This is highly associative, but anyway framed in the begging situation.

5. Henrik Bromander and John Hanse, ‘Detta är inte “politisk teater” (This is not “political theatre”’, *Teatertidningen* 1/2016 [online], accessed 6 August 2016, <http://teatertidningen.se/?p=1210> (my translation).

6. Cecilia Parsberg, *Kropp på gata Body on street* [website],

accessed 17 May 2016, <http://ceciliaparsberg.tumblr.com/>.

7. Cecilia Parsberg, *How do you become a successful beggar in Sweden?* [website], accessed 17 May 2016, <http://beggingasaprofession.eu/>.

In the summer of 2011, Parsberg hired a professional market researcher to conduct a qualitative market survey, in which givers in Sweden shared their views on those begging on the streets and answered her questions about how the beggars could beg more successfully. Then Parsberg interviewed begging people to give their view on giving people. The artistic result became *The Chorus of Giving and the Chorus of Begging*. This chorus is actually two: one chorus of those who usually receive and one of those who usually give. They are improvising, without words or music, the feelings that exist between these two groups. The beggars and givers were filmed and the film is showed in art galleries, where the spectator is standing between the two choruses. Here the spectator is given a position where they can share the perspective of the artistic researcher's dilemma. I would like to describe it as if this position is a symptom of the power relations existing in the European Union.



Parsberg uses no coherent theories in her research, and when asked about the method she says that investigating her own intentions is a part of her method. I would anyway like to view her approach as an intentional movement between different positions, social and bodily, and in

this movement, she is creating new perspectives to be exposed. Parsberg embodies and performs what is strange for her, in recreating a bodily experience outside her own. When interviewed, she is asked questions about psychology and sociology, and she is also asked to make statements about society as a whole and about beggars' relation to society. Parsberg is treated as an expert, but she claims she is not. She was invited to a sociological conference, together with other artistic researchers, but this event ended up in a disappointment. Presenting a choir of giving and begging was not accepted, and Parsberg was criticised. The artistic approach was not considered serious enough. This could also be seen as a good example of when artistic research does not fit into the academic format; it even shows a resistance to academic framing.

Neither Parsberg's nor Hanse's research projects are finished yet, and the final artistic process and conclusions will be presented in their doctoral dissertations. The conclusions that follows are drawn by me, in relation to the research presented so far. Compared to Hanse's approach, Parsberg's research follows another path: she takes control over the un-familiar content, and she translates it into a language of art, which is in her domain. Hanse distances himself from a familiar way of expression by fictionalising it. They are both, though, turning their experiences and dilemmas into art in a research process, which includes changes of positions. They also go public in an activist way, inviting the spectator, reader or participant to scrutinise their processes. Finally, they are both also investigating their

own way of creating art. Parsberg describes how her position as an artist makes it possible for her to create alternative images of the phenomenon of begging, in relation to those produced by other media: "It is possible to try to expose some of the aesthetic matrix. To try to see behind the images produced of the Westerner, the beggar, the Roma, of the perpetrators versus victims, and of other images that have become stereotypes, and that often are the base for the discussions carried out."⁸

Parsberg's project also created a distance to her own bodily relation to the beggars that she has met during the project. When recapitulating her bodily behaviour in the initial encounter with the beggars, she is overwhelmed by feelings of negative self-awareness and shame, combined with a questioning of her own artistic ethical principles.⁹ In her narrative of her research, she shows how private behaviour, as well as artistic expression, cannot be separated from a political stance.

John Hanse is distancing himself from his political experience, in using the learning play as a means to gain another understanding not only of his own political position but also that of his opponents. The overall aim of his artistic research is to investigate whether it is possible to create a new kind of contemporary learning play.

④

"Observe! Imitate? Be yourself!" is a workshop format that tries to inves-

tigate a specific approach on artistic research. We, Czech philosopher Alice Koubová and I, tried to find a way of working that did not try to harmonise theory and practice, or theatre and philosophy, but to make them provoke new perspective-taking in their respective fields. The exercises used for the investigation were the imitating and copying exercises that one often finds on the drama curriculum in many theatre academies. There is a supposed outcome of these exercises: the prospective actor should learn how to observe another person without projecting psychology or prejudices on the one who is observed, and to widen their personal bodily register, and so on.



Working in parallel, we scrutinised this issue of observation and imitation from the philosophical point of view, and showed how this theme is treated in ancient Greek philosophy and mythology, as well as in so-called *immanent philosophy*, such as that of Friedrich Nietzsche; and in philosophy connected with theatre, such as that of Walter Benjamin and Bertolt Brecht. We investigated how

8. Cecilia Parsberg, "Konsten kan skapa ett nytt handlingsutrymme" (Art can create new arenas for actions), *Sydsvenska dagbladet* [online newspaper], 28 November 2014, accessed 6 August 2016, <http://www.sydsvenskan.se/2014-11-28/cecilia-parsberg-konsten-kan-skapa-ett-nytt-handlingsutrymme> (my translation).

9. Ibid.

imitation is treated in connection to the question of authenticity, identity, self-consistency, otherness, etc. This parallel display of the issue of imitation enabled us to see the exercises from another perspective than when performed for actor's training. This also provoked a new meaning that was generated from the exercises outside the actor's training context.



Besides this intentionally in-harmonious blend of parallel approaches, we initiated another form of perspective-taking method: that of the encounter and interaction of the participants from different backgrounds – mainly theatre practitioners and researchers in humanities. First, what was interesting was how a routine exercise for theatre practitioners, such as that of imitating and copying another person, was re-evaluated in the encounter with a theoretical and philosophical context. The outcome was unexpected. The starting point was the familiarity with the observation exercise, but in the new context it was revealed how this basic exercise made us re-evaluate our thinking about our identity and the alterity of the other, about proximity and distance, and also about the way we learn about our uniqueness and limitations. In this way, the participants who were actors or theatre practitioners gained another and unexpected outcome

in the form of embodied ideas, and they even became acquainted with new theoretical knowledge. For people from a non-theatrical field, with no routine in bodily imitation, the exercise in itself carried challenges and raised questions, questions that were unexpected for the theatre practitioners. The very idea of copying another person could be seen as intrusive, and it was questioned to what extent it was actually possible to copy another person. Finally, the exercise gave rise to another kind of knowledge, especially that of how closeness to another person makes us see and feel the boundaries of our own bodily presence.

Theory and practice both seem to have an estranging effect, depending on the background of the performer. For the philosopher, the embodied experience problematises what could be verbally expressed and understood in a written discourse, and it made the discussion about identity and alterity more embodied, and more complex.

What I would like to stress here is how phenomena like imitation, observation and the quest for authenticity could be scrutinized from different perspectives, chosen from individual starting points, and where the outcome depends on the horizons of the participants. Theory can be used to get another perspective on the *common sense* of actor's training, not to confirm it. In a similar way, the theorising does not diminish the practical value of any exercise, but adds another perspective.

Parsberg and Hanse are personally engaged in practices oscillating between different perspectives, and this approach simply does not need any theory. Koubová and Sjöström

used theories in order to analyse a practical routine, and through this they were re-evaluating or undermining an artistic practice. This happened through contextualisation of different theoretical assumptions. The theory, so to speak, was put into artistic work, and at the same time it created distance to this work.

⑤

In the following section I will widen my presentation of perspective-taking in artistic research through showing how the three cases presented could resonate with some ideas found in the work of Bertolt Brecht. The research projects that I have presented, and especially their different ways of relating to theory, have some connections to Brecht, and that is of course not a coincidence. My statement is that the theories and practice of Brecht have showed themselves to be useful in a discussion on artistic research.

Brecht was constantly examining the art of observation and the ability to scrutinise art and the artist – even himself – but also society. In this process he had an overall aim, that of problematising the concept of presence and distance in relation to the artistic process. In his “Speech to Danish Working-class Actors on the Art of Observation” he said: “People will observe you to see / How well you have observed.”¹⁰ If I can present a slogan that I find summarises the artistic research process, then this one works well. Brecht was possessed by the idea of how to commu-

nicate his constant changing ideas. He regularly presented the interplay of his theories and his plays in the journal *Versuche*, and he conducted dialogues with his actors and with contemporary philosophers such as Georg Lukács and Walter Benjamin.

Brecht openly claimed his need for theory: “A man with one theory is lost. He must have several, four, many! He must stuff them in his pockets like newspapers, always the most recent, you can live well between them, you can dwell easily between the theories.”¹¹ He also claimed that this stance made his colleagues seriously question his artistic ability. That goes also for his quest for a “Theatre of the Scientific Age”. In Brecht’s case, Marxism and behaviourism worked as the fundament for his understanding of the world, but these theories also serve as a way of understanding his dramaturgy and dramatic characters today. But his quest for theories or his use of them does not alone make the dramatist and director Brecht an artistic researcher. Other qualities might qualify him for that position. He wrote down his suggestions, as he called his writing, and anyway said at the end of his life: “To hell with my way of writing.”¹² He clearly understood that in publishing and discussing his theories and artistic standpoints he opened himself up to misunderstanding, and it also made him artistically and politically vulnerable.

One aspect mentioned above is especially interesting: in observa-

10. Bertolt Brecht, John Willett and Ralph Manheim, *Poems, 1913–1956*, trans. by John Willett, revised edition (London: Methuen, 1987), 235.

11. Bertolt Brecht, *Brecht on Art and Politics*, trans. by Steve Giles, Tom Kuhn and Laura Bradley (London: Methuen Drama, 2003), 13.

12. Bertolt Brecht et al., *Brecht on Theatre: The Development of an Aesthetic*, trans. by Steve Giles et al., revised and expanded edition (London: Bloomsbury, 2014), 269.

tion, the critical sense is dependent on optics; it is about a specific kind of gaze. Brecht wanted to stimulate a new kind of gaze, both among his spectators and among his actors. Brecht is of course often associated with a critical and distanced attitude: in order to judge the actions on the stage, the spectator should not be seduced or hypnotised by the performance. The critical attitude and gaze of the spectator should be that of a dedicated expert, like the audience at a boxing match. But it is of fundamental importance not to confuse a critical gaze with a negative attitude. In some of his works, especially in his learning plays, Brecht also argues that bodily involvement and proximity is supportive for understanding a situation. So only to use terms such as distance or rationalism does not cover Brecht's attitude to an understanding of the artistic process. He speaks in favour of an oscillating movement between dedication and estrangement. In this, the spectator experiences differences and contradictions that make the performance impossible to take in as a whole or a consistent unity. From Brecht's point of view, this is considered positive.

One example of a distanced gaze, from Brecht's practice, is that the theatrical machine should be made visible, e.g. through the use of a half-curtain, and also in how the music, which often was atonal, is used as an estranging effect. Also, Brecht's criticism of identification is a means to avoid a one-dimensional view of the character; the spectator is invited to critically examine the actor's work on his interpretation of the character, and also to wonder about the strangeness of the plot. In this way, Brecht constantly encour-

ages the spectator to take different perspectives. And in Brecht's case the use of theories is one aspect that could be used to create contextualisation and criticism, but also to show that the artistic process should relate to science. The stance, the *Haltung*, taken by Brecht offers an artistic-based model for inviting the spectator, in the wide sense, to scrutinise the process of knowledge production in the theatre. Here, as in the other projects presented above, perspective-taking is crucial for an understanding of how an artist – or an artistic researcher – understands his own work through moving between different positions, and thus creating a mobility in the gaze. This reasoning is also in line with the concept and metaphor of the House of Lore that I aim to present below.

So, Brecht could be considered an example of an artist that takes a stance resembling that of the artistic researcher. I could also have referred to other theatre practitioners, such as, in the 18th century, the actor David Garrick and the playwright and poet Johann Wolfgang von Goethe, or to the 20th-century directors like Konstantin Stanislavsky, Peter Brook and Ariane Mnouchkine. They, and many others, have struggled with the relation to science, traditions, methods, mythology, writing and rationality. Sometimes they claim that art could do fine without all this, but anyway, they are often into some kind of negotiation between independence from theories, and even hostility towards them, and using them when pragmatically needed. I have chosen Brecht as a prime example, mainly because of his consistent need to communicate his ideas about art. Through his writing, he

made himself open to criticism, and surely he has been criticised.

⑥

I claim that in a research process the researcher is producing a certain body of knowledge. If artistic research implies scrutiny, this knowledge must be clarified, visible, understood, experienced and communicated. In order to do so, the practitioner's knowledge must be described in a relevant way. For me, the metaphor of the House of Lore, which was presented by Professor Stephen M. North in 1987, is useful.¹³ According to North, the practitioner's knowledge can be described as dynamic, pragmatic and anti-hierarchical, but also as contradictory and inconsistent. These labels, I argue, can also be used when discussing the knowledge of the artist.

An artistic practitioner might imagine all her experience and knowledge, her workshops and performances, mistakes and triumphs, the books read, the classes attended, and criticism received, and much more, and then imagine it all as a self-created building, a House of Lore. This house has new and old rooms, as well as large and small ones; there are towers and stairs, secret connections; some of the rooms are open to everyone, and some secretly locked; some areas are in ruins, some kept fresh and clean, and so on. So what signifies, if applied to the artist's knowledge, the House of Lore? The house represents an anti-hierarchical knowledge, just as a personal memory or a positive review could have the same

weight in the work as the collected works of Stanislavsky. It is a highly personal building, constantly rebuilt and changed, in line with that artist's knowledge, often signified by an oral tradition and bodily experience. The knowledge found in Lore, and formulated as such, could be seen as being the opposite of scientific knowledge: Lore could be practically anything that works for the individual artist, and here also pure mumbo jumbo might make sense. The concept is highly pragmatic, but this does not mean that theory is excluded from it, rather that it can only take a position in relation to its pragmatic value.

What is of primary interest in my discussion is that an overview of the House of Lore in all its aspects is impossible from one perspective; only through moving inside and outside the building can it be more thoroughly viewed. This perspective-taking needs movement, and the changes of position create many perspectives. Through moving in relation to this house, full of rooms that represent different experiences, the practitioner constantly finds new perspectives, some of them characterised by being very close, some of them signified by a distant gaze. This ability is what distinguishes the artist's insider knowledge about his own work from that of a critic, a scientist or a spectator. It might also be argued that this aspect is what legitimises artistic research. This perspective-taking process could be described a personal *composition of knowledge*. The artist could be considered as a creator who is dealing constantly with different perspec-

13. Stephen M. North, *The Making of Knowledge in Composition: Portrait of an Emerging Field* (Portsmouth, NH: Heinemann, 1987), 23–36.

tives, both in relation to himself as a subject and to the object investigated. This approach is clearly visible in Hanse's and Parsberg's research. In this aspect I find the concept of the House of Lore most useful.

I mentioned earlier that "body of knowledge" is a concept sometimes used in association with the House of Lore. There may be a danger in this reasoning: one should not confuse experience with knowledge. The concept of the House of Lore easily makes one look mostly backwards at one's own experience, and this approach might diminish the intentional and interpretative aspect of the artist's knowledge. The metaphor of the House of Lore might simply carry within it a deterministic view of the practitioner's work, as one understands one's artistry as ruled by one's background. This reasoning goes well together with how North, the creator of the concept, claims that practitioners tend to use familiar and well-known solutions to new problems.¹⁴ In this way the practitioner's relation to her experience is not seen as constantly productive in building further knowledge. Having said this, I consider the House of Lore metaphor valuable in elucidating the research process of the artist, as it indicates bodily presence, movement and a strategic changing of gaze – all in order to establish what is called *perspective-taking*.

⑦

In this chapter I have given examples of different approaches to how artists create perspectives on themselves, and on familiar and unfamiliar artistic material, and also on artists' differ-

ent relations to theory in connection to practice. The tendencies among artists, researchers or not, to hesitate in relation to science, theories and the academy has a long history and carries within it a narrative that must be considered. I consider this narrative as a fear of moving away from being an expert in one's own field, of going into theoretical dilettantism or of getting caught in philosophical namedropping, or even of art losing its very essence. This hesitation is also present in a discussion about methods for artistic work, as well as for artistic research, methods might be seen as general rules, jeopardising the uniqueness of the artistic creation. In my presentation of some artistic research processes, I have displayed approaches that would diminish these risks.

My examples also show how the artist's subjectivity in relation to her artwork should not be confused with relativism in general. But in artistic research the difference between situated knowledge and a relativistic standpoint – often negatively defined – is not always clear. I argue that the artistic research process, as it is exemplified above, could be described as situated knowledge production, a trustworthy and transmissible knowledge, and not as the creation of generalisable rules. In describing the dynamic situatedness of her research position, the artist needs to contextualise her work, both in relation to tradition and in relation to other, contemporary perspectives. Transparency, or at least less opacity, is achieved through defining the perspectives taken and making them understandable, as exemplified by the House of Lore.

14. Ibid., 33.

The reflective stances presented in the examples above are not states of mind or specific cognitive processes but physical approaches combining different viewpoints on a unique artwork. There are definitely good reasons for requesting validity also from research in, on and through artistic work. This legitimacy is obtained through the research process being opened up for scrutiny by the experts in the field, mainly other artists.

The artistic researcher can create new frames for how artists' work is looked at, listened to and perceived, and mainly for how art could be scrutinised, and in this way opens up new perspectives for the spectator's gaze. From my viewpoint, this is a central pedagogical challenge for the artistic researcher: investigating the values, knowledge and even theories that are inherent in his own practice, from different perspectives and through a nimble gaze.

References:

- Brecht, Bertolt, John Willett and Ralph Manheim. *Poems, 1913-1956*. Translated by John Willett. Revised edition. London: Methuen, 1987.
- Brecht, Bertolt. *Brecht on Art and Politics*. Translated by Steve Giles, Tom Kuhn and Laura Bradley. London: Methuen Drama, 2003.
- . *Collected Plays: Three*. Translated by John Willett. London: Bloomsbury, 1998.
- Brecht, Bertolt et al. Brecht on Theatre: The Development of an Aesthetic*. Translated by Steve Giles et al. Revised and expanded edition. London: Bloomsbury, 2014.
- Bromander, Henrik, and John Hanse, "Detta är inte 'politisk teater'" (This is not "political theatre"), *Teatertidningen* 1/2016 [website], <http://teatertidningen.se/?p=1210> (my translation).
- McHugh, Louise and Ian Stewart (eds.). *The Self and Perspective Taking: Contributions and Applications from Modern and Behavioral Science*. Oakland: New Harbinger, 2012.
- North, Stephen M. *The Making of Knowledge in Composition: Portrait of an Emerging Field*. Portsmouth, NH: Heinemann, 1987.
- Parsberg, Cecilia. "Konsten kan skapa ett nytt handlingsutrymme" (Art can create new arenas for actions). *Sydsvenska dagbladet* [online newspaper]. Accessed on 30 December 2016. <http://www.sydsvenskan.se/2014-11-28/cecilia-parsberg-konsten-kan-ska-pa-ett-nytt-handlingsutrymme> (my translation).
- . "How do you become a successful beggar in Sweden?" [website]. Accessed on 30 December 2016. <http://beggingasaprofession.eu/>.
- . *Kropp på gata Body on street* [website]. Accessed on 30 December 2016. <http://ceciliaparsberg.tumblr.com/>.
- Violence Learning* [website]. Accessed on 30 December 2016. <http://valdochpedagogik.se/en/>.

JOA HUG

No Solutions: The Research Score as a Medium of Artistic Research

Introduction

My artistic research explores the epistemic potential of a particular performance training practice, the so-called Manipulations. The Manipulations are one of the core practices of “Body Weather”, a comprehensive approach to performance training that was initiated by Japanese dancer/choreographer Min Tanaka in the late 1970s. During the 1980s, Tanaka’s collaboration with an international and interdisciplinary group of artists developed Body Weather into a systematic approach to performance training. From 1985, the group was based on the Body Weather Farm in the small village of Hakushu in the Japanese countryside and, directed by Tanaka, toured worldwide under the name Maijuku Dance Company. In 1993, ex-Maijuku members Frank van de Ven and Katerina Bakatsaki founded Body Weather Amsterdam as a platform for training and performance research. From 2002 to 2009, I actively participated in the platform as a dancer and member of the performance project *Something Here That is Not There*, directed by Bakatsaki.

Since 2011, I have been conducting artistic research within the framework of the doctoral programme of the Performing Arts Research Centre at the University of the Arts Helsinki. This chapter discusses the progress of my doctoral research by focusing on the evolution of my main research

practice, the so-called research score. It begins with a brief sketch of the Manipulations and outlines the adaptation of this duo practice into the solo practice of the research score as a means to think through the impact of the Manipulations on the practitioner. It then examines the question of whether the research score can be considered a method of embodied reflection, and discusses the limitations of reflection as a means of knowledge production. I conclude the chapter by suggesting that the research score enables a transition from a mode of reflecting *on* artistic practice to reflecting *with* artistic practice, and by speculating on its potential to mediate a shift from a representationalist epistemology to an alternative posthumanist performative model.

The Manipulations

The Manipulations is a hands-on practice that draws on diverse Eastern and Western somatic practices, such as yoga, shiatsu, acupuncture and physiotherapy, and is conducted in a duo with a giver and a receiver. The practice consists of approximately 90 touch-based operations structured into a sequence numbered 1 to 7, and typically takes about 1.5–2 hours to accomplish. In my understanding, the Manipulations is not a dance technique, but a pre-performative practice that alters

the body's physical and mental conditions for movement by changing the proprioceptive and tactile-kinesthetic perception of the body in relation to itself and to other (human or non-human) bodies.¹



Figure 1: The Manipulations, video still, Joa Hug and Ema Nik Thomas (courtesy of the author)

Throughout my active years as a dancer and performer with Body Weather Amsterdam, I practised the Manipulations extensively. In my view, a substantial part of the knowledge potential of the Manipulations resides in the possibility for practitioners to examine, and reflect on, the process of altered perception from within. Against this background, one of the aims of my doctoral artistic research has been to reconsider the Manipulations as a practice of *knowing*, and to articulate in writing what I take to be the bodily knowledge that is potentially engendered by this practice.

The research score

A major challenge at the beginning of my doctoral research was how to approach methodically such a (written) articulation. One of the main practical methods that I came to rely on is the so-called research score. The research score is my adaptation of the original duo practice of the Manipulations (Nos. 1 & 2) into a solo practice. In the solo version of the research score, the receiver explores how to recreate the sensation of being given the Manipulations without an actual giver. The recreation of being given can be approached through various strategies: for example, by imagining the touch of the giver and the direction of the weight entering the body; by activating the memory of the sensation effected by a previous touch-manipulation; by diligently reproducing the form of the movement; by a combination of all these – or by another strategy altogether.



Figure 2: Research score, video still (courtesy of the author)

1. For more elaborate descriptions of the practice of the Manipulations, see Joa Hug, "Writing with Practice: Body Weather Performance Training Becomes a Medium of Artistic Research," *Theatre, Dance and Performance Training* 7 (2) (2016): 168-189; and Joa Hug, "Modes of Knowing in Body Weather Performance Training," in U. Enderlein (ed.), *Zwischenleiblichkeit und bewegtes Verstehen: Intercorporeity, Movement and Tacit*

Knowledge (Bielefeld: Transcript, 2016), 367-380. For a video documentation of the Manipulations, see Joa Hug, "Body Weather Manipulations No. 1 & 2," *Theatre, Dance and Performance Training Blog* [online], accessed 14 June 2016, <http://theatredanceperformancetraining.org/2015/11/body-weather-manipulations-no-1-2/>.

There are no simple solutions to the problem of recreating the sensation of receiving the Manipulations. In fact, there is no solution at all. It is impossible to recreate by oneself a sense perception that is identical to a sense perception one has when one's body is actually moved by another person. The challenge is not to get stuck in this conundrum but rather to keep negotiating the desire to recreate a specific sensation with the impossibility of this endeavour. The point is not to achieve the impossible, but to reach *towards* it and to embrace the inevitable experience of failure as a pathway towards a more differentiated and sophisticated understanding of one's own body.

On top of this perceptual inquiry into recreating the sensation of being given the Manipulations, the research score adds one more layer of investigation that moves significantly beyond the scope of observation typically employed in the Manipulations. This additional layer is to simultaneously attend to the process of thinking and to instantly document the thoughts that arise while reflecting on a word or concept chosen beforehand. The documentation happens *within* the practice of the research score, not afterwards. It is accomplished either by writing or by speaking out aloud the thoughts that come to one's mind. In the latter case, an audio recording is made and transcribed afterwards.

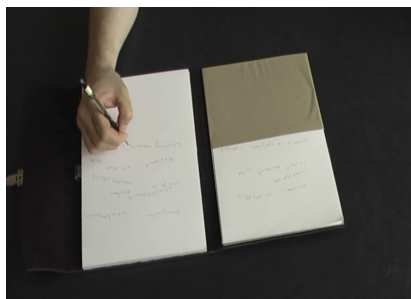


Figure 3: Research Score, video still (courtesy of the author)

Combining two lines of inquiry, the research score interweaves an investigation into the process of perception with an observation of the process of thinking, towards a systematic and embodied approach to thinking through the Manipulations. As previously mentioned, it should be pointed out that the combination of tasks in the research score implies that a successful and permanent solution is impossible. It requires an absolute readiness from the practitioner to constantly negotiate his /her mental and physical effort, without a sense of completion, but rather incessantly oscillating between the various points of attention and observation, while at the same time reflecting on how the overall situation is evolving. The research score is thus an open-ended investigation that poses problems for which there are no fixed solutions.

2. See Henk Borgdorff, "The Mode of Knowledge Production in Artistic Research," in S. Gehm, P. Husemann and K. v. Wilcke (eds.), *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance* (Bielefeld: Transcript, 2007), 73–79. In a more recent contribution, Borgdorff argues that "...artistic research seeks not so much to make explicit the knowledge that art is said to produce, but rather to provide a specific articulation

of the pre-reflective, non-conceptual content of art. It thereby invites 'unfinished thinking'. Hence it is not formal knowledge that is the subject matter of artistic research, but thinking in, through and with art." See Henk Borgdorff, "The Production of Knowledge in Artistic Research," in M. Biggs and H. Karlsson (eds.), *The Routledge Companion to Research in the Arts* (London: Routledge, 2011), 44.

Reflection as a method of knowledge production

If a core task of artistic research is the production of knowledge,² then this raises at least two questions: first, an epistemological question about the nature of this knowledge, and second, a methodological question about how this knowledge is created and how it can be articulated. In the field of dance research, these questions have been extensively discussed.³ One of the notions that has been proposed in the pursuit of articulating the knowledge created in and through dance is the concept of "bodily knowledge". Dancers, Jaana Parviainen states, know "in and through the body".⁴ Following Michael Polanyi,⁵ Parviainen argues that *reflection* plays a key role in the process of transforming the dancer's tacit knowledge into bodily knowledge. Through shifting the focus of attention to the body's lived experience and by reflecting on its tactile-kinaesthetic sensations, the dancer gains the bodily awareness and the epistemic openness that allows for his/her tacit knowledge to become explicit. It is this bodily knowledge that enables dancers to reflectively choose how to move. Reflection is thus crucial not only for creating bodily knowledge but also when making decisions about how to access this knowledge in and through bodily movement.⁶

However, the idea of reflection as a method of knowledge-making carries certain problems and complications. Elizabeth Anne Kinsella has analysed the notion of "reflection" from the perspective of educational research,⁷ following Donald Schön and his ideas about the *reflective practitioner*.⁸ The actions of practitioners, Kinsella explains, are always structured by tacit forms of knowledge. These tacit structures not only shape how the world is *perceived* but they are also actually a way of *making* the world. Therefore, like Parviainen, Kinsella argues that it is crucial for the practitioner to become aware of these tacit structures and frames, in order to reflectively make choices. However, she points out that it is not always possible to make tacit structures explicit, and even *if* practitioners were to succeed, these descriptions would always remain *constructions*.⁹

The problem of these constructions, Kinsella writes, is that they "are partial and represent attempts to impose stasis on the dynamic process of knowing-in-action".¹⁰ Therefore, she explains, any attempt to produce knowledge by reflecting on the tacit content of an experience is always a way of constructing *knowledge* imposed on the process of *knowing*. Kinsella proposes the concept of "embodied reflection" as a mode of reflection that "arises through the

3. See Anna Pakes, "Original Embodied Knowledge: The Epistemology of the New in Dance Practice as Research," *Research in Dance Education*, 4 (2) 2003, 127-149; Anna Pakes, "Art as Action or Art as Object? The Embodiment of Knowledge in Practice as Research," *Working Papers in Art Design* 3 (2004): 1-9; Jaana Parviainen, "Bodily Knowledge: Epistemological Reflections on Dance," *Dance Research Journal*, 34 (1) (2002): 11-26; Leena Rouhiainen (ed.), *Ways of Knowing in Dance and Art* (Helsinki: Yliopistopaino, 2007); Sabine Gehm, Pirkko Husemann and Katharina v. Wilcke (eds.), *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance*. (Bielefeld: Transcript, 2007).

4. Parviainen, "Bodily Knowledge," 13.

5. Michael Polanyi, *The Tacit Dimension* (London: Routledge, 1967).

6. Parviainen, "Bodily Knowledge," 17-21.

7. Elizabeth Anne Kinsella, "Embodied Reflection and the Epistemology of Reflective Practice," *Journal of Philosophy of Education* 41 (3) (2007): 395-408.

8. Donald Schön, *Educating the Reflective Practitioner* (San Francisco: Jossey-Bass, 1987); Donald Schön, *The Reflective Practitioner: How Professionals Think in Action* (London: Temple Smith, 1983).

9. Kinsella, "Embodied Reflection and the Epistemology of Reflective Practice," 397-400.

10. Ibid., 401.

bodily, lived experience of the practitioner and is revealed in action".¹¹ However, she does not elaborate in more detail on how, specifically, reflection and action are bodily intertwined, or how embodied reflection can be enacted without imposing a fixation on the dynamic process of knowing.

Approaching the notion of "reflection" from a phenomenological perspective, Dan Zahavi raises the following questions: "Does reflection give us access to the original experimental dimension or is there, on the contrary, reason to suspect that the experiences are changed radically when they are reflected upon? Is reflection, in reality, a kind of falsifying mirror or telescope that transforms whatever it makes appear?"¹² According to Zahavi's interpretation of Husserl's writings on this subject, the answers to these questions lie *between* understanding reflection as mirroring experience, on the one side, and taking reflection to be a distortion of experience, on the other. Situated in this middle position, he conceives of reflection as *modifying* and *transforming* experience. The task for phenomenology, he suggests, is to systematically investigate the impact of reflection on the experience reflected upon. Phenomenological reflection takes this task on by *reflecting on reflection*. From this perspective, reflection is always a form of *meta*-reflection.¹³

It is not an issue for Zahavi that reflection transforms and alters experience. On the contrary, for him the

whole point and the cognitive value of reflection is precisely this, *transformation* and *alteration*, otherwise there would be no need for reflection.¹⁴ At its best, he explains, reflection does not distort the components and structures of the experiences reflected upon, but "discloses, accentuates, explicates and articulates those structures and components that are implicitly contained in the pre-reflective experience"¹⁵ in order to make them appear more clearly. Nevertheless, also for Zahavi there are limitations to reflection. Not everything that is pre-reflectively experienced can enter our consciousness by a shift of our attention. Reflection can never fully grasp and articulate the pre-reflective content of experience, but will always remain incomplete and open-ended.¹⁶

Earlier in the chapter I referred to the research score as an embodied approach to reflection. During the first phase of my doctoral research, I applied the research score in order to explore and reflect on the tacit knowledge created in and through the Manipulations.¹⁷ Elsewhere I have provided elaborate accounts of what I take to be the bodily knowledge that is engendered by practising the Manipulations. In a nutshell, I have outlined this knowledge in terms of two forms of *know-how*: (i) knowing how to alter the process of perception; and (ii) knowing how to affect and be affected.

As my discussion of Kinsella and Zahavi has pointed out, one needs to be well aware of the limitations of reflection as a method of knowing.

11. Ibid., 396.

12. Dan Zahavi, "Phenomenology of Reflection," in A. Staiti (ed.), *Commentary on Husserl's Ideas I* (Berlin: De Gruyter, 2015), 184.

13. Ibid., 186–187.

14. Ibid., 184–188.

15. Ibid., 187.

16. Ibid., 188, footnote 2.

17. See footnote 1.

The written descriptive accounts of the knowledge engendered in and through the Manipulations that I have provided so far are inevitably partial and reductive. Not all of the tacit knowledge of a practice can be made explicit; what remains is an inexhaustible residue, an excess of what can actually be verbally articulated. The knowledge claims that I have made can be critiqued as constructions that impose a linguistic fixation on the process of knowing in and through the Manipulations. By reflecting on this practice, I have transformed and modified it. However, as Zahavi points out, this is not the problem but a necessary and desirable outcome of reflection; transformation and alteration *are* precisely the cognitive values of reflection.

Small shift (i)

In the course of my study with and into the research score, I observed two small shifts in the practice that may have a significant outcome.¹⁸ The first shift is related to the writing of an essay about the first phase of my doctoral research.¹⁹ Writing this essay required me to scrutinise in detail *what* it was that I actually did when practising the research score, and *how* I did it. This task prompted me to shift and expand my focus slightly from an analysis of the Manipulations towards a closer examination of the research score. As a consequence of this shift in attention, the practice of

the research score *itself* came to the fore as the primary epistemic object of my investigation.

In the above-mentioned essay, I allude to Walter Benjamin's ideas about the task of the translator²⁰ and propose considering the research score as a *translation* of the Manipulations. According to Benjamin, it is impossible, and not even desirable, for the translator to provide a *literal* translation of an original. Instead, he writes, a good and successful translation is one that *touches* on the original.²¹ In a similar manner, the research score is not a literal translation of the Manipulations. As already indicated, it is impossible to exactly and *literally* re-create the sense perceptions of the Manipulations through the research score, and any attempt at such a literal translation is bound to fail.

With Benjamin, I suggest that the research score is a translation that *touches* on the original practice of the Manipulations. In touching on the Manipulations, the research score is at the same time faithful to the original practice while *also* betraying it. It betrays the Manipulations by turning a duo form into a solo practice that inevitably fails to identically recreate the original experience. And yet the research score is faithful because it reiterates one of the core principles of Body Weather performance training: the strategy to (re-)create, by memory and imagination, an experience made

18. I can only briefly sketch these shifts here. A more elaborate account forms part of my written dissertation project.

19. See footnote 1.

20. Walter Benjamin, "The Task of the Translator" [first printed as an introduction to a translation of Baudelaire, 1923], in *Illuminations*, trans. by Harry Zohn, ed. and intro. by Hannah Arendt (New York: Harcourt Brace Jovanovich, 1968), 69–82.

21. Just as a tangent touches a circle lightly and at but one point, with this touch rather than with the point setting the law according to which it is to continue on its straight path to infinity, a translation touches the original lightly and only at the infinitely small point of the sense, thereupon pursuing its own course according to the laws of fidelity in the freedom of linguistic flux." See Benjamin, "The Task of the Translator," 80.

in the past (i.e. in the training) that is then re-enacted in performance, for example in a scored improvisation.

Is the research score a method?

In May 2015, in the process of creating a lecture-demonstration for a conference on dance research,²² I conducted a series of research scores reflecting on and with the word "method".²³ The question that I was concerned with at the time was whether the research score was becoming a *method* of reflection:

What's the difference between
practice and method?

Am I practising a method or
Am I turning a practice into a
method?

Does it have to do with the inten-
tion underlying the practice, the
doing

Whether something is "practice" or
"method"?

(Excerpt from research score on
/with "method", 5 May 2015)

So I'm reflecting on method
With a method of reflection

(Excerpt from research score on
/with "method", 6 May 2015)

A method of folding sensing into
reflection ... and reflection into
sensing

All this with minimal effort
And with a maximum of receptivi-
ty and listening

Not one over the other but one

with the other
[...]

Not a method of
Finding solutions

But a method of

Taking a problem to its

To its core ... or to its edge ... to its
extreme

Observing what happens

Reflecting as it happens

Reflecting on and in action

(Excerpt from research score on
/with "method", 7 May 2015)

In the series of research scores on /with "method", it is apparent how the research score itself has become an object of (self-)reflection. The question was whether the research score was turning into a *method*.²⁴

In my reflections on the research score I am ambivalent: on the one hand, I still question whether the research score can be considered a method; on the other hand, I am quite outspoken that the practice I conduct to reflect on method is indeed itself a method of reflection. As we will see below, I will call this idea into question. For now, however, I want to highlight that the research score, in the course of the first shift, detached itself from its previous function as a practice to think through the Manipulations and started to stand on its own. In Benjamin's terms, as a translation of the Manipulations, it was on its way to becoming a practice that speaks its own language.²⁵

22. Nordic Forum for Dance Research [online], accessed 1 July 2016, <http://nofodrvk2015.akademia.is/>.

23. All transcripts presented in this chapter were made from audio recordings.

24. Borgdorff defines method as "a well-considered, systematic way of reaching a particular objective". See Borgdorff, "The Production of Knowledge in Artistic Research," 50.

25. "It is the task of the translator to release in his own language that pure language which is under the spell of another, to liberate the language imprisoned in a work in his re-creation of that work." See Benjamin, "The Task of the Translator," 80. Note that Benjamin speaks of translation as a *re-creation* of the original.

Small shift (ii)

The first shift coincided with a second shift that happened when I began to practise the research score as a way of reflecting on and with notions that I encountered in my conceptual research studies. When preparing a contribution for another conference on the methodology of practice-as-research, in the autumn of 2015,²⁶ I conducted a different series of research scores reflecting on and with a variety of notions: “struction”,²⁷ “embodied knowing”,²⁸ “embodied reflection”,²⁹ “reflection”,³⁰ “diffraction”³¹ and “unfinished thinking”.³²

The diversity of concepts that I chose to reflect on indicates my efforts to develop the conceptualisation of the research score from different perspectives. What came to the fore over the course of the second shift was that by being able to relate to a diversity of concepts, the research score proved to be a versatile tool to reflect on possibly *any* notion that I came across in the realm of my theoretical studies. What happened accordingly was that I began frequently to lie down in my study at home to practise the research score in addition to the more usual way of “dryly” thinking through ideas and typing them into my computer while sitting at the desk.³³

To sum up, in the course of the two shifts, the research score evolved from an embodied approach to think through the Manipulations into a consistent practice of embodied reflection on its own terms, deployable as a means of reflecting on and with *any* notion of current interest. In the poetic language of Benjamin, the research score was now set on a “straight path to infinity [...] thereupon pursuing its own course according to the laws of fidelity in the freedom of linguistic flux”.³⁴

From reflecting *on* practice to
reflecting *with* practice

It seems to me that the evolution of the research score into a consistent and versatile practice of embodied reflection enables a small but potentially significant shift in the mode of reflection: from reflecting *on* practice to reflecting *with* practice. Based on my own practice of the research score, I would say that the difference between reflecting *on* and reflecting *with* largely depends on how, mentally and physically, the relations between the two parallel lines of the perceptual inquiry and the observation of the process of thinking are enacted. As a rough guide, the more attention is given to the *concept* and the process of thinking, i.e. the more the concept is focalised, the more the practice of

26. Gesellschaft für Tanzforschung Society for Dance Research [website], accessed 1 July 2015, <http://www.gtf-tanzforschung.de/>.

27. Jean-Luc Nancy and Aurelien Barrau, *What's These Worlds Coming To?*, trans. by Travis Holloway and Flor Mechain (New York: Fordham University Press, 2015), 42–58.

28. Mark Johnson, “Embodied Knowing Through Art,” in M. Biggs and H. Karlsson (eds.), *The Routledge Companion to Research in the Arts* (London: Routledge, 2011), 141–151.

29. Kinsella, “Embodied Reflection and the Epistemology of Reflective Practice.”

30. Zahavi, “Phenomenology of Reflection,” 177–193.

31. Karen Barad, “Posthumanist Performativity: Toward

an Understanding of How Matter Comes to Matter,” *Signs: Journal of Women in Culture and Society* 28 (3) (2003): 801–831.

32. Borgdorff, “The Production of Knowledge in Artistic Research,” 44–63.

33. In the course of 2015, I practised the research score to reflect on and with, among others, the notions of “place”, “time”, “participation”, “third space”, “potential”, “method”, “cut”, “tacit knowledge”, “thinking”, “training”, “not-knowing”, “touch”, “struction”, “embodied reflection”, “diffraction”, “unfinished thinking”, “specificity”, “emptiness”, “relation”, “exhaustion” and “articulation”.

34. Benjamin, “The Task of the Translator,” 80.

the research score leans towards a mode of reflecting *on*. In the mode of reflecting *with*, on the other hand, the concept is kept more at the periphery of the attention as just another *relatum* in the field of experience. The challenge is to constantly renegotiate the balance between conceptual and non-conceptual modes of experience, to oscillate between sensing and thinking, without allowing one mode to become dominant over the other.

The shift from reflecting *on* to reflecting *with* practice may seem small and subtle. But I intuit that it has a significant outcome, since it points to the possibility of an altered relationship between artistic practice and conceptual reflection in which neither is subjected or subordinated to the other. The research score opens up the possibility to closely interweave practice and reflection and to (re-)configure the relations between the two in a mode of *co-creating* and composing *with* the other on an equal footing.

Co-existence
 Method of thinking
 To build in a delay
 To not speak out the thought right
 away, but
 To let it
 Sink a bit deeper ... stay a bit longer
 Keeping it liquid ... liquefying the
 thought
 The thinking
 To give affect a bit
 more time to do its work
 To test the concept's
 affectability

To circulate the concept through the
 series ... of the Manipulations

Redistributing the concept
 Taking it into different
 places ... of attention
 So the concept
 gets in touch

With the whole body, and potentially
 the whole of outside the body
 So think the concept through the
 body

Touching it, mobilising it ... checking
 its weight

Its texture and density ... its quality
 Taking it to the limits, the periphery of

The conscious
 The sensible

Allowing it to pass through the
 limits into the unconscious and
 the unknown

Allowing it to pass
 through

To have its own journey
 Not owning the concept,
 it's a collective property
 It travels to do its work
 [...]

(Excerpt from research score on
 /with "method", 12 May 2015)

What would be the epistemological consequences of shifting, or expanding, the mode of reflection in the research score from a mode of reflecting *on* towards a mode of reflecting *with*? The issue, it seems, is whether the advanced version of the research score still fits into an epistemological model that presupposes a separation between a reflecting subject and an object of reflection, between a knower and a known.

Rounding up: from "reflection" to
 "diffraction"

Karen Barad has launched a powerful critique of a representationalist

epistemological model that assumes an ontological gap between a knower (someone representing) and the known (that which is represented), which is then mediated by the representation of (propositional) knowledge.³⁵ She calls for an alternative, post-humanist and performative model, one that does not make a separation between a subject and an object of knowing, and in which the observing knower is not *exterior* to the observed phenomenon. In her account, objective knowledge is rather “a matter of *exteriority within (material-discursive) phenomena*”.³⁶

Changing the ... grating ... the diffraction grating ... or changing the mode of Reflection to diffraction
 Imagining thoughts going through the body ... wavelike
 Attention taking
 Taking thoughts ... through and out of the body
 The body becoming permeable for thoughts outside itself
 Diffracting thoughts as they enter
 Through the touch
 Becoming part of the meridian system
 The circulation of the blood
 The breath
 And also getting in touch
 With other agents
 Affecting and being affected
 Rendering the body affective
 And by rendering ... one's own body affective
 Allowing other bodies to become affective, too
 The form of the Manipulations as a means or medium for something else ... not an End in itself

Co-presence ... of ... matter and thought
 Thinking matter
 And thought
 As a distributed process
 An intra-action
 Not an inter-action between
 A word and a thing ... an object or a phenomenon
 As an inter-action we tend to see ourselves as isolated agents
 Of thought
 And yes we enact
 And we are accountable for that
 What we enact and how
 And what we activate and what we de-activate
 Representation ... performativity ... it's not either one or the other
 The question is if there is a third [...]

(Research score on/with “diffraction”, 27 October 2015)

A knowing subject, according to Barad, is not outside or exterior to the known object or phenomenon, but is itself an integral, yet separable, part of the phenomenon that it aims to understand – an exteriority within. Therefore, instead of referring to the process of knowing in terms of “reflection”, she proposes the notion of “diffraction”. Diffraction, Barad writes, “troubles dichotomies, including some of the most sedimented and stabilized/stabilizing binaries, such as organic/inorganic and animate/inanimate. Indeed, the quantum understanding of diffraction troubles the very notion of *dichotomy* – cutting into two – as a singular act of absolute differentiation, fracturing this from that, now from then.”³⁷

35. Barad, “Posthumanist Performativity,” 801–831.
 36. Ibid., 825; emphasis in the original.

37. Karen Barad, “Diffracting Diffraction: Cutting Together-Apart,” *Parallax* 20 (3) (2014), 168; emphasis in the original.

What, in the context of artistic research, might be the implications of this onto-epistemological shift from a model of representation to a post-humanist performative model, and with regard to the research score as, supposedly, a method of embodied reflection? At this moment in my research I cannot be certain, but it seems to me that the research score mediates³⁸ an oscillation between both models, making their differences felt and sensible: the difference between a system of representation in which a knower reflects *on* the known, and a post-humanist performative model in which the knower is an integral part of the phenomenon s/he tries to understand, diffractively articulating the doing-thinking *with* concepts and phenomena while at the same time allowing it to be diffracted by them. Would it be conceivable for both models to coexist, or are they mutually exclusive?³⁹

Sensation reflecting the intensity
of ... memory and imagination
Reflection as ... part of a system of
representation
Articulation as part
Of a performative model
That is more adequate
To the needs of performance-as-research
or practice-as-research

Where the articulation happens
With practice through practice or
in practice
And it's not an articulation about
practice
Where modes of doing and reflecting
coincide
Have an encounter
Diffracting each other
Maybe artistic research needs to
be able to oscillate between both
models, the representational model
and the performative model
Depending on the context of its
enactment
Is it the studio? Is it the classroom?
Is it
A lecture hall? A conference room?
A conversation ... on the street?
Or whether one needs to take a
certain distance
Stepping back
Broadening the focus
The research score
Can be a practice
That houses both models
Reflection and diffraction
Different kinds of languages
Different kinds of thinking
through ... maybe knowing ... maybe
unknowing

(Research score on/with "reflection",
13 July 2016)

38. Esa Kirkkopelto has argued that artistic research transforms an *artistic* medium into a medium of *artistic research*, thereby changing its function. Whereas an artistic medium enables a change, a transition from one state to another, a medium of artistic research goes beyond that: "A medium is not only a path, a 'method', a transition from one place to another, but also the material and technical ground on which that place is traced, a place for placing a happening. A medium of artistic research not only enables a change, but makes it happen in a certain way, according to the conditions set by the mediating material or technique. The medium inscribes itself into the change by the singular way the change takes place. [...] As an artistic medium changes into a medium of research [...] then the mediating transmission takes place between the known and established levels of perception and discourse and the unknown ones,

which through this process are becoming perceptible and articulable. Due to the medial nature of the change, it remains conditional. Insofar as the medium can carry out a movement towards the points unknown and display its operation, it cannot ever fully accomplish the transition it communicates; it remains suspended between two stages; it can only suggest the transition by repeating itself endlessly and anew." See Esa Kirkkopelto, "Artistic Research and its Institutions," in *Artistic Research: Yearbook 2015* (Stockholm: Swedish Research Council, 2015), 49–50.

39. Barad points out that "reflection and diffraction are not opposites, not mutually exclusive, but rather different optical intra-actions highlighting different patterns, optics, geometries that often overlap in practice". See Barad, "Diffracting Diffraction," 185, footnote 2.

References:

- Barad, Karen. "Diffracting Diffraction: Cutting Together-Apart." *Parallax* 20 (3) (2014): 168-187.
- . "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs: Journal of Women in Culture and Society* 28 (3) (2003): 801-831.
- Biggs, Michael and Henrik Karlsson (eds.). *The Routledge Companion to Research in the Arts*. (London: Routledge, 2011).
- Borgdorff, Henk. "The Production of Knowledge in Artistic Research." In *The Routledge Companion to Research in the Arts*, edited by M. Biggs and H. Karlsson, 44-63. London: Routledge, 2011.
- . "The Mode of Knowledge Production in Artistic Research." In *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance*, edited by S. Gehm, P. Husemann and K. v. Wilcke, 73-79. Bielefeld: Transcript, 2007.
- Gesellschaft für Tanzforschung Society for Dance Research [website]. Accessed 1 July 2015. <http://www.gtf-tanzforschung.de/>.
- Gehm, Sabine, Pirkko Husemann and Katharina v. Wilcke (eds.). *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance*. Bielefeld: Transcript, 2007.
- Hug, Joa. "Writing with Practice: Body Weather Performance Training Becomes a Medium of Artistic Research." In *Theatre, Dance and Performance Training* 7 (2) (2016): 168-189.
- . "Modes of Knowing in Body Weather Performance Training." In *Zwischenleiblichkeit und bewegtes Verstehen: Intercorporeity, Movement and Tacit Knowledge*, edited by Undine Enderlein, 367-380. Bielefeld: Transcript, 2016.
- . "Body Weather Manipulations No. 1 & 2." Theatre, Dance and Performance Training Blog [online]. Accessed 14 June 2016. <http://theatredanceperformancetraining.org/2015/11/body-weather-manipulations-no-1-2/>.
- Johnson, Mark. "Embodied Knowing Through Art." In *The Routledge Companion to Research in the Arts*, edited by M. Biggs and H. Karlsson, 141-151. London: Routledge, 2011.
- Kinsella, Elizabeth Anne. "Embodied Reflection and the Epistemology of Reflective Practice." *Journal of Philosophy of Education* 41 (3) (2007): 395-408.
- Kirkkopelto, Esa. "Artistic Research and its Institutions." In *Artistic Research: Yearbook 2015*, 49-53. Stockholm: Swedish Research Council, 2015.
- Nancy, Jean-Luc and Aurelien Barrau. *What's These Worlds Coming To?* Translated by Travis Holloway and Flor Mechain. New York: Fordham University Press, 2015.
- Nordic Forum for Dance Research [website]. Accessed 1 July 2016. <http://nofodrvk2015.akademia.is/>.
- Pakes, Anna. "Art as Action or Art as Object? The Embodiment of Knowledge in Practice as Re

search.” *Working Papers in Art Design* 3 (2004): 1–9.

—. “Original Embodied Knowledge: The Epistemology of the New in Dance Practice as Research.” *Research in Dance Education* 4 (2) (2003): 127–149.

Parviainen, Jaana. “Bodily Knowledge: Epistemological Reflections on Dance.” *Dance Research Journal* 34 (1) (2002): 11–26.

Polanyi, Michael. *The Tacit Dimension*. London: Routledge, 1967.

Rouhiainen, Leena (ed.). *Ways of Knowing in Dance and Art*. Helsinki: Yliopistopaino, 2007.

Schön, Donald. *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass, 1987.

—. *The Reflective Practitioner: How Professionals Think in Action*. London: Temple Smith, 1983.

Zahavi, Dan. “Phenomenology of Reflection.” In *Commentary on Husserl’s Ideas I*, edited by Andrea Staiti, 177–193. Berlin: De Gruyter, 2015.

TANJA GESELL¹

Present Absent: Biomolecular & Artistic Structure Research Is There a Method?

1. Artistic Research in the "Antechamber of Angeldom"

Images such as Paul Klee's *Angelus Novus*² stand for themselves – self-sufficient and determinate. Precisely through this self-sufficiency, they bring forth multilayered reflections and thought images, which in turn stand for themselves. The space between image and recipient, however, is often filled with a weave of mysterious and singular personal relationships. Such was the case for Walter Benjamin and Klee's *Angelus Novus*. "I love him dearly," wrote Benjamin³; the image accompanied him throughout his entire life. As the angel of history, the figure is brought to prominence in Benjamin's essay "Theses on the Philosophy of History".⁴ *Angelus Novus* belongs to a series of angels (1915–1940) that Klee himself described as beings dwelling in the "antechamber of angeldom" (Vorzimmer der Engelschaft). The dynamic of Klee's *Angelus Novus* is reminiscent of Masaccio's *Trinity*⁵ – the first picture in Western art where a space constructed according to the laws of perspective is rendered with such precision. To this day, the influence of the *Trinity* on Western art is undisputed. Its significance resides

not only in the correct geometric perspective but also in a crossing over of perceptions, in which seeing and knowing both point to something that lies beyond the picture. *Angelus Novus* likewise points to another space, before and behind the picture, to something beyond that which can be expressed by words: a spatial relation that extends between the angel of history and the antechamber of angeldom, history and future, reference and individuality, dilemma and wit. It is in this unmediated in-between space that I would like to let the image of *Angelus Novus* and Benjamin's text stand for themselves, as motive forces for art itself.

2. Present absent: methodological approach

In this unmediated in-between space, my artwork contributes through being "present absent" to my structure research, and vice versa. I strongly believe that it is necessary that the artwork as such remains contained in itself: "... if not for the reason that it strangely unsettles 'the spirit', knocks it off its perch ... Why, if not for that reason, since art goes hand in hand with a 'vestige' that cannot be abolished?"⁶

1. Department of Structural and Computational Biology, Max F. Perutz Laboratories, University of Vienna, Campus Vienna Biocenter 5, 1030 Vienna, Austria.
2. Paul Klee, *Angelus Novus* [oil, watercolour on paper], Israel Museum, B87.0994.
3. Walter Benjamin, *Gesammelte Briefe* (Frankfurt am Main: Suhrkamp, 1995).

4. Walter Benjamin, *Über den Begriff der Geschichte* (Berlin: Suhrkamp, 2010).

5. Masaccio, *Holy Trinity* [fresco], Basilica of Santa Maria Novella, Florence, circa. 1426–1428.

6. Sarah Kofman, *Melancholie der Kunst* (Wien: Passagen Verlag, 2008).

According to Hans-Jörg Rheinberger,⁷ the discussion of the relationship between science and art has the task of finding a common ground of evolutionary relations without necessarily conflating the two fields. Being a graduate in both fine arts and molecular biology means that my epistemological references are cross-linked into both fields, allowing me to give voice to an internal dialogue between the fields and thus to transcend their boundaries (Figure 1).

This characterises my artistic research and methodological approach: I am attempting to trace the evolution of artistic research in general and my own relationship to science and art in particular with a view to both past and future. In other words, I propose to examine the relevant theoretical discourses while also considering my own practice diachronically and with respect to scientific and artistic reference systems. The configurations of my scientific and artistic practice are considered in their historicity and then continued. Between past and future, a trajectory is spanned that defines my scientific research through my artistic practice and my artistic practice through my scientific research. The temporal axis that reaches into both past and future is

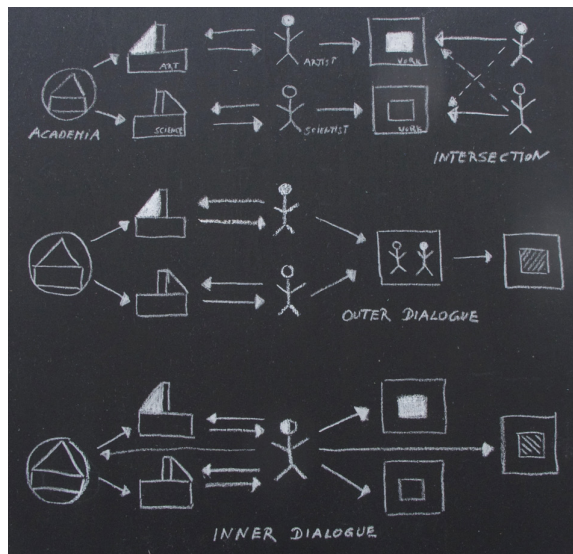


Figure 1: *Blackboards: Nr. 5*, T. Gesell (2014)

an essential element, as it reveals a process of exploration that articulates my own artistic research of the past and shows the emergence of artistic research as an academic discipline.

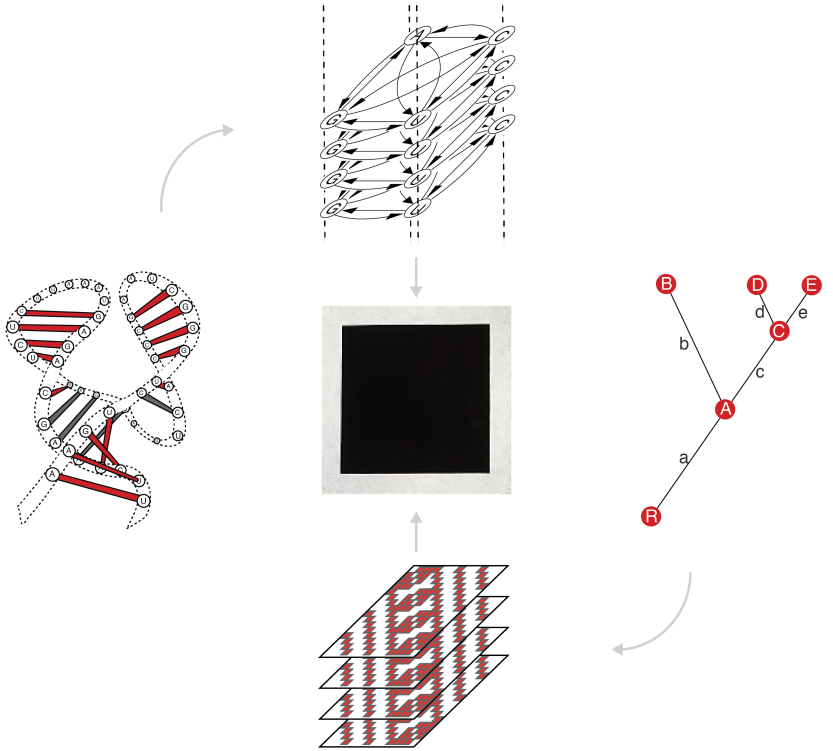
3. Biomolecular and artistic structure (re)search

The focus of my art-science interface is *structure* with a past-present-future and a spatial-temporal interdependency. Barnett Newman's "zips" define the spatial structure of a painting⁸ while simultaneously dividing and unifying the composition. By simultaneously dividing and unifying the academic fields of art and science, I am pointing to fundamental questions, such as: *What is a structure?*

7. Hans-Jörg Rheinberger, "Episteme zwischen Wissenschaft und Kunst" [lecture], IFK Internationales Forschungszentrum, Vienna 2015.

8. For example, Barnett Newman, *Onement I*, Museum of Modern Art, 1949.

A PHYLOGENETIC STRUCTURE



NEIGHBOURHOOD SYSTEM

SUBSTITUTION MODEL

PHYLOGENETIC TREE

Figure 2: *A Phylogenetic Structure*, T. Gesell (2009)

SCIENTIFICALLY, I am working from simulating to analysing and visualising site-specific interactions of biomolecular sequences. Based on my general interest in a definition of

structure, I developed a simulation program that mimics sequence evolution under structural constraints. This led me to define a PHYLOGENETIC STRUCTURE⁹ (Figure 2):

9. Tanja Gesell, "A Phylogenetic Definition of Structure," PhD thesis, Universität Wien, Zentrum für Molekulare Biologie, 2009; and Tanja Gesell and Peter Schuster, "Phylogeny and Evolution of RNA Structure," *Methods Mol Biol.* 1097 (2014): 319–378.



Figure 3: *GEORG*, T. Gesell (2004)

ARTISTICALLY, I intend to give body to the structural concepts while being aware of my use of form, materials and techniques in the tradition of fine art. An important part

of my work is the choice of works presented being site-specific with respect to interior and context of the space. Here, I give an example of one of my previous WORKS¹⁰ (Figure 3):

10. Tanja Gesell, *GEORG* [paper; wood; synthetic leather], Kunstakademie Düsseldorf, 2004.

What is a biomolecular structure?

Traditionally, biomolecular structures are uniquely defined by their atomic composition and the way their individual components are linked together. Linderstrøm-Lan¹¹ invented his classical description scheme for proteins, in which he proposed a hierarchical system with four levels: from primary to quaternary structure. Future challenges in structural research will be characterised by a complementary relationship between structure and dynamics, as well as by changes in modes of representation.

My projects addresses two of the greatest challenges in molecular biology today: the molecular dogma and the traditional structure-function paradigm. Today, as the number and complexity of additional data is growing rapidly, the characterisation of RNA structures and the analysis of biochemical functions necessitate a novel kind of theoretical biology, as well as new visualisation methods and application tools. Structural concepts are important on many levels, for example finding new gene candidates. Visual presentations of molecular structures mostly focus on their folding in space and not on their underlying dynamics.

What is a structure?

My references in the field of art are historical and interpretative. The Renaissance is of fundamental importance to my research into structure: from Fra Angelico to Giotto's Arena Chapel and Piero della Francesca's *Madonna*, as forms that are contained in and become other forms, to Masaccio's Trinity, which is a perfect instance of central perspective and beyond. From there, the way to Kasimir Malevich's concerns about the origins of an artistic structure's unfolding and Paul Klee's thought in structural connections, where processes of unfolding intertwine towards both the abstract and the concrete. And further to Frank Stella, Agnes Martin, Ad Reinhardt and finally to contemporary artists, such as my teacher Rosemarie Trockel. Fundamental components for my structural concepts are transitions in time and space, as well as "a true fact of structure".¹² Today's artists have the option to use all sorts of digital as well as bio-media and are not limited to a set of historical techniques. This freedom makes the use of analogue techniques a conscious decision, which holds significance for the work's reception and individual process.¹³

11. Kaj Ulrik Linderstrøm-Lang, *Proteins and Enzymes* [Lane Medical Lectures] (Stanford: Stanford University Publications, 1952).

12. "But in this freedom of imaginary associations, we have to recognize a *true fact of structure*, where every image becomes clear only in passing within view of all the others, however disparate or dissemblant they are among themselves." Georges Didi-Hubermann, *Fra Angelico: Unähnlichkeit und Figuration* (München: Wilhelm Fink Verlag, 1995).

13. Michael Schneider, "Tools for Thoughts and Traces," *Wiener Zeitung*, 2015.

SISSI¹⁴ (Simulating Site-Specific Interaction) simulates the evolution of a nucleotide sequence based on a phylogenetic definition of structure.⁹ A phylogenetic structure consists of three aspects: a substitution model, a neighbourhood system and the phylogenetic tree. The substitution matrix specifies the evolutionary process of nucleotide evolution. However, the matrix is influenced by a neighbourhood system that defines the interactions among sites. The phylogenetic tree introduces an additional dependency pattern into the observed sequences.

Follow-up applications of SISSI's framework are adequate null hypotheses for RNA gene prediction, such as SISSIz.¹⁵ Recently, an updated version of SISSIz was included in a pipeline that provides an intensive set of functional transcriptomic annotations.¹⁶ In addition, another view on sequence evolution is introduced: merging the substitution matrix directly with a phylogenetic tree.¹⁷ Thus, the substitution matrix directly encodes the phylogenetic tree. On the one side, the goal is to include all aspects in one substitution matrix. On the other side, this definition evokes concepts such as that incompleteness is inherent in any description of structure.

GEORG¹⁸ *stands in space. He does not lean – he stands, close to the edge of the room. The space surrounding Georg is defined by sheets of graph paper applied to the walls. Resembling bricks, the sheets define the trivial structure of Euclidian space. The sheets of graph paper reach from the floor to cover approximately one-fifth of the wall. They are in various shades, ranging from ochre to russet. With individual sheets placed on the wall intermittently, their pattern is repeated by a superordinate structure that resembles a brick wall. Georg is a wooden object, two-thirds covered by white leather into which the word "Georg" has been impressed. Georg is a word that represents one possibility of naming among many, a linguistic sign that guides the viewer toward one of the infinite possible interpretations of Tanja Gesell's work. The work evokes Musil's concepts¹⁹ of "sense of reality" "sense of possibility". Imaginary events are thinkable in a vaguely defined space: "If there is a sense of reality, and no one will doubt that it has its justifications for existing, then there must be also be something we can call a sense of possibility." "So the sense of possibility could be defined outright as the ability to conceive of everything there might be just as well, and to attach no more importance to what is than to what is not." (This is a description by the visual artist Sabine Boehl of my work GEORG.)*

14. Tanja Gesell and Arndt von Haeseler, "In silico sequence evolution with site-specific interactions along phylogenetic trees," *Bioinformatics* 22 (2006): 716–722.
15. Tanja Gesell and Stefan Washietl, "Dinucleotide Controlled Null Models for Comparative RNA Gene Prediction," *BMC Bioinformatics* 9 (2008): 248.
16. Martin A Smith, Tanja Gesell, Peter F. Stadler and John S. Mattick, "Widespread purifying selection on RNA structure in mammals," *Nucl. Acids Res.* 41(17) (2013): 8220–8236.
17. Steffen Klaere, Tanja Gesell and Arndt von Haeseler, "The impact of single substitutions on multiple sequence alignments," *Phil. Trans. R. Soc. Lond. B*, 363 (2008): 4041.

18. Tanja Gesell, *GEORG* [paper; wood; synthetic leather], Kunstakademie Düsseldorf, 2004.
19. Robert Musil, *Der Mann ohne Eigenschaften*. Neuausgabe 1978 (Reinbeck: Rowohlt, 1930/32).

Oscillating between art and science, with questions and references that are intrinsic to art, has allowed me to define structure in a different way and to transcend the boundaries of science. Thanks to the artist Oswald Wiener, I have engaged with the question of introspection in some depth, especially with the question: what is a structure? Wiener offers the following definition: a structure is a sequence of a Turing Machine, which in turn generates or accepts this sequence.²⁰ With this definition, Wiener introduced a productive metaphor into the field of art: the machine metaphor. I have defined a phylogenetic structure based on a simulation framework for (molecular) sequence evolution as both a scientific tool and an additional metaphor. Figure 4²¹ is an attempt to sketch my references to the black

square of Malevich²² (1915) and the so-called guidable light of Curt Fischer²³ (1920). Fischer was one of the first to develop the idea of a movable wall light with a non-dazzle parabolic reflector and an arm mechanism, which enabled the light to be adjusted to almost any angle. The multifunctional task light with an arched metal tube was part of the furniture and fittings at the Weimar Bauhaus. Fischer's lamp metaphorically refers to a scientific space that I call "the realisation room", symbolising the need to design multifunctional algorithms in order to transform different concepts of structure at various descriptive levels. Malevich's black square, on the other hand, represents the goal of this structural research approach, namely, to integrate all aspects into one substitution matrix – even though it remains unclear if this

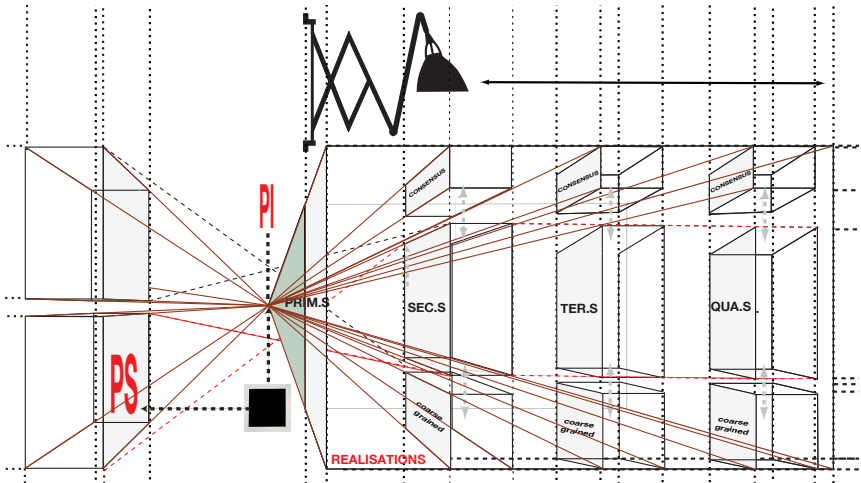


Figure 4: From a Phylogenetic Definition of Structure (PS) to the Point of Interest (Pi), T. Gesell (2009)

20. Oswald Wiener, "Form and content in thinking Turing machines," in Rolf Herken (ed.), *The Universal Turing Machine: A Half-century Survey* (Vienna: Springer, 1995), 631–657.
21. Tanja Gesell, "A Phylogenetic Definition of Structure," PhD thesis, Universität Wien, Zentrum für Molekulare Biologie, 2009.

22. Kasimir Malevich, *The Black Square* [oil on linen], Tretyakov Gallery, Moscow.
23. Curt Fischer, *Lamp*, Walter Gropius Bauhauserkstätte, Weimar.

is possible and whether a phylogenetic structure could be adequately explained in this way. The point of interest (PI) points to another space, before and behind the picture.

Besides advancing the fields of information visualisation through basic research and experimental design, visualising biological data should also focus on areas that lie beyond the possibility of any (objective) representation and point to fundamental questions. I am working with information visualisation as an engineering field in the context of science, while I refer to artistic structure in relation to the classical field of fine art. The process of fine art is fundamentally different to information visualisation as an engineering field, with its evaluation and validation.

My intentions become clear in another installation²⁴ (Figure 5), which I located in a small side gallery of a government building in Gütersloh, Germany, with a quote of Heiner Müller²⁵ from the mission: "How to fulfil an unknown task?". From my perspective today, exploring the difference between art, vis-info and science, the question of tasks and missions remains intriguing.

4. Future work and summary

While the scientific outcome will be quantitative and reproducible (left column, page 71), the artistic outcome remains contained in itself (right column, page 71). However,



Figure 5: a.T.²⁴ T. Gesell (1997);
"How to accomplish an unknown task?"²⁵

isting methodologies in biomolecular structure research, this approach uses scientific and artistic practices to examine the structural concepts that underlie molecular biology. My future activities will request a new artistic expression of structure as an image of order and disorder, as well as a scientific modelling approach of the uncertainty of structure and evolution.

As an example, the artifacts and noise inherent in the process of print-making are appealing to me, while on the other side biological noise and artifacts remain a problem. Currently, I am using the artistic process of silk-screen printing while simultaneously using a scientific approach to creating accurate background models for genomic screens. Silk-screening, in particular, offers an opportunity to intertwine pictorial elements and modules to create an ensemble of structures in permanent regeneration and degeneration. While the printed results are only one manifestation of the process, the creation of the matrices is of equal importance.

24. Tanja Gesell, a.T. [paddling pool, letters, goldfish], Kunstverein Gütersloh, Germany, 1997.

25. Heiner Müller, *Der Auftrag und andere Revolutionsstücke* (Stuttgart: Reclam, 2005).

To (re)search the mechanism of transitions artistically, printmaking is an appropriate choice of an artistic media since the transition of qualities from one object to another is inherent. Scientifically, transition-respective substitution matrices such as the SISSI model are basic tools in evolutionary research. In addition, based on my phylogenetic definition, I am combining different concepts of structure and contrasting them with new manifestations of ideas. I am using my SISSI framework to generate unfolded RNAs under evolutionary constraints and thermodynamically improbable neighbourhood systems. While I am currently working on “unstructured structures”, artistic experiences raise my awareness of the appeal of disorder. On this side, neither illustration nor information visualisation are my own intention. This becomes clear in my crossing-poster-presentation²⁶ at the artistic research conference in Prague. Unusually, the figures of the poster were on the back of blackboards standing on the floor. The poster itself referred to Malevich’s *Black Cross*²⁷ (Figure 7), while the blackboards (Figure 6) pointed to both the black square²⁸ as well as Beuys’ blackboards.²⁹ In particular, the blackboards leaning on the wall included the topic of the unresolved relationship between tradition and modernity in artistic expression in relation to science.

In summary, my methodological approach includes automatically the topic of the figure of the scientist as



Figure 6: Crossing-poster-presentation, T. Gesell (2014, 2016)²⁶

an artist and the artist as a scientist. Being both a scientist and an artist is a challenge, but it also offers the possibility of embedding artistic research in a different way inside scientific departments. It has the potential to directly alter the direction of scientific research, which in turn will show the influence of scientific practice and research on artistic experimentation in my future research. This is an attempt to extend a relation between art and science as an unmediated space through the subversive force of art itself. It is a continuous searching process between “I” and “the Other”.

5. Acknowledgement

Sabine Boehl, Thomas Brinkmann, Marie Huber, Bernd Ruzicska and Marco Sealey were important for this chapter in many ways. A special thanks goes to Robert Konrat for his support. Funding from the FWF (P2835921) is highly appreciated.

26. Tanja Gesell, *Crossing-poster-presentation* [poster, black boards], at DNA habitats and its RNA inhabitants, symposium, Salzburg, Austria, 2014; at Artistic Research: Is There Some Method? conference, Academy of Performing Arts, Prague, Czech Republic, 2016.

27. Kasimir Malevich, *Black Cross* [oil on linen], Russian State Museum, St. Petersburg.

28. Kasimir Malevich, *The Black Square* [oil on linen], Tretyakov Gallery, Moscow.

29. Joseph Beuys, *Four Blackboards: Ohne Titel*, Tate Gallery, London.

Tanja Gesell

Present Absent : Biomolecular & Artistic Structure Research : Is there a Method?

The traditional **STRUCTURE-FUNCTION** paradigm is one of the greatest challenges in molecular biology today. For the scientific community, structure is correlated with function. For artists on the other hand, structure is correlated with interpretation and points to a different conceptual space. At this intersection my projects unfold, gesturing towards a shared point of interest that lies beyond art and science. Contrary to existing methodologies in molecular biology, the approach taken in my projects use scientific and artistic practice to examine the structural concepts that underlie molecular research. While my art is based on an application of both artistic and scientific methods and metaphors, the art work as such remains contained in itself. To generate corresponding art work without losing significant references to art history is such important for the art work as the evolution for defining a structure in molecular biology. My artistic references range from ancient mosaics, to the Renaissance, to modern and contemporary art, both in formal terms and based on the reception of the respective works. My scientific research extends from simulations to analyzing and visualizing site-specific interactions of nucleotide sequences. I am dividing and unifying the academic fields simultaneously, in particular art and science.

SISSI (Simulating Site-Specific Interaction) [1] simulates the evolution of a nucleotide sequence based on a phylogenetic definition of structure [2,3]. A phylogenetic structure consists of three aspects: a substitution model, a neighbourhood system and the phylogenetic tree. The substitution matrix specifies the evolutionary process of nucleotide evolution. However, the matrix is influenced by a neighbourhood system that defines the interactions among sites. The phylogenetic tree introduces an additional dependency pattern in the observed sequences. A follow-up application of SISSI's framework are adequate null hypotheses for RNA gene prediction [4]. Any experiment is only as good as the control exerted on it. Recently, an updated version of SISSI was included in a pipeline that provides an intensive set of functional transcriptomic annotations, identifying over 30 percent of the mammalian genome [5]. In addition, another view on sequence evolution is introduced, merging the substitution matrix directly with a phylogenetic tree [6]. Thus, the substitution matrix directly encodes the phylogenetic tree. On the one side, the goal is to include all aspects in one substitution matrix. On the other side, this definition evokes concepts such as that incompleteness is inherent in any description of structure.

GEORG [7] stands in space, he does not lean, he stands close to the edge of the room. The space surrounding Georg is defined by graph papers applied to the walls. Resembling bricks, the papers define the trivial structure of Euclidean space. The graph papers reach from the floor to cover approximately one-fifth of the wall. They have various shades ranging from ochre to russet. In that the individual papers are placed on the wall intermittently, their pattern is repeated by a superordinate structure that resembles brick walls. Georg is a wooden object, two-thirds covered by white leather on which a word, the word Georg has been impressed. Georg is a word that represents one possibility of naming among many; a linguistic sign that guides the viewer toward one of the infinite possible interpretations of Tanja Gesell's work. The work evokes Musil's concepts of "sense of reality" "sense of possibility". Imaginary events are thinkable in a vaguely defined space: "So the sense of possibility could be defined outright as the ability to conceive of everything there might be just as well, and to attach no more importance to what is than to what is not." [8] This is a description by the visual artist Sabine Bosh of my work **GEORG**. Inversely, she recorded a description by myself of her work **MOSUL** for an exhibition [9]

PRESENT ABSENT is about the "processes driven from behind" [10] with finding a common ground of evolutionary relations between art and science without necessarily conflicting the two fields. Being a graduate of both fine arts and molecular biology means that my epistemological references are cross-linked into both fields, which allows me to give voice to an internal dialogue between the fields and thus to transcend their boundaries. While I am currently working on "unstructured" structures, artistic experiences raises my awareness of the appeal of disorder. For example, intrinsically disordered proteins (IDPs) lacking stably folded tertiary structure but also their intrinsic flexibility has significant impact on their biological functionality, challenging the old structure-function paradigm [11]. Beside advancing the fields of information visualization through basic research and experimental design, visualizing biological data should also focus on areas that lie beyond the possibility of any objective representation. Thereby, it is necessary that the art work as such remains contained in itself. "Why, if not for that reason, since art goes hand in hand with a vestige that cannot be abolished?" [12] In this unmediated in-between space my art work contributes present absent to my scientific research as well as vice versa.

References: [1] GEISELL, T. and VON HÄSELER, A. (2006) In silico sequence evolution with site-specific interactions along phylogenetic trees *Bioinformatics*, 22: 716. [2] GEISELL, T. (2009) A Phylogenetic Definition of Structure. *PhD Thesis*, University of Vienna. [3] GEISELL, T. and SCHUSTER, P. (2014) Phylogeny and Evolution of RNA Structure. *Methods Mol. Biol.*, 1087: 219. [4] GEISELL, T. and WACHNER, S. (2008) Decoupled Controlled Null Models for Comparative RNA Gene Prediction. *BMC Bioinformatics*, 9: 248. [5] BERTH, M.A., GEISELL, T., SHALLEN, P.F. and MATTHEW, J.S. (2013) Widespread purifying selection on RNA structure in mammals *Nucleic Acids Res.*, 41: 8220. [6] KLARKE, S., GEISELL, T. and VON HÄSELER, A. (2008) The impact of single substitutions on multiple sequence alignments. *Phil. Trans. R. Soc. Lond. B*, 363: 4041. [7] GEISELL, T. (2004) *GEORG*. Rundgang: Kunstakademie Düsseldorf, Düsseldorf; Germany. [8] MUSIL, R. (1932) *Der Mann ohne Eigenschaften*, Neuausgabe 1978. Reinbeck: Rowohlt; Germany. [9] SANDER K. (2006) *Zeigen. Auditorium durch die Galerie Naehrer St. Stephan, Galerie Naehrer St. Stephan, Vienna, Austria*. [10] KUHNI, S. in *Reinhold Heide HJ (2015) Episteme zwischen Kunst und Wissenschaft. Lecture: IFK, Vienna, Austria*. [11] GEISELL, T. and KUHNI, R. (in prep.) Intrinsically Disordered Proteins: The Order of Disorder. [12] KUHNI, S. (2008) *Metaphorien der Kunst*. Passagen-Verlag: Vienna, Austria.

Tanja Gesell tanja.gesell@univie.ac.at
Department of Structural and Computational Biology,
Max F. Perutz Laboratories & University of Vienna, Austria.



Figure 7: Poster, T. Gesell (2016)

References:

- Benjamin, Walter. *Über den Begriff der Geschichte*. Berlin: Suhrkamp, 2010.
- . *Gesammelte Briefe*. Frankfurt am Main: Suhrkamp, 1995.
- Beuys, Joseph. *Four Blackboards: Ohne Title*. Tate Gallery, London.
- Didi-Hubermann, Georges. *Fra Angelico: Unähnlichkeit und Figuration*. München: Wilhelm Fink Verlag, 1995.
- Duerr, Hans Peter. *Traumzeit: Über die Grenze zwischen Wildnis und Zivilisation*. Frankfurt: Suhrkamp, 1985.
- . *Satyricon*. Berlin: Karin Kramer, 1982.
- Gesell, Tanja. "A Phylogenetic Definition of Structure." PhD thesis, Universität Wien, Zentrum für Molekulare Biologie, 2009.
- Gesell, Tanja and Peter Schuster. "Phylogeny and Evolution of RNA Structure." *Methods Mol Biol*. 1097 (2014): 319–378.
- Gesell, Tanja and Arndt von Haeseler. "In Silico Sequence Evolution with Site-specific Interactions along Phylogenetic Trees." *Bioinformatics* 22 (2006): 716–722.
- Gesell, Tanja and Stefan Washietl. "Dinucleotide Controlled Null Models for Comparative RNA Gene Prediction." *BMC Bioinformatics* 9 (2008): 248.
- Gesell, Tanja. *GEORG*. Kunstakademie Düsseldorf, Düsseldorf, 2004.
- Klaere, Steffen, Tanja Gesell and Arndt von Haeseler. "The Impact of Single Substitutions on Multiple Sequence Alignments." *Phil. Trans. R. Soc. Lond. B* 363 (2008): 4041.
- Klee, Paul. *Angelus Novus*. [Oil, watercolour on paper]. Israel Museum, B87.0994.
- Kofman, Sarah. *Melancholie der Kunst*. Wien: Passagen Verlag, 2008.
- Linderstrøm-Lang, Kaj Ulrik. *Proteins and Enzymes* [Lane Medical Lectures]. Stanford: Stanford University Publications, 1952.
- Müller, Heiner. *Der Auftrag und andere Revolutionsstücke*. Stuttgart: Reclam, 2005.
- Musil, Robert. *Der Mann ohne Eigenschaften*. Neuausgabe 1978. Reinbeck: Rowohlt, 1930/32.
- Rheinberger, Hans-Jörg. "Episteme zwischen Wissenschaft und Kunst" [lecture]. Vienna: IFK Internationales Forschungszentrum, 2015.
- Schneider, Michael. "Tools for Thoughts and Traces." *Wiener Zeitung*, 2015.
- Smith, Martin A., Tanja Gesell, Peter F. Stadler and John S. Mattick. "Widespread purifying selection on RNA structure in mammals." *Nucl. Acids Res.* 41(17) (2013): 8220–8236.
- Wiener, Oswald. "Form and content in thinking Turing machines." In *The Universal Turing Machine: A Half-century Survey*, edited by Rolf Herken, 631–657. Vienna: Springer, 1995.

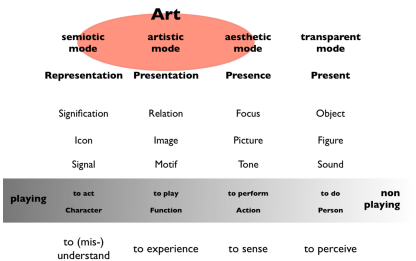
JULIAN KLEIN¹

The Mode is the Method Or How Research Can Become Artistic

In the various fields of research, we encounter many different methods: statistical testing of hypotheses; hermeneutical interpretation; language analysis of terms and concepts; thought experiments and empirical experiments; surveys and interviews; juridical negotiations about norms or thresholds; series of trials and errors; defining axiomatic systems; logical proofs; product development; programming algorithms and calculating simulations. This list can be continued. Some of them can be combined, or applied in parallel in interdisciplinary ways, in order to investigate a complex subject. The artistic way of researching is also part of this spectrum of methods applied in current research. This is the proposition of this text: there is no method *within* artistic research because to research artistically *is* in itself a method, or, better, a strategy of undertaking research.

Every kind of research needs a theoretical foundation, and reflection should always be a crucial component. The same is true for

professional arts: although we can conceive of some art production being conducted without both theoretical concepts and self-reflection, in most cases (at least some) theory and self-reflection are constituent parts of professional artistic projects. In other words, art production and reflection are normally inextricably linked. The formula “art plus thinking about art” equals research obviously falls too short. The same counts for “art plus writing about art”; it is not thinking and writing that transform the arts into research. Thinking and writing about art can be done well without researching, and artistic research can be done without thinking and writing about art, such as in thinking or writing artistically about another topic beyond the investigation of the arts. While art and artistic production can certainly be subject to any kind of research, whether it is artistic or non-artistic, there obviously exist more possible, interesting, relevant, important and promising topics that can be addressed in an artistic way during research. Rather,



1. This text is a brief summary of what has been published by the author before in different articles. It is not meant as original research or analysis. Therefore, it does not refer to any external sources. For detailed explanations and references, please consult the cited original publications.

it is the other way round: it is the specific artistic perceptive mode that qualifies research as artistic (see also Klein, 2011).

MULTIPLE MODES OF PERCEPTION

Our perception enables us to encounter the world in different modes. While these modes are overlapping and not strictly separated, we are able to describe them like the colours of a spectrum of perception.

The first mode can be called the *transparent mode*. In this mode we perceive reality without being aware that what we encounter is actually provided by our perception. We have the conviction that something is the case, we have a “perception-that”. We are just considering the mere *present*. By the next moment we might have forgotten that we even had a perception. For example, walking through the woods we see a branch lying on the path. As a result, we probably step on it, hearing the cracking noise without taking further notice.

The second mode is the *aesthetic mode*. It comes into play when we start to realise how a certain perception feels, or, in other words, when the transparent perception becomes an *aesthetic sensation*. We are aware of the quality of our perception, the perception itself becomes part of the content of itself, it is opaque and gets a *presence*, and so we have a “perception-how”. We recognise the shape of the branch in its geometric details, we feel its physical resistance while stepping on it, and we listen to its specific sound when it cracks underfoot.

The third mode can be called the *artistic mode*. It defines art as

being a perceptive mode. Here we experience the world as consisting of two or more layers of reality. Their borders divide our awareness and perception, like frames or the limits of a canvas. The world unfolds in a *presentation*. We take the things as something. We are having an *artistic experience*. We are standing with our two feet in two different realities, and are sensing the threshold between them (“mental decoupling”). We are aware of the liminality and the framing of the different realities. We are able to watch ourselves as if looking from the outside. This process is mostly highly dynamic and fluctuating. We can follow the direction of the branch as a hint for where to go. We can also look at it as if it was an unknown species. It can be a toy sword, or we can squash a dangerous animal with our foot. We can even take the branch as a magic wand, thinking of a wish when treading on it.

When these framed realities become stable and predefined, we enter the *semiotic mode* of perception. In this mode we read the content of our perception as signs, we have the impression that we can understand their meaning. Here our perceptive processes become objects, they gain properties, and are able to act as representations. This mode often appears within communicative refuges that are marked with established thresholds. Without knowing the assumptions, conventions, definitions, habits and codes of a certain refuge, we are not able to enter it. At the least, we have to know some vocabulary, if not actually speak the local language. When we know that another person has put the branch down for us to mark the fork to take,

we can read the message. Or, perhaps, the branch is in the shape of a cross, making us wonder whether someone has died here recently. Then we might hesitate to step on it in order not to destroy the memorial.

As these modes also overlap, the realm of art as a communicative system begins within the aesthetic mode, and reaches quite far into the semiotic mode. But as significations and meanings become more and more stable and unquestioned, we take them for granted and cease to notice the contingent framing. At a certain point, we stop playing with meanings and start simply to understand them. At this point we trespass over the threshold of the frame without also looking from the outside: we have entered the refuge with our whole perception. In this moment, we have quit the artistic mode.

MULTIPLE MODES OF RESEARCH

Research is usually defined as a systematic quest for new knowledge. Here, *systematic* means that the investigation is undertaken intentionally and contextually, especially knowing on which existing knowledge the endeavour is based. *New* is a knowledge that is original in the sense that it cannot be achieved by just consulting other sources (this kind of inquiry is sometimes described by the French term *recherche*). A knowledge already known elsewhere should not be qualified as new, except in the case that the possible source of the knowledge itself is unknown. This illustrates that the “newness” of a knowledge is of course a relative quality; it can always only be qualified as new relative to a basic

population of individuals or groups. For example, a specific knowledge could have been completely forgotten for a long period before being rediscovered by a later generation, again being considered as new. And the term *knowledge*, of course, can comprise all kinds of knowledge, not only declarative, explicit, verbal knowledge or measurable results, but also, for example, sensual, emotional and experiential knowledge.

To undertake research is a practice of various academic and non-academic professions. Notably, *researching is a practice*. It can be a scientific practice, a scholarly practice, an industrial practice, a journalistic practice, a cultural practice, a social practice and, indeed, also an artistic practice. This practice of researching can be qualified as artistic when it is conducted in or with the artistic perceptive mode.

With this definition there is no need to distinguish between different “researches”, because the practice of systematically trying to gain new knowledge is the same. What varies is the amount of the many possible attributes, of which more than one can be employed simultaneously. Particularly, the scientific, scholarly and artistic predicates can be valid for a certain research practice at the same time. Being qualifying adjectives, they only modulate the common substantive “research” and are therefore able to superpose and interfere. In other words, if a research practice is called “scientific”, there is very little said about the occurrence of an artistic mode within it. And if a practice is rightly called “artistic”, there is equally nothing said about its scientificity. In other words, if anything is scientific, the fact of it being scientific is not

a reason to conclude that it is necessarily unartistic. And if anything is artistic, the fact of it being artistic does not automatically conclude that it is unscientific. Both qualities can meet, although, of course, they don't always have to. Science and art are two independent dimensions in a common cultural space.

SOME CHARACTERISTICS OF THE ARTISTIC MODE

The artistic mode can be described as the perceptive mode of felt or sensed framing of multiple layers of reality. It is accompanied by mental decoupling and meta-awareness (for a more detailed analysis of this perceptive and mental state, see Klein, 2010). How can this perceptive mode be fruitful in the context of research? In order to benefit from its application in research, we have to consider some of its peculiarities.

First of all, the artistic mode shares with the aesthetic mode a very obvious property: it is based on sensual experience. They are both experiential and grounded in subjectivity, which means that they cannot be imparted or passed on directly, but only shared or facilitated. A sensual experience is undergone within ourselves; it cannot be delegated (also known as the *qualia phenomenon*). Any analysis or description of the aesthetic mode has to regard what could be called the "phenomenological principle": our senses provide us with access to the environment and therefore determine what we are able to perceive.

On the other hand, we normally deal with the content of our perception by supposing that there are objects with properties. In the framing

of the artistic mode these objects get an additional appearance in their additional realities – we recognize them simultaneously from inside and outside the frame. In the semiotic mode objects become a meaning, dividing their appearance into signifier and signified, while we only address the signification and forget about the signifiers (when we recognize both at once we are already on the way into the artistic mode). The semiotic mode is the region of what could be called the "hermeneutical principle": within a given context (or framing) we are mostly able to say "what the things tell us", independently from our perception, which means that any analysis or interpretation of a semiotic meaning has to be based on the sign system (or refuge) that it is embedded in, i.e. that is used in the respective communication.

In the artistic mode, the constructive nature of perception and the emergence of context come together. This might sound like a contradiction, because we are so used to thinking in oppositions, such as subjectivity and objectivity, properties and sensations, reality and fiction, facts and imaginations.

The question seems to arise: what is to be applied, the phenomenological or the hermeneutical principle? But this contradiction turns out to be only superficial. Nevertheless, we find this paradox in many discussions about artistic topics. Many authors thinking about aesthetics have proposed different approaches to explain this observation (for references, see Klein, 2010, and Klein, 2011). To gain knowledge out of the artistic mode, the best solution is to merge the two principles in a framework of artistic relativity:

When we “phenomenologise” the hermeneutical principle, or “semiotize” the phenomenological principle, we are not only able to describe the transition from individual, independent perceptions to interdependent, intersubjective communication, but also to provide a tool for analysing the relationships between different regions of semiotic systems (refuges). Then the assumed contradiction between (alleged “scientific”) objectivity and (“artistic”) subjectivity disappears. Since the Enlightenment, we have become used to conducting a comprehensive critique of objectivity. Hence, the *qualia phenomenon* is also called the *qualia problem*. But the *qualia problem* only appears as a problem when we believe in a reality consisting purely of objectivity. If we also add subjective knowledge we are able to dissolve many of those alleged contradictions. This is the core advantage and the strength of artistic knowledge. Therefore, what is needed for undertaking fruitful research in an artistic mode is a comparable comprehensive critique of its subjectivity.

The artistic mode is not at all a new invention. It has been applied throughout the centuries in different contexts and under different names. But it proves to be surpassingly powerful in being able to bridge the realms of aesthetics and semiotics, because it adds relativity to otherwise non-relativistic concepts that are still too often recognised as incommensurable. In particular, this relativity helps to avoid the necessary circularity when thinking of meaning as stable properties of objects.

WHEN IS RESEARCH ARTISTIC?

I have argued that *artistic research* is not an artistic practice that claims to be understood *as if being* research (like the term “practice as research” appears to sound). Instead, research itself is the practice, which sometimes during its process may or may not be called artistic. This diagnosis allows us to overcome artificially constructed oppositions by asking the more fruitful question: *when* does a certain research practice become artistic?

The artistic mode can be employed in different phases and for different aims during the research process. For example, it can play a role in the initial motivation of a research topic, problem or question. It also can occur during the development and design of a project, or in phases of investigation, discussion, experimentation, data collection or interaction with people. It may shape some of the products of the project, or the dissemination of the knowledge gained. The artistic mode may also appear in the resulting discourse. There exist research projects where the artistic mode is only employed in a comparably limited, defined phase (which may not even necessarily be connected to a published product). And there are examples where the artistic mode permeates the whole process. As a consequence, the actual differences between artistic and non-artistic ways of researching mean that they exist as much more of a continuum than two categorical and incompatible spheres.

References:

Klein, Julian. "The Other Side of the Frame: Artistic Experience as Felt Framing." In *Habitus in Habitat II – Other Sides of Cognition*, edited by S. Flach and J. Söffner, 121–138. Bern: Peter Lang, 2010.

Klein, Julian. "What is Artistic Research?" [online].
Research Catalogue 2011.
Accessed on 30 December 2016.
<http://www.researchcatalogue.net/view/15292/15293>.

BRUCE BROWN

The Ecology of Artistic Research

This chapter sets out to discuss artistic research as if it were an ecology – a total system alongside all others that help to make the world a safer, richer, more just and sustainable place. Such ecologies have two determining characteristics: (i) all of the elements within the system are dependent upon each other; (ii) the ecology embraces all of those processes and conditions in which human life is embedded. Research ecologies are, therefore, holistic entities that relate to, and engage with, the conditions in which they are embedded. They create rich and complex environments that sustain and nourish the process of human life and inquiry at their very core.

Indeed, if we are ever going to address some of the major challenges facing society, then the knowledge produced by research will be an essential tool (especially publicly funded research that is undertaken within the universities and art schools). In this respect, all of the available evidence demonstrates that artistic research is making a profound contribution to the betterment all of those processes and conditions in which human life is embedded.

The conclusions in this chapter are based on the practical evidence emerging from 25 years' experience of research assessment in the UK, first through the Research Assessment Exercise (RAE) then its successor, the Research Excellence

Framework (REF). Through these assessment regimes, the ecology for artistic research in the UK has been stimulated to develop and mature over a sustained period. Having said this, the UK system has also undergone major changes over the last 30 years, so making it unlike others in Europe (both in the academic traditions and the mechanisms for funding such research, especially in the creative arts). There also are underlying truths in any system that can nourish and sustain all systems. In this chapter I will try to identify those underlying truths, or elements of good practice, that are in our collective best interests across the international community of artistic research.

The focus of this chapter is on the types of artistic research that result in non-textual outputs (e.g. objects, compositions or performances, either in material or virtual form). Non-traditional, non-textual outputs of this kind are tangible evidence of research that should not need to be legitimised within the academy simply through their translation into another, more traditional form of production (such as, for example, a conference paper or a journal article). Also, the focus is on artistic research in the visual and performing arts. This is not to exclude design from the discussion, but it is a recognition of the fact that design has a particular, and equally important, re-

lationship with the users of research that would overcomplicate the key messages that this presentation is able to address in the space available.

Having said all of this, the dilemma, of course, is that, like all other forms of research, such practice-based work in the creative arts likewise demands answers to the following primary questions. How do we know that the work is research? If it is research, what is its impact? What are the research imperatives? How will the work leave a legacy for future generations of scholars? Just as these are tricky questions for all of us in the creative arts community, so are they perplexing to colleagues outside our community (in the sciences for example) and, especially, to those administrators entrusted with the making of strategic decisions concerning publicly funded research.

This dilemma may be reflected in the following question: where will future scholars of practice-based artistic research go, in 50–100 years' time, to find the knowledge pool of research we are producing today? Those practitioners who do not subscribe to the notion of a sustainable knowledge pool for artistic research will, most likely, be engaged in the production of excellent work, but, lacking the commitment to make a scholarly contribution to the intellectual ecology through which future generations of researchers will benefit, such work may not, therefore, be research. Where researchers are committed to building the knowledge pool for artistic research, then the question still remains: where is this knowledge pool, and, how do we enrich and refresh it in a sustainable way?

Some of these dilemmas are part of the historic legacy that artistic

researchers are continuing to work their way through, given that the histories and traditions of such research are so short in comparison to other academic disciplines. Consequently, it is important to briefly contextualise the current debates about artistic research in order to place them within their historic context.

The first universities (the ancient universities such as St Andrews and Charles University in Prague) were founded some 600 years ago. Their establishment also coincided with a major social revolution – the invention of printing from movable type. This transformed the ways that knowledge could be transmitted and people educated themselves.

Consequently, the curriculum of these first universities (in the life and physical sciences, along with the classics and humanities) prioritised the new medium of reading and writing over seeing and making, with an emphasis on textbook knowledge. Accordingly, this did not include education in the practical arts, where making took precedence over reading. Instead, such work was located in the guilds, where apprenticeship and training was a priority. This created the first division between scholars and artisans: scholars, in universities, were charged with the discovery and transmission of knowledge whereas artisans, in the guilds, were trained in the inheritance and refinement of skill.

Indeed, it took around 600 years for purpose-built government schools of art and design to emerge across Europe. The first emerged some 175 years ago in the mid-19th century. In the UK, the creation of these schools was stimulated by deep concerns that the quality of

British products had been lagging behind European competitors – particularly in terms of design. So steps were taken to remedy this shortfall by bringing art and design teaching within the control of a nationalised system of education. In this context, the primary mission of the government schools of art and design was to recapture the competitive advantage initially created by the industrial revolution in making Britain a world power through the mass production and distribution of goods.

The aim of these new schools of art and design (in the UK and elsewhere) was to ensure that the nation's enormous production base would keep churning out goods as aesthetically desirable as they were technically advanced in an increasingly competitive international market. So, with this emphasis on industrial production, most of the first art and design schools were established in regional centres associated with manufacturing industries, such as potteries, glass, textiles, lace, furniture and carpet weaving.

Interestingly, one of the first pupils to register in a government school of art and design, in 1847, was the Scottish artist-craftsman Christopher Dresser, whose work included carpets, ceramics, furniture, glass, graphics, metalwork and both printed and woven textiles. Not only did Dresser come to be one of the most influential designers in late 19th-century Europe and internationally (combining industrial production methods with advanced design sensibility) but he was also possibly the first designer to be awarded a doctorate. In this case, it took the form of a PhD by publication in recognition of his writings on botany

– *Rudiments of Botany* (1859) and *Unity in Variety* (1859) along with a short paper on plant structure. And we might ask how much has subsequently changed since the award of this first PhD to a designer – for theoretical writing in a discipline that was not his core practice. Furthermore, Dresser's PhD was not awarded by a UK institution but by the University of Jena in Germany.

As industrialisation began to create increasingly competitive global markets, in which the design of products, distributed en masse, was essential to their market success, and to the prosperity of each nation, so did the creation of the publicly funded state arts schools start to spread across Europe. In the UK, it was only after a further century had passed, just 40 years ago, that the majority of these independent arts schools were then combined with technical colleges to form the first vocationally orientated polytechnics. It was only 20 years ago, in 1992, that the UK polytechnics were then transformed into modern universities being permitted, for the first time, to compete for public research funding against the older, and more well established, universities. Six years later in the UK, in 1998, the Arts and Humanities Research Board was created along with the first national scheme to award doctoral scholarships in the creative arts.

Therefore, in the timeline of institutionalised education – since the first universities were founded – less than one-third of that lifespan has included the creative arts in which learning through making had precedence. Only in the last 20 years, in the UK, has competitive funding for research in art and design been

accessible, and only in the last 10 years has the practice-based PhD begun to embed itself in the modern university system. This historical vignette illustrates the fact that practice-based research in art and design has a very short history within the system of education offered by public institutions across Europe and is still working to establish its own forms of scholarship as they are appropriate to the specific conditions of artistic research.

This work has been hampered by the historic legacy of an artificial division emerging between scholars and practitioners. It began with the first universities, where scholars were on one side of the divide and artisans, trained by guilds, on the other. With the demise of the medieval guilds, and rise of 20th-century art schools, artisans became practitioners who remained on this other side of the divide to university scholars. Furthermore, a wide range of disciplines outside the creative arts also use practice as the *modus operandi* for their research – just as scholarly rigour likewise underpins excellent research in artistic research. Given the relatively short history of artistic research within the academy, it is understandable that its underlying scholarly principles are still maturing. This process is to ensure that such principles are appropriate to the specific conditions of research in the creative disciplines (rather than being a reflection of more well-established, and different, traditions in the sciences and humanities).

Systems for the public funding of research in the creative arts only

began to emerge in the late 1980s in the UK. At this point, research funding went to the traditional universities, in which there was very little research in the creative arts, and so the creative arts received very little financial support for research. It was not until 1992, when the polytechnics became universities that they and the independent art schools were able to compete for research funding alongside all other universities and academic disciplines.

The principle underlying this process (for funding research in the UK) is that excellent research should be supported wherever it is found to exist. This means that all research funding has to be performance-related and that any higher education institution or subject area can access funding where they are able to demonstrate excellence in research. This, then, brought with it a new era of assessment where the objective was first to identify research excellence in order to, subsequently, direct funding its way. It also heralded a new era for research in the creative and performing arts. The sector was now within a national framework, alongside all other more established disciplines, as well as a peer review system in which the objective was to identify excellence. Although the mechanisms for funding research in the UK may vary between England, Northern Ireland, Scotland and Wales, the assessment of research quality is through a single framework that applies equally to each of the four nations and their higher education institutions.¹ Two basic principles of RAE2008, and

1. This framework has been developed and managed by the Higher Education Funding Council for England (HEFCE) on behalf of the four nations of Britain.

subsequent exercises, have been that (i) the assessment is through peer review based on evidence, and (ii) that the submitting institutions are not required to include all of their work but only that research which they consider to be excellent. Indeed, institutions are not required to submit any work for assessment and may choose not to be involved in the exercise.

Throughout this initial period of assessment, research in the creative arts was at an important moment in its historical development since the first arts schools were created in the mid-19th century. As artistic research continued to make an immense contribution to social, cultural and economic wellbeing, its impact was, nonetheless, difficult to evidence for the purposes of assessment. As discussed above, this was partly though the nature of the research outputs (of which most were in non-text form) but also because the forms of scholarship appropriate to these disciplines were still in the process of development.

In this context, the RAE and REF have helped, overall, to advance UK research in the creative and performing arts as well as bringing its considerable public benefits to wider audiences. The process of assessment has also gathered a rich source of evidence about research in the various disciplines and in individual institutions that can now be used to inform our self-knowledge and shape future research (one recent example of such self-knowledge is a report produced to inform the music com-

munity of changes in the balance of research activity between RAE2008 and REF2014²).

The systematic introduction of research assessment also stimulated a focus on practice-based research that was less evident in the years prior to 1992. This focus on the assessment of non-text outputs seems to have emerged with the introduction of assessment criteria and practices that are rooted in the long-standing traditions of research in the life and physical sciences. Here the scientific communities largely subscribe to, and share, a common language to describe those elements within an overall research ecology where much of the material is text-based. This cannot yet be said for the artistic research community, where much of the language is contested or still maturing. I would suggest that a significant challenge for the artistic research community in coming years is to develop sufficient of a shared language that is appropriate to the conditions of artistic research and can be accessed and understood by a wide range of communities and stakeholders. Furthermore, it is important that the community develops a clearer understanding of the relative merits, and differences between, artistic research and advanced practice (the latter of which is still often presented as if it were the former). The UK Research Excellence Framework 2014 (REF2014) was structured around four main panels, each of which embraced a set of cognate research disciplines: Life/Health Sciences, Physical Sciences, Social Sci-

2. S. McVeigh and R. Lewis, *An Analysis of British Music Research as reflected in REF2014 and RAE2008*. Royal Musical Association, 2016 [PDF online], accessed on 30 December 2016, <http://www.rma.ac.uk/ref-analysis/RMA-REF-analysis.pdf>.

ences and the Arts and Humanities. Together, these four areas represented a holistic environment for research in which both disciplinary and interdisciplinary work may be conducted. Both historically and traditionally, the creative and performing arts (but not the humanities) have, largely, considered themselves to constitute a stream of activity that is separate from this overall research ecology, in order to focus on the specialist conditions of artistic research and its emerging forms of scholarship (Illustration 1).

Life/Health Sciences	Physical Sciences
Social Sciences	Humanities

Illustration 1: The traditional model of established universities without artistic research

Traditionally, the approach of artistic researchers (but not always) has generally tended to be *inquiry-based*, i.e. conducted by individual scholars pursuing a puzzle or conundrum without a specific outcome or application in mind. Alongside this type of research there is another equally important form of inquiry that is *challenge-driven*, and which is perhaps more familiar to the life and physical sciences, where teamwork is a norm. Here researchers do undertake the work with a particular objective in mind or they may have first identified a specific problem to solve.

Though *inquiry-based* and *challenge-driven* research have different

points of departure, and different working methods, both are equally important to the vibrancy of any research ecology and its subsequent translation into the public domain. The starting point for *inquiry-based* research is generally that of the knowledge and skills possessed by each researcher. In *challenge-driven* research, however, knowledge and expertise may be harvested from a number of research disciplines and/or research users in order to address the challenge in mind. This approach, in turn, stimulates the formation of rich multidisciplinary teams that will, by their needs, evolve particular, if not unique, working methods.

The creative arts community's traditional focus on inquiry-based research, and its relative separation from the academy's overall research ecology, tends to hamper opportunities to develop a well-rounded research environment – one that generates and translates knowledge into applications. A closer engagement with this broader research ecology also demands better articulation of the specific conditions of artistic research – the outcomes and their impact – so they are more accessible to wider audiences. Indeed, because the history of artistic research within the academy is so brief, and the scholarship appropriate to these disciplines is still evolving, then the need for some distance, for a period of time, in order to establish the distinctive features of artistic research is understandable. This is not, however, an argument for artistic research as a special case outside this research ecology (which by itself is an approach tending to reinforce disciplinary boundaries) but one for better clarification of the distinctive

disciplinary characteristics within an overall research ecology that includes artistic research (Illustration 2).

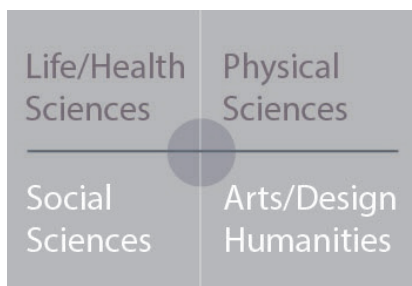


Illustration 2

One characteristic of the disciplines shown in Illustration 2 is that each will place a greater or lesser emphasis on discovery science as they will on creativity and innovation. In this respect, the Life/Health Sciences and Arts and Humanities are at the opposite ends of this spectrum, with the former having an emphasis on text-based *discovery* and the latter on object-based *innovation*. These boundaries are not so clearly defined in practice and there will often be much overlap between the approaches, especially given the multidisciplinary nature of challenge-driven research, in which much activity will overlap towards the centre of Illustration 2, where the disciplines converge.

Many recent regimes for research assessment have been based on the well-established principles of text-based outputs in discovery science. Here, the implicit if not underpinning definition of research has been the discovery and verification of new knowledge. In this definition, artistic researchers produce just a small proportion of research that could claim to be new knowledge that is communicable in textual form. One

outcome of this has been a sense that practice-based researchers need to legitimise their work through its translation into the form of more traditional outputs, such as conference papers or journal articles. Instead, artistic research would benefit from greater precision in the definition of knowledge in these disciplines and how this could be communicated. Indeed, in artistic research there are two other definitions of research that underpin the work. The first is testing the boundaries of existing knowledge in order to determine its limitations. The second is the recovery of lost knowledge. In the first instance, much of what we know about the world, and the ways in which we construct society, is built upon assumptions that constantly need testing. In the second instance, there are many contemporary examples from digital heritage where technology has enabled the recovery of knowledge about ancient civilisations, where artefacts have been damaged, vandalised or simply lost. For research to always be constrained within the narrow confines of any of the disciplines shown in Illustration 2 (which in the creative arts may often be no more than a means of production) could serve to misrepresent the intellectual and creative content of that work. The following is an example of artistic research where too narrow a definition of the disciplinary boundary inhibits a fuller appreciation of the work, as well as restricting its translation to other intellectual and creative domains. This research has been conducted within the field of photography and its subject matter is the changing face of Poland. The work, undertaken by Mark Power, took the form of an exhibition and a publication.

The primary output from this

research was in the form of visual evidence (selected examples are shown in Illustration 3). In this case study, the research could also be described as social anthropology with a camera. Power spent extended periods of time living in, and travelling throughout, Poland in order to document a country that had been through tremendous political and social upheaval, a country that was moving from a heavily industrialised society into the post-industrial world. He created and structured the visual evidence in order to document people at work and at play, where they lived and where they laboured, their families growing up as well as the beauty and ugliness of the landscape in which all of this was lived out. Once the context and aims of this research are clear, no further textual material is needed for the visual evidence to be “read” and understood by experts and non-experts alike. It also provides a permanent record of the work.

This is not the case, however, for all (if not the majority) of work undertaken by artistic researchers where, in many instances, an object, a performance or a composition will not readily communicate or reveal the research imperatives that underpin it. In many cases, too, the work is ephemeral, leaving no trace unless documented by the researcher. So we return to the two questions set out at the beginning of this chapter. First, how do we know that the work is artistic research (and not advanced practice, excellent though this may be). Second, how will future gener-

ations of scholars access the imperatives underpinning the research that we undertake today. Here, the question of a *knowledge pool* for artistic research resurfaces, along with the need to determine its form and searchability.³

With the increasing prevalence of open access repositories being offered by universities, the means to place artistic research in the public domain (as soon as the work is available for publication) have removed many of the barriers previously in the way of such progress. There are now a growing number of examples of artistic researchers, working within the academy, who are developing forms of scholarship appropriate to artistic research that also provide a permanent legacy being accessible, and intelligible, to a wide range of communities.

It remains the case, however, that the historic relationship between practice and research in the creative arts still serves to cloud this issue. In broad terms, practitioners engage with *audiences* whereas researchers engage with *users*. There are, of course, many overlaps between these two constituencies, as well as a fundamental difference of intent. Practitioners and their audiences will often co-create a work in which the dynamic nature of a reading, or an interpretation, is central to the creative process. In this case, practitioners will often conceal, or disguise, the underlying intention in their work so that audiences have sufficient space to collaborate in the construction of new and novel readings.

3. The Society for Artistic Research is piloting an online database of specific examples of artistic research, at <https://www.researchcatalogue.net>, and most universities now operate open access repositories that hold both image-based and text-based outputs.



Illustration 3: A small selection
of visual evidence from
The Sound of Two Songs
by Professor Mark Power

By contrast, one important aspect of every researcher's endeavour is to effectively share the knowledge gained from their research with users who may benefit in one way or another, and to make this knowledge accessible so that it can be found. So it is central to the work of all researchers within the academy that they plan for the effective sharing of their research as well as its production.

It is also the case that an artefact, performance or composition can exist in both domains – of practice and research – though advanced practice, by itself, is not research until its imperatives have been effectively shared by the researcher. The following example helps to illustrate this point.

The work is entitled *Chromatic Fields* and is by Duncan Bullen, a fine arts printmaker.⁴ The work comprises a series of 21 colour drawings and a book of these images with piano score and audio CD. The images, by themselves, are both beautiful

and enigmatic, so offering Bullen's audience a rich optical experience of indeterminate purpose beyond this. So delicate are the drawings that they are almost impossible to reproduce in print, as shown in Illustration 4 below.

To accompany this work, Bullen also prepared a research portfolio to record and share the research imperatives underpinning his drawings (Illustration 5). This research portfolio is not an alternative textual description of the work but an enhancement that provides information otherwise inaccessible from a viewing of the work alone. The portfolio is divided into six sections that between them cover the research questions, other work in the field, working methods and processes of dissemination. In particular, Bullen's articulation of the research questions is precise in explaining the aims of the work.

These research questions are:

4. See also <http://arts.brighton.ac.uk/staff/duncan-bullen>.

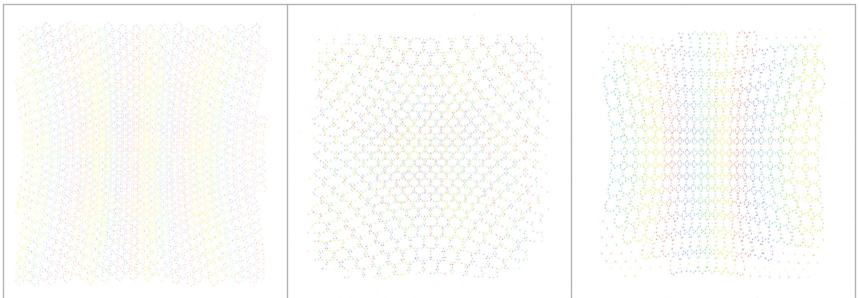


Illustration 4:
Three drawings by Duncan Bullen
from the series
Chromatic Fields

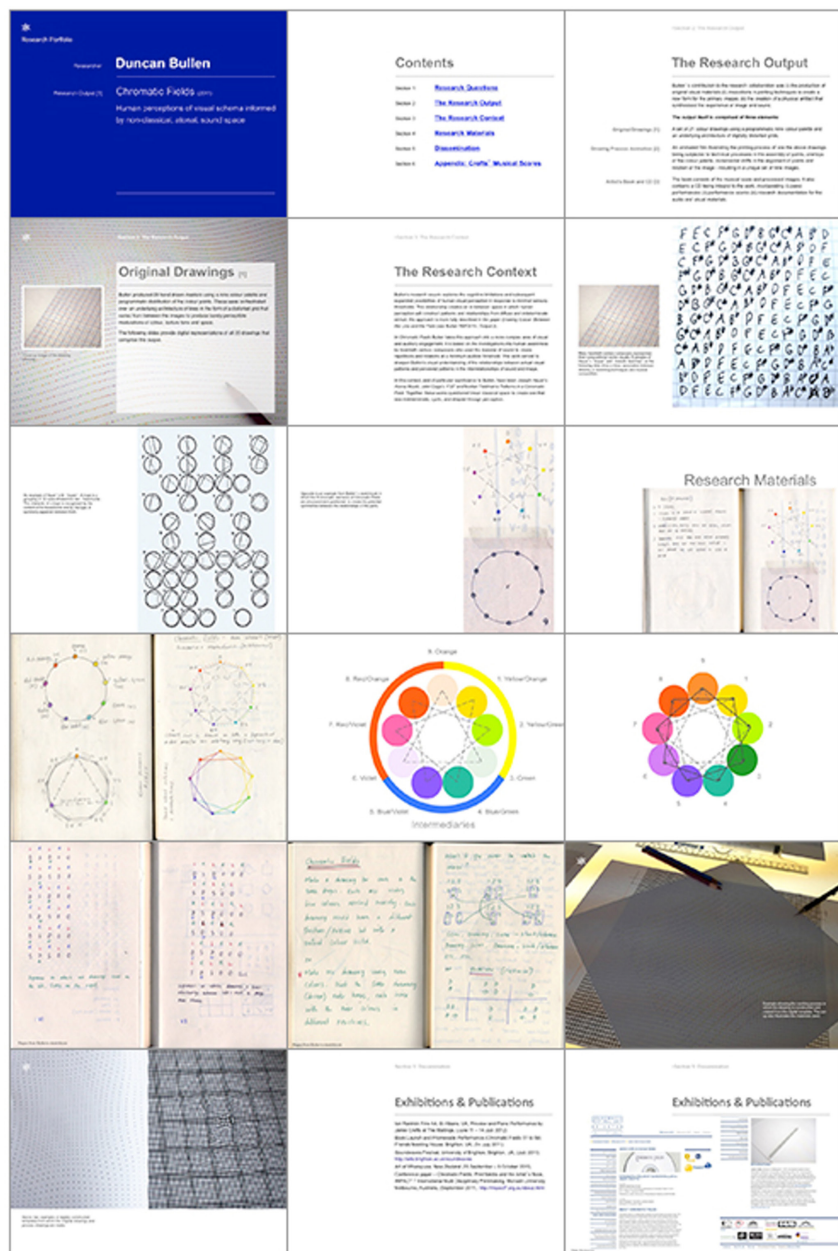


Illustration 5: Selected examples of pages from a digital research portfolio prepared by Duncan Bullen to accompany a series of 21 drawings entitled *Chromatic Fields*

i) What is the degree to which contemporary image-making can re-vision historical legacies of visual representations of atonal music as pioneered by Schoenberg and Hauer, along with the serial compositions of Feldman and Cage?

ii) How can innovations in the traditional printing process produce serial mechanical transformations of an original image being similar to atonal compositional processes?

iii) How can image and sound be integrated within a physical artefact in order to focus human awareness and attention on the subtleties of materials operating at the limits of human perception?

Bullen's research portfolio also contains examples of other work in the field, his own working notebooks and details of the dissemination methods and sources. Together, these materials provide sufficient information for other interested scholars and research users to access the work. Together they help to build the knowledge pool of research

in this area and network of scholars. Research portfolios (whatever form they take) are an essential component of the research environment, one that helps to nourish scholarship in the field. Indeed, the production and sharing of research outputs is just one aspect of an overall research ecology that also includes the research environment and impact of the research:

Research Outputs

Objects, performances, compositions, films, digital artefacts, monographs, papers etc. ...

Research Environment

Research scholars, research students, research income, intellectual infrastructure, facilities and equipment.

Research Impact

The benefits of research to individuals, culture, society, and the economy.



Illustration 6:
Mirror by David Cotterrell, in collaboration
with Ruwanthie de Chickera

A quality research environment serves to support the production of excellent research (in all its forms), as well as the development of a scholarly infrastructure from which it may emerge. In this respect, scholarship is not research but an essential component of the overall research ecology. Similarly, this ecology will include a balance of work that is either *curiosity-based* or *challenge-driven*. In both instances, however, the outcomes may have effects on research users that have either been planned or not when the work was undertaken; also, the impact of such research may either be positive or negative. In such instances, therefore, it is also important to provide access to both the impact of the research and the underpinning research outputs from which it emerged, so to keep building the knowledge pool of work in this area.⁵

The following offers one example of research impact in the realm of artistic research. The artist David Cotterrell has recently collaborated with Sri Lankan screenwriter Ruwanthi de Chickera on a series of installations addressing the conditions of empathy and risk. He devised one such installation, *Mirror*, to explore the anxieties and thought processes of two protagonists in surgery – the surgeon and the patient (Illustration 6).⁶

Building on the knowledge and experience gained through this work, Cotterrell went on to collaborate (supported by the Wellcome Trust)

with the military medical facilities of the British Army in Helmand province, Afghanistan. This project resulted in an Impact Case Study entitled *War and Medicine*,⁷ the effects of which Cotterrell has described in the following way:

The research involved the first uncensored documentation of the contemporary UK military pathway and has been used internationally to raise awareness in professional participants and the general public of the ethical and practical complexities of militarised healthcare. The impact of this research was evidenced within three distinct territories:

1. Informing improvements in *military and civilian training* leading to the creation of standard briefing materials for British deployed forces, medics and civilians to ensure early awareness of the “care pathway”;

2. Establishing additional reference points within *contemporary art discourse* and reflecting on the role of independent observers of conflict; and

3. Aiding *patient recovery and understanding* by helping individuals reconcile the profound change that they have undergone through injury and by establishing precedents for a format of comprehensive patient diaries, enabling longer-term understanding of traumatic experience.

The following summary observations are by way of conclusion to this chapter. In comparison to other

5. REF2014 research impact was documented through Impact Case Studies that are all publicly available to be searched both by scholars and research users. See <http://impact.ref.ac.uk/CaseStudies/>, accessed on 30 December 2016.

6. Cotterrell had this to say of the work: “The installation considered the concerns and devices by which an impending operation is philosophically contextualized and the way the mind might wander under the catalytic pressure of approaching professional and/or personal risk. Recorded in isolation from the context,

without revealing the categorizing uniforms of scrubs or gown, the conversation offers an introverted and existential portrait of both the surgeon and the patient as they prepare for surgery. The outwardly simple video projection offers a snapshot of these complex internal negotiations of vulnerability and bravado.”

7. The full text of Cotterrell’s Impact Case Study, titled “War and Medicine”, can be found at <http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=4980>, accessed on 30 December 2016.

disciplines, the history of artistic research within the academy is brief, with forms of scholarship appropriate to research in these disciplines still evolving. This work continues to be hampered by the legacy of a traditional divide between scholars and practitioners, with advanced practice often being presented as if it were artistic research. Also, the recent introduction of research assessment frameworks that are based on the well-established principles of text-based research outcomes in discovery science has tended, at one extreme, to skew the type of outputs produced by artistic researchers or, at the other, to stimulate a special case argument for practice as research. The evolution of a scholarly infrastructure that is appropriate to the conditions of artistic research – and is both accessible and comprehensible to a wide range of academic disciplines and research users – is a project still to be matured. Non-textual research outputs, such as objects, performances and compositions often do not, by themselves, reveal the research imperatives underpinning the work. Consequently, work to evolve the knowledge pool of artistic research – so that it provides a sustainable legacy for future generations of scholars and research users – is a priority.

Furthermore, it is important for artistic research that, in the overall research ecology of the academy, creativity and innovation are understood to be elements that are equally as important as the traditional principles established by discovery science. In

this context, it is also important that the primary definition of research as the discovery of new knowledge be nuanced to reflect the conditions of artistic research. Here, I would suggest that, alongside the *discovery* of new knowledge, artistic research also pursues the *recovery* of lost knowledge and tests the limitations of existing knowledge through *inquiry*.

If it is to flourish, excellent research must be embedded in a vibrant research culture, one that will stimulate and sustain its growth. Alongside the production of research outputs, the ecology of artistic research must also give due attention to the cultivation of the research environment, as well as the translation of research to communities who may benefit from such knowledge. With its traditional emphasis on *curiosity-based* approaches, artistic research has less engagement with *challenge-driven* work and, hence, the formation of multidisciplinary alliances within a broader research ecology of the academy. Whether based in modern universities or specialist institutions, the work of artistic researchers needs to fully engage with the broader research ecology of the academy, along with its links to research users. As challenge-driven approaches gather importance for a world facing major social challenges,⁸ so the impact of research on the human and animal world needs an ethical framework in which to operate.

All of this said, there is now sufficient evidence from successive research assessment exercises (in the UK at least) to suggest that the

8. See, for example Australian Research Council, "Engagement and impact assessment consultation paper" [online], accessed on 30 December 2016, <http://apo.org.au/resource/engagement-and-impact-assessment-consultation-paper>.

quality of artistic research is holding its own alongside other research disciplines, and that there is considerable beneficial impact on society, culture, the economy and the environment from this work. Indeed, the creativity and innovation intrinsic to artistic research is an essential ingredient for all of those processes in which human life is embedded. As we move out of an industrial age (in which the making of tools was a primary concern) into a new digital era, this now gives us most of the tools and means to make anything we want to make. No longer should we wonder *how* something can be made but, instead, think *why* we would want to spend precious time and resources making it. In this respect, we no longer face a poverty of means but the consequences of an educational system that has driven creativity and innovation out of the curriculum to create a poverty of imagination. Without the imagination intrinsic to artistic research, we will not be able to solve any of the major challenges facing society.

References:

Arts and Humanities Research Council. *The Impact of AHRC Research, April 2014-March 2015*. [PDF online]. Accessed on 30 December 2016. <http://www.ahrc.ac.uk/documents/project-reports-and-reviews/the-impact-of-ahrc-research/2014-2015/>.

Atkinson, P. and W. Zhi (eds.). *Designing Impact: Approaches to Applied Research*. Beijing: Foreign Languages Press, 2011.

Bastow, S., P. Dunleavy and J. Tinkler. *The Impact of the Social Sciences*. London: Sage Publishing, 2014.

Bauer, U.M. and T.D. Trummer (eds.). *AR—Artistic Research*. London: Koenig Books, 2011.

Biggs, M. and H. Karlsson (eds.). *The Routledge Companion to Research in the Arts*. London and New York: Routledge, 2011.

Borgdorff, H. *The Conflict of the Faculties: perspectives on artistic research and academia*. Leiden: Leiden University Press, 2012.

Cotterell, D. "War and Medicine." Impact Case Study [online]. Higher Education Funding Council for England. Accessed on 30 December 2016. <http://impact.ref.ac.uk/Case-Studies/CaseStudy.aspx?Id=4980>.

Crossick, G. and P. Kaszynska. "Understanding the Value of Arts and Culture" [PDF online]. Arts and Humanities Research Council, 2016. Accessed on 30 December 2016. <http://www.ahrc.ac.uk/research/>

fundedthemesandprogrammes/
culturalvalueproject/.

Delgado, M. and M. Thelwell. "Arts and Humanities Research Evaluation: No Metrics Please, Just Data." *Journal of Documentation* 71(4) (2015): 817–33.

Denicolo, P. *Achieving Impact in Research*. London: Sage Publishing, 2014.

Higher Education Funding Council for England (HEFCE). "Results and Submissions." Research Excellence Framework 2014 [online database. Accessed on 30 December 2016. <http://results.ref.ac.uk>.

—. "REF Impact Case Studies 2014" [online database]. Accessed on 30 December 2016. <http://impact.ref.ac.uk/CaseStudies/>.

Madoff, S.H. (ed.) *Art School: Propositions for the 21st Century*. Cambridge and London: MIT Press, 2009.

McVeigh, S. and R. Lewis. "An Analysis of British Music Research as reflected in REF2014 and RAE2008." Royal Musical Association, 2016 [pdf online]. Accessed on 30 December 2016. <http://www.rma.ac.uk/ref-analysis/>.

Power, M. *The Sound of Two Songs*. Brighton: Photoworks, 2010.

Science Europe. "Radical Innovation: Humanities Research Crossing Knowledge Boundaries and Fostering Deep Change." Humanities Scientific Committee Opinion Paper, 2015 [PDF online]. Accessed on 30 December 2016. <http://www>.

scienceeurope.org/wp-content/uploads/2016/01/151222_HUMAN_OP_Radical_Innovation_web.pdf.

Waller, J. *Art as Extra-ordinary Science: a paradigm for the 21st century*. London: Clink Street Publishing, 2016.

Wenger, E. *Communities of Practice: learning, meaning and identity*. Cambridge: Cambridge University Press, 2005 [1998].

JANHAVI DHAMANKAR

Empathy-in-practice: A Method for Artistic Research?

1 INTRODUCTION

“Being empathic” can have many connotations in common parlance, and especially in the psychological and philosophical discourse on empathy. Whether all human beings are empathic beings is a bigger and more fundamental research question, beyond the scope of this chapter. At the outset, I would also like to clarify that this chapter does not propose a different kind of empathy, but rather a different mode of empathy, namely, empathy-in-practice. The latter, I propose, can be, and is, used as a method for artistic research.

A brief history of empathy

The story of empathy as a concept begins with Edward Titchener’s translation of the German word *Einfühlung* into English, in 1909, as “feeling into”, through Robert Vischer,¹ who made empathy prominent in the study of aesthetics, to Theodore Lipps’ thorough and evolving analysis of the term.² This made possible the shift from (or addition to) empathy as central to aesthetic appreciation to empathy as a mode of knowing other minds. Though accepted as

a method for the human sciences on account of this epistemic quality, the popularity of empathy first steered to its equation with understanding (*Verstehen*), as formulated by the hermeneutic tradition, but then declined owing to its claimed epistemic naivety.³ More recently, within aesthetics, the relationship between empathy and art has been of the nature that art is capable of producing empathy as a by-product or end result, for example in the therapeutic function of art.⁴

I wish to propose a reversal of this relation, i.e. to look at empathy (also) as an integral and foundational component in art practice, and therefore in and for artistic research. I attempt to put forth empathy-in-practice as a method for artistic research, since I believe that the aims of artistic research are aligned with what can emerge from a genuine engagement with (certain kinds of) empathy praxis. I will highlight some examples of how empathy is in fact used as a method (praxis) in some art forms.

2 EMPATHY – A FORMULATION

This chapter is based on ideas developed in my MPhil thesis, which my supervisor, Professor Paul Cortois

1. Robert Vischer, “On the Optical Sense of Form: A Contribution to Aesthetics,” trans. by H.F. Mallgrave and Eleftherios Ikononou, in *Empathy, Form, and Space* (Santa Monica, CA: The Getty Center for the History of Art and the Humanities, 1994 [1873]), 89–123.
2. Theodore Lipps, “Ästhetische Einfühlung,” *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* 22 (1900): 415–450; and “Das Wissen von fremden Ichen,” *Psychologische Untersuchungen* 1 (1907).

3. Summarised from Stanford Encyclopedia of Philosophy [website], “Empathy,” accessed on 30 December 2016, plato.stanford.edu/entries/empathy/.

4. As propounded by Watching Dance: Kinesthetic Empathy [website], accessed on 30 December 2016, http://www.watchingdance.org/research/kinesthetic_empathy/index.php.

from the University of Leuven, was extremely influential in shaping. I am trying to extend the arguments from my thesis,⁵ in which I proposed that the emotional engagement between a dancer and her audience, during a performance, is based on a special kind of imaginative act, namely, empathy. The audience's empathy is aroused due to the portrayal of *Bhāvas* (emotions) by the dancer as appropriate to the character and situation enacted. The dancer empathises with this empathy of the audience. Therefore, the dancer predicts the resultant empathic imagining and understanding of the audience, prior to and simultaneously while performing. Thus, the empathic process originates in the dancer as an active method.

The evolution of the concept of empathy, as described above, highlights the multitude of differences in its theoretical formulations. However, although empathy may be engaged in voluntarily or involuntarily, there must be agreement that the imaginative act occurs in the subject (me) on being stimulated by the emotional states of the other. Edith Stein holds that the *act* of empathy is primordial⁶ since it is a given, present experience. However, with respect to its *content*, empathy is non-primordial.⁷ The empathic experience, Stein explains, arises in me and faces me like an ob-

ject, before pulling me into it as I inquire into its implied tendencies. At this stage, the self-other distinction blurs or collapses as I *intend*⁸ the object of the target's emotional experience rather than the target as such or as a "possessor" of its emotional experience. However, the following step in this imaginative process clarifies the content as belonging to the other. To recapitulate this three-step process of empathy,⁹ as Stein suggests:

- Dawning: vaguely intending the other's mental state. (For example, suppose I have to evoke fear, I intend this mental state of the other i.e. fear.)

- Step-wise fulfillment of experience: follow a tendency to reproduce the other's experience, although *without identification*¹⁰ (therefore, I view myself and see if my movement evokes fear).

- Conclusive objectification of explicated experience (*apperzeptiver Griff*). (The fear experienced is of the audience, since to evoke that fear I might perform movements, which depict anger.)

Thus, in this last step, which is the distinguishing character of empathy, the explicated experience is conclusively objectified. Thus, once again, the content of the target's experience becomes the object of

5. Janhavi Dhamankar, "The Empathic Performer: An Enquiry into the Nature of Empathy in the Relation between a Dancer and her Audience" (MPhil thesis, Katholieke Universiteit Leuven, 2011).

6. Edith Stein talks of primordality in terms of being bodily present, here and now: "[o]ur own experiences as they are given in reflection have the character of primordality. [...] All our own present experiences are primordial. What could be more primordial than experience itself? But not all experiences are primarily given nor primordial in their content. Memory, expectation, and fantasy do not have their object bodily present before them. They only represent it and this character of representation is an immanent, essential moment of these acts, not a sign from their objects. [...] It is possible for every experience to be primordially given, i.e. it is possible for the reflect-

ing glance of the "I" in the experience to be there bodily itself. Furthermore, it is possible for our own experiences to be given non-primordially in memory, expectation, or fantasy. Edith Stein, "On the Problem of Empathy," trans. by Waltraud Stein, in *The Collected Works of Edith Stein*, Vol. 3 (Washington, D.C.: ICS Publications, 1989), 7–8.

7. Stein, "On The Problem of Empathy," 10.

8. "Intend" here is in the Husserlian sense of consciousness being directed towards (an object).

9. Based on a conference presentation by Monika Dullstein, "Empathy in the ToM Debate: Just a Quarrrel About Words?" (Paper presented at the international conference "From Sympathy to Empathy: Hume and Beyond," Antwerp, 2–3 June 2011).

10. *hineingezogenwerden* = to be pulled into.

my empathic experience. In Stein's account, the object of the subject's empathy changes. This empathy necessarily carries the awareness of the distinction between the self and the other and is a special kind of imagining.

3 EMPATHY AS A METHOD/ PRACTICE RATHER THAN A FACULTY/VIRTUE

Empathy is commonly understood as an entity, i.e. as a noun – a faculty or an innate disposition for motor mimicry¹¹ that comes either as an end product of some action/behaviour, or that we are already endowed with and need to discover, channelise and develop (as a trait of character perhaps).

On the contrary, Stein's formulation of empathy allows us to grasp empathy as a process, a method to be undertaken, rather than a capacity or virtue to be inculcated or developed. For Stein, imagination is a faculty. Memory or recollection is a special *act* of imagining – where we *pull forth* images from the past. Similarly, the *act* of imagining in one particular way is empathy (as explained in the three-step process) and can thus be termed as empathy-in-practice or empathy praxis.

Today, it is quite in vogue to use empathy and related terminology in the corporate sector. In product design and development, for instance, to make a website “user friendly”, the developer needs to imagine himself/herself in the place of the other person in order to understand what “works” and what kind of layout will not work. However, this process

is called “in-his-shoes imagining” or “perspective taking”, which is merely the first step in the empathic process as stated above. In perspective taking, the self-other distinction is not maintained since I only think from the other person's point of view by consciously inhabiting his mental state (in-his-shoes). The object of awareness is the user's situation.

4 EMPATHY PRAXIS EXAMPLES

What exactly is empathy-in-practice, then? I would like to explicate with the help of two examples, from dance and active listening, where empathy-in-practice is already a method in use to explore particular social situations.

(i) Dance

According to *Watching Dance: Kinaesthetic Empathy*, a multidisciplinary project involving four UK institutions, when I perform (dance/movements), you, i.e. the audience, have a similar sensation about your own hands and limbs moving and hence kinaesthetically empathise with me/the performer. This is how you can appreciate or understand the dance. Thus, the dance and its meaning are communicated. This is a plausible stance. However, based on the Indian aesthetic theory of *Bhāva-Rasa* and my practice as an Indian classical dancer, I believe it is the dancer (artist) who initiates this empathic process. Sure, the audience empathises with my movements. But I, the dancer, empathise with the empathising audience. Thus, I am the

11. As observed by Adam Smith in *The Theory of Moral Sentiments*. (New York: August M. Kelley Publishers, 1966 [1853]).

first empathiser and my empathy towards the audience includes:

Dancer's empathy
= proprioception + elicitive
+ cognitive + conscious effort

In terms of undertaking empathy praxis in dance/art, the following sections explain each component of the dancer's/artist's empathy.

KINAESTHESIA AND PROPRIOCEPTION:

Husserl comes to discuss the term "kinaesthesia" in his theory of space, since perception itself provides us with the "[a]ctual and possible kinaesthetic and postural sensations to have information about the positions and movements of one's body".¹² Now, kinaesthetic sense seems closer to the term "proprioception", and though proprioception is extremely important for a dancer, kinaesthetic sense seems to be more apt to describe the dancer's awareness. She also practises this consciously on stage.

Proprioception differs from kinaesthetic sense mainly in its temporal aspect, thus these are two different kinds of awareness. Proprioception is a form of feedback that informs the brain (through various nervous channels) of the position and relation to gravity of the various parts of the body. This information can be then processed to make the required adjustments in the body. Thus, proprioception is an awareness in retrospect, no matter how quickly the information is communicated to the brain. Kinaesthetic sense on the other hand, with its

emphasis on motion, plays a major role in muscle memory. Thus, it is an important component in learning motor skills and can be perfected through training. In Husserl's understanding of kinaesthetic sensation, there is no temporal lag between the perception and its forward pointing nature. Similarly, in a performance, the kinaesthetic sense of a particular movement accompanies the performance of the movement. Thus, both the movement and its kinaesthetic awareness are simultaneous.

The dancer masters this kinaesthetic sense through rigorous training, and it allows for improvisation on stage. It is through this awareness that the dancer is able to judge the degree and kind of movement and its resultant visual effect on the audience. For this, she needs to view herself from the viewpoint of the audience.

Although kinaesthetic sense informs and accompanies the dancer's movement, this does not explain how her movements relate to the audience. Hence, I claim that the dancer empathises with her audience. Kinaesthetic empathy, as I mentioned earlier, has hitherto been discussed in the discourse of Western dance studies as the empathy that the audience experiences on seeing the dancer's movements in a performance.

ELICITIVE AND COGNITIVE:

Stein's analysis of empathy in dance distinguishes the dancer's empathy from other similar phenomena (for example, sympathy or contagion). This has both elicitive and cognitive dimensions. In the elicitive di-

12. Barry Smith and David Woodruff Smith, *The Cambridge Companion to Husserl* (Cambridge: Cambridge University Press, 1995), 198.

mension, the self-other distinction is given in the experience of the dancer's empathic experience of the audience, and the experience of what the audience will feel is experienced first-hand. Therefore, to use Stein's terminology, the dancer experiences the audience's empathic response primordially. Artists often discuss and evoke reactions such as empathy, sympathy and contagion in the audience, thereby manipulating the audience. However, the kind of empathy I am discussing here is *not* a reaction on the part of the dancer. It is a preparation for a reaction from the audience, a provocation, an empathy for the audience's empathy.

In the cognitive dimension the dancer cognises and processes the character's emotions and the audience's emotions. According to Stein's analysis, when I empathise with a target, say you, you may also be empathising with another target. Thus, what I comprehend empathically is the *target's empathic act*. The target of my target can be a third person or me myself. "Reflexive sympathy" would only be a case of the latter, then, "[w]here my original experience returns to me as an empathised one". But, even here, the content of my empathising experience need not be the same as the experience that my target empathises with me. In dance, both these possibilities may hold.

I believe that what the dancer gives out or projects in her empathic act has a component in addition to the audience's empathy. This additional feature may be traced to proprioception, which is only primordially given in the dancer's experience and what the audience lacks. But even in terms of the emotional content, the dancer decides

or even manipulates, to an extent, what the audience will experience. The dancer enacts in order to elicit empathy and the audience experiences the emotion through empathy either voluntarily or involuntarily. It is precisely this inducing feature of the dancer's empathy that the audience lacks. The dancer thus projects more than what comes around.

(ii) Active listening:
an empathy praxis

Active listening, a process that is itself a part of many other social sculpture processes (e.g. Earth Forum) designed by Shelley Sacks (Social Sculpture Research Unit, Oxford Brookes University), can be seen as a Husserlian phenomenological practice.

In her paper on active listening, "Giving and Ecological Citizenship: The Inner Movement Toward Appropriate Form", Sacks describes how the listener is asked to "gift" her attention instead of paying attention. Usually undertaken in pairs, both participants face each other. The speaker speaks with eyes closed while the listener listens with eyes open. "Gifting" attention means that the listener stays with what is being shared by suspending judgement, i.e. neither agreeing or disagreeing, nor providing a counterargument. At the same time, s/he also needs to be aware of her/his own attitudes, habits, values, which might taint what is being said. Hence, the practice also involves suspending these "lenses" through which we usually perceive the world. I, as an active listener, first need to be aware that what is being said is different from what I think the speaker means, because

the image being described/shared *belongs to the other person*. My mind also has a tendency to start its own thought process, by using a word or something that the speaker says as a trigger. Hence, active listening asks us to notice these digressions in our thought. The idea is not to be harsh on yourself for having wandered, but merely to notice that it has happened and to come back to the present moment and try again to be with what is being shared. Thus, you need a proprioceptive mind, if you will, which has a sense of what it is thinking and if/when it digresses, to make changes to come back on track.

But how is this an empathy praxis? Well, during this active listening process, empathy might be a by-product. However, as a practice, the three steps of the empathic process that Stein describes are undertaken at every moment in the sharing; thus, I intend the other person, who lives through a moment (that s/he is describing). By gifting my attention, I try and (almost) live through the experience that is being narrated. Thus, I now intend the object of the speaker's experience, which might also result in emotional contagion. But in the next moment, I step back into my own self, maintaining the self-other distinction and being able to grasp the experience as being *of the other person*. It is only then that I can *empathise* with the other person. Such an empathy-in-practice, or the three-step empathic process, allows for an actual and genuine sharing of experience, without projecting your own agendas or perspectives on it.

However, if I run into my own train of thought or if I start agreeing/disagreeing with what is being said, I have further distanced myself

from the other, and hence that is not empathy.

5 EMPATHY AND OTHER ARTISTIC RESEARCH METHODS IN ITS VICINITY

Regarding empathy as a method for artistic research can rid the latter of a mere first-person perspective or merely relying on *introspection*. In the empathic process explained above, the researcher has access to (1) himself, (2) the audience and (3) the artwork, which is constantly emerging and is not pre-decided or predetermined. The other/s (i.e. the audience) is a given – not as an object but as a subject, such as me and also “for” me.¹³

Empathy is different from and more conducive for artistic research than the following:

- **INTROSPECTION:** this may involve total self-immersion, resulting (sometimes) in a loss of connection with the external circumstances/situation. Thus, the report of an introspection may or may not be authentic, i.e. modified while narrating.

- **INTERVIEW:** if authentic, an interview is merely like reporting what the other person said. Or it can result in projecting your own views on the speaker.

- **SCIENTIFIC METHODS** that proceed through the stages of:

- a) *Hypothesis*, in which we are already conditioned to think XYZ is the reason or solution. Therefore, there is no room for allowing a phenomenon, a new solution or anything to emerge.

- b) *Observation*, which needs donning too much of a third-person perspective, making oneself completely aloof, owing to the importance of objectivity in science.

c) *Experiment*, which can be interpreted as manipulation. Therefore, it is yet again a controlled setting and less room for “emergence”.

d) *Conclusion*, leading to a “proof” or a “truth”.

For the sake of further clarity at a conceptual level, empathy needs to be distinguished from the following:¹⁴

	SELF-OTHER DISTINCTION	OBJECT OF EXPERIENCE	AWARENESS OF EXPERIENCING	COMMON EXAMPLE	IMPORT IN PERFORMANCE
EMOTIONAL CONTAGION	No	Emotion (not the other person or the object of his emotion)	Not necessarily. Emotion is experienced as one's own emotion.	Infant crying. (Scheler's example)	Method acting.
PERSPECTIVE TAKING/IN- HIS-SHOES- IMAGINING	No	The other's situation	Yes, since one consciously imagines being in the other's shoes.	Analysing the situation from another's perspective.	Only used as a step in empa- thy of both the dancer and the audience.
SYMPATHY/FEL- LOW-FEELING /FEELING WITH	Yes	The other's neg- ative emotion or situation. (non-primordi- al, different in content)	Explicit aware- ness + care (but not experience of congruent emo- tions) Detached recognition/ representation.	Cringing of my heart on seeing the grief of the other on account of his father's death.	Audience re- sponse Karuna Rasa: Feeling pity for the other's sorrow.
EMPATHY	Yes	The other (as a totality of his situation+per- sonality+spec- ific respon- se+judging this response as appropriate/in- appropriate)	At least minimally aware (but not necessarily same resulting emotions)	The parent's empathic joy on seeing the son's hap- piness because he passed his exam.	Audience's empathy. Dancer's empathy*.

6 CONCLUDING REMARKS

In *Artistic Research: Theories, Methods and Practices*, Hannula, Suoranta and Vaden uphold the view that artistic research is about self-reflective and self-critical processes of a person taking part in the production of meaning within contemporary art.¹⁵ This suggests that an empathic process might be taken for granted in artistic research, since the first-per-

son perspective and simultaneous distance from the self, required for reflection and criticism, is provided by empathy praxis. Thus, artistic research includes the documenting, analysing the process and step-by-step products while producing an artwork. Such an approach indicates that “outsiders” or the audience only have access to the finished product, i.e. the artwork, or the documentation. These finished products can

13. This might be a problem in non-performing arts where the audience is not directly present in the same time and space. A further project would be to explore how this model can be adopted for non-performing/other performing arts.

14. Based on Stein's analysis of empathy, the Stanford Encyclopedia of Philosophy article on empathy (<http://plato.stanford.edu/entries/empathy/#CriEmpConHerConHumSci>) and as outlined in my MPhil thesis.
15. Mika Hannula, Juha Suoranta and Tere Vaden, *Artistic Research: Theories, Methods and Practices* (Helsinki: Academy of Fine Arts, 2005), 10.

then be used by the audience to research on or about. However, that is not counted as artistic research.

Another way of understanding artistic research is as researching an (art) question through art practice. Empathy as a method has all the plus points of Husserlian phenomenology: e.g. suspend what is uncertain, focus on the importance of the senses, imagination and intuition, and the resulting experiences – not discarding them as merely subjective and therefore, relative. Phenomenology maintains no subject-object divide (unlike the scientific method). Empathy instead works in an *intersubjective field of awareness* and is capable of actively engaging all the senses fruitfully and thoroughly, on their own terms, without burdening our sensations or the phenomena with prejudices.

It gives access to “other minds”, who can also in turn have access to your, i.e. the artist’s, mental states. To remind us, Stein’s empathic process includes:

i) Cognising the mental state of another.

ii) Imagining oneself in the other’s shoes and experiencing the emotion, by being pulled into the mental state of the other.

iii) Inhabiting your own self again and experiencing the emotion *as that of another*.

The primordial self is differentiated from other selves and is hence available for further art production and experience. This means that neither does the artist get carried away in a “playing to the gallery” sort of setting, nor does the audience lose their first-person perspective – their

primordial selves – while engaging with an (emerging) artwork. Thus, the audience has their *own* artistic/aesthetic experience, not merging themselves with the artist.

What empathy praxis is capable of providing as a research method is a genuine connection, a real sharing of an image (with no moral or other considerations/judgements/notions), an interpersonal relation with others but without losing your own self. This is a kind of attitude, namely, not to be carried away by narrations and experiences, that can be cultivated by (artistic) researchers. Empathy therefore allows for a lived-in experience but also, simultaneously, a detached, aloof point of view, which is necessary to have a perspective on your (artistic) work and practice.

Thus, empathy praxis might aid in the main epistemic aim of artistic research precisely by making intersubjectivity, on the one hand, and first-person perspective, on the other, integral to artistic research. It is intersubjectivity that can allow “outsiders” to enter into the realm of artistic research.

References:

Barlingay, Surendra Shivdas. *A Modern Introduction to Indian Aesthetic Theory*. New Delhi: D.K. Printworld, 2007.

Dhamankar, Janhavi. "The Empathic Performer: An Enquiry into the Nature of Empathy in the Relation between a Dancer and her Audience." MPhil thesis, Katholieke Universiteit Leuven, 2011.

Dullstein, Monika. "Empathy in the ToM Debate: Just a Quarrel about Words?" [unpublished manuscript]. Paper presented at the international conference "From Sympathy to Empathy: Hume and Beyond," Antwerp, 2–3 June 2011.

Foster, Susan Leigh. *Choreographing Empathy: Kinesthesia in Performance*. London: Routledge, 2011.

Hannula, Mika, Juha Suoranta and Tere Vaden. *Artistic Research: Theories, Methods and Practices*. Helsinki: Academy of Fine Arts, 2005.

Lipps, Theodore. "Das Wissen von fremden Ichen." *Psychologische Untersuchungen* (1907).

—. "Ästhetische Einfühlung." *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* 22 (1900): 415–450.

Muni, Bharat. *Nāṭyashāstra*. Edited by M. Ghosh. Calcutta: Asiatic Society, 1950).

Sacks, Shelley. "Geben und Ökologisches Bürgerschaft: Aus innerer Bewegung zur passenden Form." ["Giving and Ecological Citizenship: The Inner Movement

Toward Appropriate Form.” unpublished English, 2011]. In *Da hilft nur Schenken: Mit Schenken und Stiften die Gesellschaft gestalten*, edited by

Dieter Weber, 38–43. Frankfurt: Info3-Verlag, 2011.

Smith, Adam. *The Theory of Moral Sentiments*. New York: August M. Kelley Publishers, 1966 [1853].

Smith, Barry and David Woodruff Smith. *The Cambridge Companion to Husserl*. Cambridge: Cambridge University Press, 1995.

Stanford Encyclopedia of Philosophy [website]. “Empathy.” Accessed on 31 July 2016. plato.stanford.edu/entries/empathy/.

Stein, Edith. “On the Problem of Empathy.” In *The Collected Works of Edith Stein*. Vol. 3. Translated by Waltraud Stein. Washington, D.C.: ICS Publications, 1989.

Vischer, Robert. “On the Optical Sense of Form: A Contribution to Aesthetics.” In *Empathy, Form, and Space*. Translated by H.F. Mallgrave and Eleftherios Ikononou, 89–123. Santa Monica, CA: The Getty Center for the History of Art and the Humanities, 1994 [1873].

Watching Dance: Kinesthetic Empathy [website]. Accessed on 30 December 2016. http://www.watchingdance.org/research/kinesthetic_empathy/index.php.

Zahavi, Dan. “Empathy, Embodiment and Interpersonal Understanding: From Lipps to Schutz.” *Inquiry* 53 (3) (2010): 285–306.

MICHAL RATAJ

WRITING SOUND:

The Wacom Tablet – a Multifaceted Musical Instrument

This chapter explores the terrain between creative process and technology development over the past 15 years through the perspective of a specific device. I offer solutions for how composer and performer can utilise the graphical/gestural interface of the Wacom tablet to be able to “write sound in real time”. It opens up an interdisciplinary discourse among current music and technology developments, performance theory and intermedia applications.

The graphical tablet is a tool originally designed for visual artists and designers as an interface to provide tactile interaction with the computer. It was primarily designed to draw by hand directly into the computer.

My research with the Wacom tablet as a performance tool for live sound performance began in 2007 following the experience of other colleagues in CNMAT, UC Berkeley.¹ Since then, the software environment necessary for the work has fundamentally changed three times, and the hardware itself has been updated several times, including minor (design) and major (multi-touch) improvements. Looking back over the eight years of work with the tool in music performance and composition, it seems as if the technological development and its attributes re-

veal different dynamics according to their corresponding artistic parallels. Technology, with its strong engine in business and innovation, tends to hide fundamental features and potentials under the surface of immediate consumption/gratification while touting constantly new business and market solutions. Developers tend to say, “Do use the tool this way and do not think much about the rest”. While providing a series of readymade solutions, they tend to suppress the potential of more complex uses, which await discovery.

On the one hand, creativity serves innovation as a pool of ideas and impulses to develop new technology in order “to be used”. On the other hand – you’ll probably agree – art does not exist primarily in order to be used. It exists in order to be. That’s a fundamental difference, and during my years of pedagogical engagement I have observed how deeply this dichotomy has been present in the ways young artists use different technological tools in their art explorations and creations.

Facing current technologies, as artists, we often understand “the surface”, the user interface of technological tools, not interacting so frequently with the “technological content” of tools themselves. But

1. Michael Zbyszynski et al., “Ten Years of Tablet Musical Interfaces at CNMAT,” in *Proceedings of the 2007 Conference on New Interfaces for Musical Expression* (NIME07) (New York: ACM, 2007), 100–105.

even understanding user interfaces properly requires increasing effort, since their hidden complexity has become enormous. As artists, we approach technology in order to create a piece of art. Thus, the technology itself becomes part of the work's conceptual frame, which usually requires more than writing perfectly defined software code or creating a piece of advanced engineering. It requires equilibrium among multiple approaches within a complex framework of creative process, including the technological one, and it gives the technology conceptual meaning. The incredible tempo of technological development has been incomparable with the rapidity of paradigm shifts in art, particularly over the past 25 years of the "digital age". Approaching technology using its surface control level as an easy tool for art creation (due to the lack of time while exploring it, or lack of knowledge, or just due to superficiality) is not often challenging enough to compete with core traditions of art craft across creative disciplines. Due to the rising complexity of user interfaces, technologies require either more knowledge, experience and specialisation, or provide their users with simplifying solutions. It seems like the second case becomes more usual when observing the contemporary digital art domain and when trying to dive below the typical user interfaces with my students. The business engine of technological

development and our increasing powers of consumption emphasise the former, too. Using an aphorism – everyone can become a composer today upon touching the display of a smartphone² – this chapter suggests ways to penetrate a surface of easy solutions.

On top of the artwork's conceptual frame itself there is additionally the performative aspect to be underlined, since much technology in art has been recently used in interaction with *sensor devices*, or *physical actuators*. Such physical interactions usually require deliberate experience based on real performance practice. Practising an instrument (the particular technology turns into a real instrument) supposes a stable piece of technology that does not change through time.³ As a result of the practice of a (technology-based) instrument, I feel there is certain type of technology-based virtuosity required, which confirms performance intention and avoids arbitrariness.

In order to establish a creative framework between artist and technology, it seems that:

- technological development must be "privately stopped" for a period so that a tool of interest can be selected and accepted;
- new strategy, fundamental conceptual frames and relevant methods of human-technology interaction need to be developed so that a piece

2. A good example, among others, is the Gestrument by Swedish composer Jesper Nordin, a touch-based device for iPad and iPhone that incorporates the composer's methods of approaching music structure on all possible levels. Foremost, it generates pitch and rhythmic structures upon moving fingers in the 2D-touch interface field. See www.gestrument.com.

3. Among many others, see virtuoso performances on the theremin by Pamela Stickney, or sampling artist Jan Bank on his vintage Akai sampler.

of technology becomes instrumentalised, or “hacked”, according to suggested ways of use;

- “practising such a new instrument” must happen despite the fact it results in a strange dichotomy:

- 1) when I master a new piece of technology in my artistic practice, the technology becomes obsolete;

- 2) the fact that technology becomes obsolete is counterbalanced by the added value of a developed human–technology interaction, which is only possible over a period of time.

To be more specific: in looking for a tool that would allow for transforming the gestural world of our hands into metaphorical shapes of sounds and timbers, the graphical tablet by Wacom has become my choice. After eight years of engagement with the tool as composer and performer, I summarise key points of the experience.

1. GESTURAL WORLD

In the history of music we find a multitude of examples of shapes and gestures (real or imaginative) based on associations with human body movement and their projections into temporal and semantic domains.⁴ A few examples: medieval neumes follow the melodic movement of Gregorian chant and suggest its rhythmic structure; melodic shapes of rhetorical figures deliver strong se-

mantic implications; a Shakuhachi score is founded on gestural-based curves; while composers of *musique concrète* look for the gestural quality of sounds resembling behaviours of physical musical instruments. And, of course, in the history of music and technology we find multiple solutions, including Xenakis’s UPIC, in which direct connection between hand gesture and resulting sound were established. Gestural aspects have been inherited from acoustically existing music/instruments.

Following my Wacom tablet hack into a gesture-based music instrument started ongoing art research in the field of music composition, live performance/interpretation and technology. It required instrumental training, stimulated structural and polyphonic imagination and, thanks to trivial latency, easily became part of various music ensembles.⁵ Unlike approaches for non-real-time transformations of drawing procedure into sound (software including IanniX, Hyperscore),⁶ the Wacom tablet research is primarily based on real-time methods.⁷ It suggests strategies for how hand gesture/tablet pen movement can initiate immediate sonic computer response. There are specific processes, which are of particular importance to me as a composer and performer: synthesis and playback control, real-time spectral model operations and spatial diffusion of sound.

4. For deep insight into gestural knowledge, see Rolf Inge Gødoy and Marc Leman (eds.), *Musical Gestures: Sound, Movement, and Meaning* (New York: Routledge, 2010); Michael Funk and Mark Coeckelbergh, *Is Gesture Knowledge? A Philosophical Approach to the Epistemology of Musical Gestures*, in *Moving Imagination. Explorations of Gesture and Inner Movement*, ed. Helena de Preester (Amsterdam: John Benjamins, 2013), 113–131.

5. A challenging approach to new instrument design can be observed in the text by Yolande Harris, “Inside-out

Instrument,” *Contemporary Music Review* 25 (1/2) (February/April 2006): 151–162.

6. Jean-Baptiste Thiebaut, Patrick G.T. Healey and Nick Bryan Kinns, “Drawing Electroacoustic Music,” [online PDF], accessed 15 May 2016, <http://quod.lib.umich.edu/cgi/p/pod/dod-idx/drawing-electroacoustic-music.pdf?c=icmc;idno=bbp2372.2008.113>.

7. Marcelo M. Wanderley, “Gestural Control Of Music,” paper delivered at an international workshop “Human Supervision and Control in Engineering and Music,” Kassel, Germany, 21–24 September 2001.

2. WACOM TABLET INTERACTION⁸

The tablet is a two-dimensional field, which we access using a special pen. In 2013, a new touch-based version of the tablet (Intuos pen and touch small, CTH-480) added independent functionality on top of what previous pen-only tablets offered. This represents heavy added value according to current commercial touch-based control surfaces: a combination of touch-based gesture with tactile and precise pen movement. Before I present the actual virtual instrument environment and its behaviour, let me list all the parameters received/evaluated from the pen and touch interface of the tablet.

Pen interaction

- movement of the pen on X and Y axis
- pressure of the pen
- pen touch state (physical contact with the surface)
- pen button 1, pen button 2 (two independent switches)

Touch interaction

- movement of the finger on X and Y axis
- number of fingers touching the surface

All data are read through the MAX⁹ environment, where their interpretation is processed.

3. VIRTUAL INSTRUMENT ARCHITECTURE

The basic requirement while building the virtual software instrument controlled by the Wacom tablet has been an openness regarding sound/music material. I wanted to have a virtual “skeleton/body of an instrument” that could be filled with different sonic material at any time while keeping the same frame of interaction. There are two levels of such tablet interaction:

- resonating autonomous material using different synthesis, resynthesis and sample-based methods;
- live interaction with music partners or other acoustic instruments on a stage.

Specific modes of tablet interaction are switched by a MIDI controller or by the computer keyboard. The instrument is typically connected to between four and eight speakers, which are spread around the performance space. Sound diffusion in real time during performance is integral and is currently being further developed towards use in multi-speaker arrays.

4. WACOM DATA STREAMS

When “playing” the tablet, different data interpretation of moves on the tablet surface are applied in order to follow the sense of gesture/sound interaction.

SDIF PLAYER

A series of spectral models of 10 sounds (each up to 10 seconds long) are stored in the SDIF¹⁰ buffer and are resynthesised in real time. Horizon-

8. First text of the composer concerning tablet-music-instrument was published as part of a joint article (in Czech): Michal Rataj et al., “Dotknout se zvuku” [Touching the sound], *Opus Musicum* 47 / 4 (2015): 58–80.

9. Interactive software environment by Cycling74. Wacom tablet wrapper developed by R. Dudas and J.

M. Couturier, Aix-Marseille Université.

10. Matthew Wright et al., “Supporting the Sound Description Interchange Format in the Max/MSP Environment,” in *JCMC Proceedings 1999* (Ann Arbor: Michigan Publishing, 1999), 182–185, <http://hdl.handle.net/2027/spo.bbp2372.1999.371>.

tal movement of the pen on the X-axis delivers time positions inside the corresponding SDIF buffer. In fact, we browse inside the time domain of the corresponding sound. The Y-axis distributes resynthesised sound in space using horizontal dimensions of the Ambisonic B-format¹¹ engine. The length of the Y-axis corresponds to 360° of a speaker field, so while moving the pen up and down, the sound is moving around the circle of the Ambisonic field.

Two available SDIF buffers can be permanently switched using the lower pen button, and SDIF buffer content can be changed using computer keyboard shortcuts.

While pressing the upper pen button, 500 ms of currently synthesised sound is sent to the SPAT “endless reverb”. Such a portion of sound is frozen and in fact builds a background polyphonic structure.

The SDIF player requires high-quality sound analysis, so that no digital dropouts occur during resynthesis. Conceptually, it is good for “freezing time”, listening to what is present inside sounds and reinterpreting this “inside content” into new sound structures. In particular, spoken word as an SDIF model can be powerful as an overdub during live performance, as I used recently in the *Scribble* project.¹²

SAMPLE PAD

The tablet pad is divided into 20 small squares, each associated with a pre-produced sample. Touching the

pad with the pen triggers a sample and plays it back from the beginning until the pen is released. The lower pen button triggers full-length sample playback. Pen pressure controls the amplitude of each sample playback, while polyphony of a total of five playback engines is available. Moving the pen over the Y-axis inside each of 20 squares rotates the sound in a circle of 360°.



Figure 1: 20-square grid on the tablet pad

SHIFT-Finger-Touch over the same 20 squares recalls another set of (longer) 20 samples with randomly organised spatial positions. Fast switching between pen- and touch-based sample triggering allows for very flexible interaction in real time.

The sample pad of total 40 samples is good for building complex spatial polyphony of sounds with both sound attacks (pen) and sound layers (pen full length, finger touch). In particular, short attack articulation of samples can work very well as real ensemble interaction when playing with other musicians on stage.

11. Jan C. Schacher, “Seven years of ICST Ambisonic Tools for Max/Msp – A Brief Report,” in *Proceedings of the 2nd International Symposium on Ambisonic and Spherical Acoustics*, 6–7 May 2010, Paris, France, eds. Markus Noisternig and Nicolas Misdariis (Paris: IRCAM, 2010), <http://ambisonics10.ircam.fr/drupal/index3cc6.html?q=proceedings>.
12. Jaromír Typl and Michal Rataj, Škrábanice *Scribbles*, in *Poli5 2014*, EPP 066-2, track 13 (e.g.).

WACOM-MIGRATOR

In this case, the tablet is used to control an additive synthesiser based on the idea of David Wessel's migrators.¹³ The tablet surface is interpreted as a two-dimensional space, where the X-axis determines a series of frequencies of given oscillators being migrated (= crossfaded smoothly over a certain period of time), while the Y-axis determines their amplitudes. On the tablet we basically draw a sound cloud, an interactive foam that moves in time and space.

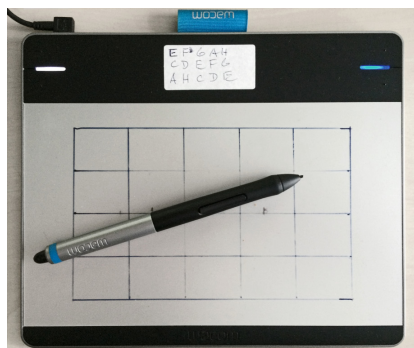


Figure 2: Graphical migrator control

Two parallel migrator synthesisers are controlled by the tablet pen with slight random deviation of control parameters. Two output signals slowly rotate in a circle with 180° phase shift.

TOUCH CATART PLAYER

The CataRT player,¹⁴ a virtual instrument based on concatenative synthesis, can be accessed any time

by “drawing with a finger” over the entire field of the tablet. Along with a corresponding set of spectral descriptors, a touch gesture plays back actual grains of samples from selected corpuses. A corpus represents a large number of specifically chosen samples to serve for spectral-based granular playback.

A second finger can drag away from the first one in order to create a probabilistic selection circle, which is then moved around by one finger only. Once a second finger touches quickly again, the circle disappears and playback is produced by point-based selection only.

The Y-axis of the tablet is concurrently mapped to the 360° playback position.

The CataRT player can be accessed at any time since no other gestural interaction of the tablet is based on touch gestures (except for the SHIFT-touch to play samples back). Left-hand use of a MIDI controller can easily switch among eight different sample corpuses so that touch-playing CataRT can produce a vast variety of timbres articulated through different spectral perspectives. Parallel long-sample playback together with CataRT articulation of the same sound can be very effective during performance.

SOGS PLAYER

The Smooth Overlap Granular Synthesiser (SOGS)¹⁵ divides the tablet vertically into two separate stripes. Each corresponds to one real-time

13. John MacCallum, Andrew Schmeder and David Wessel, “Timbral Migration: Stochastic Processes for the Control of Smooth Spectral Transformation,” in *Proceedings of the International Computer Music Conference (ICMC, 2009)*, Montreal, Canada (Ann Arbor: Michigan Publishing, 2009), 163–166, <http://hdl.handle.net/2027/spo.bbp2372.2009.036>.

14. Diemo Schwarz, Gregory Beller, Bruno Verbrughe and Sam Britton, “Real-Time Corpus-Based Concatenative Synthesis with CataRT,” in *Proceedings of the 9th International Conference on Digital Audio Effects 2006 (DAFx-06)*, Montreal Canada, 18–20 September 2006, 279–282, http://www.dafx.ca/proceedings/papers/p_279.pdf.

15. SOGS – object for MAX by Norbert Schnell, IRCAM.

granular engine. The X-axis (similarly to the SDIF buffer) is associated with time inside the audio buffer, while the Y-axis of the tablet controls the length of grains – the most expressive articulation of the SOGS tool.

The SOGS player can be continuously filled with an audio signal produced live (e.g. by performance partners) and controlled by tablet interface as a real ensemble participant.

Using the SOGS engine is particularly good when a constant harmonic environment is required during performance, or when there is a need for very slow harmonic transformation over longer periods of time. The granular playback can be also automated and synchronised using the master tempo of the performance.

TABLET RESONATING

Interaction based on audio input is conducted again by the tablet surface divided into 20 squares. Each controls resonance filters using specific spectral models. Live audio input excites the resonators while triggering tablet pads switches among spectral models. The background music idea calls for creating spectral melody/polyphony in real time with the help of a live signal, or using a contact microphone as an exciting signal (e.g. clipped to a small wooden board, as typically used in my *Scribble* or *Writing Machine* performances).

5. PRACTISING A REAL INSTRUMENT

The complexity of the presented virtual instrument requires not only well-prepared audio content – or, let

us say, “virtual orchestration”,¹⁶ – it also calls for a large period of practice towards real instrumental virtuosity. The tactile sensitivity of our hands can lead to very different performance results with minor movement changes.

Last but not least, playing the tablet is a result of fast and precise cooperation between the left hand, switching the modes of interaction described above, and the right hand, being responsible for the overall gestural control (pen and touch interaction with the tablet).

When filling the virtual instrument with contrasting musical content (particularly other samples and spectral models), we need to find new ways how to use the tablet pen and where to touch the surface with our finger in order to reach the desired music expression. On the other hand, the same gestures and hand movements may achieve fundamentally different musical results.

In rehearsing and performing with the instrument, I aim not only to create micro-structure (short-time events being structured and articulated by the tablet interface), but also to build larger forms based on granular synthesis, quick sample access and use of the additive synthesis engine, which can be formed over large phrases.

If an acoustic instrument is connected to the virtual one, continuous behaviour and sound context of a performance is changed based on what is being performed acoustically. Audio input of the virtual instrument is typically connected with one or two acoustic sources. These are then

16. David Wessel, Matthew Wright and John Schott, “Intimate Musical Control of Computers with a Variety of Controllers and Gesture Mapping Metaphors,” in

Proceedings of the 2002 Conference on New Instruments for Musical Expression (NIME-02), Dublin, Ireland, 24–26 May 2002.

transformed, enlarged and diffused in real time; in fact, they become part of the spatial electroacoustic ensemble with variable instrumentation.

CONCLUSION

Almost a decade of engagement with the tablet as a music interface has led me to discover several aspects that would be good to conclude with, once deep technical investigation of the entire technology has been done.

The Wacom tablet establishes cross-media relationships. It gathers and brings visual aspects into music structuring and performance in a form of colour palette, which awaits physical interaction with the composer/performer. The colour (sound) palette is interactive, continuously refillable and requests a high degree of virtuosity in order to be "sonified".

The research also addresses issues of time and space in music composition and live performance. On one hand, we can see how sound lasting within a specific time interval can be reconsidered from a different time perspective, and how the time-based domain of a specific sound can be augmented or diminished. On the other hand, the tablet serves as a tool for positioning sound inside the physical space, which consists of a large number of speakers inside the performance hall. Using the tablet pen, we move sound physically in a circle or up and down, parallel to operating the actual sound palette. In conducting physical gestures (using the hand) while interacting with sound palette, we discover new perspectives of digital content, and vice versa. It provides us with a new type of experience, in which the relationship between physical and vir-

tual forms of sound in time creates musical structure.

Finally, the research experience proves that we don't need to be afraid of becoming obsolete, of not being up to date all the time in the world of technology. Diving under the surface of tools requires time, and mastering the tools from the perspective of virtuosity requires even more time. It seems like the modern obsession with "staying updated" doesn't always fit with serious art-making.

For future research, I see potential in incorporating some portion of gesture recognition as a kind of higher level control, which would provide the performer with even more complex ways of "writing the sound". Performance control of larger numbers of speakers (up to 24) formed into an Ambisonic B-format is part of my ongoing research.

References:

- Funk, Michael and Mark Coeckelbergh. *Is Gesture Knowledge? A Philosophical Approach to the Epistemology of Musical Gestures*. In *Moving Imagination. Explorations of Gesture and Inner Movement*, edited by Helena de Preester, 113–131. Amsterdam: John Benjamins, 2013.
- Gødoy, Rolf and Marc Leman (eds.). *Musical Gestures: Sound, Movement, and Meaning*. New York: Routledge, 2010.
- Harris, Yolande. "Inside-out Instrument." *Contemporary Music Review* 25 (1/2) (February/April 2006): 151–162.
- MacCallum, John, Andrew Schmeder and David Wessel. "Timbral Migration: Stochastic Processes for the Control of Smooth Spectral Transformation." In *Proceedings of the International Computer Music Conference (ICMC 2009)*, Montreal, Canada. Ann Arbor: Michigan Publishing, 2009. <http://hdl.handle.net/2027/spo.bbp2372.2009.036.163-166>.
- Rataj, Michal et al. "Dotknout se zvuku." [Touching the sound]. *Opus Musicum* 47 (4) (2015): 58–80.
- Rataj, Michal and Jaromír Typlt. *Škrábanice / Scribbles*. Polí5 2014, EPP 066-2.
- Schacher, Jan C. "Seven years of ICST Ambisonic Tools for Max/Msp – A Brief Report." In *Proceedings of the 2nd International Symposium on Ambisonic and Spherical Acoustics*, 6–7 May 2010, Paris, France, edited by Markus Noisternig and Nicolas Misdariis. Paris: IRCAM, 2010. <http://ambisonics10.ircam.fr/drupal/index3cc6.html?q=proceedings>.
- Schwarz, Diemo, Gregory Bellet, Bruno Verbrugghe and Sam Britton. "Real-Time Corpus-Based Concatenative Synthesis with CataRT." In *Proceedings of the 9th International Conference on Digital Audio Effects 2006 (DAFx-06)*, Montreal Canada, 18–20 September 2006, 279–282. http://www.dafx.ca/proceedings/papers/p_279.pdf.
- Thiebaut, Jean-Baptiste, Patrick G.T. Healey and Nick Bryan Kinns. "Drawing Electroacoustic Music." [online PDF]. Accessed on 15 May 2016. <http://quod.lib.umich.edu/cgi/p/pod/dod-idx/drawing-electroacoustic-music.pdf?c=icmc;idno=bbp2372.2008.113>.
- Wanderley, Marcelo M. "Gestural Control of Music." Paper delivered at international workshop "Human Supervision and Control in Engineering and Music," Kassel, Germany, 21–24 September 2001.
- Wessel, David, Matthew Wright and John Schott. "Intimate Musical Control of Computers with a Variety of Controllers and Gesture Mapping Metaphors." In *Proceedings of the 2002 Conference on New Instruments for Musical Expression (NIME-02)*, Dublin, Ireland, 24–26 May 2002.
- Wright, Matthew et al. "Supporting the Sound Description Interchange

Format in the Max/MSP Environment.” In *ICMC Proceedings 1999*. Ann Arbor: Michigan Publishing, 1999. <http://hdl.handle.net/2027/spo.bbp2372.1999.371>.

Zbyszynski, Michael et al. “Ten Years of Tablet Musical Interfaces at CNMAT.” In *Proceedings of the 2007 Conference on New Interfaces for Musical Expression* (NIME07). New York: ACM, 2007, 100–105.

NOTE

This text was written at the Academy of Performing Arts in Prague as part of the project “Sound-space /Space-sound”, with the support of the Institutional Endowment for the Long Term Conceptual Development of Research Institutes, as provided by the Ministry of Education, Youth and Sports of the Czech Republic, 2016

GUNTER LÖSEL

RESEARCH VIDEO:

Annotated Videos as a Tool for the Publication of Artistic Research

In this chapter I will present an overview of our ongoing project, "Research Video", its background, history, present state and future plans. Research Video is a proposal to find a solution for some problems arising within the publication of artistic research in the temporal arts, such as theatre, dance and performance. One could, of course, include music, but within the project we focus on the performing arts. This is the main focus of the Institute for the Performing Arts and Film, which is the organisational frame for this project.

BACKGROUND

When I started to work in the Zürich University of the Arts in 2014, I faced the challenge of setting up artistic research in the performing arts. I reread the canonical texts, and soon realised that, although there is a lot of material, there seems to be an overall imbalance between theory and practice. There has been a lot of conceptual thinking about the epistemology of artistic insights: what kind of knowledge can we generate? Should

we include tacit knowledge? Should we include embodied knowledge? Should we include subjective knowledge? What is the role of experience? There is profound literature on a high academic level, mainly arising from philosophical approaches¹ or political debates.² Much of the literature refers to art and artistic research in general, leaving open the application of methods to specific forms of art. There seems to be a gap between theoretical considerations and practical usage. When you are struggling to set up a research design for a specific project, these debates don't really help. I think everybody who enters the landscape of artistic research is bound to fall into this gap between theory and practice. Even the recently published *Künstlerische Forschung: Ein Handbuch* (Artistic Research: A Handbook) doesn't bridge this gap.³ However, there *have* been pragmatic approaches within the last decade, such as Florian Dombois's attempt "to draft some instructions for myself",⁴ Linda Candy's framework for practice-based PhDs,⁵ Candy and Edmonds' considerations

1. In German, for example, see: Elke Bippus (ed.), *Kunst des Forschens: Praxis Eines Ästhetischen Denkens* (Zürich: Diaphanes, 2009); Corina Caduff, "Kunst und Künstlerische Forschung = Art and Artistic Research," *Zürcher Jahrbuch Der Künste, Band 6* (Zürich: Scheidegger & Spiess, 2010), 224 ff; Dieter Mersch and Michaela Ott (eds.), *Kunst und Wissenschaft* (München: Wilhelm Fink, 2007); Julian Klein, "Was ist Künstlerische Forschung?," *Kunsttexte.de* 2, 1978 (2011): 1-5. In English, for example, see: Michael Biggs and Henrik Karlsson (eds.), *The Routledge Companion to Research in the Arts* (London: Routledge, 2010).

2. Henk Borgdorff, "Die Debatte über Forschung in der Kunst," in *Künstlerische Forschung*, ed. Anton Rey and Stefan Schöbi (Zürich: Zürcher Hochschule der Künste, 2009), 23-51.

3. Jens Badura, *Künstlerische Forschung: Ein Handbuch* (Zürich: Diaphanes, 2015).

4. Florian Dombois, "Kunst als Forschung: Ein Versuch, sich selbst eine Anleitung zu entwerfen," in *What's next? Kunst nach der Krise*, eds. Johannes M. Hedinger and Torsten Meyer (Berlin: Kadmos, 2013), 139-143.

5. Linda Candy, "Practice Based Research: A Guide," CCS Report, 2006-V1.0 November (Sydney: University of Technology Sydney, 2006).

of the role of the artefact in practice-based research⁶ and Hannula's claim to ground artistic methodology in narrative interviews.⁷

Many of these texts have the underlying goal of gaining acceptance for the claims of artistic research among other forms of well-established research, so they are part of a pioneering phase. But what do we do when the pioneering phase is over? For what do we dig in our new claims? And how will we do it? I think we now face the challenge of getting the theoretical concepts "down to earth" and making them work. I saw the Prague conference, "Artistic Research: Is There Some Method" (7–9 April 2016), in this context: there is a certain necessity to build up conventions. They don't have to be the same conventions as in more traditional sciences, but they *have to create a clear difference between art and artistic research*.

As Michael Schwab and Henk Borgdorff point out, one of the conventions we have to establish must concern publishing our results in an academic context.⁸ This is a long discussion and, at this point, every group of researchers will come up with different approaches. Taking a pragmatic stance, we looked for a *minimal consensus* and came up with two basic concepts that Linda Candy spelled out in 2006 and 2010. She refers only to PhDs, but as they are a central pillar of academic publication, these claims can legitimately be transferred to other forms of academic publication:

For research to be considered worthy of a doctoral thesis or publication in a learned journal, for example, it must contain knowledge that is new, in the world, that can be shared with others and that can be challenged, tested or evaluated in some way. Accepting that much of what we know is known tentatively rather than absolutely, the properties of shared knowledge that can be challenged are more important in research than the absolute certain truth of the new knowledge.⁹

The criteria of *shareability* and *challengeability* can be used as the smallest common ground we have, a minimal consensus, excluding other claims such as causality and objectivity that don't seem to fit *artistic* research purposes. So, at the least, the publication (1) should be transferable through space and time, thus being accessible to the community of researchers worldwide, and (2) should make the procedure or method used so explicit that it can be questioned and criticised by the wider community of researchers.

SHOW, DON'T TELL

Another starting point for us was the claim by Florian Dombois – one of the pioneers of artistic research in Switzerland – that the publication of artistic research should not be a piece of art – otherwise it would be a duplication of the same – but that the content should match the form

6. Linda Candy and Ernest Edmonds, "The Role of the Artefact and Frameworks for Practice-Based Research," in *The Routledge Companion to Research in the Arts*, eds. Michael Biggs and Henrik Karlsson (London: Routledge, 2010).

7. Mika Hannula, Juha Suoranta and Tere Vadén, *Artistic Research Methodology: Narrative, Power and the Public*

(Bern: Peter Lang, 2012)

8. Michael Schwab and Henk Borgdorff (eds.), *The Exposition of Artistic Research: Publishing Art in Academia* (Leiden: Leiden University Press, 2014).

9. Candy and Edmonds, "The Role of the Artefact and Frameworks for Practice-Based Research," 124.

of the researched object or process.¹⁰ Artistic research is an artefact *between* art and research, something I call a “scholarly twin of the artwork”. This is different from the predominant model of publication in artistic research – the two-component-model – that conceptualises both artistic output and scientific output as two different things that can stand by themselves.¹¹ One can conclude that every art form should, in its publication of artistic research, be as close as possible to its own forms of expression: design research to design, film research to film, theatre research to theatre, and so on. This

has strong implications because it challenges the predominance of text and language in our scientific conventions. This reclaims the importance of *experience* in science, which of course is nothing new, since empirical research means exactly that: the important role of experience in generating knowledge. But this goes a little further; experience has to be somehow enclosed in the publication and can then somehow be “unzipped” by the reader. I will try to visualise this difference. In traditional science there is something like a balance between theory and experience. Theory (prior knowledge) leads to

10. Dombois, “Kunst als Forschung,” 23–31.
11. Candy and Edmonds, “The Role of the Artefact and Frameworks for Practice-Based Research.”

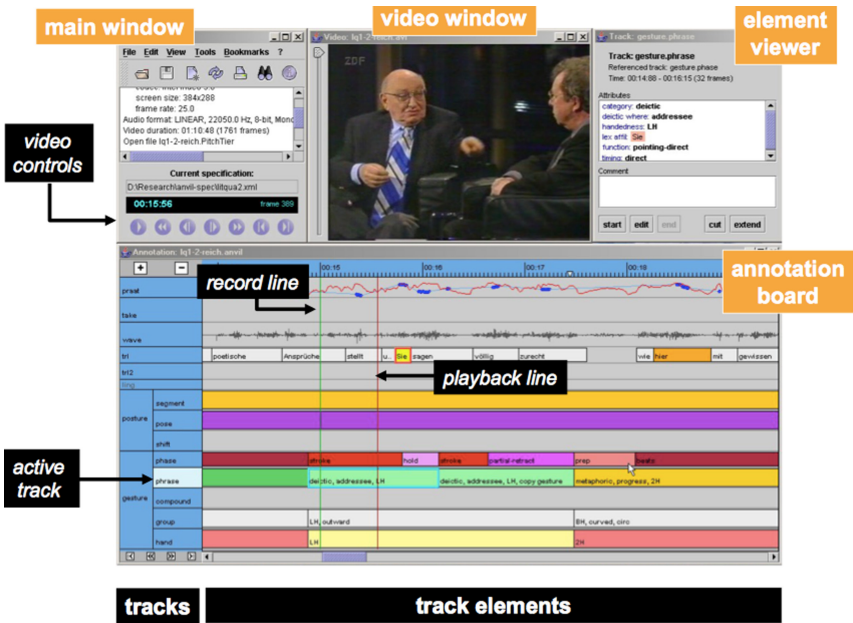


Figure 1: Relationship between theory and experience in traditional research

new models and hypotheses through deduction. These new models and hypotheses are then challenged by empirical studies (experience) and through induction the results can be integrated into theory – or lead to a reorganisation of theory. A visualisation of this “cycle of learning” might look like Figure 1.

Of course, one might as well start the cycle at the bottom (experience), avoiding preconceptions and theory, which is the approach most qualitative studies take. Artistic research will look a little different. While there are many different concepts of artistic research, there is one thing they do have in common: a strong emphasis on the central role of *aesthetic experience* as not being reducible. So

the visualisation would look something like this (Figure 2):

Not only are knowledge and experience much closer together in this model, but there is also an overlap, indicating that there are certain kinds of knowledge *that cannot be separated from experience*. Experience is visualised as much bigger, indicating its major role in the process. Further, the logic of inference is not as specific as it is in traditional research, which is why I am not using the terms “deduction” and “induction”, but the more general terms “top-down process” and “bottom-up process”. This implies that there might be innumerable, emergent and even irrational ways of using knowledge and of organising experience.

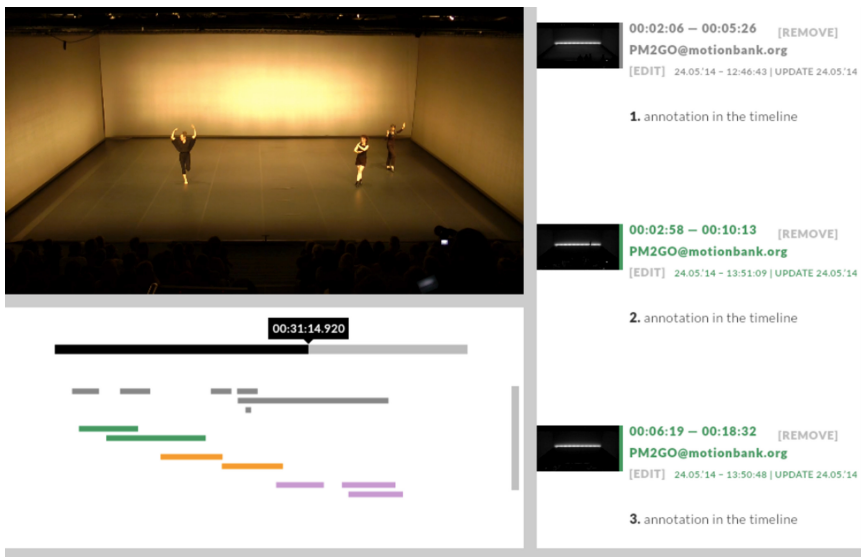


Figure 2: Relationship between theory and experience in artistic research

Using this model raises the question: what form of publication might be adequate to represent the whole process of research? How can we expose this special relationship between knowledge and experience and make it shareable and challengeable? For the temporal arts, the role of the artefact seems particularly crucial, since the performance is ephemeral. Indeed, there has been some profound questioning of how we can conduct research in this specific field.¹² Our thesis is that for the performing arts, as theatre, dance and performance, *annotated video* can perhaps fulfil the claims of shareability and challengeability. This, then, is the background of our project.

TOOLS FOR ANNOTATED VIDEOS

Annotated videos make the insertion annotations at a specific point of the video possible, just as you might insert footnotes into a text. This enables the transfer of certain aspects of a text to a video, especially *citability*, a fundamental quality in academic research and a foundation of shareability and challengeability.

There are a couple of digital tools that include annotated videos. They are principally devoted to the qualitative analysis of video data, often in the context of videoethnographic methods. Table 1 contains an overview of the most common tools:

Table 1: Tools that contain annotated video functions

TOOL	DEVELOPED BY	OPTIMIZED FOR
Advene	University Claude Bernard Lyon	Analytical tool
Atlas ti	Atlas ti Development GmbH	Analytical tool
Anvil	Michael Kipp	Analytical tool
Vdata and Vcode	University of Illinois at Urbana Champaign	Analytical tool
Elan	Max Planck Institute for Psycholinguistics	Analytical tool
Piecemaker	Motion Bank	Artistic tool
Piecemaker2Go	Motion Bank	Artistic tool
Creation Tool	Transmedia knowledge base for Performing Arts	Artistic tool
Switch Cast Annotate	Switch	Educational tool
Openvideo	Harvard University	Educational tool
Memo Recall	Clarise Bardiot	Analytical tool
Scaler	Allience for networking Visual Cultures	Publication tool

Each of these tools is specialised and optimised for a specific use. Each of them has technical restrictions; some are very basic, such as not accepting certain video formats. Unfortunately, there is not yet a tool that integrates the functions of data analysis *and* publication of results. In an ideal world, both will be integrated, but at this point they are regarded as different things. For our purposes, we decided on an approach that emphasizes *simplicity* and *usability*. Interestingly, all tools have a similar underlying structure and a similar interface (Figure 3):

There are different expressions for more or less identical functions.

12. Ludvine Allegue, Simon Jones, Baz Kershaw and Angela Piccini, *Practice-as-Research: In Performance and Screen* (New York: Palgrave Macmillan, 2009).

There is always a horizontal *timeline*, for example, in every video player, sometimes called an *annotation line*. It consists of several *layers* to allow for different information to be assigned to different parts of the video. In these layers, there can be a second video stream or a parallel visualisation of phonetic information, thus creating two or more streams of synchronised information. These layers are also referred to as *tiers* or *tracks*. While layers usually organise temporal information in relation to a timeline, single annotations serve as reference to a specific point on the *timeline*. These are sometimes called *marker*, *interval*, *element* or *label*. To allow for intuitive use, layers and annotations can usually be visualised in different colours.

Usually, the annotations are organised and displayed in a list that can be sorted according to the user's needs. This is referred to as the *an-*

notation file. The act of annotating is sometimes called *coding*, *labelling* or *segmentation*. If the system is working with a given structure, one speaks of the *coding scheme*, the *annotation scheme* or *controlled vocabulary*. This is useful for the process of coding in qualitative methods. In order to refer to a simple and understandable vocabulary, we decided to use this nomenclature:

- ① Timeline
- ② Tracks/Layer
- ③ Annotation
- ④ Annotation file
/annotation board
- ⑤ Annotation scheme

The simple design of Piecemaker-2GO (PM2GO) gives a good impression of how these features can be arranged as an interface:

Figure 4: *The interface of Piecemaker*¹³

A design and structure like this can provide space for both aesthetic

13. Motion Bank [website], accessed on 31 May 2016, <http://motionbank.org/de/event/pm2go-video-annotation-leicht-gemacht>.

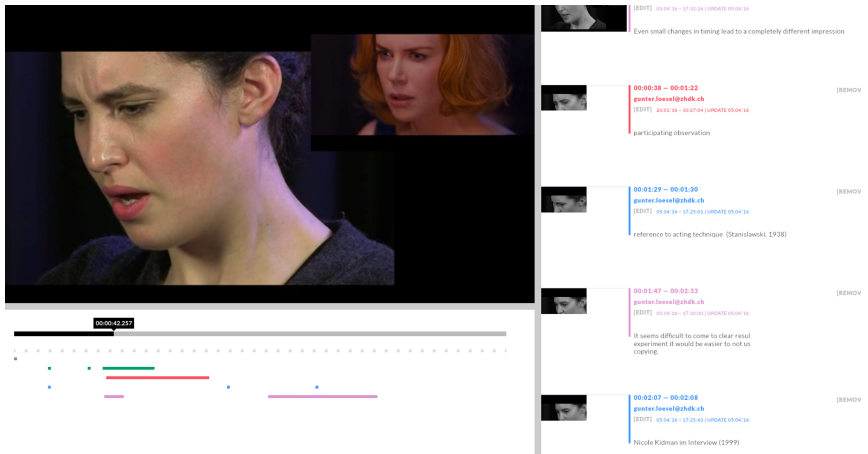


Figure 3:
*Example of an interface
for annotated videos*

experience (though obviously very reduced) and analytical thinking, either with given categories or with emergent features. The process of publication might be very close to this, but it must follow more specific scientific conventions.

RESEARCH VIDEO

We decided to build a tool that is optimised for publication and roughly follows the structure of a *research paper* as a well-established convention in the publication of research. The annotations will be assigned to categories that are derived from scientific conventions. We are planning, as a first attempt, to follow the AIMRD model. This is an accepted structure for research papers and will provide a simple structure for the *annotation scheme*. The model is linear, since it is derived from text, and contains the following points:

- (1.) Front page (author, contact address, date of publication, host institution)
 2. A = Abstract (short summary)
 3. I = Introduction (research question, hypothesis, scientific contexts)
 4. M = Methods (research design, method for gathering/generating data, method for analysing/interpreting data)
 5. R = Results (reduced data [not raw data], descriptive statistics, analytical statistics, content analysis, baseline data, adverse events)
 6. D = Discussion (interpretation and implication of the results as to the research question and the scientific contexts)
 - (7.) References (sources, bibliography)
- As each annotation will be assigned to one of these categories, the reader

can read the work in the structure of a conventional research paper, but yet also stay close to the experience by viewing the video without annotations or with only specific annotations. Using the vocabulary I introduce above, there will be an *annotation scheme* that allows for the annotations to be viewed according to the conventions of scientific publication.

The following example is not the prototype, but an application of Piecemaker2Go. I provide the illustration simply to give an impression of what Research Video might look like:

Figure 5: *Simulation of a use case as a Research Video*

This video was made as a documentation of an experiment in acting training and is used here simply as illustrative material. All the elements I have been describing can be seen. Before entering this view, the “reader” (or viewer?) would see a front page containing general information, such as the author’s name, contact address, date of publication and hosting institution. The reader can then choose to begin with the uncommented video, being as close to the original experience as possible, or with a scholarly view roughly following the AIMRD structure. The first layer, in grey, shows all annotations that together form the abstract. This information doesn’t have to stand at the beginning, but can be scattered all over the project, thus breaking up the linear structure. It is possible to actualise it again at any point if the reader so desires. The second layer, in green, contains annotations that together form the introduction. The third, in orange, is dedicated to method, and

so on. The fourth layer, in blue, shows references to important associated sources, so it is analogous to the bibliography of a traditional research paper. In order to insert references easily, an interface to literature reference managing software (Mendeley, Citavi, EndNote and Zotero) should be embedded in the software; this is an important feature.

Another function will be some proof of authenticity: proof total – the integrity of the data can be tested, thus ensuring that it is the complete and unchanged published version. In an extended version, it might be possible for the author to add a digital signature. At this point we are not sure if this feature will be necessary or not; it is certainly technically challenging. I should mention storage at this point. In the first phase, the ZHdK (Medienarchiv der Künste) will host Research Video. Initially, we hope to make it compatible with the Research Catalogue, but the hope for the later versions is compatibility with public video platforms such as YouTube and Vimeo.

We have also been brainstorming and creating visions for possible further functionality. Here are some of our ideas:

- links between annotations;
- embedding annotations into the video (such as subtitles, symbols or graphics),
- multimedial annotations (pictures or links);
- different views: parallelised videos to show synchronicities and serialities (for example, one could show the performance in one screen and the audience reactions in another);
- drawing inside the video: to visualise relationships, connections, synchronicities, etc. (As an illustration to

this last point, please view the wonderful project “Synchronous Objects” done by the Forsythe Company.)¹⁴

These are the fundamental facets of our current work. The prototype will be developed as an open platform, allowing the addition of modular extensions. The design and interface will be close to that of Piecemaker, because it seems to encourage an intuitive working process. Piecemaker is a multi-user application (app) initiated as a research project by David Kern to support the organisation and recall of materials created in the Forsythe Company rehearsal studio. We would like to thank Florian Jenet and Scott Delahunta from Motion Bank for letting us use and develop it. We are working with software designers who were already involved in the development of Piecemaker (Martin Leopold and Moritz Resl, Vienna). Our aim is to keep it simple and user-friendly, in part because we suspect that artists don’t read handbooks!

In 2016 and 2017 we developed a prototype and gained funding by the Swiss National Foundation. This will enable us to optimize the tool in a process of prototyping and user-testing until 2020. If you are interested in testing the prototype and providing feedback, please don’t hesitate to contact the author. Our aim is to facilitate a pragmatic, video-based approach to artistic research in the performing arts. We feel that the ‘two-component model’ in the publication of artistic research should be replaced by new practices that involve multimedial approaches and make use of current technical possibilities.

14. “Synchronous Objects” [website], accessed on 19 May 2016, <http://synchronousobjects.osu.edu>.

References:

- Allegue, Ludivine, Simon Jones, Baz Kershaw, Angela Piccini, and (Ed.). *Practice as Research: In Performance and Screen*. New York, 2009.
- Badura, Jens. *Künstlerische Forschung: Ein Handbuch*. Zürich: Diaphanes, 2015.
- Biggs, Michael, and Henrik (Ed.) Karlsson. *The Routledge Companion to Research in the Arts*. London, 2010.
- . *The Routledge Companion to Research in the Arts*. *The Routledge Companion to Research in the Arts*, 2010. doi:10.4324/9780203841327.
- Bippus, Elke (Ed.). *Kunst Des Forschens. Praxis Eines Ästhetischen Denkens*. Zürich/Berlin, 2009.
- Borgdorff, Henk. "Die Debatte Über Forschung in Der Kunst." In *Künstlerische Forschung*, edited by Anton Rey and Stefan Schöbi, 23–51. Zürich: Zürcher Hochschule der Künste, 2009.
- Caduff, Corina. "Kunst Und Künstlerische Forschung = Art and Artistic Research." *Zürcher Jahrbuch Der Künste*, Band 6 (2009), 2010, 224 ff.
- Candy, Linda. "Practice Based Research: A Guide." Sydney: CCS Report: 2006-V1.0 November, 2006.
- Candy, Linda, and Ernest Edmonds Part. "The Role of the Artefact and Frameworks for Practice-Based Research." In *The Routledge Companion to Research in the Arts*. London & New York: Routledge, 2010.
- Dombois, Florian. "Kunst Als Forschung. Ein Versuch, Sich Selbst Eine Anleitung Zu Entwerfen." In *In Hochschule Der Künste Bern* (Hg.), HKB 2006, S. 23–31. Bern, 2006.
- . "Kunst Als Forschung. Ein Versuch, Sich Selbst Eine Anleitung Zu Entwerfen." In «What's next? Kunst Nach Der Krise», edited by Johannes M. Hedinger and Torsten Meyer, Wiederabdr., S. 139–143. Berlin: Kadmos, 2013.
- Hannula, Mika, Juha Suoranta, and Tere Vadén. *Artistic Research Methodology - Narrative, Power and the Public*. Bern: Peter Lang, 2012.
- Klein, Julian. "Was Ist Künstlerische Forschung?" *Kunsttexte.de* 2, no. 1978 (2011): 1–5.
- Mersch, Dieter, and Michaela (Hg.) Ott. *Kunst Und Wissenschaft*. München, 2007.
- Schwab, Michael, and Henk Borgdorff. *The Exposition of Artistic Research: Publishing Art in Academia*. Edited by Michael Schwab and Henk Borgdorff. Leiden: Leiden University Press, 2014.

Figure 1: Relationship between theory and experience in traditional research, Lösel

Figure 2: Relationship between theory and experience in artistic research, Lösel

Figure 3: Example for an interface for annotated videos screensho, ANVIL website¹⁵

Figure 4: The interface of Piecemake Handbook Piecemaker2GO¹⁶

Figure 5: Simulation of a use case as a Research Video, Lösel, using PM2GO with material from the Medienarchiv der Künste, Zürich¹⁷

Table 1: Tools that contain annotated video functions, Lösel

15. Anvil: the Video Annotation Research Tool [website], accessed on 19 May 2016, <http://www.anvil-software.org>.
16. Motion Bank [website], accessed on 31 May 2016, <http://motionbank.org/de/event/pm2go-video-annotation-leicht-gemacht>.
17. Zürcher Hochschule der Künste, Medienarchiv der Kunste [website], accessed on 19 May 2016, <http://medienarchiv.zhdk.ch>.

EMILIE GALLIER¹

Read. Move. Implicated.

Doing research while presenting it "Read. Move. Implicated." is a lecture for which no one will ever speak, but only read. This silent lecture proposes to experience the implication that the movement of reading allows. Unified as readers, performers and spectators have the opportunity to be implicated. In other words, they can contribute to the event with a little bit of themselves or more. This lecture-performance advocates the practice of thinking together with spectators, giving importance to every kind of knowledge. In its transfer of codes (playing with academic codes, the research poster, in performative ways) the lecture suggests ways of doing research in the moment of presentation. Finding support in the theories of Adalaide Morris (New Media Poetics, 2006), Jacques Rancière ("The Emancipated Spectator", 2004) and Claire Bishop (*Artificial Hells*, 2012), and in the case studies of *sync* (2012, a book that becomes choreography when it is being read) and *Twists in the body of the big spectator* (2014, a performance that involves a kit for reading choreography), this lecture presents and researches the impact of reading on

the roles of performers and spectators, gathered in the act of research.²

Before being presented in Prague for the conference "Artistic Research: Is There Some Method?" on 9 April 2016, the lecture performance "Read. Move. Implicated." took place in Utrecht, Hamburg and Coventry.³ For the lecture's first occurrence in Utrecht, we (artist ethnographer Fazle Shairmahomed, performance maker Astarti Athanasiadou and myself, choreographer researcher Emilie Gallier) were interested in the participation of the spectator during the lecture. We tested the impact of the movement of reading on this participation by having spectators read a poster as they would read a newspaper, from their seat, in the conference room. Spectators read the lecture's content instead of listening to one speaker. Could reading replace the traditional mode of listening in the transmission of knowledge within lectures? For the lecture's second occurrence, in Hamburg, we implemented a way to incorporate the (reading) voices of the spectators into the lecture's content. In so doing we aimed at generating awareness of the multiple readings taking place

1. Choreographer researcher, PØST Cie, PhD candidate, C-DaRE, Coventry University.

2. This abstract describes the lecture performance "Read. Move. Implicated." in applications sent to conference organisers, and in programme booklets published by them, online and offline.

3. "Read. Move. Implicated." was performed within five conferences: "Connect! De relatie tussen performer en toeschouwer", VDO Vereniging voor Dansonder-

zoek, Utrecht, 28 February 2015; symposium "Practice as Research", Medical School Hamburg, GTF Gesellschaft für Tanzforschung, 31 October 2015; "Digital Echoes Symposium - (re)collecting the past: (re)making the future", C-DaRE, Coventry University, 4 March 2016; "Artistic Research: Is There Some Method?", Academy of Performing Arts, Prague, 9 April 2016; "TaPRA conference", Bristol, 6 September 2016.

during the lecture. For Coventry, we began scrutinising the contributions of spectators we had collected so far. With these contributions – which I will detail further in this article – we produced a glossary of inceptions for spectators of lectures. This glossary informs the definition of implication as a quality of participation, which results from the movement of reading. For the conference “Artistic Research: Is There Some Method?”, in Prague, we continued working with the question and tools I listed here, and we proposed to acknowledge the lecture as one method for artistic research. The lecture is a laboratory, a rehearsal. It is a place and time for performance thinking to unfold: to make direct propositions (in action), to test questions, to dialogue with spectators as temporary co-researchers. The lecture composes with critical/philosophical theory and with the *thinking by doing*. This approach is in line with artist, theorist and educator Natasha Lushetich’s position. In *Interdisciplinary Performance: Reformatting Reality* (2016), she examines such continuity between theory and practice:

As American classicist Andrea Wilson Nightingale (2001) explains, *theoria* was a journey to a “destination away from one’s own city undertaken for the purpose of seeing as an eyewitness certain events and spectacles” (20). *Theoros* was an envoy sent on a mission to gather and exchange information: to witness a religious festival, to represent one Greek city to another, or to broaden the traveller’s horizons. Regardless of whether their

journey had a predominantly religious, political or personal function, the *theoroi* were required to report back on what they witnessed and experienced. This implies both performance and communication, and does not limit the practice of theorising to a passive reception of static images or their passive contemplation. Thinking in performance is thus simultaneously a communicational method and a way of making direct propositions. Instead of debating the possibility of eating or walking differently, performance substitutes action for debate. It presents a different way of eating or walking. In so doing, it makes the new way of eating or walking a temporary reality, which is to say that it re-structures, re-codes – or re-formats – the existing reality.⁴

In artistic research, the continuity between theory and practice manifests in every moment of communication and performance. Building upon this idea, “Read. Move. Implicated.” re-formats the existing reality of a lecture presentation. In line with the lecture’s topic (the impact of the movement of reading on the participation of the spectator), we propose a temporary reality where the lecture is not oral, but it is a silent moment of co-presence, where one reads.

Beginnings: entrance
into implication

“Read. Move. Implicated. is a lecture for which no one will ever speak, but only read.” In December 2015, the or-

4. Natasha Lushetich, *Interdisciplinary Performance, Reformatting Reality* (London: Palgrave, 2016), 6.

ganisers of the conference “Artistic Research: Is There Some Method?” read this sentence in my application. Five months later, this same sentence was read and audio-recorded by some participants to the conference as a preparation for “Read. Move. Implicated.”⁵ On 9 April, in the live event of the lecture and after five minutes of oral introduction, this same written sentence marks the transition towards a lecture where one would not speak nor listen but rather read. As the phrase appears as a black text on the white screen, spectators and presenters silently read. In the meantime, they hear pre-recorded voices reading along. Inner voices and audible voices overlap within moments of synchronicity and times of differences as the text continues to unfold on the screen.⁶ Seven minutes into the lecture, the phrase is repeated. It now opens 20 minutes of silent reading. Spectators receive a large folded poster that they can read in their own space, at their own pace and according to the content they select.

The repetitive composition that I depict here translates my effort to lay emphasis on beginnings. In my artistic investigation on participation, I propose the term “implication” as one quality of participation. This quality finds its roots in beginnings: in the curiosity for the very first encounter between the performance and its spectator. Performance comprehends conversations: between

the artists and the audience, between the art object and the audience, and between spectators. When and how does this conversation start for each participant (artists included, conference organizers, etc.)? In what way would these different beginnings condition relations that differ from one participant to another? How do expectations grow and already constitute the beginning of a performance? The title “Read. Move. Implicated.” and its subtitle, “a silent lecture”, produce for example some expectations and interrogations (e.g. will the lecture be about silence and will it involve meditative practices?) Such acts of questioning, of expecting and of dreaming are movements of thought that traverse the spectator. Philosopher, artist and dancer Erin Manning describes movements of thought:

It is thought in the moving ...
Thought as a relational witness of movement-moving, thought as that which activates the complex constellations of the virtual and the actual co-combining in the moving. Relational movement is always a movement of thought, and each movement of thought is the generating of an in-act of movement-moving. When relational movement is felt, whether on the sidewalk or within a dance performance, an affective attunement that exceeds the movers is foregrounded.⁷

5. The Screencast of the video-projected introduction of “Read. Move. Implicated.” can be viewed at <https://vimeo.com/190102237>.

6. In the first days of the conference, during conversations over the coffee break or at dinner, some delegates were invited to record a few sentences: “Read. Move. Implicated.” is a lecture for which no one will ever speak. But only read. A silent lecture. I read the text. I began a protocol of silent lecturing, in order to perhaps experience the movement generated by

reading. And better understand how such reading movement might lead to my implication.” The recordings were edited in order to play during the lecture, mingling with the voices of the three presenters and with voices of other spectators. Listen to E. Gallier, “Screencast”.

7. Erin Manning, “Three Propositions for a Movement of Thought,” in *Performance and Temporalisation, Time Happens*, eds. S. Grant, J. McNailly and M. Veerapen (London: Palgrave, 2015), 120.

Movements of thought (expectation, question, dream, microperception) set the ground for the event to start – the event as an encounter and qualitative transformation. Implication begins when the incipience for a qualitative transformation settles. The movement of thought, the curiosity, the question – a movement that, borrowing Erin Manning’s words, “exceeds” the subject – install a landscape, a milieu, a force field, a relational movement to which the spectator connects as co-researcher. “[...] [W]hat comes to form is not a phenomenal body but a tending an attuning an affecting that moves with the world and is co-constitutive of it.”⁸ The implicated spectator is caught by the field of the event. Implication might start before or during the live event of the lecture performance. In both cases, implication continues through the act of attention – spectators attending the lecture. During “Read. Move. Implicated.” implication is further investigated through the live practice of reading.

Protocol of “Read. Move.
Implicated”: the movement of
reading turns the spectator into
a partner in crime

Before leaping into the silent lecture, a short introduction installs the context. My collaborators (Fazle Shairmahomed, Astarti Athanasiadou) and I are each taking aside a third of the audience. We introduce the lecture and ourselves:

I am a spectator doing research.
As a spectator, I do research by
using choreography. My research

is about dance documentation and spectatorship. I now conduct it in the frame of a PhD at the Centre for Dance Research [C-DaRE] in Coventry. The interests at the ground of this research have to do with norms of relation. I am curious about how do we relate with each other and what might be governing these relations? In the frame of theatre, these interests translate into how do all the persons involved relate with each other (spectators, performers, artists, technicians, producers, PR, caterer, etc.). I think of performance as a pretext for all these people to meet, and I am interested in the qualities of the encounters between publics. My practice consists of bringing different forms of dance notation to the audience. Usually scores talk to the experts who trained to read them. I believe that when they are in the hands of spectators they can generate a particular quality of participation that I call implication. Implication is a form of partnership that develops with time. An implicated spectator is a partner, a partner in crime or someone who got attached to the work. And this attachment starts from the very moment of building expectations (in reaction to the title for instance). “Artistic Research: Is There [Some] Method?” I wish for artistic research to invent methods. And I wish for one’s artistic research to belong to more than one voice. So it composes with the experience and knowledge of all the implicated partners in

crime. Today's gathering is an opportunity for us to practise together, to research together. For us to try out things with the movement of reading, I prepared a silent lecture (and I want to acknowledge past implicated audiences from Utrecht, Hamburg and Coventry). So, I stop talking and I ask you to return to your seats in order to progressively slide into our silent lecture.⁹

As mentioned earlier, the above oral introduction is followed by a moment where the audience reads a text from the screen while listening to voices reading along. This juxtaposition of text with audio continues the lecture's introduction in terms of content and introduces the practice of the movement of reading. It works like a warm-up for collective reading before the audience separates into individual reading islands. Below are selected sentences from the text:¹⁰

"Read. Move. Implicated." is a lecture for which no one will ever speak. But only read. A silent lecture. I read the text appearing on the screen. I discover it at the same time as my neighbours. I hear some of them. For now, we are rather in sync. In this silent lecture, I present excerpts of choreographic works for which I was very very implicated. [...] "Sync" and "Twists in the body of the big spectator" investigate the impact of reading on the roles of performers and spectators. Read-

ing implies putting a little bit of oneself in the choreography. Yet, a reader can remain contemplator. Reading gives the opportunity for implication, and a choice in the level – the "how much" – of implication. [...] I began a protocol of silent lecturing, in order to perhaps experience the movement generated by reading. [...] I receive a poster and I continue the silent lecture by reading. [...] My reading dissociates from the one of my neighbours. I compose my lecture.

The only pronoun used in this text is the first person singular. I use this form in order to invite spectators to identify with the narrator. This "I" also gathers within one same pronoun multiple perspectives and multiple subjects. For instance, the "I" from the "I very much enjoyed" differs from the "I" in "I talked about the book".¹¹ The audio recording highlights this difference (since one recognises different voices). I apply this mode of composition to let the movement of reading exceed the subject. The unravelling script in sync with the audio file sheds lights on movement beyond the self and on relational movement between readings (from one "I" to another "I").¹²

Following these two introductions, the main body of the lecture unfolds. Spectators receive posters, with which they continue the lecture for 20 minutes. Figures 1 to 6 deliver hereafter fractions of the poster, providing an insight into its written content.

9. I wrote this introduction for the lecture performance "Read. Move. Implicated" on 9 April in Prague within the conference "Artistic Research: Is there Some Method?"

10. Gallier, "Screencast".

11. Examples taken from the full-text version displayed in Gallier, "Screencast".

12. On relational movement, see Manning, "Three Propositions for a Movement of Thought," 114–128.

Read. Move. Implicated.

Poster Lexicon for a silent lecture

Prague 2016-04-09 Artistic Research, Is There Some Method? - PDST Cie

Spectators receive this poster and continue the silent lecture by reading.
This poster is a choreographic object. It contains the lexicon for the silent lecture, organized in 4 categories.
20 minutes are given as reading time. It is recommended not to read everything but to select one category, and experience one's own lecture. 'You lecture'.

Figure 1: Title of the poster distributed to the audience

1. Artefacts

Choreographic objects

Choreographic objects instigate a readership that awakens choreographic thinking. The book choreography 'sync' and the kit for reading choreography 'Twists in the body of the big spectator' are such objects; they investigate the reading of movement and the movement of reading.
You can quit reading and go explore these objects on the conference table!



sync
A video n
The full h
die comic



'Trouble Wif', 'sync', and 'Twists in the body of the big spectator'

This poster is a choreographic object that invites to read and move, invisibly (movements of thoughts, perceptions) or visibly (folding and unfolding). If you fold the vertical lines and then fold the horizontal lines alternating valley folds and mountain folds (follow the signs below), the triangular lines can turn into reverse folds. The poster becomes a 'Trouble Wif'. 'Trouble Wif' is used in the field of magic where it triggers movement of thoughts and movements of folds in the audience. Make your Magic Choreographic object and ask for help if needed!

(sign for) mountain fold:



(sign for) valley fold:



3. Tran

feed for T

sync: the
Participa
performa
A video n
The full h
die comic

""Josep
Hum
And I sta
Yeah
I was a b
Was tryin
With pich
I really st
Then I we
I couldn't
so much
I could se
it wasn't
But they
The perf

Julian: I f
I first ha
Somethi
of the ey
you're th
connecti

2. Research methods

Protocols applied for 'sync' and 'Twists in the body of the big spectator'

When 'sync' is performed in the theatre, the performance starts with the audience entering directly on the stage (that is a large reading room (see photo)). Hundreds of books are on a table, and this text is told as introduction:

""Welcome to sync
sync is a book performance
So, the performance is only the reading of the book.
It is about you spectators, becoming readers of this book.
The performance takes place in each reader, and also in the relation between the reader and her book, and between all readers and books in this theatre.
As reader, you can choose to be more or less spectator more or less performer
You can choose to contemplate, witness what takes place, you can act, do things triggered by the book, you can dance in real, or in your thoughts, or imagine someone dancing.
You can interact with other readers and their performances
You can ask: 'please, can you stop your performance and be part of mine'
Be the neighbor of your neighbor
You can read, in silence or out loud.
You will encounter the bodies of the book
You can walk, take the performance around in this space.
You can lay down, seat in the tribunes, or on chairs that you can place where you want to.
The duration of the performance is low 30 minutes. You will hear a signal 5 minutes before the end, and at the end the doors will open.
So, now, please take your book, and choose how does the performance begin, develop, and end.""

'Twists in the body of the big spectator' is a choreography that probes various tools to implicate spectators before they enter the theatre. The kit for reading choreography is one of these tools. Thanks to this object and a workshop (see photo), one group of very implicated spectators forms prior to the performance. Here is an excerpt of the kit's how-to-guide:

""This kit contains the present how-to guide, one map, one choreographic score and seven reading cards.
The owner of this kit is invited to become an expert reader/spectator or a very implicated reader/spectator of the choreography 'Twists in the body of the Big Spectator'.
Useful definitions:
The Big Spectator is an aggregate, a body formed by the gathering of readers/spectators in a sound and plastic installation (displayed on the map) during the piece 'Twists'.
The expert reader knows the codes that composes the choreographic score and enables them to the point (like can re-write with them, perform).
The very implicated reader knows the codes that composes the choreographic score and (like is able to transmit them to someone else).
Other readers (implicated and new) also contribute to the body of the Big Spectator.
Movements of reading (visible or not) are what activate the body of the Big Spectator, what awake its nervous system and voice. These movements of the reader at work - deciphering equations, thinking, imagining, projecting, being affected in her/his breath - are like the living matter circulating and beating within the body of the Big Spectator.""

connection may
So even on the i
crowded train in
What stood out i
And the body fo
There was the o
to decipher. The

Fransien: I went
from the back of
already, the
remember that I
book! As if there
separation.
I saw the space,
it felt like a huge
landscape with i
It took half an h

Jet: The perform
interesting to ju
the words first a
other elements
and interested h
although I don't

Elise: I received
I was on my way
bought a ticket
a few days or a w
First I read it th
what I felt.
The second tim
the words I foun
over-view with m
You (Fransien) i
in a maze, you c
what corner to g
a point of enrou
people in the ma
you can see ha

Feedback writt
(see photo) Ana

""The introd
summarized it a
crime-time. In m
Although I never
perception, inter
both visible and

The presentati
at the same tim
with mathematic
exactly those. I
things became c
land what the sc
completely desc
I first observed i
so far and to w
smile at others c
becomes exot
had the concis
and imagined in

Figure 2: One out of four categories of the poster lexicon for the silent lecture: artefacts

Figure 3: One out of four categories of the poster lexicon for the silent lecture: research methods

3. Responses

Transcriptions of one book club after 'sync' and feedback given by one very implicated spectator for 'Twists in the body of the big spectator'

sync: the book club discussion 4 Feb. 2012, iKamsterdam Dance Notation Series. Participants to the book club read the book prior to their meeting and talk about it as a performance they attended to.
A video montage of this discussion is available online <http://vimeo.com/40356282>
The full transcription can be found on http://post-ols.com/downloads/thebookclubandphotography_millie_gallagher.pdf

*** Joseph: I saw the performance, this morning in the train
Hum
And I started upside down. And then I had to turn it around
Yeah
I was a bit tired, so I had to keep concentrated
Was trying to imagine in my head what I was reading
With pictures. And then, later on, when this part came with the drawings
I really started to have this consciousness of my chest, the breathing
Then I was more interested about the symbols, the drawings
I couldn't figure out everything cause I'm not so much into Libanotation or I don't know so much about it yet but, hum
I could see that there was a play with the symbols
It wasn't just being used but
But they were being manipulated, changed, transformed. And it was nice, to see
The performance took from Amherst to Utrecht. So I don't know, about 20 minutes

Julian: I read it as well on the train. And I sort of had myself an intermission. I read the first half last night and then the second half this morning. So I kind of divided it up
Something that I noticed particularly was the neighbor. And how I became very conscious of the eyes. I mean in this circumstance you know I'm not really looking at you but I know you're there. If I really look at you there is this whole shift of perception yes but hum, connection maybe.
So even on the train I found myself sort of connecting to all these strangers. It was a very crowded train this morning.
What stood out for me was the moment of the neighbors particularly.
And the body folding, folding upon itself.
There was the one moment where I was just taking in, receiving, whereas later on I had to decipher. That is why I had to read multiple time.

Fransien: I went from the back, which is interesting. I have the tendency to always start from the back of the book. So I read the back, the essay first. Knowing I had unfolded already the, the cover. It was late, it was like quarter to twelve, very quiet, and I really remember that I picked up the book in a different way as if I was with, now I was with the book! As if there was I don't know like a secret. I was really performing because of all this preparation.

I saw the space, and it was rather huge.
It felt like a huge tent. Very static like a grand landscape, with a ceiling. It was a landscape with a ceiling. So, a tent. Clearly a circus tent. So, I ended up in a circus tent. It took half an hour yesterday and then this morning.

Jet: The performance for me started or is still like an eclectic experience. For me it was interesting to just read the book eclectically, taking just what spoke to me. I noticed that the words first spoke to me since they are the things I am the most familiar with but then other elements came in with the symbols and the mathematic lexicon. I was surprised and interested how I could see that in a different way and that it made sense to me although I didn't understand it. I feel a kind of gratitude for experiencing that.

Elise: I received the book Tuesday.
I was on my way to University and that felt a bit like a ticket to the theatre. You have bought a ticket to a concert or to a performance and, hum. But you still have to wait for a few days or a week to see it. You are really excited.
First I read it through and I took notes of what I associated the book with or what I saw or what I felt.
The second time I tried to translate really what was there. Taking the map, writing down the words I found in the book because the symbols were confusing me. I created an overview with my own ideas.

Julian: I read it as well on the train. And I sort of had myself an intermission. I read the first half last night and then the second half this morning. So I kind of divided it up. Something that I noticed particularly was the neighbor. And how I became very conscious of the eyes. I mean in this circumstance you know I'm not really looking at you but I know you're there. If I really look at you there is this whole shift of perception yes but hum, connection maybe.
So even on the train I found myself sort of connecting to all these strangers. It was a very crowded train this morning.
What stood out for me was the moment of the neighbors particularly.
And the body folding, folding upon itself.
There was the one moment where I was just taking in, receiving, whereas later on I had to decipher. That is why I had to read multiple time.

Fransien: I went from the back, which is interesting. I have the tendency to always start from the back of the book. So I read the back, the essay first. Knowing I had unfolded already the, the cover. It was late, it was like quarter to twelve, very quiet, and I really remember that I picked up the book in a different way as if I was with, now I was with the book! As if there was I don't know like a secret. I was really performing because of all this preparation.
I saw the space, and it was rather huge.
It felt like a huge tent. Very static like a grand landscape, with a ceiling. It was a landscape with a ceiling. So, a tent. Clearly a circus tent. So, I ended up in a circus tent. It took half an hour yesterday and then this morning.

Jet: The performance for me started or is still like an eclectic experience. For me it was interesting to just read the book eclectically, taking just what spoke to me. I noticed that the words first spoke to me since they are the things I am the most familiar with but then other elements came in with the symbols and the mathematic lexicon. I was surprised and interested how I could see that in a different way and that it made sense to me although I didn't understand it. I feel a kind of gratitude for experiencing that.

Elise: I received the book Tuesday.
I was on my way to University and that felt a bit like a ticket to the theatre. You have bought a ticket to a concert or to a performance and, hum. But you still have to wait for a few days or a week to see it. You are really excited.
First I read it through and I took notes of what I associated the book with or what I saw or what I felt.
The second time I tried to translate really what was there. Taking the map, writing down the words I found in the book because the symbols were confusing me. I created an overview with my own ideas.
You (Fransien) said something about the circus tent. For me it was a maze. When you are in a maze, you go in and at some point comes the end of the maze but you have no idea what corner to turn and there can be somebody else around the corner and you arrive to a point of encounter. ... do not know what happen and you also feel that there are other people in the maze you can feel that they are there but you don't always see them and you can also have the feeling of somebody walking behind you in the same direction...

Feedback written by Fazio, participant to the first event for implicated spectators, (see photo) Amsterdam, May 2012

***The introduction of the day a question popped up: how is implication defined? Elmie summarized it as being part of: all of us being implicated anyways; being partners in crime/fame. In my understanding, implication is about being ascribed with language. Although I never speak of implication, it relates or is about the discussions on language, perception, interpretation and sensation. The challenge of the experiment lays within the book visible and invisible multiplicity of all these.

The presentation of the score and the tasks at start triggered a curiosity and amazement at the same time, the need to figure out what the score is trying to say. Not being affiliated with mathematics and figurative images triggered within me the task to understand exactly those. I tried to find my own ways to read the score. Once I found the glossary things became clearer for me. Moments of despair occurred as I felt incapable to understand what the score was trying to say. I directly reminded myself of it not being the task to completely decipher, moreover to completely understand everything.
I first observed the others around me with questions as how they experience the process so far and to what extent they would express this in movement and sounds. It made me smile at others and at myself, as this was exactly the point where anything in life becomes exciting, the ability to share, even though others not myself at those moments had the conscious intention to share anything. It just happened. I observed the visible, and imagined the invisible.

Figure 4: One out of four categories of the poster lexicon for the silent lecture: responses (part 1)

Figure 5: Responses (part 2)

4. Statements

Notation for the audience - the reading movement as way to implicate spectators

Excerpt from the hybrid article 'Notation for the audience' in: On/An/Notations, Performance Research, vol.20 issue 8, 2015

Choreographic scores are usually dedicated to the experts who can read them: I believe that when they are given to spectators to decipher in their own way, these notations are keys to a precious implication. Spectators-readers are given time with the object of choreography, an attachment can grow. Their subjective qualities are valued, contributions to the performance. Differences are welcomed, curiosity for other spectator's reading (filling one's own blind spot) is raised and communication between spectators can take place.

William Forsythe's choreographic objects are essential examples of an initiative instigating a readership that awakens choreographic thinking. The project *Synchronous Objects* juxtaposes the choreography *One Flat Thing* reproduced with objects that grew from common organizational practices. The intention is to 'bring people in' and to search for ways to let the audience acquire readership and through that 'acquire freedom to think' (Forsythe 2009). Multiplying ways to write choreographic principles on the paper or in three dimensions, *Synchronous Objects* reflects differential texts, 'that is to say, texts that exist in different material forms, with no single version being the definitive one' (Morris 2006). Carefully selected choreographic principles can manifest through mental projection, performed movements, shaped objects, algorithms etc. Notation for the audience is not a simplification but a selection of materials that are then translated in different forms and through different codes. Notation for the audience invites spectators to search together rather than explaining the choreographer's findings. When notation is dedicated to the audience, the reader is the spectator, given access to interpret and research at his own scale. Reading is a privileged practice that turns the reader into a partner in crime implicated with the work.

The reading movement sets into motion both intellectually and physically. Implicated spectators participate with their differences to the unfolding in the choreography they read. The term implication suggests a refined approach to participation. Implication takes place apart from the shared moment in the theatre and it does not suggest any passive nor active state for the spectator but a systematic readership in favor of a state of curiosity. 'Spectatorship is not a passivity that must be turned into activity, it is our normal situation. We learn and teach. We act and know, as spectators who link what they see with what they have seen and told, done and dreamed' (Randière 2007). Implication as result of the reading movement allows the choreographic event to unfold and fold back to its thengness: a thing one can develop attachment to, and almost grow feelings for. Implicated, the reader rewrites, renames, reshapes, and draw new relations. Notation for the audience, aims at triggering this reading movement that implicates, for a politic of encounter between spectators.

Isolated assumptions taken from the article 'Choreographic writing and the reading movement' in: Danswetenschap in Nederland deel 8, 2015

Re-giving writing to choreography makes it an art to read, an art that 'everybody knows' even though we might not know we know (Morris citing Gertrude Stein, 2006). Perhaps is the dance precisely there in the unknown known that turns to come to the surface again. Complexity is welcomed, one says yes to our very partial perception, accepting knowing less, or more, or different than the neighbor.

Figure 6: One out of four categories of the poster lexicon for the silent lecture: statements

Succeeding the concentrated collective reading of the introduction, the 20 minutes of reading the poster begin in a unified and quiet atmosphere. It then evolves into a more differentiated landscape of readers (Figures 7 and 8). Some readers do nothing but read quietly. Some are watching others. Sitting on a chair, some readers reflect and question their experience. Some close their eyes and meditate. Some listen. Some skirt round the periphery. Some readers pair up with their neighbour to read and comment, others walk to the table where objects are available for physical experiments, others begin

to fold the poster according to its lines. When the 20 minutes are over, a sound of crumpling paper fills in the space. The projection now writes: "to my neighbour I tell: my lecture was about [...]" and its title could be [...]." Spectators turn to their neighbour, communicating promptly the sense they make of the lecture. They then are given Post-it notes on which to write "My lecture was about [...]" and its title could be [...]." The Post-its are to be stuck to posters that will perform future lectures. The audience of the present prepares clues for spectators of the future. These clues transpire modes of implication. In other words, they suggest qualities of participation, ways of being partner in crime: as a co-researcher, a believer, a dancer, a sceptic, a deceived, an enchanted, a curious, an interested, a politically engaged.



Figure 7: Differentiated landscape of readers, "Read. Move. Implicated." in Prague



Figure 8: Differentiated landscape of readers, "Read.

Move. Implicated.” in Prague
 Role of the implicated spectator:
 interpretation, attachment and ap-
 propriation.

When posing the question, “could reading replace the traditional mode of listening in the transmission of knowledge within lectures?” the audience responses on the Post-its (“My lecture was about [...] And its title could be [...]”) represented a crucial element of answer. We could observe through these formatted feedbacks, and in discussions succeeding the lecture, that knowledge was transmitted, experienced and reflected upon:

- My lecture was about folds, me folding into myself performing. And its title could be: collapsing senses of performance as a whole.

- My lecture was about reflections on readings, thinking, feeling and the act of being looked at. And its title could be: performing spectatorship.

- My lecture was about fragments and assemblage.

- My lecture was about unforeseen appropriations.

- My lecture was about the reading of my neighbours. Title: redaction of notation.

- A nice lecture. My lecture was about admitting that I don’t like lectures and then trying to change the form of lecture so that it becomes rewarding.

- Reversed lecture.

- My lecture was about: should I destroy the poster? Or take it home? And its title could be: a lesson about being greedy.¹³

Out of a collection of 55 Post-its, I grouped their contents, letting the words overlap and voices juxtapose. The condensing movement of editing generated short textual material. The 17 verbs associated with text constitute the “Glossary for spectators of lectures”, which suggests that implicated spectators:

PREPARE Did this woman have it prepared beforehand?

ADMIT I admit that I don’t like lectures. I change the form so that it becomes rewarding. Pocket lecture. APPROPRIATE Unforeseen appropriation. I appropriate in tandem with my neighbour, listening to physical impulses. Should I destroy it? Or take it home? Being greedy.

ASSEMBLE Fragments and assemblage. Collapsing senses of performance as a whole.

REVERSE Conventions of lecture. A reversed lecture

FOLD Field. I fold into myself. I fold errors in delight. I fold meaning. I fold poetry whilst giggling. I fold within the lines. Folds of concentration. I unfold and feel the begrudging urge to fold back up.

HIDE Hide, extension, butterfly.

SPECTATE I am being looked at. I observe. How different are we?

READ What I read is what I get. The reading of dance. The dancing of reading. I redact. I become words on the move.

HEAR The sound of folding. The sound of silence is crunching.

SAY Do I say too much? The woman behind me has a thing to say. I listen to her sound. I capture words coming from her and from others.

13. See the transcription of collected Post-its online: <http://writingreadingmovement.tumblr.com/post/150395731844/my-lecture-was-about-and-its-title-could-be>.

RIDDLE Being riddled. Figuring it out. Mysterious. Just do it anyway.

STATE The statement cracks the rigidity of the print.

MOVE My attention focuses on red dots. They move around, Am I moving? We are one body of red dots, a shifting body. I skirt round the periphery. I watch.

STRUGGLE What shall I do? Discomfort playing. Doubtlessly in doubt.

START I think anew. I trawl thoughts from what is there and then. Re-think constantly what you are experiencing. Emptiness.

Each verb is the birth of a movement, the seed of an idea, the first lines of an image. This glossary proposes modes of action within lectures (attending and presenting, and all other possible roles). It suggests attitudes, tuning in with sensibility and awareness to dreams. Composed from the words of spectators only, the “glossary for spectators of lectures” now reflects the nature of the implicated spectator. At the lecture performance, the spectator tastes the differences with her neighbours, grows curiosity for this different perspective: “Spectate: How different are we”. The audience experiences inner movements, micro-movements, invisible movements, small dances: “The dancing of reading”. The audience grows an awareness of the potential of co-presence, to perhaps re-invent reality. Experiencing a physical mode of reading with the paper object, spectators choose, they redesign space, com-

partmentalise thanks to the large paper, they re-organise content, form new assemblages: “Appropriate”. The audience re-interprets the lecture. The audience reads and writes, allowing poetic forms to coexist with analytic forms: “State: The statement cracks the rigidity of the print”. Implication is a quality of participation that is not quantifiable. It results and manifests itself through the movement of reading by spectators. It is in spectators and might remain in them or turn visible: spectators interpret, get attached and appropriate the reading material.

Philosopher Alva Noë claims: “A work of art is a strange tool.”¹⁴ In line with how art operates, artistic research manifests methods, it invents, appropriates methods, and it generates tools that ask for being appropriated. Through “Read. Move. Implicated.” we do research while we present. We question the form of presentation: what does the form do to the content? We make direct propositions for experiences and experiments. “Read. Move. Implicated.” invites the spectator to become a co-researcher. Implicated, the spectator re-structures the existing reality.¹⁵ The “Big Spectator”¹⁶ modifies the environment, attempts having an impact, inscribes, in order to open new reading spaces leading to further implications.

14. Alva Noë, *Strange Tools: Art and Human Nature* (New York: Hill and Wang, 2015), 30.

15. Lushetich, *Interdisciplinary Performance*, 6.

16. I used the name “Big Spectator” in the performance *Twists in the body of the big spectator* (2014) to refer to the body of audience that would include performers, technicians and all persons attending the performance.

References:

Bishop, Claire. *Artificial Hells: Participatory Art and the Politics of Spectatorship*. London: Verson, 2012.

Gallier, Emilie. Screencast of the video-projected introduction of "Read. Move. Implicated." 2016. Accessed on 2 January 2017. <https://vimeo.com/190102237>.

Lushetich, Natasha. *Interdisciplinary Performance, Reformatting Reality*. London: Palgrave, 2016.

Manning, Erin. "Three Propositions for a Movement of Thought." In *Performance and Temporalisation, Time Happens*, edited by S. Grant, J. McNailly and M. Veerapen, 114–128. London: Palgrave, 2015.

Morris, Adalaide. "New Media Poetics: As We May Think/How to Write." In *New Media Poetics, Contexts, Technotexts, and Theories*, edited by Tomas Swiss and Adalaide Morris, 1–46. Cambridge, MA: MIT Press, 2006.

Noë, Alva. *Strange Tools: Art and Human Nature*. New York: Hill and Wang, 2015.

Rancière, Jacques. "The Emancipated Spectator." *Artforum* (March 2004): 170–181.

sync [choreography]. Choreographed by Emilie Gallier in collaboration with Jannha Loontjens and Daniel Rövers. ArteEZ Press, General Oost, Wintertuin, PØST Cie, Netherlands, 2012. *Twists in the body of the Big Spectator* [choreography] Choreographed by Emilie Gallier. PØST Cie, Netherlands, 2014.

JINA LEE¹

Drawing “New Maps” of New Malden Ethnographical Enquiry into the Joseonjok² People by Means of Drawing Practice

How can we create “new maps” that deconstruct territorial borders and re-evaluate the ways in which drawing can, in this context, be applied as a methodology? This practice-based research brings together disparate areas, linking critical cartography, geographical knowledge and political power³ through drawing practice. It aims to reassert the importance of drawing as both an analytical and, at the same time, creative practice.

In order to discuss these questions, this research project examines certain contemporary drawing practices, considering drawing especially in terms of mapping, which is explored here through the engagement with the Joseonjok people in New Malden, London. Joseonjok (Korean Chinese) living in the UK can be distinguished from other Joseonjok, as they are not only displaced from their “homeland” but they are also making a particular relationship to the Korean people of New Malden. As Joseonjok people may be seen as a minority group, both geographically far from their origin and less visible in their new environment (in this case, New Malden), critical cartography through drawing could open up a space where they can bypass

the difficulties of language, both in everyday speech and in official interactions. This project also reflects upon site-specific and ethnographic research relating to the Joseonjok and their environment, taking into consideration their socio-economic, political and physical status within Greater London. Within this context, the project assumes that drawing is always process-led, and that this allows for ways of seeing and understanding that can be incorporated into the practice of critical cartography. It thus aims to determine the relationship between drawing as a process-led practice and critical cartography and, by doing so, investigates how critical cartography makes use of drawing to collect, represent and reinterpret findings.

Locating this research within an interdisciplinary framework, it is important to develop these ideas from the point of view of the artist, as part of the project’s research method is to explore the potential of the “ethnographic-artist”.⁴ I have been made aware, by understanding and analysing my drawings as they are made, of three specific questions:

- In what ways can the bringing together of oral documents and ar-

1. Joseonjok (Koreans in China) are an ethnic group who live in Northeast China. More details can be found in the literature review.

2. University of the Arts London.

3. J.W. Crampton and J. Krygier, “An Introduction to

Critical Cartography,” *ACME: An International E-journal for Critical Geographies* 4(1) (2006): 11–33.

4. This idea is derived from Hal Foster’s essay “The Artist as Ethnographer” (Chapter 6 in his book *The Return of the Real*).

chives, through drawing, be considered part of the research process?

- How can processes of drawing, in this regard, be measured against the finished drawing-as-artefact?

- How can such drawings be seen as a means of ethnographic mapping?

These questions are designed to reflect upon the potential of drawing in bringing together the disciplines of critical cartography and creative drawing practice in this research, thereby reimagining drawing as a discipline that can contribute new knowledge by embodying the theoretical and methodological approaches of both disciplines.

INTRODUCTION

In order to demonstrate and structure the issue of current territorial borders within critical cartography, this section focuses on how contemporary theorists and artists have dealt with the geographical knowledge within political power, and how drawing as a method can open up a space to create “new maps”. Taking the example of Joseonjok living in London as practice-based study, it is specifically based on Arjun Appadurai’s five “-scapes”: ethnoscaples, technoscaples, financerscaples, ideoscaples and mediascaples.⁵

EXPLORING THE SUBJECT

This research especially investigates the Joseonjok community in New Malden, a suburb of London, who

are considered in this context to be people who cross borders for living. It reflects upon site-specific and ethnographic research among the Joseonjok and their environment, exploring their socio-economic, political and physical status within Greater London.

The Joseonjok are a unique group of migrants within a global migration. Among 1.93 million Joseonjok, 40 per cent live in foreign countries, including South Korea, Japan, the USA and others.⁶ They still move from one country to another for economic benefit.

The concept of the Joseonjok in Korean society dates from the late 1980s. Many Korean people who escaped from Northeast China and came to South Korea before 1988, however, cannot be classified as Joseonjok because they came to South Korea as “defectors” (*kwis-unja*), regarded as the homecoming of the lost children. In 1988, when South Korea hosted the Olympics, China and South Korea liberalised the diplomatic concept of the Korean population living in China and fundamentally changed the Korean government’s concept of the Korean population.⁷ As the two countries legally permitted a limited number of Joseonjok to visit South Korea under the title of “home visitors”, the number of Joseonjok visitors grew from 9 047 in 1988 to 20 924 in 1990.⁸

As the population grew, South Korean people started to uncover a rampant visa scheme in Yanbian,

5. A. Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press, 1996).

6. J.Y. Lee, “Korean-Chinese (Chosonjok) in U.K.: Migration, Settlement and Social Relations,” *Journal of North-East Asian Studies* 62 (2012): 53–74.

7. B. Lee, J.Y. Choi and J. Seo, “Korean-Chinese Migrant Workers and the Politics of Korean Nationalism”,

Pacific Focus: Inha Journal of International Studies 29 (3) (December 2014): 395–412.

8. Hyun Ok Park, “Segyehwa: Globalization and Nationalism in Korean,” *The Journal of the International Institute* 4 (1) (Fall 1996), accessed on 25 April 2016, <http://quod.lib.umich.edu/j/jii/4750978.0004.105?view=text;trgn=main>.

Northeast China. They found out that most of the Joseonjok victims had paid a large amount of money to South Korean swindlers (often called “brokers”) for false promises of visas and well-paid jobs in Korea.⁹ Since then, according to Korean newspapers, including *Donga-Ilbo* and *Joseon-Ilbo*, the South Korean government sent an investigation team to Yanbian and NGOs started nation-wide fund-raising campaigns to help the Joseonjok victims. However, the Joseonjok are still struggling to pay back the brokers, and a similar situation is happening in London.

For Korean immigrants, there are normally three ways of entering the UK: by legal work permit, through illegal forgery of Korean passports, and by claiming to be North Korean defectors seeking asylum. Among this ethnicity, Joseonjok immigrants to the UK can be seen as distinct from other Joseonjok in the world. There is no other place that the Joseonjok, South Korean and North Korean, can better negotiate the territoriality of transnationalism in a receiving community than in New Malden.

According to the Embassy of the Republic of Korea in London, there were no Joseonjok immigrants to the UK until 1997. Before 1997, Joseonjok tended to enter the UK for short-term visits rather immigrate.¹⁰ Afterwards, however, the numbers of Joseonjok immigrants grew rapidly, reaching more than 2 000 by 2004.

While this picture conveys complexity and uncertainty, there are also many Joseonjok who came to London with proper work permits. The population of Joseonjok and North Koreans is estimated approximately, and every research paper shows a different statistic.¹¹ In 2004, however, the British government's approach to immigration changed. Prime Minister Tony Blair announced a political “tipping point” towards asylum seekers in 2004,¹² but economically the situation worsened as the global economic crisis in 2008 made it harder for Joseonjok to find jobs in UK. Now, there are only 400 or less left as a result of stricter immigration controls imposed by the British government.¹³

Joseonjok are politically Chinese, and also call themselves Chinese, yet interestingly they have no relationship with the Chinese or Chinese government in the UK. Rather, they have created their community in New Malden around the South Korean community, taking jobs in the service sector, for example in Korean restaurants or the repair industry (cars and fabrics). This situation in the UK echoes that in South Korea, as South Korean immigrants in the UK first suffered from a severe shortage of workers because the UK South Koreans are highly educated and therefore do not want to work in the so-called 3-D jobs (dirty, difficult and dangerous). Thus, the Joseonjok be-

9. Lee, Choi and Seo, “Korean-Chinese Migrant Workers and the Politics of Korean Nationalism.”

10. Lee, “Korean-Chinese (Chosonjok) in U.K.”

11. Because Joseonjok immigrants' migration route to the UK is unclear, it is hard to provide accurate numbers. Hyun Mee Kim claims that approximately 20,000–30,000 South Koreans, 1,500–2,000 Joseonjok immigrants and 100 North Korean asylum seekers were funded in 2008. Yet in the same year, J.Y. Lee claimed that there are 850 North Koreans living in the UK. He then states that there are 46,829 South Koreans, approximately 1,000 Joseonjok and approximately

850 North Korean asylum seekers.

12. More information on the immigration legacy of Tony Blair can be found at <http://www.migrationpolicy.org/article/immigration-legacy-tony-blair/>, accessed on 15 April 2016.

13. Shinn, 2014. Shin, H. R. (2014) ‘Koreans in London (South Korean, Joseonjok, North Korean): London Korean immigrants' conflict and assimilation in conjunctured area (New Malden)’, J. Lee (trans), available from <community.snu.ac.kr/bbs/servlet/Download?SEQ=88213> [accessed 20/11/2015]

came a substitute, as they can speak Korean, understand Korean culture and are prepared to work in the 3-D jobs. The migration of Joseonjok to the UK created a dramatic pattern of global migration over the last 10 years, making New Malden – the UK's "Koreatown" – a Korean transnational migration community.

FIVE -SCAPES

In order to create new maps, this research draws on Appadurai's theory of "-scapes". Coming from a theoretical background in Marxist studies, Appadurai's work assumes that there is an increasingly borderless global economy, a concept that challenges the account of globalisation as cultural imperialism. Appadurai argues that we no longer live in locally imagined communities, but in a globally imagined world. He also claims that we live in a world that is becoming deterritorialised, by which he means that the world is changing and breaking free of existing territorial borders.

Appadurai's five "-scapes" – ethnoscapescapes, technoscapes, financescapes, ideoscapes and mediascapes – contribute to the global discussion of ideas and information. According to Appadurai, these five dimensions are fluid and unstable, each "subject to its own constraints and incentives".¹⁴ Each of these -scapes is produced by a particular perspective, existing as a multiple reality in which ideas and meanings are constantly changing, being contingent upon the population.

The Joseonjok living in London demonstrate the intertwining of these five -scapes. In terms of global migration, the Joseonjok are

a unique group. The UK Joseonjok communities (South Korean, North Korean and Joseonjok) are politically different but ethnically the same. They are all seen as transnational migrants negotiating the territoriality of transnationalism in a new receiving community, that of New Malden, London.

This transfer of culture and customs across borders draws the ethnoscape in a different way. Ethnoscapescapes develop from simultaneous and multidirectional movements between local settings, mainly by those of refugees and other migrants. Such groups, including the Joseonjok, are characteristically rarely able to form fixed imaginary identities; in other words, it is hard for a certain group of people to be able to imagine or picture who they are within a particular context, because of constant movement. Joseonjok immigration to the UK has a short history, attributable not only to the UK government's border strategy but also to the growth of the internet, which played a big role in allowing rapid transfer of information and communication among the Joseonjok in the UK.

The scenarios of mediascape also impacted the financescapes of both the UK and the nations from which the Joseonjok came, namely, Northeast China and South Korea. The Joseonjok, hoping for work, first came to London with an extremely low financial status. Within the South Korean society, the Joseonjok are seen as a minority group, not only because of their number but also because of their economic, educational and political status. Appadurai's work sets out to describe why small

14. Appadurai, *Modernity at Large*, 35.

minorities are often targeted for violence and hatred. He then claims that minority groups can be the target of anger when they are relatively harmless (Appadurai, 1990). Power exerted on minorities is not simply a consequence of competing interests or different theories, but rather a means whereby a majority can use an antagonistic power structure to demonise the "other". In this sense, according to Appadurai, majorities need minorities in order to exist. For example, from an interview and research texts, I have found that when the Joseonjok first arrived in the UK, in the late 1990s, there was a powerful hierarchy between the Joseonjok and South Koreans. Frequently, the South Koreans required Joseonjok workers to do hard physical labour, challenging labour codes and contravening laws relating to the minimum wage.¹⁵ After nearly 10 years of Joseonjok migration, their status has improved, with some opening their own businesses and intermarrying, which has produced a new generation. There is, however, another interesting aspect to consider. Compared to the Joseonjok living in South Korea, the UK Joseonjok have been able to establish their status much faster, because South Koreans living in the UK can also be seen as a minority group in relation to the established British population. In

this sense, Joseonjok and South Koreans are grouped together as Korean immigrants, establishing yet another ethnoscape within the UK. The New Malden Joseonjok community has grown, as has its economical and political status, so that the life of the town cannot be maintained without Joseonjok workers. The Joseonjok have become a commodity, that is, the "experts" in labour of this town. As Appadurai claims, there will be no majorities without minorities.

The ideoscape of the "United Kingdom" is, to the Joseonjok, an image and imagined idea about the potential of a better life, and this informs their intentions and supports their "realities" as a promised freedom of a kind. The UK has provided a platform from which to financially and educationally develop possibilities through the national government. No matter how different this reality is from their imagined world, the ideoscape of the "UK" offers the possibility for Joseonjok to be global as well as local subjects. I have found, from interviews and questionnaires I have undertaken, that the ideoscape of the UK that the Joseonjok had in mind was thoroughly different from the reality. Before entering the UK, the Joseonjok imagined that London would be a "dream land", giving them a chance to enhance their lifestyle with new opportunities and abun-

15. Koreans often call industries that require hard physical labour as "3-D": dirty, difficult and dangerous. In the early 1990s, the Ministry of Labour in South Korea was more concerned about the "labour shortage rate" than the "unemployment rate". In particular, the situation of the unskilled labour sector - secondary labour market, or so-called 3-D - was catastrophic. The Korean government actively sought to utilise Joseonjok labour residing in Yanbian (Northeast China) and the Ministry of Labour established the "Industrial Training Program" that allowed small companies to temporarily utilise foreign workers without a work visa in 1991, expecting that many of the trainees would come from Yanbian (Lee, Choi & Seo, "Korean-Chinese Migrant Workers and the Politics of Korean Nationalism," 403).

dant places to work. However, the reality confronting them was that of inferior low-paid jobs. One of interviewees cried as she told me how, when she first came to London, she had to suffer three months of unemployment, with only £100 to live on.

METHODOLOGY

All of the above is part of the preparation, which builds a context for this research. Originally, this project was driven in part by a methodological question: how can drawing be applied as a methodology that is applicable to the practice of critical cartography?

To answer this question, I will have to consider:

- how oral documents and archives are seen within a process of research brought together through drawings;
- how drawings, in this regard, compare with the finished drawing-artefact;
- how these drawings can be seen as a means of ethnographic mapping.

These questions are designed to unlock the potential of drawing to bring together the disciplines of critical cartography and creative process-led practice, and thereby to reimagine a discipline and contribute with new knowledge that could embody the theoretical and methodological approaches of both.

I proceed from the assumption that drawing is a particular type of art practice founded on the processes of its making, and that these processes allow for ways of seeing and acknowledging social issues that make drawing appropriate within

the practice of critical cartography. Thus, this research aims to determine the relationship between art – especially drawing practice – and critical cartography, and, by doing so, to ask if critical cartography can use drawing to collect, represent and reinterpret findings. This approach allows a view of drawing as both an analytical process and as a completed artefact.

Locating this research within an interdisciplinary framework, it is most important that I develop these ideas from the point of view of the artist. Within this framework, the project is designed to explore the potential of “ethnographic map-drawing” as an artistic research method.

DRAWING AS PRACTICE

This section explains how I understand drawing, and how this understanding has led me to analyse and wish to contribute the knowledge that is specifically embodied within this research.

Starting with my very first idea-sketch, all my processes for this research are rooted in drawing practice. This is in order to examine the implications of an interdisciplinary approach for the participants in this research project, those whom I observed, met and interviewed. The act of drawing encouraged me to develop my ideas as an ethnographical approach that always led me to understand more about my subject within a cultural and historical context.

As Leo Duff has stated, drawing can help to solve problems, to think through and to develop an end result.¹⁶ Analysing my drawing prac-

16. Duff, L. and J. Davies (eds.), *Drawing – The Process* (Bristol: Intellect Books, 2005), 2.

tice as both a process and a finished artefact has led me to answer my research questions. Consequently, I encountered a difficulty in analysing my drawings when I first regarded drawing practice as a “closed” and finished “art-object”. However, I have discovered that, in this research, drawing is not only a completed object, but also a process of documentation. This is because drawings contain “live” stories that are happening at the time of the drawing, and bring forth the next step. Therefore, instead of focusing on the final object, which does not take into account complex process-led relationships, I took drawing in this research to be an open-ended and continuous process, even in my final map-drawing practice.

However, such an open-ended process does not imply that anything can be drawing. The primary importance of drawing lies not only in defining a “genre” compared to other fields but also in taking it as a research tool. In this research, drawing is not a practice that can be understood or contained within this framework. Avis Newman states that “much important drawing is not art – think of maps and charts, diagrams and notations, schemas and the like, that cannot be judged by style, skill or as a craft-oriented activity.”¹⁷ Beyond genre, I take drawing as a continuous form of practice-led inquiry that has much in common with the discipline of ethnography itself. I seek to explore the possibility within drawing. Tim Ingold, in *Redrawing Anthropology: Materials, Movement, Lines* (2011),

states the theoretical significance that drawing can have on the discipline.¹⁸ While supporting his argument, the specificity of drawing that I am interested in here, and that I seek to expand beyond, is not entirely concerned with drawing as an art form but with narratives of a people and the documentary potential that these hold for an ethnographic map.

THE ETHNOGRAPHIC APPROACH

The notion of employing ethnography from the position of my “self” first began to impose itself on this research while I was trying to work out how my own interests and art practices could be co-interpreted with those of the Joseonjok immigrants living in London, and how this could influence the production of knowledge during my project. To explain further, an ethnographical approach has influenced how I was able to form a connection with the Joseonjok immigrants, how a collaborative process influenced my own practices during the project, and how this affected my research analysis.

What makes this research ethnographic? Barbara Heyl (2001) distinguishes ethnographic and other forms of interview by claiming that the ethnographic interview is conducted in the context of a well-established relationship with the researched subject. Moving on from an autoethnographic approach and building up respectful relationships with the Joseonjok both improved and informed the qualitative out-

17. CHELSEAspace, “Drawing the Network,” one-day forum on drawing research, Wimbledon College of Art, University of the Arts London (London: CHELSEAspace, 2007), 26.

18. Tim Ingold, *Redrawing Anthropology: Materials, Movement, Lines* (London: Routledge, 2011).

comes. Of course this did not happen in a short time. In *Ethnographic Methods* (2005), Karen O'Reilly claims that life history and biographical interviews normally take place over several interviews.¹⁹ The deeper understanding occurred when my participants and I got to know each other over time, through several conversations and meetings. The Joseonjok life-history interviews exploring a specific topic in the context of a whole life story needed such time.

I also treated my participants with respect, being ethical and sensitive. This was possible by explaining my project until they fully understood, clarifying how the interview would be conducted, and guiding them in directions they thought appropriate with their own insight. The interview itself had a generalised focus and few prepared questions, and was therefore conducted in a free and unstructured format. This unforced interview framework opened up comfortable, enjoyable and productive interviews as the time went by, so that there was enough space for the interviewees to present their views within the framework of each question, and to contradict a question if they needed to.

My research does not stop at being an ordinary ethnographic approach, but is expanded, methodologically, as an ethnographic art practice. Contemporary artists have already adopted ethnographic forms of description in their work.²⁰ Elizabeth Hodson states that it is through the collapsing of ethnography into

participant observation, and by extension anthropology, that contemporary art practice has aligned itself with anthropology.²¹ Moreover, she claims that the arrogation of ethnographic methods and methodology within the visual arts has proposed new ways forwards for anthropology and its representations.²² Particularly in this research, drawing has become an answer to it. For example, beyond ordinary sound recordings or video recordings on folded map-formatted paper, I used drawing as a tool for recoding it as an interview was being held. Thus, this research methodologically offers an opportunity to explore the intersections between critical cartography, ethnography and drawing practice. Drawing as both a process and an ethnographic tool enables the process to remain continuously open, and to show all the layers of work in my practice.

RESEARCH METHODS

This research is based on a period of ethnographic site-specific fieldwork in New Malden, conducted between February 2016 and February 2019. From the very outset it was envisaged that this project would take place within the suburb, with occasional visits to nearby suburban localities such as Wimbledon and Raynes Park, yet it is mainly based in New Malden, which is the largest Korean community not only in the UK but also in Europe.

Due to the Joseonjok's short migration history and their nomadic

19. K. O'Reilly, *Ethnographic Methods* (London: Routledge, 2005).

20. Kwon, 2000. "Experience vs. interpretation: traces of ethnography in the works of Lan Tuzson and Nikki S. Lee". *Site-specificity: the ethnographic turn*, ed. A. Coles, 74–91. London: Black Dog Publishing. ing Publishin

21. E.A. Hodson, "The Drawing Lacuna: A Reconfiguration of Ethnographic Enquiry Through Drawing-As-Process" (PhD thesis, University of Edinburgh, 2006), 5.

22. Ibid.

lifestyle, there is only limited and partial research done on the Joseonjok immigrants in the UK. As with a few previous research papers, this research is mainly based on empirical studies, using mixed ethnographical methods, such as an interview through drawing practice.

According to O'Reilly, when conducting an interview, it is useful to distinguish between the participant's private role and formal work role. Even though all my Joseonjok interviewees were selected only for their ethnicity and migrant status, I approached them formally, as professionals, as a housekeeper, waitress, builder, and so on, rather than acknowledging them as mother, son or migrant. As Rubin claims, people work harder to maintain a front-stage persona;²³ therefore treating interviewees more formally by giving them detailed interview guidelines, describing purposes and intentions, became a successful way of showing respect to each of my research participants.

While conducting field drawing on the streets of New Malden, I started to search for interviewees for my project. Originally, I had planned this by using three methods; first, upload a text on Korean websites; second, hand out flyers on the streets; and third, visit Korean shops in Mew Malden. However, these methods did not work according to my expectations.

First, I uploaded a text to the job vacancy sections on Korean websites, such as www.04uk.com. Nevertheless, I did not receive any replies from it. Later, I discovered from one of the interviewees that

this was because the Joseonjok do not often do web searches, possibly for their lack of time, and will not try new things unless connected with reliable people they know. I tried to keep the text simple, with an easy explanation, but I had feeling that they were being cautious to understand what my purpose was and what I was aiming for.

Second, expecting more positive responses, I went out on the streets and handed out flyers along with an explanation of my project. It wasn't easy to tell the difference between a South Korean, North Korean and Joseonjok because they look similar, having the same ethnic origin. Yet North Korean and Joseonjok share the Hamkyung dialect, and, subsequently, by talking to people in Korean, I was able to differentiate the South Koreans easily. Once I was able to distinguish the South Koreans, I would ask where they were from and what their nationality was, to classify the North Koreans and Joseonjok. The North Koreans would say they were from Korea and the Joseonjok would say China. However, it was still impossible to ask for interviews or short conversations because those I met on the streets were mostly busy, on their way to work or trying to do errands such as visiting the bank during break time. The street, therefore, was once again not a suitable place to explain my project and ask for interviews.

The third step was to visit shops and restaurants, one by one, with flyers. I tried to visit Joseonjok when they were not fully occupied, so, for instance, between two and four

23. Rubin, H.J. and Rubin, I.S. (1995) *Qualitative Interviewing: The Art of Hearing Data*, California: Sage, Thousand Oaks.

o'clock in the afternoon was the best time for restaurant workers, which is between lunch and dinner time, and any time except four to six o'clock for shop workers. I am still waiting for the responses, and plan to visit more shops; once again, neither was this an effective method.

Beyond my original plans, I had to find new ways of finding Joseonjok interviewees. Yet, before trying any new methods, I have learned that building a relationship and establishing a sense of trust between the Joseonjok and me was an important first step.

Rather than finding interviewees randomly, I started to engage with the Joseonjok community by attending "London One Nation Church" every Sunday from February 2016. This church, first established in 2006, is led by a South Korean pastor called Kyoung Ah Paik. It was originally founded for the Joseonjok living in London, comprising approximately 20 people. It became a platform for the Joseonjok migrants and workers to rest and share useful knowledge. Now it has around 50 people, consisting both of the Joseonjok and South Koreans.

With the help of Pastor Paik, the church became a place in which I was able to conduct interviews after the Sunday service. Everybody felt quite relaxed and comfortable in this time and space, and the interviewees could reflect on the meanings they placed on particular decisions they had made, and were able to bring to mind remembered events. To encourage their stories, I shared my life story. Paul Auster writes in *True Tales of American Life* that "stories are told to people who tell stories". This approach turned my interview more

towards "in-depth conversation".

Interviewees consist of Joseonjok migrants and few other Koreans, such as South Koreans or North Koreans who have worked or spent a long time in the UK. Opening up the range of interviewees from Joseonjok to Koreans became an important turning point in my project. For example, interviewees such as Pastor Paik or Pastor Yoon, who helped to establish "London One Nation Church", are essential because they know the UK Joseonjok workers' lives better than anyone, and this led them to establish a church adapted for the Joseonjok lifestyle. When the Joseonjok interviewees gave me their individual subjective life stories, South Koreans as a third party, gave me a general and objective perspective.

The interview normally lasted less than an hour, but was conducted several times with the same interviewee in order to construct a detailed historical and in-depth perspective of life stories in London. These processes, from finding interviewees to making and analysing drawings, are all important. In other words, the relationship between drawing and ethnography shows how this research uses artistic method – creativity and creative problem-solving capability. Some might argue that a drawing can be simply a "drawing", without any artistic ambition; however, in this research, drawing combines knowledge and information I gained from my experiences with the Joseonjok people. New information gained through drawing generates new ideas, and these ideas create other new ideas and questions. With each artwork, I create a new way of thinking and making things.

DRAWING PRACTICE

This section explains the significance of my practical work in relation to critical cartography, which has engaged with issues of political power since the 1980s. It attempts to contextualise the question: how can drawing as a method open up a space to create new maps?

I explain how, in this research project, unlike those of other artists, I incorporate my own drawings as a means of ethnographic inquiry, explaining also how these play an essential part in the inquiry. The essential elements that contribute new knowledge in this research are closely interrelated, comprising not only the methodological convergence of drawing practice with map work, but also a study of the Joseonjok community in New Malden.



Figure 1: Jina Lee,
“World Map_Joseonjok study”,
coloured pen, acrylic on
Tyvek paper, 2012

DRAWING MAPS AS ETHNOGRAPHICAL DOCUMENTATION

The Joseonjok ethnic group has a characteristic of “mobility”, where-

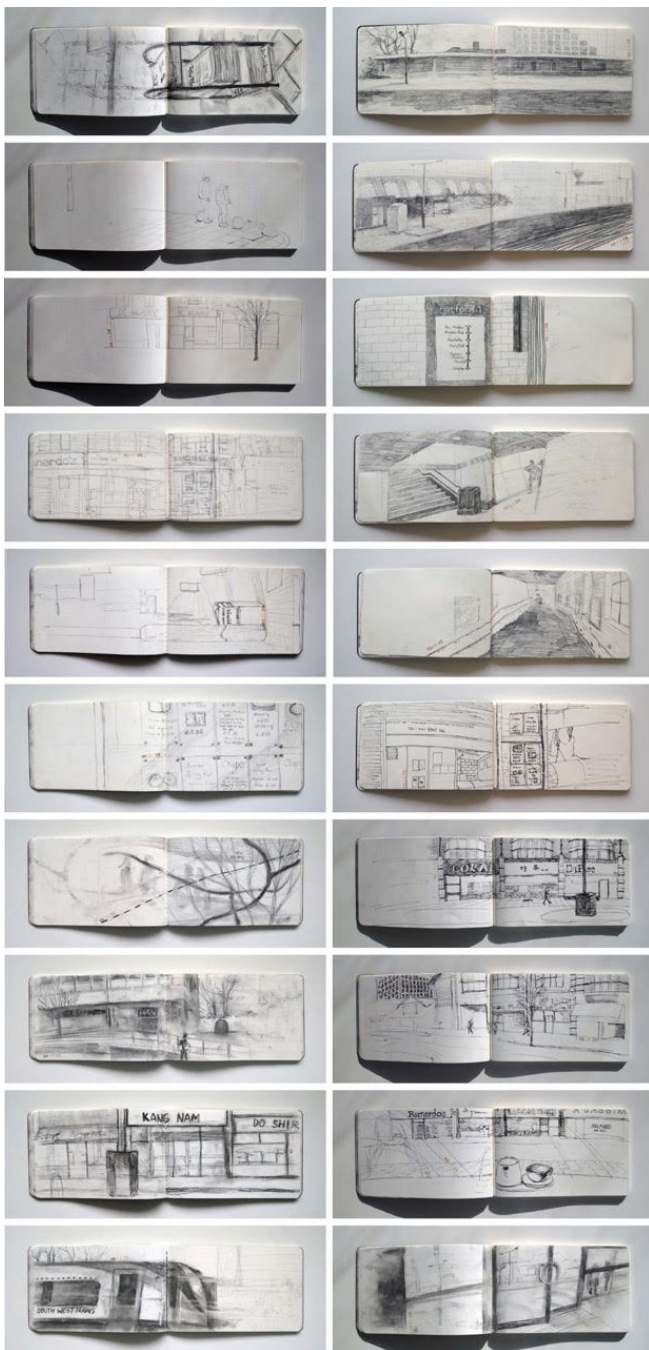
by it is willing to move according to work opportunities. It would be impossible to find all the Joseonjok living in New Malden, but it is hoped that this small but truthful research project, made through my practice with the Joseonjok community, will give others also a chance to find out more about it. Before engaging in research, I had to consider the ways in which I, as lead artist and principal investigator, and also my map-drawing procedures, should be presented and considered within the research project. In other words, it was initially necessary to explore the relationship between research and practice.

Before starting field research, I began by collecting background information about the Joseonjok community in New Malden. As I have described earlier, the community has a strongly nomadic characteristic, moving from place to place for economic reasons. As result of this research, I presented their immigration path in a drawing, which I incorporated into a world map. This piece is titled “World map_Joseonjok study”, and was exhibited in the Triangle Space, Chelsea College, in 2014 (see Figure 1).²⁴

From February 2016, once a week for two hours each day, I have been visiting New Malden, making drawings out on the streets and inside the shops. I was mainly interested in the Korean Joseonjok, where they work, what they do in break times and after work, etc. But why is drawing preferred when a camera can be also used to capture scenes? Leo Duff claims that the camera cannot supply the details that can be achieved

24. I took part in a group exhibition called “Process Practice Play” at the Triangle Space, London, from 4 to 8 March 2012.

25. Duff and Davies, *Drawing*, 94.



in a drawing.²⁵ She adds that “when you look through old sketch books you can remember everything that was around you – smells, sounds, the time of day, the weather, the feel of the air, much more of the scene than you put on the page [...] Maybe the camera does not work because it doesn’t make the effort, because it’s so two-dimensional.”²⁶

If one looks at my street drawings carefully, one can sense the weather, season, atmosphere and place, as well as gaining an understanding of the geographical location. For example, when I first started these drawings, in February, it was still cold in London, so most of scenes were drawn from inside buildings such as the train station and café, and this resulted in more detailed drawings. It is easily noticeable that, as time goes on, my lines and gestures become freer along with the warm weather! It can be said that my drawings, as ethnographical documents, evoke not only two-dimensional detail but also atmosphere, smells, sounds and weather, alongside the narrative of the community.

Starting in March, it was warm enough to sit and draw on the street, watching people. In relation to the exhibition “Out Of Sight: Drawing in the Lives of Makers” (Contemporary Applied Arts, 2014), Fred Baier mentions that “drawing is a way of looking at something for longer than you would have thought possible”. By sitting outside on the street for two hours (though never for longer than thirty minutes in one place), drawing made it possible for me to observe people as they went about their daily lives. For example, there is a news-

stand on New Malden High Street where I regularly collect monthly Korean newspapers, and I had never considered how these newspapers were delivered onto the shelves, because they were always there when I needed them. However, my daily observations revealed a young man who regularly checks and fills the shelves whenever they are empty!

Figure 2: Jina Lee, “Observational Street Drawing”, pencil and conté in sketchbook, from 22 February 2016 (top right corner) to 28 March 2016 (bottom left corner)→

The act of drawing on the street also gave me an opportunity to talk to the Joseonjok workers. One day, while I was making a drawing on New Malden High Street, the lady from a shop opposite me came and asked me what I was doing. From her outfit, smell and wet hands, I could tell that she was having a short break after washing dishes, and, from her accent, I could also easily tell she was Joseonjok. I said, “I am drawing”. Then she asked, “What do you do with the drawing?” so I answered, “I share my drawings with people through exhibitions”. The lady was bemused by my answer. After few minutes of looking at my drawing, she asked again, “How does this make money?” I suddenly realised that, besides having the same language, there was a huge cultural gap between the Joseonjok and me, in many ways, and that I had to acknowledge these before constructing and implementing the interviews. These brief mediating chats on the street helped me by giving guidelines on how to approach

the Joseonjok people for the interviews. Thus, by getting to know the Joseonjok better in this way, I was able to rethink and reposition myself in relation to them as a community, and also to more clearly understand the very premise on which the ethnography of art is based, especially regarding drawing as an object of ethnographical analysis.

From the three months' experience of drawing on the New Malden streets, I found that there was much more behind the scenes than what was out on the streets. The Joseonjok people were mostly doing unseen (behind the scenes) work in New Malden. It was impossible to observe these working Joseonjok on the streets, because they are not the ones who wander around, shop and enjoy the outdoors, but are at work somewhere inside the shops and stores all day, all week. Starting in May, I planned to go inside the shops and buildings in order to observe the Joseonjok working spaces through drawing, as I had been out on the streets. These drawings would be collated and printed together onto one large double-sided sheet, and shown in the style of a folded map. Space for new maps.

While I was conducting interviews with the Joseonjok community, I chose to make drawings as a tool for recording, a process that I called the "talking map". The reason for drawing in this way was, first, to build trust between the participants and myself, so that when the Joseonjok were unwilling to share their personal stories, feeling that their personal data might be given away, the act of drawing enabled me to make them feel more secure in terms of privacy and trust. Second, I wanted my drawing paper

to become an interactive platform on which each participant could join in the process of drawing while the interview was in progress.

After several interviews, deeper relationships began to develop between myself, as the project leader, and the interviewee, so that a more equal position was established between each subject, and we became closer because we both found ourselves in a similar social situation. In other words, the "researched" Joseonjok in this project became "talking map" collaborators, rather than simply subjects of research. The Joseonjok people and I, who have both experienced much geographical moving around and have been able to identify many homes, were easily able to share how we experienced that borders are constantly replicated at different times and in new places, always in relation to political and social movements. At this stage, it was important for me to explore the relationships between research and practice, and researcher and practitioner (artist). By freely interacting together on one sheet of paper, these "talking maps" became research documents, aiming to share information through visual exchange.



Figure 3: Jina Lee, "Talking Map", 3 March 2016

The interviewee physically put her hand on the paper and traced around it. While the interview was being held, she mentioned that she had not had a single moment to skype her family for four years, since she came to the UK. When she saw her family through the computer screen, she could not say anything but cry, touching the screen with her hand.

"Map Different Me"

Moving on by repositioning myself as an artist, I developed my drawing practice by creating "talking maps" as research documents. I called this map drawing project "Map Different Me". Like Katerina Seda's work, my practice conveys a "remapping [of] the community, seeking a solution and finally trying to transform [my] work into a useful instrument to socially mend".²⁷ However, when it comes to defining our positions, it can be said that there is a different perspective. My position emphasises the importance of community participation and addressing resolving issues, but it is also important that my work stands as an "artwork". As an artist, making an artwork with research materials, and presenting this through exhibition as a sharing with others, is crucial for this as research. This is because the aim of the project not only lies within the community, but is designed also to exist as exhibited art practice, within exhibitions or through other kinds of events, in this way sharing the experiences of the Joseonjok people, and what they face day by day.

For me, taking an ethnographical approach means that, as an artist, I have collected all my pieces of research, taken recordings of interviews, observational sketches and drawings, and transformed these resources into my own artwork, which may or may not filter back into the community. In other words, the artwork is made with or for the Joseonjok community, while at the same time it is simply about the Joseonjok community and stands on its own terms, as an artwork.

It is said that we are living in a world that is "borderless",²⁸ or "de-territorialised".²⁹ "Map Different Me" intends to show those interwoven relationships between identity, territory and borders that expose a borderless society within the world map. These drawings intend to encourage a contemporary rethinking of the meaning of "territory" for us now, exploring ways in which fresh boundaries are constantly recreated. I aim to produce mental constructions of what is misrepresented in the hegemonic accounts of those in power. Map drawing therefore functions as a mediatory practice, a way of speaking about personal journeys and stories.

Based on one participant's interview, I created a world map that shows her life journey (see Figure 4). Remapping and redesigning it with the help of web-searchable maps, such as Google Maps and Bing Maps, I drew a map that is not an objective representation of reality but a partial and necessarily biased certainty, ac-

27. Francesco Garutti, "Acting as a Director: Katerina Seda," *Domus*, 16 January 2011, accessed on 31 December 2016, <http://www.domusweb.it/en/interviews/2011/01/16/acting-as-a-director-katerina-seda.html>.

28. K. Ohmae, *The Borderless World: Power and Strategy in the Interlinked Economy*. (New York: HarperBusiness, 1999).

29. A. Appadurai, "Disjuncture and Difference in the Global Culture Economy," *Theory, Culture, and Society* 7 (1990): 295–310.

cording to one particular perspective. The left side of the drawing shows a map of New Malden and at the same time represents the UK. The participant once told me that, even if she could tell her families or friends back in China that she is living in the UK, she is not sure where and what the UK is. She regards New Malden as the UK, as it is where her actual life is. Moreover, even though what I had drawn was her idea of a world map, it only consisted of her homeland (including Korea), here in the UK, the USA and somewhere ideal that she dreamed of going. Ignoring geographical locations or scale, these nations are situated according to what, in her imagination, the “world” is.

“Map Different Me” also conveys texts in both English and Korean. Most of the texts are derived from interviews with the participants, and it is important to point out the few Korean texts I have written in Hamkyung (used by North Korean and Joseonjok only), and to indicate that this is the story of the Joseonjok people.

By showing my work while it was in the process of being drawn, I demonstrate how the participants and I shared an understanding of the ways that we devised to use art practice as a way of exploring ourselves and the world around us. In this way, drawing became an important way of establishing relationships between participants, places and memories. We also shared our knowledge of how drawing practice can generate thoughts, leading to next steps and forming conclusions. It was initially challenging to connect subject matter and method in this way, but it proved to be productive in terms of using art as a process of investigation.



Figure 4: Jina Lee, “Map Different Me #1”, ink on Kozuke paper
CONCLUSION

I began by questioning why people need “new maps” and sought an answer by looking at critical cartography. Understanding it in an interdisciplinary context, combining cartography, ethnography and art practice, the new map would function as a social activity and become a tool that would narrate personal histories (specifically, in this research, stories of the Joseonjok). It theoretically examined the Joseonjok migrants in London by looking at Appadurai’s five -scapes, which became an implicit method for examining facets of Joseonjok culture in the UK.

In relation to the development of my map drawing as a practice, I expanded my drawing practice as a tool to create life-story maps that convey the narratives of a minority community’s life, in particular the ways depicting political power and the movements of territorial borders. These maps aim to move critical cartography into a more expansive terrain, opening possibilities for extending its methodological tools by developing different modes of drawing. Drawing is often treated within cartography merely as a technique or for decoration; if instead it is consid-

ered as an indexical tool for providing data, drawing can be understood as an expansive system presenting a whole range of different methods and ideas. In *Redrawing Anthropology*, Ingold says that he does not consider drawing as only a means of making art but, through movement and inscriptive potential, it can also be seen as a gesture.³⁰ While agreeing with this proposition, the specificity of drawing that I am concerned with here seeks to expand this by drawing maps. My map drawings will therefore communicate with people as a way of “knowing”, a way of learning and, finally, as a way of taking action in relation to the Joseonjok immigrants in the UK. It is hoped that, within this context, my practice will advance an understanding of the personal, political and social contexts of our lives as they are lived every day.

30. Ingold, T. (ed) (2011) *Redrawing anthropology materials, movements, lines*, Farnham: Ashgate.

References:

- Appadurai, A. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press, 1996.
- . "Disjuncture and Difference in the Global Culture Economy." *Theory, Culture, and Society* 7 (1990): 295–310.
- CHELSEAspace. "Drawing the Network." One-day forum on drawing research, Wimbledon College of Art, University of the Arts London. London: CHELSEAspace, 2007.
- Crampton, J.W. and J. Krygier. *Mapping: A Critical Introduction to Cartography and GIS*. Chichester: Wiley-Blackwell, 2010.
- . "An Introduction to Critical Cartography." *ACME: An International E-Journal for Critical Geographies* 4 (1) (2006): 11–33.
- Duff, L. and J. Davies (eds.). *Drawing – The Process*. Bristol: Intellect Books, 2005.
- Firth, R. "Critical Cartography." The Occupied Times of London 9, 27 April 2015. Accessed on 31 December 2016. <http://theoccupied-times.org/PDFs/OT27.pdf>.
- Foucault, M. *Society Must Be Defended: Lectures at the Collège de France, 1975–76*. New York: Picador, 2003.
- . *The Politics of Truth*. New York: Semiotext(e), 1997.
- . *Discipline and Punish: the birth of a prison*. London: Penguin, 1991.
- Garutti, Francesco. "Acting as a Director: Katerina Seda." *Domus*, 16 January 2011. Accessed on 31 December 2016. <http://www.domusweb.it/en/interviews/2011/01/16/acting-as-a-director-katerina-seda.html>.
- Gaventa, J. *Power After Lukes: a review of the literature*. Brighton: Institute of Development Studies, 2003.
- Harley, J.B. "Deconstructing the map." *Cartographica* 26 (1989): 1–20.
- Harmon, K. *You Are Here: Personal Geographies and Other Maps of the Imagination*. New York: Princeton Architectural Press, 2004.
- Hayano, D. "Auto-ethnography: Paradigms, problems and prospects." *Human Organization* 38 (1) (1979): 99–104.
- Heyl, B. "Ethnographic Interviewing." In *Handbook of Ethnography*, edited by P. Atkinson, A. Coffey, S. Delamont, J. Lofland and L. Lofland, 369–384. London: Sage, 2001.
- Hodson, E.A. "The Drawing Lacuna: A Reconfiguration of Ethnographic Enquiry Through Drawing-As-Process." PhD thesis. University of Edinburgh, 2006.
- Ingold, T. *Redrawing Anthropology: Materials, Movement, Lines*. London: Routledge, 2011.
- Ingram, D. "Foucault and Habermas on the Subject of Reason." In *The Cambridge Companion to Foucault*, edited by G. Gutting. Cambridge University Press, 1994.

- Kim, H. *International Ethnic Networks and Intra-Ethnic Conflict: Koreans in China*. New York: Palgrave Macmillan, 2010.
- Kim, H.M. "The Migration Experiences of the Korean-Chinese (Joseon-jok) in the Korean Diasporic Community: The Case of "Little Korea" in the London Borough of New Malden, UK." *Korean Cultural Anthropology* 41 (2) (2008): 39–99.
- Kwon, 2000. "Experience vs. interpretation: traces of ethnography in the works of Lan Tuazon and Nikki S. Lee". Site-specificity: the ethnographic turn, ed. A. Coles, 74–91. London: Black Dog Publishing.
- Laine, A. "Migration research in collaboration with Tamil Sri Lankan artists in the British diaspora." *Journal for Artistic Research* 8 (2015). Accessed on 31 December 2016. <https://www.researchcatalogue.net/view/63959/63960>.
- Lee, B., J.Y. Choi and J. Seo. "Korean-Chinese Migrant Workers and the Politics of Korean Nationalism." *Pacific Focus: Inha Journal of International Studies* 29 (3) (December 2014): 395–412.
- Lee, J.Y. "Korean-Chinese (Chosonjok) in U.K.: Migration, Settlement and Social Relations." *Journal of North-East Asian Studies* 62 (2012): 53–74.
- Ohmae, K. *The Borderless World: Power and Strategy in the Interlinked Economy*. New York: HarperBusiness, 1999.
- O'Reilly, K. *Ethnographic Methods*. London: Routledge, 2005.
- Park, H.O. "Segyehwa: Globalization and Nationalism in Korean." *The Journal of the International Institute* 4 (1) (Fall 1996) [online]. Accessed on 31 December 2016. <http://quod.lib.umich.edu/j/jii/4750978.0004.105?view=text;rgn=main>.
- Rubin, H.J. and Rubin, I.S. (1995) *Qualitative Interviewing: The Art of Hearing Data*, California: Sage, Thousand Oaks.
- Shinn, 2014. Shin, H. R. (2014) 'Koreans in London (South Korean, Joseonjok, North Korean): London Korean immigrants' conflict and assimilation in conjuncted area (New Malden)', J. Lee (trans.) available from <community.snu.ac.kr/bbs/servlet/Download?SEQ=88213> [accessed 20/11/2015]

MICHELE FEDER-NADOFF¹

PERFORMING KNOWLEDGE: Between Praxis and Theory in Santa Clara del Cobre, Michoacán²

"The human actor identifies himself with the mechanical, physical and chemical order of things. He creates and at the same time creates himself: he creates at once his means of living, things purely human, and his thought inscribed in these things." – Marcel Mauss³

Artisan practice and artistic practice intersect through the world of making. But what about artistic research? I propose that as artists it is through the aperture of the making, creating body that we come to understand things: peoples and concepts. Between these contingencies of intention and realisation, theory and praxis, artistic research takes place. This text draws upon experiences and analysis of my long-term ethnography and "artistic" research with/in the mestizo⁴ "traditional" coppersmithing community of Santa Clara del Cobre, in Michoacán, Mexico, initiated in 1997. This chapter reflects upon how participation in learning to "make" and "making", in

the context of a traditional live-in apprenticeship with an extended artisanal family, offers a profoundly complex understanding of local knowledge and craft practices, as well as insights into cognition and perception.⁵ This text focuses not so much on the artisan's crafting of objects as on the crafting performance of their life-world and the development of skilled bodies of knowledge, as well as a corpus of knowledge, via these creative, performative and cognitive processes. I conclude by turning to these objects to see how they perform as an embodied registry of this knowledge and life-world through their aesthetics of ethos and of making.

This chapter complements the workshop I facilitated for the conference on artistic research organised by the University of Performing Arts, Prague, by reflecting and responding to questions raised by the session. Through a choreography of bodies, movement and activities, participants engaged actively with each other as they "researched" copper

1. El Colegio de Michoacán, Zamora, Michoacán, México.

2. This chapter presents ideas from my PhD thesis: "Body of Knowledge— Between Praxis & Theory – the Agency of the Artisan and their Craft, Santa Clara del Cobre, Michoacán, México: Towards an Anthropology of Making."

3. Marcel Mauss, *Techniques, Technology, and Civilization*, ed. by Nathan Schlanger (New York: Bergahn Books, 2009 [1935]), 53.

4. In Mexico, the Spanish word *mestizo* refers to the mixed race of indigenous and Spanish origins.

5. In my research, I extend the (philosophical) approaches to human perception, knowledge, and experience of Merleau-Ponty and other phenomenologists, such as Husserl, combined with existential anthropologists,

such as Jackson and Csordas, to apply it to craft: making objects in Santa Clara. This is complimented by performance theorists, particularly Turner and his emphasis on the liminal and social drama. Here, too, I take the liberty of applying what is generally applied to theatre, spectacle, and performance *per se* to an analysis of "making" as a coppersmith in Santa Clara. As an anthropologist, and an artist, the ethnographic situation is part of the story, from where the analysis and theory grow. We begin in observing and participating in experience. This is reflected in the structure and analysis presented in this of this text, consciously "performative" and experiential in its descriptive qualities and emotional resonance.

vessels produced in Santa Clara. The session shared anthropological fieldwork in Santa Clara via the transported copper vessels.

THE ARTISTIC RESEARCH WORKSHOP

The collective workshop provided multiple experiences of “somatic attention”,⁶ one of the key components of bodily inquiry essential to apprenticeship as artistic research. The formal, more passive learning situation was transformed into an informal, interactive, experiential and sensorially cognitive space. Participants first formed an active spiral, passing two forged vessels from Santa Clara made by Napoleon Pérez Pamatz (see Figure 1). This was followed by divisions into research groups of sound, text, drawing and movement.

Participants engaged with the copper objects and their performative qualities – their acoustic potential and tonal qualities, not only of sound but also of its metallic colours and interlocking forms. These same aesthetic properties also opened the window into a social-political inquiry about who, how and why these objects were made and then used. As objects of “distributed agency”,⁷ the elusive yet tangible and sensorial power of the copper vessels evoked specificities of a place and people still to be known in further detail and up close. Through bodily per-

formances, participants exchanged questions and explorations through a language of action and demonstration – a psycho-cognitive, physically engaged discourse wedded by imagination and curiosity.

Yet, were these dynamics enough to understand the context and intention of the makers of these objects? Were they reflexive? How and what is the “agency” of these copper objects without their artisan-authors present? How do objects perform when transported beyond their community of origin? How do our experiences as strangers and outsiders uncover the experiences of their makers, or make articulate, share or comprehend the particular knowledge and messages transmitted via these copper objects? How are actions and processes of making embedded, registered, conveyed through the fixity and plasticity of form and our somatic engagement with these copper objects? How do we learn in these contingent liminal spaces between persons and persons, persons and materials, persons and objects, persons and place?

6. See Thomas Csordas, “Somatic Modes of Attention,” *Cultural Anthropology* 8 (2) (May 1993): 135–156 [online publication 2009], on “somatic modes of attention”.
7. See Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Clarendon Press, 1998), 220–258; and the related concept of the perennial power of objects via Benjamin in Howard Eiland and Michael W. Jennings, *Walter Benjamin: A Critical Life* (Cambridge and London: The Belknap Press of Harvard University Press, 2014), 547–548.



Figure 1: Napoleón Pérez Pamatz. Hammered and forged copper, natural patina, Santa Clara del Cobre, Michoacán, México. Left to right: 3 x 3 x 3 inches, circa 2011; 3.25 x 5.5 x 5.5 inches, 2014. Photo M. Feder-Nadoff. Left, collection Jeanne Salis, México City; right, collection M. Feder-Nadoff.

ARTISTIC RESEARCH AS SOMATIC AND ETHICAL ENGAGEMENT WITH PEOPLE AND PLACE

Artistic research can be applied to approaches in which the artist (or non-artist) engages in diverse forms of investigation about events or phenomenon, etc., about the world and life, to move inwards, that is to say, to develop a body of (art)works. However, artistic research also may be used to go outwards, to go out into the world to know it and to study it, to understand and to share this knowledge through less personally attributed texts and presentation formats. Artistic research can be used to join in with the world and its “goings-on”,⁸ to meet it in its happenings and performances. This may entail fieldwork and

ethnography aimed to understand, document, interact, register and enter discursively into a dialogue with the world and with specific places and peoples.⁹ Many artists combine these approaches to artistic research in their creative and personal practices. These practices may also challenge social and political assumptions, classifications and stratifications via their insights and alternative perspectives. Artistic research is usually multivalent, inter- and trans-disciplinary, somatic and cerebral, drawing upon wholistic body-mind sense-driven modalities of exploration, analysis and interpretation.

My artistic research consists of apprenticeship-based ethnography within the West Mexican copersmithing community of Santa Clara del Cobre, located in the state of Michoacán. My study analyses artisan agency and their bodies of knowledge: the corpus of expertise and wisdom dependent upon attentive and skilled bodies of practice. I also study the social and aesthetic agency of these objects, as a type of crafted aura.

The apprenticeship method provides unique insights made possible only through these body-mind experiences of “making”, and complemented for me by the intimacy of living in the family home. Apprenticeship within a family forge is the traditional way to study copersmithing in Santa Clara, and mine has taken place in that of the Pérez Ornelas family, until recently primarily to its patriarch *jefe*, Maestro Jesús Pérez Ornelas (1926–2014), but also to his sons who worked with him. A

8. See Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (New York and London: Routledge Press, 2011 [2000]), 200, 205.

9. See Steven Feld and Keith Basso, *Senses of Place* (Santa Fe: School of American Research Press, 1996).

generous mentor, this respected village elder taught me that learning to “make” objects was part of the lifelong process of learning to “be” an artisan: “Nunca voy acabar de saber cómo ser artesano hasta que me muera!” (I will never stop learning how to be an artisan until the day I die!)

This research resulted from my long-term engagement and collaboration with/in the community, which imparts a consensual commitment and intensity, an intersubjectivity and even complicity on the part of many artisans with my doctoral project.¹⁰ Crucially, this study has taken place within what I articulate as relationships of ethical dyadic intercultural artistic exchange.¹¹ Although the focus of this chapter is not upon these discursive encounters and engagements, this mutuality is critical to the acquired knowledge shared in this text, and to my research, which depends upon intersubjectivity and trust.

That said, one must be aware that the “rules of reciprocity and of exchange are not universal, but rather are culturally specific.”¹² The contingencies of ethnography – the perturbances and frictions, the discord and errors that accompany it when the rules of engagement, exchange

and social comportment are not observed – are key for illuminating these very rules, clarifying their distinct meanings, so dynamically implicit if not explicit of a particular place.

These ethnographic discoveries are encountered tangentially, through disparate fumbling connections and analogies, through loose threads and in little bits. I discovered these codes of conduct in learning to hammer copper in the forge, as well as in washing clothes or dishes in the family home. In bodily engagement and everyday practices.¹³ In walking upon these simple but tenuous paths, one begins to gradually have a sense of a specific place, provided by the fluid movements/moments of discovery in interaction with people. The irony of ethnography is that it relies upon these very processes of displacement and re-emplacement of its subjects, the ethnographer and the persons being understood.¹⁴

Artisan practices are specific to place – as bodily techniques and dispositions form and are formed of their habitus¹⁵ – as Bourdieu¹⁶ and Mauss¹⁷ theorised. The life-world of the coppersmith artisan in Santa Clara is however multiple. Its constellations¹⁸ – spaces of activity, ef-

10. In 1998, I founded and directed (1998–2009) the non-profit Cuentos Foundation with other artists and activists in Chicago. Cuentos strategically supported cultural exchange projects between Chicago and Santa Clara, including the book I edited, *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México* (2004) and the video documentary I directed, *Huele de Noche* (2006). Between 1998 and 2009 Cuentos operated out of my artist studio space in the East Rogers Park community of Chicago.
11. See Michele Feder-Nadoff, “Santa Clara del Cobre: Material & Process, Distillation & Exchange,” in *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, ed. and photos M. Feder-Nadoff (Chicago: Fundación Cuentos, 2004, 58, n. 48). This model was developed through my transnational and local community organising experiences in Santa Clara del Cobre and in Chicago.
12. Michael Jackson, *Lifeworlds: Essays in Existential Anthropology* (Chicago: The University of Chicago Press, 2013), 12.
13. See Michael Jackson, “Knowledge of the Body,” *Man,*

New Series 18 (2) (1983): 327–345.

14. See Clifford, *Routes: Travel and Translation in the Late Twentieth Century*, 53; Jackson, *Lifeworlds*, 11. As a doctoral student I also became pulled in several, often conflicted directions, within the intensity of a live-in apprenticeship; and the multiple responsibilities of coursework readings; writing papers; video and photo documentation; and journaling field notes.
15. Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 2012 [1972]).
16. *Ibid.*, 90.
17. Mauss, *Techniques, Technology, and Civilization*, 80. Mauss also argued that this can be influenced by outside patterns transmitted for example via film. In Santa Clara today, this includes videos, television, internet, clients and laboral migration.
18. These interactive constellations comprise: body-mind; home; (agricultural) field; forge; Santa Clara community; global, local, and national marketplace. See Michele Feder-Nadoff, “El Cuerpo de Conocimiento – entre praxis y teoría: La agencia de los artesanos y su artesanía” (Zamora: El Colegio de Michoacán, 2016).

fectivity and affectivity – overlap and intersect; its traditions are flexible and at the same time predetermined.

The forge is a space where, as an extension of the family home, fathers educate their sons as to how to behave in their particular society. It is this “dialectical relationship between body and space” that forges the artisan, not only to learn the techniques of his/her trade but also to learn, via these gestures and movements, the bodily codes of conduct and their corresponding social values. As Bourdieu wrote:

The house, an *opus operatum*, lends itself as such to a decipher-

ing, but only a deciphering that does not forget that the “book” from which children learn their vision of the world is read by the body, in and through movements and displacements which make a space within which they are enacted as much as they are made by it.¹⁹

Mauss related techniques such as digging, marching and childbearing to the particularities of place; gestures are cultivated, conforming to and forming “culture”.²⁰ These are deliberately imposed by societies, implicitly and explicitly, expressed in Mauss’s own awkward memory

19. Bourdieu, *Outline of a Theory of Practice*, 90.

20. See Edward S. Casey, “How to Get from Space to Place,” in Feld and Basso, *Senses of Place*, 33–34, on culture, place, embodiment and local knowledge. See also Jackson, *Lifeworlds*, 52–54, on culture as a “domain of intellectual life” and as a “field of practical activity” and the tension between these attitudes in

anthropology and academic theory in general. Jackson proposes that “to bring back the body into discourse is inevitably related to questions about the use value of anthropology and [...] finding some way of making our discourse consonant with the practices and interests of the peoples we study.” Jackson, *Lifeworlds*, 54.



Figure 2: Map of Michoacán, locating Santa Clara (courtesy Alan Hobscheid, 2004)

of self-consciousness in learning to walk properly: "And I can still remember my third-form teacher shouting at me: 'Idiot! Why do you walk around the whole time with your hands flapping wide open?'"²¹

As an apprentice artisan and an initiate to the Santa Clara society, my own learning comes about through inhibition, prohibition and often with teasing, humour and even shame. From afar, Maestro Jesús could hear my progress or failure. Upon entering the forge, he would shout, "You are not listening!", referring my attention to the sounds and vibrations of my hammer striking the metal and its resonance on the stake, indicating the accuracy and efficacy of my blows.²² Or he would move through the studio, pretending to have a limp, crying out at me that my copper piece was "Crooked!"

These admonitions taught me not only how to hammer copper and access symmetry they also transmitted specific moral messages, such as obeying one's teacher, patience, endurance, hard work, inner balance, cooperation and paying attention.²³

The craft-trade, *oficio*, of Santa Clara also affirms and responds to

a profound cultural memory, history and geography that informs its present-day artisan activities, challenges and successes. This history is passed on orally and corporally through the smiths' techniques; it is also transmitted via the various intersecting tropes of Mexican nationalism and identity, tourism and marketing, in parallel with a variety of programmes to support artisan crafts – "artesanía" and "arte popular" – since the post-revolution.²⁴

All of these factors contribute to the ethos-aesthetic of contemporary coppersmithing in Santa Clara, as we will see further in this text.

MAKING, BEING AND BECOMING: PERFORMING HISTORY AND IDENTITY IN SANTA CLARA

Santa Clara is located in West Mexico, which contains the largest amount of copper deposits in Mesoamerica. Demarcated by the modern-day states of Guerrero, Michoacán, the southern part of the state of Mexico, Jalisco, Colima and Nayarit, the copper belt runs from Michoacán through Guerrero.²⁵ Poised in the cooler Si-

21. Mauss, *Techniques, Technology, and Civilization*, 80.

22. By listening to the sounds and vibrations of the metals, the smithing artisan also knows if the copper is still in the annealed, more pliable state or is now work-hardened, needing to be reheated, re-annealed. The aural messages also help determine the thickness of the metal, in addition to the precise location to hit the copper, marrying both the vessel form, to the stake to the hammer and maintaining this in the constant slow movement of one's hammering, which with extreme skilled patience moves the piece gradually almost by its own accord.

23. See Feder-Nadoff, "El Cuerpo de Conocimiento," regarding Santa Clara's ethno-aesthetics, which I will present in synthesis further in this chapter.

24. See, among many other references: Ruth Hellier-Tinoco, *Embodying Mexico: Tourism, Nationalism, Performance* (New York: Oxford University Press, 2011); Alicia Azuela de la Cueva, *Arte y Poder*. (México: El Colegio de Michoacán y Fondo de Cultura Económica, 2013) and "Peace by Revolution: Una Aproximación Léxico-visual al México Revolucionario," *Historia Mexicana* LVI 1 (4) (2007): 1263–1307; and Mary Kay Vaughan and Stephen E. Lewis (eds.), *The Eagle and the Virgin: Nation and Cultural Revolution in Mexico 1920–1940* (Durham,

NC: Duke University Press, 2006) on how the development of popular art, the category of "artesanía", craft in Mexico was part of the larger nationalistic transformation after the Mexican revolution to forge a unique Mexican identity and synthetic culture. This movement of "Mexicanidad" took place through a vigorous collaboration of Mexican artists, intellectuals and politicians, and also included support from some North Americans. One might see in this history a story of ongoing tensions between the ideals of a rational modernity, of a developing industrial nation based in the romantic melding of a new race created from the mixing of ancient mythic indigenous origins with a (superior) European religious and secular elite. In many respects, the most contemporary Mexican craft is produced in marginalised rural and indigenous communities which have been pawns in this play of authenticity, often only poster children for tourist promotion but with questionable political power.

25. Dorothy Hosler, "Mesoamerican Metallurgy: The Perspective from the West," in *Archeometallurgy in Global Perspective: Methods and Syntheses*, eds. Benjamin W. Roberts and Christopher P. Thornton (New York: Springer, 2014), 337.

erra highlands of Michoacán, before descending into the *tierra caliente* (hot lands), where copper was mined,²⁶ Santa Clara's climate and ecological landscape offered the ancient indigenous metalsmiths, as well as the contemporary smiths of Santa Clara, abundant fir and pine forests and cool breezes – all essential to the metallurgical processes of smelting, forging and other fabrication techniques (see map, Figure 2).²⁷

Copper has a distinct legacy in Mesoamerica, especially in West Mexico.²⁸ The ancient Tarascan²⁹ ancestors of the contemporary Santa Clara coppersmiths, who dominated this area between 1350 CE and the Spanish invasion of 1530 CE excelled in copper metalworking.³⁰ Copper-based technology was introduced in approximately 650–700 CE from South America via maritime traders from Ecuador, who exchanged metalworking knowledge, techniques and copper objects with their West Mexican partners for the precious spondylus³¹ shell, which was sacred to Central and Southern Andean cultures.³² “The metallurgy that emerged [...] functioned as a visual and auditory system that symbolically defined elite and sacred spheres of activity.”³³

When copper was introduced, metal bells began to augment

sound-making instruments made of organic, more perishable materials, such as seed pods and shells. The words “metal” and “bell” became lexically interlinked synonyms.³⁴ Copper bells soon comprised 60 per cent of all metal artefact production, and became central to the material and immaterial cultural production in West Mexico.³⁵ Their sophisticated use was essential in the performances of many central rituals and ceremonies as described by Hosler:

Bells and bell instruments were essential in rainmaking ceremonies: they reproduced the sounds of thunder, rain, and the roar of the jaguar, a progenitor of Mesoamerican peoples. Bell sounds also engendered agricultural and human fertility. Bell sounds could precipitate trance, in ritual, drawing the participants into altered states of consciousness, in which they directly experienced the supernatural.³⁶

Technological production was dictated by these cultural aesthetics of performative and symbolic utility and spectacle. Aural qualities of bells were delicately keyed; subtle colours were produced by an array of sophisticated metal alloys, forming a symbolic tonal system that referred

26. Efraín Cárdenas García and Eugenia Fernández-Villa-Nueva Medina, in *Ritmo del Fuego: El Arte y los Artesanos de Santa Clara del Cobre, Michoacán, México*, ed. Michele Feder-Nadoff (Chicago: Fundación Cuentos, 2004), 97–98; Otto Schöndube Baumbach, “El ‘quehacer’ del cobre en Sant Clara,” in *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, ed. M. Feder-Nadoff (Chicago: Fundación Cuentos, 2004), 244.

27. See F. Guevara-Féfer, “The Ecological Landscape,” in *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, ed. M. Feder-Nadoff (Chicago: Fundación Cuentos, 2004), 64–89, on the ecological landscape of Santa Clara.

28. Copper is also important in the culture of the Miskwibik Native Americans of North America's Lake Superior. See Amelia M. Trevelyan, *Miskwibik, Metal of Ritual: Metallurgy in Precontact Eastern North America*

(Louisville: University of Kentucky Press, 2004).

29. Today this indigenous group calls itself P'urhépecha, meaning “peoples”. Tarascan was a name designated by the Spanish conquerors, from the word meaning “son-in-law”.

30. See Gary Urton, *The Social Life of Numbers* (Austin: University of Texas Press, 1997), 112, on the notion of a developed (craft) skill of one geographical and cultural area over time.

31. Spondylus was harvested along the west coast of Mexico where it grew abundantly and it was used to create prestige crafted shell ornaments. See Hosler, “Mesoamerican Metallurgy,” 334.

32. *Ibid.*

33. *Ibid.*, 353.

34. *Ibid.*, 341.

35. *Ibid.*, 340–341.

36. *Ibid.*, 341.

to the constellation of supernatural forces, the bright sun and the moon, and to their governing representatives on earth. Copper ornaments were not passive decorative visual elements, but rather were part of an extensive performance of movement, sound and reflective colour, evoking a vast hierarchical system of gods and priests relating natural phenomena to supernatural powers within a complex social-cultural aesthetic. These resonating elements were also ornamental, and were worn on wrists and ankles, attached to waistbands and otherwise sewn into clothing, transforming the moving dancer and ceremonial participant into a veritable sound instrument, corporal and ethereal.³⁷

A combination of cold and hot working techniques was used to create large pincers, which were worn suspended about the neck by the priests of the Tarascan empire. These elites used the pincers to remove facial and body hair, differentiating themselves from the animal realm to reinforce their "social and supernatural powers and moral authority".³⁸ Their quintessential symmetrical spirals, located laterally above the prongs, may have symbolically evoked serpents and knowledge revealed through the echoes of vision and sound.³⁹

Yet it was not only these metal objects that could cast enchanting⁴⁰ spells by their sounds and colours;⁴¹ it is quite probable that their very creation – the various tonal qualities and sounds of percussive hammering and the moving trance-inducing fury, the brightness of the fire, the magical transition of liquid and solid metal, the intense attentive movements of the working artisans – be-

came a beckoning spectacle. This performance must have inspired fear and respect, as much as delight and awe, among spectators, as it still does today during artisan forging demonstrations.

During the pre-Hispanic period, the colours and sounds of copper metal bells linked metal production with sacred song and divine paradise.⁴² Yet also, as today, this creative metal technology united profoundly cognitive processes, coordinating thought with creative activity and gestures.⁴³ Via these aesthetic sensorial properties – of colours and sounds – the ancient coppersmith guided their actions and movements, interpreting material density, pliability, temperature – inventing, smelting and forging, casting and fabricating the Tarascan kingdom's sumptuary and practical copper objects. This wealth and display promulgated and solidified the elite kingdoms in which they developed. This complex and successful mutual interchange between social representation and aesthetic reproduction exemplifies artisan agency, whose dynamics continue to be evident and alive in contemporary Santa Clara.

During the conquest, the native metalsmiths living in the indigenous villages of this area became forced labourers, relocated in work groups, and provided technical information about copper deposits, mining and processing.⁴⁴ Regional copper production was regulated when the Tarascan kingdom was conquered; over time, the smiths and smelters of the colonial town of Santa Clara became cauldron-makers.⁴⁵ Gradually, direct descendants of these artisans have become skilled at the creation of innumerable decorative works, in

addition to functional copperware, moving from ritual ceremony of the former Tarascan kingdom to kitchen, to dining room and to the museum.

Not only have the raw material and the objects been transformed and the production expanded; the very gestures of the labourer, the ditch-digger, the tin-smith have been given attention, respect and merit through the dramatised performances of the coppersmith in demonstrations at the national copper fair, first held in 1946. Today, even the visiting governor steps in to sweat, like entering a boxing ring or dance floor, trying to wield a hammer with equal finesse and grace. This transformative ballet and choreography of percussive sound and rhythm, colour and tones, performs a re-representation of physical “work” and “labour”, of blacksmith and metalsmithing skills often undervalued, invisible and unheard, subsumed by more literate and vocal forms of knowledge and class production.⁴⁶

These performances also continue to express, making present the ancient ritual ceremonies of sound and colour, the power and force of fire and metal. In Michoacán, the P'urhépecha patron sun god, Curi-

caueri, meaning “he who emerges making fire”, is still alive in contemporary indigenous culture, honoured in the annual New Year celebration in February, when the perpetual fire is relit.⁴⁷ Within the artisan's home, in the forge, fire naturally continues to hold a respected place.⁴⁸

Figure 3: Jose Sagrario Pérez Pamatz giving a red-hot patina to his piece before beginning the final planishing in the family forge on Lazaro Cardenas Street in Santa Clara, circa 2013.
Photo M. Feder-Nadoff.



THE APPRENTICESHIP METHOD OF ARTISTIC RESEARCH

37. Ibid.

38. Ibid., 343.

39. Feder-Nadoff, “El Cuerpo de Conocimiento,” 91.

40. See Alfred Gell, “The Technology of Enchantment and the Enchantment of Technology,” in *Anthropology, Art and Aesthetics*, eds. Jeremy Coote and Anthony Shelton (Oxford: Clarendon Press, 1992), on enchantment and technology.

41. See Hosler, whose book *The Sounds and Colors of Power: The Sacred Metallurgical Technology of Ancient West Mexico* (Cambridge, MA: MIT Press, 1994) emphasised this interrelationship of material aesthetics and supernatural power.

42. Hosler, “Mesoamerican Metallurgy,” 353–355.

43. See Dietrich Stout, “Tales of a Stone Age Neuroscientist,” *Scientific American* 314 (4) (April 2016): 28–35, on ancient stone-knapping and recent studies relating this craft to brain matter growth and evolution.

44. See J. Benedict Warren, “Información sobre el cobre, 1533,” in *Rhythm of Fire: The Art of Artisans of Santa Clara del Cobre, Michoacán, México*, ed. M. Feder-Nadoff (Chicago: Fundación Cuentos, 2004), 118–153.

45. Schöndube, “El ‘quehacer’ del cobre en Sant Clara,”; Robert West, *Geografía cultural de la moderna área tarasca*, trans. Luis Lorenzo Esparza (Zamora: El Colegio de Michoacán, 2013 [1948]); María Luisa Horcasitas de Barros, *La Artesanía con Raíces Prehispánicas de Santa Clara del Cobre* (México: Secretaría de Educación Pública, 2001 [1968]), and *Cobre Martillado: Vocabulario Tradicional, Utillaje y Técnicas de Manufactura. Cuadernos de Trabajo, Técnicas 1*. Mexico: Instituto Nacional de Antropología e Historia, 1974.

46. Feder-Nadoff (2014).

47. See Roth-Seneff (2015: 224–225). It is also significant that in 1968 the artisans of Santa Clara forged the cauldron used for the torch used in the Olympics held that year in Mexico City.

48. In 1997, during my first apprenticeship in Santa Clara to Maestro Maximo Velazquez Correa during the annual celebration of Day of the Dead when I asked him why we were not making an *ofrenda*, altar, he responded that the fire was our altar (Feder-Nadoff (2004: 47, n.28, 48, n. 28).

Through the apprenticeship in the family forge, I have entered into this cacophony of movement, of processes and performances, scientific and alchemical, of a living history. This traditional method of learning offers solutions to the inherent problematics of studying artisan practices that are non-verbal.⁴⁹ My maestro's "sentient body" is a "locus" and "vector" for knowledge, as is mine as an apprentice.⁵⁰ My ability to participate, to use my body as a type of laboratory – to work with tools and the copper metal, make contrasts and comparisons, interpret and analyse – is supported by my kinaesthetic experience and training as an artist. One thing is to watch and tell; another thing is to do and explain as a fellow "maker".⁵¹

As an ethnographer and apprentice, I observe others working and performing. As my teachers also observe me, I observe myself, through their eyes and my own.⁵² Through these multiple perspectives of training and performance, I am able to gain insight into the cognitive processes of making and becoming skilled. In this shared space of the forge and my direct participation in its activities

and directives, my performance of intentions and failings, errors are magnified. Reflexivity is gained.

My movements and attempts elicit and provoke spontaneous memories, more detailed descriptions and personal narratives from my teachers that are not accessible nor prompted through formal interviews.⁵³ When practising to swing and aim the heavy sledgehammer, I learned that the trick is to activate its weight and gravity through one's propelling movement using centrifugal force to augment one's own bodily velocity. The freed agency of this "passive" tool is incorporated into the force of one's own body. As in many martial arts, one doesn't resist the weight of an opponent; rather one utilises it as a power to work to one's advantage. I understood this by the intervention of one nephew, an experienced artisan, who, after observing me practising with the sledgehammer, said that eventually it would require less exertion. I also figured this out in trying to understand Maestro Pérez's continual battle to stop me from hammering with a rigid arm and shoulder, which he would imitate back to me.

49. See Loïc Wacquant, "Habit as Topic and Tool: Reflections on Becoming a Prizefighter," *Qualitative Research in Psychology* 8 (2011): 81–92, and *Body + Soul: Notebooks of an Apprentice Boxer* (Oxford: Oxford University Press, 2006); Michael William Coy (ed.), *Apprenticeship: From Theory to Method* (Albany: State University of New York Press, 1989); Trevor H.J. Marchand, "Brain, Hand and the Use of Tools," in *The Sage Handbook of Social Anthropology*, eds. Richard Farndon et al. (London: Sage Publishing, 2012), *The Masons of Djenné* (Bloomington: University of Indiana Press, 2009), and *Minaret Building and Apprenticeship in Yemen* (London: Routledge, 2012 [2001]); Thomas Kies, "Labor Process, Ethno-aesthetics, and the Political Economy of Guitar Artisans in Paracho, Michoacán" (PhD thesis, University of New Mexico, 2006).

50. See Wacquant, "Habit as Topic and Tool".

51. See Steven Feld, *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression* (Durham, NC: Duke University Press, 2012 [1982]), a musician whose fieldwork was pioneering and continues to be influential. His ethnography reflected this multidimensional quality of receptivity, and sensitivity based in his aural and musical training.

52. Merleau-Ponty, in *Phenomenology of Perception*, trans. Donald A. Landes (London: Routledge, 2012 [1945]), 95, described the "double sensations": of the body, the capacity to touch ourselves and simultaneously feel touched, in which we experience "a type of reflection". Yet, this is compounded as we watch our movements mentally as we also feel them. Recent studies of neurological brain mirroring functions stress the role of visually imagining movement, through images abstract and representational, as well as via purely mental images. This mirroring also may be connected to (human) empathy and confirms aesthetics' emotional and cognitive connections. See D. Freedberg and V. Gallese, "Motion, Emotion and Empathy in Esthetic Experience," *Trends in Cognitive Science* 11 (5) (May 2007): 197–203; and go to <http://www.columbia.edu/cu/arhistory/faculty/Freedberg/index.html> for many related downloadable essays. For example, the sympathy expressed when my teacher was unusually harsh, at times, by my other teachers, his sons, formed a bridge to their own childhood experiences and their relationship to their very loving but very strict father-teacher-master, and that because of this their work excelled today. They would remind me, if he didn't care what I learned, he would ignore me.

53. Experience," *Trends in Cognitive Science* 11 (5) (May 2007): 197–203; and go to <http://www.columbia.edu/cu/arhistory/faculty/Freedberg/index.html> for many related downloadable essays. For example, the sympathy expressed when my teacher was unusually harsh, at times, by my other teachers, his sons, formed a bridge to their own childhood experiences and their relationship to their very loving but very strict father-teacher-master, and that because of this their work excelled today. They would remind me, if he didn't care what I learned, he would ignore me.



Figure 4: Napoleón Pérez Pamatz working in the family forge on Lazaro Cardenas Street on his 'gajos', a type of gadroon, circa 2014. Photo M. Feder-Nadoff.

In my daily repetitive movements of training, like an athlete or boxer, I learn the proper technique through intense somatic attention directed self-reflexively and towards my teachers. So, as I observe the straight back and centeredness of Napoleón working, I also become aware of my own back slumping and the need for extreme alertness not only in my posture. Without thermometers and sophisticated equipment, the artisans rely upon their sensitively attuned bodies. As Mauss stressed, these are our first and primary tools⁵⁴ (see Figure 4).

Yet, although this apprenticeship method of research offers solutions to studying traditional craft commu-

nities, it continues to bear problematics. First, one is studying a predominantly nonverbal practice and then translating this language into another language of written text, often for a largely academic audience, illiterate in embodied skills and techniques for expression and creation. For this reason, the text must be descriptive and felt, experiential yet analytical. A tricky balance.

Second, how do we know as an apprentice that what one feels is similar to what one's teachers feel? This dilemma is resolved in part by the fellowship created through apprenticeship and also by remembering that the point of research is not resolution and equanimity. My research in the forge is also complemented and confirmed by conversations and friendships with other artisans, men and women, in video interviews, serendipitous meetings in the street, studio visits and in shared participation in religious rituals, celebrations and family events. It is also accomplished through visual anthropology – my photographs, videos, drawings, and prints, which help me dissect and understand, for example, biomechanics, often confirmed through subsequent scientific readings.

The apprenticeship also affords a socio-political advantage, by placing me directly in the life-world of the artisan on their terms. Within their authentic realities, hierarchies and necessities of life and work, the margins, peripheries and centres, priorities and values are established by my teacher-artisans. I move within the space they control and I am there only by invitation and granted permission.

Living in the patriarchal family house also allows me, as a woman, to experience how gender roles can change from location to location, and how my physical activities in each of these spaces generates more or less traditional roles.⁵⁵ Being part of the everyday cycles of village life, I also can observe and experience how the dispositional gestures and actions of the artisans are transferred and reinforced in the interdependent constellations of the artisan's habitus. Agricultural seasons affect the smith's work patterns. Abilities developed tilling and hoeing the field, or cutting wood, contribute to the multiple skills required to wield the hammer with accuracy and efficiency.

Time passes, is paced differently in the artisan house and forge. I often feel uneducated. I try to move calmly between these spaces, as the male family members do – from cornfield to forge, from feeding the pigs to cutting wood. Yet I remain awkward. In either the forge, when I am hammering, or when I am at the outdoor sink washing dishes, I am often criticised for not being present enough and concentrating on my tasks. Maestro Pérez admonished me for doing too many things at once. The intonations and corrections of my teachers – to “ser lista”, “ser trucha”, to be on my toes, astutely alert – taught me that being an artisan extends beyond hammer and anvil.⁵⁶ My teachers have been training me to

pay attention, to be in the moment, to be efficient, to observe, and that “the work of the mind exists only in the doing”.⁵⁷ When I fail in the forge, they adamantly insist: “Use your mind!”

And so, it is certainly, as Glassie discovered:⁵⁸

Teaching ... is not important. Learning is The masters ... will not teach the important things ... Only simple things can be taught. Complex things must be learned on your own ... You study the works of the great masters, then experiment to discover how they were made, and at last, you teach yourself by doing. Talent is necessary, but the key trait is will, the drive to keep at it until failure converts to success.

Failure is surely a threshold, a liminal passage way, a constant teacher. As Napoleón would say, “Puras fallas, puras fallas!” “Pure errors, pure errors!”

FAILURE: THRESHOLDS AND CONTINGENCIES OF ARTISAN PERFORMANCE

These failures in the forge are part of a spectrum of contingencies in an artisan's life. Errors in the forge, and the challenges of illness, injury, aging, marketplace, politics, class, natural disaster – all can inspire innovation, ludic experimentation, creativity, exchange, even social resistance and re-creation.⁵⁹ This is the in-between

55. See Butler (1993); also, as Urton describes in *The Social Life of Numbers*, 115, as a foreigner I was allowed more flexibility in non-traditional roles.

56. See Michael Herzfeld, *The Body Impolitic: Artisans and Artifice in the Global Hierarchy of Value* (Chicago: University of Chicago Press, 2004), especially the introduction on artisans and artifice, craft and craftiness.

57. Merleau-Ponty, *Phenomenology of Perception*, 33.

58. Henry Glassie, *The Potter's Art* (Bloomington: Indiana University Press, 1999), 100.

59. Feder-Nadoff, “El Cuerpo de Conocimiento,” 38, 101, 190, 192, 193, 250; see Victor Turner, *The Anthropology*

of Performance (New York: PAJ Publications, 1988), on social drama and the liminal field; Elizabeth Araiza Hernández (ed.), *Las artes del ritual: Nuevas propuestas para la antropología del arte desde el occidente de México* (Zamora: El Colegio de Michoacán, 2010), on play and creativity in her analysis of Huizinga in relationship to ritual and aesthetics. See also Anne Warren Johnson “¿Qué hay en un nombre?: Una apología del performance,” *Alteridades* 24 (48) (July-December 2014): 9–21, on the use of the devil mask of Guerrero in the (re) constructions of national myth and identity through fiesta performance.

space of “as is” joined with “as if”. This is where the rapprochement of self-formation, independence and the allegiances to community, family and nation are asserted and redefined.

In the liminal interstitial space of these thresholds, the artisan hones their perceptive and cognitive skills⁶⁰ and demonstrates agility, responsiveness, competency – agency. This space is socio-biological: intersubjective and biochemical. Metal resists as well as flows. Frictions educate and challenge, rub off. As Napoleón explained, ironically, necessity can inspire new designs: “Hunger is the best teacher!”⁶¹

The artisan negotiates these sometimes treacherous thresholds via their social performances of re-representations to tourists, clients, government officials and politicians, and in their aesthetic performances of reproduction, their (re)adaptations and discoveries, spurred on by their physical-mental capacities developed and altered throughout their lives.

As an apprentice, it is via recognising errors that I learn the social and aesthetic values honoured and crucial to the life and work of my mentor artisans. Through their interventions in my work and my observations of their navigations – stops, starts, assessments and alterations – I also observe their performative

reflexivity,⁶² the reflective processes in creating their work and conducting their lives.

It is not only the errors and hesitations that illustrate the artisan’s assessments and judgements. Their decisions are also evident in how they complete a piece. “Que te du ele,” they will ask me, “what hurts you”, what bothers me, referring to the copper piece I am struggling with. What qualities constitute a finished piece? What qualities of a piece did my teachers admire? How might these aesthetic aspects communicate and confirm an ethos of life in Santa Clara? What might these moral codes be?

AN ETHOS AESTHETICS OF PERSON, PLACE AND CRAFT IN SANTA CLARA

In what was to be my last conversation with Maestro Pérez before his death, I asked him: “What is a good piece?”, and he replied, “a well-made and even piece”.⁶³ This valorisation of technique relates to the P’urhépecha term *ambákiti*. For the indigenous creators of Michoacán,⁶⁴ an object that is admired and valued is not defined by beauty but by how well it is made.⁶⁵ On this scale, *ambákiti* means “perfectly made”, *sesi jasi* means “well made”, and *nu sesi úkata* means “badly made”. *Ambákiti* also denotes an

60. See Stout, “Tales of a Stone Age Neuroscientist,” whose recent studies confirm neurological evidence for cognitive growth that occurs during stone-knapping. Evolutional changes in brain matter suggest a parallel between the technologies employing hand and gestures, crafting processes of stone-knapping with increased cognitive development.

61. This is not to say that extreme necessity can also negate this very creativity and eliminate choice, as for example when an artisan works for a “patron”, a boss, doing repetitive and controlled piece work.

62. See Rodrigo Díaz Cruz, “La Celebración de la Continencia y la Forma: Sobre la Antropología del Performance,” *Revista Nueva Antropología* 21 (69) (2008): 47.

Turner (1982) stressed that humans are self-performing animals and that in the context of social relations (and alone) they perform for themselves and other. Reflexivity and mimesis is written into human performance. These aspects are also central to pedagogical experience and training. See also Johnson, “¿Qué hay en un nombre?” 8, in her analysis of the etymological and conceptual history of performance, especially on the original word French root word *parfournir*, which indicates social and semiotic meanings.

63. In Spanish, “una buen hecha y parejita”.

64. As elucidated by Moisés M. Franco in his essay “*Manos que producen*” (Zamora: El Colegio de Michoacán, 1998) 1.

object made with passion, energy and heart.⁶⁶ As Santa Clara artisan Lorena Paredes Rosales explained, without heart, good technique alone does not make a good piece.

Brody Esser's pioneering work in Michoacán during the 1970s theorised that in mask and mask-makers two important aesthetic categories, the pretty and the ugly, *lo bonito y lo feo*, corresponded to morality and its enforcement. These ethos-aesthetics functioned in both mask-making and traditional masquerade performances in processions, dances and fiestas. Often, theatrical interludes of transgressive and licentious behaviour occurred. As in Santa Clara fiestas today, masked devils alternately break rules and prevent their overturning.⁶⁷

Garrido, in her studies of Ocumichu, a P'urhépecha craft community in Michoacán, built on these concepts in her proposal for a local, if not regional, aesthetics of "humour" and "ugliness" (*lo feo y la burla*).⁶⁸ The valorisation of hard work is asserted

using humour and ugliness as guides. From this perspective, the piece that is *chueca*, crooked, is imbued with a type of immorality, laxity, as is the artisan who makes them.⁶⁹ These deficiencies could elicit both humour and harsh critique, as we have seen earlier when Don Jesús would criticise my work by walking through the *fragua* imitating an exaggerated limp.⁷⁰ Rather than merely imperfect (which I will return to shortly), the quality of *chueca* represents an imbalance, a lack of symmetry, instability, which was contrary to the work produced so carefully in my mentor's studio.⁷¹

In Maestro Jesús's studio, his sons (as he had) consistently work to create extreme smoothness, evenness and reflectivity in the copper metal surfaces of their pieces.⁷² This is matched by a clarity of form, proportion, symmetry and design of the architectonic three-dimensional forms. The two-dimensional surface treatments combine with the play of three-dimensional forms to produce shadows, highlights and brilliance

65. Although Santa Clara is considered mestizo and was founded during the colonial period, its metal-smithing traditions certainly originate in great part with indigenous ancestors who worked copper long before the Spanish arrived, as we have seen earlier in this essay. So it is indeed relevant, as well as insightful, to compare what constitutes a good piece to my teachers, maestro Jesús and his sons with the P'urhépecha aesthetic. Maestro Pérez, in fact, clearly articulated the difference between well-made and pretty, when he would ask me if I thought the piece was "buena", good, and that he was not asking if it was "bonita", pretty.

66. Feder-Nadoff, "El Cuerpo de Conocimiento," 423–425; Eva María Garrido Izaguirre, "Donde el diablo mete la cola: Estética indígena en un pueblo purépecha (México)" (doctoral thesis, Universidad Complutense de Madrid, 2015), 140, 421, 422, 424, 484, 485, 491, emphasises that the most important aspect of *ambakiti*, is: "trabajo hecho con pasión" (the work that is made with passion), as defined by Gilberti (1901 [1559]).

67. The masks and the costumes created for use in the Tarasca festival of Santa Clara del Cobre are particularly crude as the clothing. They seem to be "feos". The all-male procession, which becomes increasingly aggressive and boisterous as it moves through the town's streets, is described variously as the Jews or unbaptised, essentially the "other", non-Christians.

68. Garrido, "Donde el diablo mete la cola," 425–426, applies this concept to her analysis of moral precepts applying not only to the aesthetics of making the ceramic figurines and whistles, but also incorporates

analysis of attitudes towards sexuality and other social issues. Often the ceramic crafts produced in Ocumichu feature subject matter that is usually taboo in the community. So its aesthetics of depiction combine a means to both suppress and express these local social restrictions, while pleasing potential clients from outside the community. Of course, the main consumers of these objects are foreign tourists.

69. For Garrido, the crookedness could be of subject matter, such as perverse sexual scenes ironically produced by the Ocumichu artisans to please tourist tastes, although they go against their own taboos, so in this way the exaggerated humour becomes a reflective critique even as they produce these for consumption.

70. After his stroke he stopped doing this, and he would tell me now we are the same, my work is *chueca* also.

71. Because of this I created one series of works that had bottoms that were rounded and did indeed rock, embracing this instability. It was after I perfected this series that Maestro Jesús "invited", challenged, me to make pieces with three heads and three feet. His son Napoleon encouraged me to change, saying that an artisan should diversify, for me to learn I needed to.

72. These standards are confirmed by most other artisans, if not reproduced they are acknowledged goals or traits admired and pursued, especially in the pieces created for the annual copper competition held every August coinciding with the religious patron saint celebrations.

73. See Gell, "The Technology of Enchantment and the

AESTHETICS AND ETHOS IN
SANTA CLARA DEL COBRE:
AMBAKITI

AESTHETIC ASPECTS AND VALUES	ETHICS	FUNCTIONALITY OF THE OBJECT	DECORATIVE QUALITIES	ENFASIS IN EVENNESS, EQUALITY OF PARTS, SURFACE: 'PAREJITO'	EVERY PART IN ITS PROPER PLACE
KNOWING MY PLACE		X			X
SOCIAL HIERARCHY		X		X	X
HARD WORK			X		
PATIENCE			X	X	X
ATTENTION TO DETAILS			X	X	X
NOT GIVING UP					X
BEING EFFICIENT		X			
BEING TOUGH, MACHA					
BEING RESPECTFUL TO MY ELDERS AND TEACHERS		X	X	X	X
BEING QUIET AND LISTENING					
HAVING BALANCE AND BEING CENTERED				X	X
HAVING RHYTHM			X	X	X
BEING DEVOTED			X	X	
CONCENTRATING, BEING FOCUSED AND REMEMBERING			X	X	X
KNOWING WHEN TO GIVE UP AND MOVE ON		X			

ABILITY TO WORK WITH PATIENCE	ABILITY TO WORK HARD	VALORIZATION OF TRADITION- AL MOTIFS	CARE WITH THE FINISH	BALANCE AND SYMMETRY OF WHOLE AND PARTS	ARCHITECTON- IC DESIGN AND ORGANIZATION OF FORM
		X	X	X	X
X	X	X	X	X	X
X	X		X		
X	X		X		
X	X	X	X		X
X	X		X		
X	X		X	X	X
	X		X	X	
X	X	X	X	X	X
X	X	X	X		
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X		X
X	X	X	X	X	X
X	X		X	X	X

AESTHETICS AND ETHOS IN
SANTA CLARA DEL COBRE:
AMBAKITI

AESTHETIC ASPECTS ETHICS AND VALUES	FUNCTIONALITY OF THE OBJECT	DECORATIVE QUALITIES	ENFASIS IN EVENNESS, EQUALITY OF PARTS, SURFACE: 'PAREJITO'	EVERY PART IN ITS PROPER PLACE
CONCENTRATING, BEING FOCUSED AND REMEMBERING		X	X	X
KNOWING WHEN TO GIVE UP AND MOVE ON	X			
TO WORK COLLECTIVELY AND HELP OTHERS				
KNOWING WHEN TO LEAVE OTHERS ALONE				
TO BE OBSERVANT		X	X	X
TO BE VIGILANT			X	X
TO BE LOYAL				
TO RECIPROCATE AND EXCHANGE				X
TO FORM ALLIANCES NOT BASED IN MONEY				
TO KEEP PERSPECTIVE IN ALL WAYS				
RESPECT TRADITION, THE WAY THINGS ARE DONE	X			X
BE PRACTICAL	X			X
TO MAKE THE WORK WITH PASSION: THE HEART	X	X	X	X

ABILITY TO WORK WITH PATIENCE	ABILITY TO WORK HARD	VALORIZATION OF TRADITION- AL MOTIFS	CARE WITH THE FINISH	BALANCE AND SYMMETRY OF WHOLE AND PARTS	ARCHITECTON- IC DESIGN AND ORGANIZATION OF FORM
X	X	X	X	X	X
X	X		X	X	X
X	X	X	X	X	X
X	X		X		
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	
X	X	X	X	X	X
X	X	X	X	X	
X	X	X		X	
		X		X	
X	X			X	X
X	X	X	X	X	X

that continually change in (day)light and the viewer's own movements. In the pieces Santa Clara artisans admire, the extreme materiality and physicality of metal is transcended. Produced in this union of real and ideal, these can appear to be magically born in the eyes of the viewer.⁷³ And, often, due to the profundity of their copper colour and visual plasticity, the copper vessels produced appear deceptively like hand-sculpted and burnished ceramics.

The work of hammering is accomplished in successive layers. Patiently produced, the varying and extremely controlled passage of marks and movements, spiralling evenly around the vessels' circumference, erases the register of the artisan's effort. Technique becomes enchantment.⁷⁴ Yet, still, my teachers will say, humbly, as if their pieces were being born rather than made, "I will see how it turns out". This disciplined engagement with the "vitality" of copper, it might seem, is meant to transcend its own mastery.

ARTISAN PRACTICE AS "MASTERY OF NON-MASTERY"⁷⁵

Although my teachers aim for perfection in their work, I was criticised for working too long on a piece. Imperfection, error, was what led one to the next piece, like a problem or mystery perpetually left unsolved. For the artisans, aesthetics is ongoing and a going-on – perpetually in motion, one that continues through/with one's sons and students. Maestro

Jesús constantly said that, until he died, he would never stop learning to be an artisan.

There is perhaps another side to this. As a mestizo and eminently devout Catholic community, in Santa Clara, artisan perfection is an impossible human condition. Sin and error are inevitable. Like their indigent ancestors, the perplexities of existence are organised by ritual ceremony and faith, and in craft production and performance. One might see this embedded in the perpetual cycles of metal-smithing. Its smelting, annealing, forging and planishing reflect naturally Turner's stages of ritual performance: rupture, crisis, reconciliation, resolution.⁷⁶

Not only the metal but also the artisan is transformed in the metallurgical practice and training. As can be seen in my chart of ethos-aesthetics in Santa Clara, the crafting of the person, the moral artisan agent and the crafting of agentive objects intersects in a marriage of social and aesthetic standards. In my apprenticeship through learning to perform and attain the aesthetic aspects inculcated by my teachers, I also learn (to perform and embody) their ethics and values, and so I am taught the importance of: the functionality of an object; its decorative qualities; emphasis on evenness, smoothness and equality of parts and surface; putting every part in its proper place with proportion; working with patience; working hard; valorising traditional motifs; taking great care with the finish; balancing

Enchantment of Technology."

74. See Gell, *Art as Agency*, and "The Technology of Enchantment and the Enchantment of Technology."

75. Michael Taussig, *Walter Benjamin's Grave* (Chicago: University of Chicago Press, 2006), viii.

76. See Victor Turner, *The Ritual Process: Structure and An-*

ti-Structure (Chicago: Aldine Publishing, 1969), 94–113, 125–130. Turner based his theories on van Gennep's three stages of rites of passage, ritual: separation; limen-threshold-transition; and aggregation, resolution.

77. See Lave (2011) on socially situated artisan learning

whole and parts; creating symmetry; and using architectonic design and organisation of form.

The apprenticeship also teaches social guidelines: to know my place in the social hierarchy; hard work; patience; attention to details; not to give up; to be efficient; to be respectful towards my elders; being quiet and listening; not responding openly; having balance and being centered; having rhythm; being devoted; concentrating; being focused and remembering; knowing when to give up and move on; to work collectively and help others; knowing when to leave others alone; to be observant; to be vigilant; to be loyal; to reciprocate and exchange; to form alliances not based on money; to keep perspective in all ways; to respect tradition and the ways things are done; to be practical; to make the work with passion and the heart.

AESTHETIC AND SOCIAL PERFORMANCE IN ARTISAN APPRENTICESHIP

Through my apprenticeship I learned how the aesthetic and social mores of the forge and community converge. Craft performance is not just aesthetic – the performance of techniques, of processes of [re]production, imagination and creation. Rather, it is also social, a powerful performance of [re]presentation, gestation and expression of communal and personal identity and auto-determination.

Craft apprenticeship as artistic research is as embodied as the artisan practices being studied. It is a performative methodology. Apprenticeship is a method to engage, share, discourse and understand others and oneself through the experiences of making and being (re-made). Performance is a method and lens to reflect and analyse artisan agency – the affectivity and effectivity of behaviours, beliefs and artisan practices. In looking at coppersmithing in Santa Clara, performance is also my subject.

CONCLUSION

In this chapter (as in the workshop), we have seen how the relational “peripheral learning”⁷⁷ of artisan practice and apprenticeship – a being present, attentive with materials, persons, in the play and experiment of making and doing – is how performing bodies produce both knowledge and (their own) agency. We have also seen how artisan practice, like apprenticeship, is ruptured by life’s contingencies, whose liminal zones are as essential to metal-smithing as to ritual performance. Social and aesthetic agency is learned and performed between these correspondences⁷⁸ of people, places, materials and objects.

and embodied practice.

78. See Tim Ingold, *Making: Anthropology, Archaeology, Art, and Architecture* (London: Routledge, 2013), 105–108, and “That’s enough about ethnography!” *Hau: Journal of Ethnographic Theory* 4 (1) (2014): 389, on correspondences and how the “anthropologist [...] does [their] thinking in the world”.

MODES OF SOMATIC ATTENTION	PERFORMANCE REPRODUCTIVA: OLLAS	PERFORMANCE REPRESENTATIVE: CONCURSOS AND OTHER SPECTACLE/ PERFORMANCES
artisan	creating-making, observing and perceiving	demonstrating and interacting, observ- ing and perceiving
perceiver-commu- nity and mercado /marketplace	perceiving objects produced	perceiving and observing
ethnographer apprentice	creating-making, observing and perceiving	observing and perceiving, demonstrating and interacting

LIMINAL SPACES

theory	←→	praxis
intention	←→	realization
aprendice	←→	maestro
ethnographer	←→	subject: community & concept
artisan	←→	obra, olla
olla, obra	←→	perceivers, patients
everyday actions	←→	ritual and artisanal performance
ordinary life	←→	spiritual afterlife

CONTINGENCIES AND LIMINALITIES

falla — errors
perturbance
failures
illness
injury
aging
market factors
political situations
natural disaster
class structures
ethnicity and race

References:

Araiza Hernández, Elizabeth (ed.). *Las artes del ritual: Nuevas propuestas para la antropología del arte desde el occidente de México*. Zamora: El Colegio de Michoacán, 2010.

—. "La simulación de los oficios en poblado purhépecha. Notas sobre la articulación entre arte, ritual y acción lúdico." In *Las artes del ritual: Nuevas propuestas para la antropología del arte desde el occidente de México*, 129–157. Zamora: El Colegio de Michoacán, 2010.

Azuela de la Cueva, Alicia. *Arte y Poder*. México: El Colegio de Michoacán and Fondo de Cultura Económica, 2013.

—. "Peace by Revolution: Una Aproximación Léxico-visual al México Revolucionario." *Historia Mexicana* LVI (4) (2007): 1263–1307.

Battaglia, F., S.H. Lisanby and D. Freedberg. "Corticomotor Facilitation during Observation and Imagination of a Work of Art." *Frontiers in Human Neuroscience* 5 (2011): 1–6.

Bourdieu, Pierre. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press, 2012 [1972].

Butler, Judith. *Bodies that Matter: On the Discursive Limits of Sex*. New York: Routledge, 1993.

Cárdenas García, Efraín and Eugenia Fernández-Villa-Nueva Medina. In *Ritmo del Fuego: El Arte y los Artesanos de Santa Clara del Cobre, Michoacán, México*, edited by Michele Feder-Nadoff, 92–101. Chi-

cago: Fundación Cuentos, 2004.

Casey, Edward S. "How to Get from Space to Place." In *Senses of Place*, edited by Steven Feld and Keith Basso, 13–52. Santa Fe: School of American Research Press, 1996.

Clifford, James. *Routes: Travel and Translation in the Late Twentieth Century*. Cambridge: Harvard University Press, 1997.

Coy, Michael William (ed.). *Apprenticeship: From Theory to Method*. Albany: State University of New York Press, 1989.

Csordas, Thomas. "Somatic Modes of Attention." *Cultural Anthropology* 8 (2) (May 1993): 135–156 [online publication 2009].

Díaz Cruz, Rodrigo. "La Celebración de la Contingencia y la Forma: Sobre la Antropología del Performance." *Revista Nueva Antropología* 21 (69) (2008): 33–59.

Eiland, Howard and Michael W. Jennings. *Walter Benjamin: A Critical Life*. Cambridge, MA: The Belknap Press of Harvard University Press, 2014.

Esser, Janet Brody. Máscaras ceremoniales de los tarascas de la sierra de Michoacán. Mexico City: Instituto Nacional Indigenista, 1984.

Feder-Nadoff, Michele. "El Cuerpo de Conocimiento – entre praxis y teoría- La agencia de los artesanos y su artesanía. Santa Clara del Cobre, Michoacán: Hacia una antropología de hacer." Zamora: El Colegio de Michoacán, 2017.

- . "La problemática." [Unpublished manuscript]. Paper presented and submitted to committee as advances of doctoral research. Zamora: El Colegio de Michoacán, 2014.
- . "Performando Agencia: Santa Clara del Cobre, Michoacán." In *Estudios de Benjamin West*, edited by Nicola Keilbach. Zamora: El Colegio de Michoacán (forthcoming).
- . "Cuentos: A Solidarity Story." *AREA Chicago*. [website]. Accessed on 3 November 2015. <http://areachiago.org/cuentos-a-solidarity-story/>.
- . *Ritmo del Fuego: El Arte y los Artesanos de Santa Clara del Cobre, Michoacán, México*. Chicago: Fundación Cuentos, 2004.
- . "Santa Clara del Cobre: Material & Process, Distillation & Exchange." In *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, edited by M. Feder-Nadoff (photographer), 32–63. Chicago: Fundación Cuentos, 2004.
- . *Huele de noche: Santa Clara del Cobre, Michoacán, México*. [film]. Michele Feder-Nadoff (director and writer). Chicago: Cuentos Foundation, 2006.
- Feld, Steven. *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression*. Durham, NC: Duke University Press, 2012 [1982].
- Feld, Steven and Keith Basso. *Senses of Place*. Santa Fe: School of American Research Press, 1996.
- Freedberg, D. and V. Gallese. "Motion, Emotion and Empathy in Esthetic Experience." *Trends in Cognitive Science* 11 (5) (May 2007): 197–203.
- Garrido Izaguirre, Eva Maria. "Donde el diablo mete la cola: Estética indígena en un pueblo purépecha (México)." Doctoral thesis, Universidad Complutense de Madrid, 2015.
- Gell, Alfred. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press, 1998.
- . "The Technology of Enchantment and the Enchantment of Technology." In *Anthropology, Art and Aesthetics*, edited by Jeremy Coote and Anthony Shelton, 40–67. Oxford: The Clarendon Press, 1992.
- Glassie, Henry. *The Potter's Art*. Bloomington: Indiana University Press, 1999.
- Guevara-Féfer, F. "The Ecological Landscape." In *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, edited by M. Feder-Nadoff, 32–63. Chicago: Fundación Cuentos, 2004.
- Hellier-Tinoco, Ruth. *Embodying Mexico: Tourism, Nationalism Performance*. New York: Oxford University Press, 2011.
- Herzfeld, Michael. *The Body Impolitic: Artisans and Artifice in the Global Hierarchy of Value*. Chicago: University of Chicago Press, 2004.
- Horcasitas de Barros, María Luisa. *La Artesanía con Raíces Prehispánicas*

de Santa Clara del Cobre. México: Secretaría de Educación Pública, 2001 [1968].

—. *Cobre Martillado: Vocabulario Tradicional, Utillaje y Técnicas de Manufactura. Cuadernos de Trabajo, Técnicas 1*. Mexico: Instituto Nacional de Antropología e Historia, 1974.

Hosler, Dorothy. "Mesoamerican Metallurgy: The Perspective from the West." In *Archeometallurgy in Global Perspective: Methods and Syntheses*, edited by Benjamin W. Roberts and Christopher P. Thornton, 324–359. New York: Springer, 2014.

—. *The Sounds and Colors of Power: The Sacred Metallurgical Technology of Ancient West Mexico*. Cambridge, MA: MIT Press, 1994.

Ingold, Tim. "That's enough about ethnography!" *Hau: Journal of Ethnographic Theory* 4 (1) (2014): 383–395.

—. *Making: Anthropology, Archaeology, Art, and Architecture*. London: Routledge, 2013.

—. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge Press, 2011 [2000].

Jackson, Michael. *Lifeworlds: Essays in Existential Anthropology*. Chicago: University of Chicago Press, 2013.

—. "Knowledge of the Body." *Man, New Series* 18 (2) (1983): 327–345.

Kies, Thomas. "Labor Process, Ethno-aesthetics, and the Political Economy of Guitar Artisans in

Paracho, Michoacán." PhD thesis, University of New Mexico, 2006.

Lave, Jean. *Apprenticeship in Critical Ethnographic Practice*. Chicago: University of Chicago Press, 2011.

Marchand, Trevor H.J. "Brain, Hand and the Use of Tools." In *The Sage Handbook of Social Anthropology*, edited by Richard Farndon et al. London: Sage Publishing, 2012.

—. *Minaret Building and Apprenticeship in Yemen*. London: Routledge, 2012 [2001].

—. *The Masons of Djenné*. Bloomington: University of Indiana Press, 2009.

Mauss, Marcel. *Techniques, Technology, and Civilization*. Edited by Nathan Schlanger. New York: Berghahn Books, 2009 [1935].

Merleau-Ponty, Maurice. *Phenomenology of Perception*. Translated by Donald A. Landes. London: Routledge, 2012 [1945].

Roth-Seneff, Andrew. "Ritual and Public Spheres in an Ethnic Celebration of Communal Sovereignty: The Purépecha Transition." In *From Tribute to Communal Sovereignty: The Tarascan and Cancan Territories in Transition*, edited by Andrew Roth-Seneff, Robert V. Kemper and Julie Adkins, 213–230. Tucson: University of Arizona Press, 2015.

Schöndube Baumbach, Otto. "El 'quehacer' del cobre en Sant Clara." In *Rhythm of Fire: The Art & Artisans of Santa Clara del Cobre, Michoacán, México*, edited by M. Feder-Nad-

- off, 240–249. Chicago: Fundación Cuentos, 2004.
- Stout, Dietrich. “Tales of a Stone Age Neuroscientist.” *Scientific American* 314 (4) (April 2016): 28–35.
- . “The Social and Cultural Context of Stone-knapping Skill Acquisition.” In *Stone Knapping: The Necessary Conditions For Uniquely Hominid Behavior*, edited by Valentine Roux and Bril Blandine, 331–340. McDonald Institute Monographs. Cambridge: McDonald Institute for Archaeological Research, 2005.
- Taussig, Michael. *Walter Benjamin's Grave*. Chicago: University of Chicago Press, 2006.
- Taylor, Diane. *Performance*. Buenos Aires: Asunto Impreso Ediciones, 2012.
- Trevelyan, Amelia M. *Miskwabik, Metal of Ritual: Metallurgy in Precontact Eastern North America*. Louisville: University of Kentucky Press, 2004.
- Turner, Victor. *The Anthropology of Performance*. New York: PAJ Publications, 1988.
- . *The Anthropology of Experience*. Urbana-Champaign: University of Illinois Press, 1986.
- . “Frame, Flow and Reflection. Ritual and Drama as Public Liminality.” *Japanese Journal of Religious Studies* 6 (4) (1979): 465–499.
- . *The Ritual Process: Structure and Anti-Structure*. Chicago: Aldine Publishing, 1969.
- Umilta, M.A., C. Berchio, M. Sestito, D. Freedberg and V. Gallese. “Abstract Art and Cortical Motor Activation: An EEG Study.” *Frontiers in Human Neuroscience* 6 (2012): 1–9.
- Urton, Gary. *The Social Life of Numbers*. Austin: University of Texas Press, 1997.
- Vaughan, Mary Kay and Stephen E. Lewis (eds.). *The Eagle and the Virgin: Nation and Cultural Revolution in Mexico 1920–1940*. Durham, NC: Duke University Press, 2006.
- Wacquant, Loïc. “Habitus as Topic and Tool: Reflections on Becoming a Prizefighter.” *Qualitative Research in Psychology* 8 (2011): 81–92.
- . *Body Soul: Notebooks of an Apprentice Boxer*. Oxford: Oxford University Press, 2006.
- Warren Johnson, Anne. “¿Qué hay en un nombre?: Una apología del performance.” *Alteridades* 24 (48) (July–December 2014): 9–21.
- . “De raíces y rizomas: el devenir del performance.” *Diario de Campo*, Tercera Época, 6–7, (January–April 2015): 8–14.
- Warren, J. Benedict. “Información sobre el cobre, 1533.” In *Rhythm of Fire: The Art Artisans of Santa Clara del Cobre, Michoacán, México*, edited by M. Feder-Nadoff, 118–153. Chicago: Fundación Cuentos, 2004.
- West, Robert. *Geografía cultural de la moderna área tarasca*. Translated by Luis Lorenzo Esparza. Zamora: El Colegio de Michoacán, 2013 [1948].

A

Allegue, Ludivine 126, 130
 Angelico, Fra 72, 78
 Athanasiadou, Astarti 132, 135
 Atkinson, Paul 100, 162
 Araiza Hernández, Elizabeth 175, 186
 Azuela de la Cueva, Alicia 170, 186

B

Badura, Jens 122, 130
 Bakatsaki, Katerina 54
 Bank, Jan 113
 Barad, Karen 61–64
 Barrau, Aurelien 66
 Barlingay, Surendra Shivdas 110
 Basso, Keith 166, 186, 187
 Bastow, Simon 100
 Bataille, Georges 26–28, 40
 Beller, Gregory 117, 120
 Benjamin, Walter 46–48, 59–61, 68, 69, 78, 165, 182, 186, 189
 Beuys, Joseph 76, 78
 Biggs, Michael 56, 61, 66, 100, 122, 123, 130
 Bippus, Elke 122, 130
 Bishop, Claire 132, 142
 Boehl, Sabine 73, 76, 77
 Borgdorff, Henk 56, 60–61, 66, 100, 122–123, 130
 Bourdieu, Pierre 167–168, 186
 Bourgeois, Louise 34
 Brecht, Bertolt 34, 42–43, 48–49, 53
 Brinkmann, Thomas 76
 Britton, Sam 117, 120
 Bromander, Henrik 44, 53
 Brook, Peter 49
 Brown, Bruce 11, 86–101
 Bullen, Duncan 95–97

C

Caduff, Corina 122, 130
 Candy, Linda 122–124, 130
 Cárdenas García, Efraín 170, 186
 Casey, Edward S. 168, 186
 Clifford, James 167, 186
 Coeckelbergh, Mark 114, 120
 Cortois, Paul 102
 Cotterrell, David 97–98
 Couturier, M. 115
 Coy, Michael William 173, 186
 Crampton, Jeremy W. 144, 162
 Crossick, Geoffrey 100
 Csordas, Thomas 164–165, 185

D

Davis, Miles 23, 35–36, 41
 DeJohnette, Jack 35
 Delahunta, Scott 129
 Delgado, Maria 101
 Deleuze, Gilles 8, 13, 30–32
 Denicolo, Pam 101
 Dhamankar, Janhavi 11, 102–111
 Díaz Cruz, Rodrigo 176, 186
 Dix, Otto 34
 Dombos, Florian 122–124, 130
 Dresser, Christopher 88
 Dudas, R. 115
 Duerr, Hans Peter 78
 Duff, Leo 149, 154, 162
 Dullstein, Monika 103, 110
 Dunleavy, Patrick 100

E

Edmonds, Ernest 122–124, 130
 Eiland, Howard 165, 186
 Esser, Janet Brody 177, 186

F

Feder-Nadoff, Michele 12, 164–187
 Feld, Steven 166, 168, 173, 186, 187
 Fernández-Villa-Nueva Medina, Eugenia 170, 186
 Friedman, Milton 32
 Firth, Rhiannon 162
 Fischer, Curt 74
 Foster, Hal 144
 Foster, Susan Leigh 110
 Foucault, Michel 162

Funk, Michael 114, 120

G

Gallier, Emilie 11, 132–142
 Garrick, David 49
 Garutti, Francesco 158, 162
 Gaventa, John 162
 Gehm, Sabine 56–57, 66
 Gell, Alfred 165, 172, 177, 182
 Gesell, Tanja 10, 68–78
 Glassie, Henry 174, 175, 187
 Goethe, Johann Wolfgang 49
 Godoy, Rolf Inge 114, 120
 Guattari, Félix 8, 13
 Guevara-Féfer, F. 170, 187

H

Haeseler, Arndt 73, 74, 77, 78
 Hanse, John 42–46, 47, 50, 53
 Hannula, Mika 108, 110, 123, 130
 Harley, John Brian 162
 Harmon, Katharine 162
 Harris, Yolande 114, 120
 Hayano, David 162
 Healey, Patrick G.T. 114, 120
 Heidegger, Martin 32
 Hellier-Tinoco, Ruth 169, 187
 Henderson, Michael 36
 Herzfeld, Michael 175, 187
 Heyl, Barbara 146, 158
 Hodson, Elizabeth . A. 150, 162
 Huber, Marie 76
 Hug, Joa 10, 54–67
 Husemann, Pirkko 66

CH

Choi, J. Y. 145, 146, 148, 162

I

Ingold, Tim 150, 160, 166, 183, 188
 Ingram, D. 162
 Izaguirre, Garrido 177, 187

J

Jackson, Michael 164, 167–168, 188
 Jennet, Florian 129
 Jennings, Michael W. 186
 Jobertová, Daniela 7
 Johnson, Mark 61, 66
 Jones, Simon 126, 130

K

Karlsson, Henrik 56, 61, 66, 100, 122–123, 130
 Kershaw, Baz 126, 130
 Kies, Thomas 173, 188
 Kim, Hyun Mee 146, 163
 Kinns, Nick Bryan 114, 120
 Kinsella, Elizabeth Anne 57–61, 66
 Kirkkopelto, Esa 64, 66
 Klaere, Steffen 68, 72, 78
 Klee, Paul 66, 68, 75
 Klein, Julian 11, 80–85, 122, 130
 Kofman, Sarah 68, 77–78
 Konrat, Robert 76, 77, 78
 Koubová, Alice 8–13, 46–47
 Krygier, J. 144, 162
 Kuparinen, Susanna 24, 40

L

Laine, Anna 163
 Lave, Jean 182, 188
 Lee, B. 159
 Lee, Jina 12, 144–163
 Lee, J. Y. 146
 Lee S. 159
 Left, Ron 30–31, 40
 Leman, Marc 114, 120
 Leopold, Martin 130
 Lewis, Stephen E. 90, 169, 189
 Linderstrøm-Lang, Kaj Ulrik 72, 78
 Lipps, Theodore 102, 110
 Lushetich, Natasha 133, 141, 142

- M
 MacCallum, John 117, 120
 Madoff, S. H. 101
 Malevich, Kasimir 72, 74, 76
 Manheim, Ralph 48, 53
 Manning, Erin 134-136, 142
 Marchand, H. J. 173, 188
 Martin, Agnes 72
 Masaccio 68, 72
 Mattick, John S. 73, 77, 78
 Mauss, Marcel 164, 167-169, 174, 188
 Mäki, Teemu 10, 14-41
 Merleau-Ponty, Maurice 164, 173, 175, 188
 Mersch, Dieter 122, 130
 McHugh, Louise 42, 53
 McVeigh, Simon 90, 101
 Misdariis, Nicolas 116, 120
 Mnouchkine, Ariane 49
 Morris, Adalaide 132, 142
 Musil, Robert 73, 77, 78
 Müller, Heiner 75, 76, 78
- N
 Nancy, Jean-Luc 61, 66
 Newman, Avis 150
 Newman, Barnett 69
 Nietzsche, Friedrich 26-28, 32, 40, 46
 Noë, Alva 141, 142
 Noisternig, Markus 116
 Nordin, Jesper 113
 North, Stephen M. 50, 51, 53
- O
 Ohmae, K. 158, 163
 O'Reilly, K. 151-152, 163
 Ott, Michaela 122, 130
- P
 Pakes, Anna 57, 68
 Pamatz, Jose Sagrario Pérez 172
 Pamatz, Napoleon Pérez 156, 157, 172, 174
 Paracho 173, 188
 Parsberg, Cecilia 44-46, 51, 53
 Parviainen, Jaana 57, 67
 Piccini, Angela 126, 130
 Polanyi, Michael 57, 67
 Power, Mark 92-94, 101
 Perutz, Max Ferdinand 68, 77
- R
 Rancière, Jacques 132, 142
 Rataj, Michal 11, 112-121
 Resl, Moritz 129
 Rey, Anton 122, 130
 Rheinberger, Hans-Jörg 69, 77, 78
 Roth-Seneff, Andrew 172, 188
 Rouhiainen, Leena 57, 67
 Rubin, Herbert J. 152, 163
 Rubin, Irene S. 152, 163
 Ruzicka, Bernd 76
- S
 Sacks, Shelley 106, 110
 Seda, Katerina 158, 162
 Shairmahomed, Fazle 132, 135
 Schacher, Jan C. 116, 120
 Schmeder, Andrew 117, 120
 Schneider, Michael 72, 78
 Schnell, Norbert 117
 Schott, John 118, 120
 Schöbi, Stefan 120, 130
 Schön, Donald 57, 58, 67
 Schöndube Baumbach, Otto 170, 172, 188
 Schuster, Peter 70, 77, 78
 Schwab, Michael 123, 130
 Schwarz, Diemo 117, 120
 Sealey, Marco 76
 Sierra, Santiago 18, 41
 Sjöström, Kent 10, 42-53
 Smith, Adam 104, 111
 Smith, Barry 107, 111
 Smith, David Woodruff 107, 111
 Smith, Martin A. 73, 77, 78
 Stadler, Peter F. 73, 77, 78
- Staiti, Andrea 58, 67
 Stanislavsky, Konstantin 49, 50
 Stein, Edith 103-109, 111
 Stella, Frank 72
 Stewart, Ian 42, 53
 Stickney, Pamela 113
 Stout, Dietrich 172, 176, 189
 Suoranta, Juha 108, 110, 122, 130
- T
 Tanaka, Min 54
 Taussig, Michael 182, 189
 Taylor, Diane 189
 Thelwell, Mike 101
 Thiebaut, Jean-Baptiste 114, 120
 Tingen, Paul 35, 41
 Trevelyan, Amelia M. 170, 189
 Trockel, Rosemarie 72
 Turner, Victor 164, 175, 176, 182, 189
 Typlí, Jaromír 116, 120
- U
 Urton, Gary 170, 175, 189
- V
 Vaughan, Mary Kay 169, 189
 Verbrugghe, Bruno 117, 120
 Vischer, Robert 102, 111
- W
 Wacquant, Loïc 173, 189
 Wanderley, Marcelo M. 114, 120
 Warren, J. Benedict 172, 189
 Warren Johnson, Anne 175, 189
 Washietl, Stefan 73, 77, 78
 Wenger, Étienne 101
 Wessel, David 117, 118, 120
 West, Robert 172, 189
 Wiener, Oswald 74, 78
 Wilcke, Katharina 56-57, 66
 Wilson, Andrea 133
 Wright, Matthew 115, 118, 120
- Z
 Zahavi, Dan 58-59, 61, 67, 111
 Zbyszynski, Michael 112, 121
 Zhi, W. 100

Every effort has been made to trace the copyright holders and obtain permission to reproduce the visual material. Please do get in touch with any enquiries or any information relating to the images or the rights holders; all claims are retained.

Published by the Academy of Performing Arts in Prague
(AMU Press)

EDITORS:

Daniela Jobertová,
Alice Koubová

INDEX:

Michaela Bitarovcová

TYPOGRAPHY:

Jan Horčík

Praha 2017, 2026

ISBN 978-80-7331-768-3 (iPDF)

www.amu.cz

www.namu.cz